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2
3 **“IMPACT OF SOCIAL-MEDIA USAGE ON DEPRESSION**
4 **AMONG ADOLESCENTS IN A LOCAL CONTEXT - A**
5 **CROSS SECTIONAL STUDY”**

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9
10 **ABSTRACT**

11 **Objectives and scope of the research:** Adolescent depression is a growing global health
12 concern and contributes to socioeconomic burden. This study investigated the correlation
13 between time spent on social media and depression with its severity among Filipino adolescents
14 in the local setting in consideration of age, gender, grade, and social media platforms used last
15 November 2024. This study determines correlation but does not prove causality.

16 **Methodology:** This used an analytical cross-sectional design, surveying adolescents aged 14-17
17 years-old from a public secondary school. A questionnaire including data on demographic
18 information, social media habits, and questions based on PHQ-9: Modified for teens was used.
19 Descriptive statistical methods were utilized to analyze the data, with Pearson Chi-Square tests
20 determining statistical significance.

21 **Results:** This study involving 239 participants showed that those aged 14-15 (mostly grades 9-
22 10) and females typically spent 4-6 hours daily on social media while older adolescents and
23 males mostly spent 0-3 hours. Among those who spend 0-3 hours on social media, 28 of 87 have
24 depression (score of $>/=10$). For those who spend 4-6 hours, 48 of 95 have depression and for
25 those who spend $>/=7$ hours, 37 of 57 have depression. For depression severity, 13.4% of the
26 total population (spends 0-3 hours) have a score of 0-4 (no/minimal depression), 13.8% (spends
27 4-6 hours) scored 10-14 (moderate depression), and 5% (spends $>/=7$ hours) scored 15-27
28 (severe depression).

29 **Conclusion and Recommendation:** A clear correlation between depression and time-spent on
30 social media was determined. Increased time on social media is correlated with depression and
31 higher severity among adolescents. Females and younger adolescents being the more vulnerable
32 group. Therefore, highlighting the need for targeted interventions, gender-sensitive strategies,
33 awareness campaigns and greater involvement from parents and school in addressing excessive
34 social media usage and content guidance, ultimately helping with adolescent mental health.

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38 Keywords: Adolescent depression, Mental Health, Depression, Screen time, time spent on social
39 media, social media platforms, Facebook, Tiktok

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43 **I. INTRODUCTION:**

44
45 Social media being an interactive platform has become an important part of adolescents' everyday life allowing them to maintain both in-person and virtual relationships. Adolescents are now constantly using social media both for educational and recreational purposes connecting them anytime and anywhere.^{1,2} Most Adolescents worldwide are using social media according to statistics.^{3,4} In the Philippines, adolescents comprises 9.6% of the population⁵ and according to studies these teens have online demographics comprising mostly of multiple media platforms.^{6,7} This near – constant engagement raises concerns about psychological effects of prolonged social media usage on adolescents, particularly its impact on mental health. In addition, in today's digital world, adolescent depression is a global health concern owing it to the increase in incidence of depression among young adults.⁸ In the Philippines, Mental health illness ranks 3rd among the common causes of morbidity. Likewise, there are high prevalence of suicide attempts up to 16.8% among Filipino adolescents.⁹ Therefore, social media exposure warrants additional scrutiny due to the vulnerability and susceptibility of the adolescent mind to social media impact.

58 Although there are advantages to social media¹⁰, there is still debate whether it is detrimental to mental health.¹¹ Adolescents are highly sensitive to the effects of social media since this coincides with the stage of brain development.^{10,12} This is the time when they are highly susceptible to peer pressure, emotional fluctuations, and peer opinion.^{15,1} Due to the interactive nature of social media adolescents are placed in a situation where they are constantly being exposed to social comparison with other's lives generating a sense of worthlessness, insecurity, and inferiority leading to reduction in life satisfaction^{15,16,17,18}. These lead to depression that causes morbidity of varied chronicity as well as mortality.¹⁹ Cyberbullying also is another critical factor that links social media use to depression among adolescents.²⁰ One local study in Baguio City alone shows that 74.2% of students in a public high school shows signs of depression.²¹ Despite these studies which were conducted mostly in western countries, several gaps in knowledge are present. This includes how social media impacts mental health of Asian adolescents particularly Filipinos. There are some studies linking prolonged social media use with depression but there are limited studies in the Philippines.

72 Therefore, Investigating the relationship between social media usage and depression in the local setting could offer insights towards establishing relationship between social media use and depression. This includes how time spent on different platforms impact the mental health of Filipino adolescents. This study could help develop guidelines on how to avert and address social media usage to prevent negative impact on adolescents as well as to provide valuable insights on how to cope with social media advances helping alleviate the increasing number of adolescents with depression.

79
80 **II. GOALS AND OBJECTIVES**

81
82 **GENERAL OBJECTIVE:**

83 To determine if there is correlation between time spent on social media and depression in
84 adolescents as well as its severity in the local setting.

85
86 **SPECIFIC OBJECTIVES:**

87 1. To determine the prevalence of social media use and screen time among adolescents
88 based on the following variables:
89 a. Age
90 b. Gender
91 c. Grade level
92 d. Social media platform usage (Facebook and Messenger, Instagram, Tiktok, Youtube)
93 2. To determine if there is a correlation between social media platform usage and depression
94 in adolescents.
95 3. To determine if there is a correlation between time spent on social media and level of
96 depression.

97
98 **III. REVIEW OF RELATED LITERATURE**

99 **1. Prevalence of Social Media Use Among Adolescents**

100 Social media has become an integral part of adolescents' daily lives. Social media are
101 network-based interactive platforms used by people to connect, collaborate, share, and interact
102 with each other.^{1,2} In light of current social settings, adolescents are constantly using social
103 media to connect with people both for educational and recreational purposes at anytime and
104 anywhere.²

105 According to a study done by Leon Chaddock as of January 2024, 93% of teens use
106 social media in the US³. Globally, 97% of teens are using social media where in Facebook being
107 the most frequently used followed by Youtube⁶. In the Philippine setting Facebook and
108 Messenger are the mostly used social media platform with 94.6% and 92.1% monthly login
109 respectively followed by Tiktok with 80% online demographic engagements.⁷ According to the
110 statistics done by Balita, 92% of Filipinos ages 12-15 and 97% of those ages 16-17 uses social
111 media.⁴ Adolescents ages 13-17 years old comprises 9.6% of the Philippine population which is
112 118, 939,136 based on the worldometer of the United Nations.⁵ Studies have shown that there are
113 both advantages and disadvantages associated with social media use. However, this near-
114 constant engagement raises concerns about the psychological effects of prolonged social media
115 usage on adolescents, particularly its impact on mental health.

116 **2. Social Media and Mental Health**

117 The influence of social media on adolescents is shaped by many factors which includes
118 but not limited to social media time spent, gender, types of content exposed to, as well as their
119 interaction with other people on different platforms. Their responses are as well affected by their
120 individual vulnerabilities, strength, socioeconomic status as well as cultural background.⁸

121 One of the mechanisms through which social media impacts mental health is through
122 social comparison. Adolescents are particularly vulnerable to comparing themselves with others,
123 especially when presented with idealized images and lifestyles on platforms like Instagram
124 according to the study of Chou & Edge.²² Evidence have shown that social comparison with
125 others' lives have caused depression in adolescents, generating a sense of worthlessness,
126 insecurity, and inferiority.¹⁵

130 **3. Cyberbullying and Its Impact on Depression**

131 Cyberbullying is another critical factor linking social media use to depression among
132 adolescents. Research by Hinduja and Patchin shows that adolescents who experience
133 cyberbullying are more likely to report feelings of sadness, isolation, and hopelessness, which
134 can lead to clinical depression.²¹ The anonymity provided by social media platforms allows for
135 more frequent and aggressive forms of bullying, making adolescents feel powerless and
136 contributing to their emotional distress. A study by Nixon also supports this, revealing that
137 victims of cyberbullying often report higher levels of depression compared to those who
138 experience traditional face-to-face bullying.²³

139
140 **4. Moderating Factors: Gender and Age**

141 The relationship between social media use and depression is not uniform; gender and age
142 play moderating roles. According to Vannucci, Flannery, and McCauley Ohannessian, female
143 adolescents are more likely to experience negative psychological effects from social media usage
144 compared to males.²³ This may be due to greater engagement in social comparison and a higher
145 likelihood of experiencing body image issues.

146 Brain development in the amygdala and prefrontal cortex is the most sensitive during
147 early adolescence. This is important for emotional learning and behavior as well as impulse
148 control and emotional regulation which leads to moderating social behavior.^{8,10} It is the time
149 when self-worth is being developed and is highly susceptible to peer pressure, comparison and
150 peer opinion.^{11,12} Social media use may cause changes in this development and is highly
151 vulnerable to the interactive nature of social media.^{13, 14} Adolescent social media usage is
152 evidently predictive of reduction in life satisfaction for certain developmental stages including
153 those 11–13 years old females and 14–15 years old males according to a study done by Orben.¹⁵

154
155 **5. The Role of Different Social Media Platforms**

156 Not all social media platforms have the same impact on mental health. Research indicates
157 that platforms centered on image-sharing, like Instagram and Snapchat, are more strongly
158 associated with negative mental health outcomes compared to platforms like Twitter and
159 Facebook.²⁵ This may be due to the visual nature of these platforms, which encourages
160 appearance-based comparison. On the other hand, platforms that emphasize social interaction
161 and support may provide a protective effect against depression by fostering positive social
162 connections and providing emotional support.²⁶ In a cohort study of adolescents aged 12-15 in
163 the United States regarding mental health indicates that adolescents who spend over three hours
164 per day on social media are twice as likely to experience poor mental health outcomes, including
165 symptoms of depression and anxiety.⁸ In another study, negative impact of social media use on
166 mental health of adolescents are observed, which include depression, anxiety, and stress.²⁰

167
168 **6. Depression in adolescents in the Philippines**

169 Depression is a medical condition that causes a negative effect on how a person feel,
170 think, and act as well as sadness or loss of interest in previously enjoyable activities. Major
171 depression is recognized as a serious psychiatric illness in adolescents which can cause
172 morbidity of varied chronicity as well as mortality.¹⁶ Mental health illness rank as third most
173 common cause of morbidity among Filipinos according to the National statistics office. In
174 Filipino students aged 13 to 17, 16.8% have attempted suicide at least once within a year before
175 the 2015 Global School-based Student Health survey of the World Health Organization.¹⁸

176 In line with the digital world, Adolescent depression is characterized as a global health
177 concern and contributes to socioeconomic burden. In the Philippine setting, the incidence of

178 depression among young adults is 8.9% of the general population.¹⁷ One local study in Baguio
179 City, a total of 271 in 365 students in a secondary public school showed signs of depression
180 correlating to 74.2% of students.¹⁹
181

182 **7. Gaps in the Literature**

183 While there is evidence linking social media use with depression among adolescents,
184 several gaps remain. Much of the research focuses on Western populations, leaving a gap in
185 understanding how social media impacts mental health in the Asian population and less studies
186 on Filipino adolescents. Investigating the relationship between social media usage and
187 depression could offer insight and guidance towards preventing and addressing adolescent
188 depression. This study could help develop guidelines on how to prevent and address social media
189 usage to prevent such impact on adolescents as well as to develop ways on how to cope with
190 social media advances helping alleviate the increasing number of adolescents with depression.
191

192 **IV. METHODOLOGY**

193 This is an analytical cross-sectional study conducted to determine the correlation between
194 time spent on social media and risk of depression in adolescents as well as its severity in the
195 local setting. This study is performed through answering survey disseminated to the participants
196 and involves collecting information regarding the social media usage and demographics of
197 adolescents and their current mental status.
198

199 ***Study population:***

200 This study was conducted in one public secondary school including adolescents ages 14-
201 17 years old and involving both males and females.
202

203 ***Inclusion criteria:***

204 This study included students enrolled in a public-school ages 14-17 years old. This
205 research shall include both males and females.
206

207 ***Exclusion criteria:***

208 This study excluded students who are diagnosed with depressive disorder and those who
209 are on antidepressants. Excluded in this study are those who refuse to complete the
210 questionnaire.
211

212 ***Sample size computation:***

213 This study used probability sampling. The number of eligible students in the study site is
214 382 and the percentage of depression among adolescents in the local setting is 74.2%. Therefore,
215 a total of 167 samples are needed to get a confidence level of 95%. This formula was used to
216 compute the sample size
217
$$\text{sample size } n = [\text{DEFF} * Np(1-p)] / [(d^2/Z_{1-\alpha/2}^2 * (N-1) + p*(1-p))]$$

218

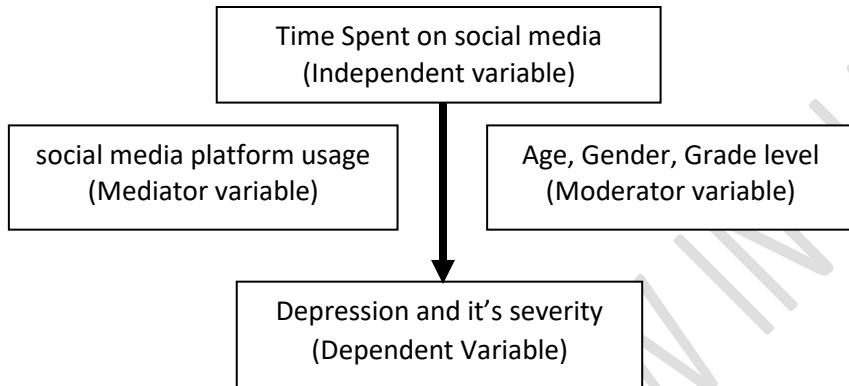
219 ***Site and duration of the study:***

220 This study was conducted in a public secondary school at Sto. Tomas National High
221 School, Apugan, Sto. Tomas Central, Baguio City, Benguet on November 2024.
222

223 ***Conceptual framework:***

224 Time spent on social media is the independent variable to which the study focuses on, to
225 see how it influences the dependent variable which is depression and its severity. The amount of
226 time spent on social media is presumed to have an impact on the mental health of the individuals
227 being studied.

228 Depression including its severity, is the outcome that the study aims to explain or predict
229 based on the time spent on social media. The study examines whether there is a correlation
230 between how much time is spent on social media and the level of depression experienced by the
231 participants.



241 Moderator variables affect the strength or direction of the relationship between the
242 independent and dependent variables. In this study, gender, age and grade level might influence
243 how time spent on social media impacts depression.

244 A mediator variable explains the mechanism through which the independent variable
245 influences the dependent variable. In this case, the number of social media platforms used could
246 mediate the relationship between time spent on social media and depression. This means that the
247 platform used (e.g., Facebook, Instagram, Twitter) might play a role in how time spent on social
248 media leads to depression. For instance, more platforms used may be more associated with
249 negative outcomes, while the lesser platform used may not have the same effect.

250 The study will help understand how the amount of time spent on social media
251 (independent variable) affects depression and its severity (dependent variable). This relationship
252 might differ based on gender and age (moderators) and could be influenced by the number of
253 social media platform used (mediator). By examining these variables together, the study can
254 provide a more nuanced understanding of the factors that contribute to the risk of depression in
255 the context of social media usage.

256

257 ***Data collection:***

258 This research was conducted through answering questionnaires given to the participants
259 in person. The research was explained to the participants and assent and consent was collected
260 prior to them answering the questions. Prior coordination with the school was done before
261 questionnaires were floated. The principal investigator explained the research, procedures,
262 possible risks and how to address them to the participants and advisers. Participants were
263 allowed to bring home the consent form, assent form, and questionnaires and let their
264 parents/guardians read and sign the forms. Questions by the parent/ guardian was directed to the
265 principal investigator and was answered accordingly. The forms were collected by the researcher
266 once the participants were able to answer the questionnaires. Patient's information was handled
267 by the primary researcher. Information about the participants was not disclosed to anyone
268 besides the research team. Questionnaires were anonymized. Numbers were used instead of

269 names. This research was entirely voluntary. No pressure was applied to the participants and
270 guardians in giving consent to this research. They were given the chance to withdraw or stop
271 participation at any time in the study.

272
273 **Data collection tool:**
274 The first part of the survey included a consent and ascent form to comply with the Data
275 Privacy Act. Questions include demographic information such as age, gender, grade level,
276 history of clinical diagnosis of depression, and antidepressant use, as well as time spent on social
277 media and social media being used. Part thereof consists of ad hoc questions and the succeeding
278 parts contained questions that assess presence and severity of depression based on the PHQ-9:
279 Modified for teens questionnaire.

280
281 **PHQ9 modified for teens questionnaire**
282 The PHQ9 modified for teens questionnaire was verified and used by the American
283 Academy of psychiatrist to assess depression as well as to score depression severity. According
284 to the American Psychiatric Association the diagnostic validity and reliability of the PHQ9
285 questionnaire has sound psychometric properties. The survey contains 9 item rating-scale. Each
286 item is scored from a score of 0 (not at all), 1 (several days), 2 (More than half the days) to 3
287 (nearly every day). The subscale scores were added up to get the total score and a score of more
288 than or equal to 10 has a good sensitivity of 88% and specificity of 88% for Major Depressive
289 Disorder and depending on the total score to which the severity of depression coincides. A score
290 of 0-4 indicates no or minimal depression; 5-9 indicates mild depression; 10-14 indicates
291 Moderate depression; 15-19 indicates moderately severe depression; and 20-27 indicates Severe
292 depression. Another study by L. Richardson, done among youths ages 13-17y/o, a PHQ-9 score
293 ≥ 11 had a sensitivity of 89.5% and specificity of 77.5% for detecting youth meeting DSM-IV
294 criteria for major depression on the DISC-IV.²⁷ This questionnaire is an easy-to-use self-
295 administered version of the PRIME-MD diagnostic instrument for common mental disorder that
296 is easily understood and answered by patients, Hence lay person validation was not necessary.²⁸

297
298 **Data management and statistical analysis:**

299 Descriptive statistical analysis was used to check for data consistency. The independent
300 variable in this study is the time spent on social media. The moderator variables are gender and
301 age. The Mediator variable is the number of social media platform used. The dependent variable
302 is depression and its severity. Sample size with a power of $>95\%$ is implemented. The Chi-
303 Square test with a 0.05 level of significance is utilized to analyze the data and to determine
304 whether the results are of significance.

305
306
307 **V. RESULTS**
308 By sampling computation, the number of participants required to get a 95% confidence
309 level is 167 samples. The total probable eligible participants were 382. From this, a total of 240
310 participants responded and were screened using both inclusion and exclusion criteria wherein
311 239 of which were eligible participants in this study.

312
313 A total of 54% of the participants in the study were men ($n=129$) and 46% were females
314 ($n=110$). There is a higher proportion of male group as compared to the female group. However,

315 there is no significant difference in the proportion based on the p-value obtained. The age of the
 316 participants ranged from 14-17, and most of these participants are 14-15 years old ($n=132$).
 317 Mostly of the participants are from grade 11 ($n=95$) comprising 39.7% of the sample population.
 318 There is variation in the number of participants per grade, but the difference is not significant as
 319 per the p-value shown in table 1. There is significant difference in the proportion of participants
 320 who are using 1-3 platforms and those who are using 4-5 platforms. Among the sample
 321 population, 39.7% of which are spending 4-6 hours using social media platforms ($n=95$). There
 322 is no significant difference in the proportion of time spent on social media as shown in table 1.
 323

324 **Table 1. Frequency distribution of socio-demographic features of the study participants**

Categorical Variables	Male	Female	Total n (%)	χ^2 (p- value)
Age group n (%)				
14-15 years old	64 (26.8%)	68 (28.5%)	132 (55.2%)	3.577 (0.059)
16-17 years old	65 (27.2%)	42 (17.6%)	107 (44.8%)	
Grade n (%)				
9	40 (16.7%)	43 (18.0%)	83 (34.7%)	3.277 (0.194)
10	31 (13.0%)	30 (12.6%)	61 (25.5%)	
11	58 (24.3%)	37 (15.5%)	95 (39.7%)	
Social media platform use n (%)				
1-3 platforms	18 (7.5%)	5 (2.1%)	23 (9.6%)	6.042 (0.014)
4-5 platforms	111 (46.4%)	105 (43.9%)	216 (90.4%)	
Time spent on social media n (%)				
0-3 hours	52 (21.8%)	35 (14.6%)	87 (36.4%)	2.953 (0.228)
4-6 hours	45 (18.8%)	50 (20.9%)	95 (39.7%)	
$>/=7$ hours	32 (13.4%)	25 (10.5%)	57 (23.8%)	
Total n (%)	129 (54%)	110 (46%)		

325
 326 Participants who are 14-15 years old spends mostly 4-6 hours on social media platforms
 327 per day in contrast with those who are 16-17 years old who mostly spends 0-3 hours in social
 328 media platforms. Grade 9 and 10 students mostly spend 4-6 hours in social media platforms per
 329 day. In contrast, those who are in grade 11 spends 0-3 hours on social media platforms. Those
 330 who uses 1-3 and 4-5 social media platforms spend 4-6 hours on these platforms. There is no
 331 significant difference in the proportion of the sample population according to the hours' time
 332 spent on social media in relation to age, grade, gender, and number of social media platform used
 333 as shown in table 2.

334
 335 **Table 2. Time spent on social media per day based on different variables**

	0-3 hours	4-6 hours	More than or equal to 7 hours	χ^2 (p- value)
Age group n (%)				
14-15 years old	47 (19.7%)	57 (23.8%)	28 (11.7%)	1.785 (0.410)
16-17 years old	40 (16.7%)	38 (15.7%)	29 (12.1%)	
Grade n (%)				
9	32 (13.4%)	34 (14.2%)	17 (7.1%)	3.821 (0.431)

10	18 (7.5%)	29 (12.1%)	14 (5.9%)	
11	37 (15.5%)	32 (13.4%)	26 (10.9%)	
Gender (%)				
Male	52 (21.8%)	45 (18.8%)	32 (13.4%)	2.953 (0.228)
Female	35 (14.6%)	50 (20.9%)	25 (10.5%)	
Social media platform use n (%)				
1-3 platforms	7 (2.9%)	12 (5.0%)	4 (1.7%)	1.682 (0.431)
4-5 platforms	80 (33.5%)	83 (34.7%)	53 (22.2%)	

336

337 Most of the participants ($n=126$) in this study has a score of < 10 . Among those who
 338 spend 0-3 hours on social media, 59 of them has a score of <10 and 28 has a score of $>/=10$. For
 339 those who spend 4-6 hours, 47 has a score of <10 and 48 has a score of $>/=10$. There are 20 who
 340 scored < 10 and 37 scored > 10 for those who spend $>/=7$ hours on social media. According to
 341 statistical analysis there is a significant difference in these variables as shown in table 3. A
 342 higher proportion of the sample population uses 4-5 social media platforms as compared to those
 343 who uses 1-3 platforms. For those using 1-3 platforms 15 of them has a score of <10 and 8 has a
 344 score of $>/= 10$. For those using 4-5 platforms 111 has a score of <10 and 105 has a score of
 345 $>/=10$. There is no significant difference in these variables as shown in table 3.

346

347 **Table 3. Participants with depression (scores $>/=10$) based on time spent on social media
 348 and platforms used**

349

Social Media	Participants with scores $>/=10$	Participants with Scores <10	Total n (%)	χ^2 (p- value)
Time spent on social media:				
0-3 hours	28 (11.7%)	59 (24.7%)	87 (36.4%)	15.465 (<0.001)
4-6 hours	48 (20.1%)	47 (19.7%)	95 (39.7%)	
$>/= 7$ hours	37 (15.5%)	20 (8.4%)	57 (23.8%)	
Media platform used				
1-3 platforms	8 (3.3%)	15 (6.3%)	23 (9.6%)	1.595 (0.207)
4-5 platforms	105 (43.9%)	111 (46.4%)	216 (90.4%)	
Total n (%)	113 (47.3%)	126(52.7%)		

350

351 From the total sample population 13.4 % has a score of 0-4: no/minimal depression and
 352 they are spending 0-3 hours on social media. A total of 13.8% of the participants scored 10-14
 353 signifying moderate depression and they are spending 4-6 hours on social media. Among the
 354 participants 10.5% of the participants with a score of 10-14 are spending $>/=7$ hours on social
 355 media. Among those who have scores 15-27, 5% are spending $>/=7$ hours on social media. There
 356 is a significant difference between time spent on social media and the scores of severity obtained
 357 as shown in table 4.

358

359 **Table 4. Time spent on social media and levels of depression.**

	No/minimal depression (scores: 0-4)	Mild depression (scores: 5-9)	Moderate depression (scores: 10-14)	Moderately severe / severe depression (scores: 15-27)	χ^2 (p- value)
0-3 hours	32 (13.4%)	28 (11.7%)	19 (7.9%)	8 (3.3%)	20.704(0.002)
4-6 hours	22 (9.2%)	25 (10.5%)	33 (13.8%)	15 (6.3%)	
$>/=7$ hours	5 (2.1%)	15 (6.3%)	25 (10.5%)	12 (5.0%)	
Total n(%)	59 (24.7%)	68 (28.5%)	77 (32.2%)	35 (14.6%)	

360

361 VI. DISCUSSION

362 The current study aimed to examine the correlation between time spent on social media
 363 and depression in adolescents and its severity, considering the influence of demographic factors
 364 such as age, grade level, and social media platform usage. The findings revealed patterns in
 365 social media usage across different age groups and grade levels. This will help understand
 366 further how screen time impacts mental health among adolescents.

367 In the study, the numerical distribution of the socio-demographics of the participants was
 368 examined. Accordingly, a higher proportion of males as compared to females are present in the
 369 sample population. However, there is no statistically significant difference between females and
 370 male participants in terms of age, gender, and time spent of social media (p-value <0.05 as
 371 shown in table 1). Therefore, the proportion of the samples per subset is statistically sound for
 372 achieving valid results.

373 One key finding is that adolescents aged 14-15 years old spent significantly more time on
 374 social media (4-6 hours daily) compared to their older counterparts aged 16-17 years old, who
 375 typically spends 0-3 hours daily. Likewise, students in Grades 9 and 10 reported higher social
 376 media usage (4-6 hours), while those in Grade 11 showed lower usage levels.

377 These results align with studies suggesting that younger adolescents are more likely to
 378 use social media more often due to various factors. According to Livingstone and Helsper, early
 379 to middle adolescence is a critical period for social exploration, where peer interactions heavily
 380 influence online behaviors. Early adolescents may rely more on social media to establish social
 381 connections, whereas older adolescents may shift their focus to academic responsibilities and
 382 offline activities, leading to reduced screen time.²⁹ Moreover, Valkenburg and Peter said that as
 383 adolescents mature, their ability to self-regulate screen time improves, hence decrease in screen
 384 time among older adolescents.³⁰ This pattern may also be influenced by increased academic
 385 demands for students in higher grade levels, particularly those preparing for post-secondary
 386 education.

387 This study shows a significant gender-based differences in social media usage. Statistical
 388 data showed that male participants predominantly spent 0-3 hours daily on social media, while
 389 female participants were more likely to spend 4-6 hours daily. This finding aligns with existing
 390 literature stating that females typically engage more frequently with social media platforms
 391 compared to males.¹ For instance, Anderson and Jiang reported similar trends, noting that female
 392 adolescents are more active on visually driven platforms, while males prefer platforms focused
 393 on gaming and content consumption.³¹ Also Valkenburg and Peter, states that this difference
 394 may stem from different motivations for social media use. Females often utilize platforms for

395 social interaction, emotional expression, and peer validation, leading to extended engagement.
396 Males, on the other hand, are more likely to use social media for entertainment and information-
397 seeking, resulting in shorter screen times.³⁰ These gender differences have implications for
398 mental health, as prolonged social media use among females has been associated with increased
399 risks of depression and anxiety, often due to exposure to idealized portrayals of life and social
400 comparison.³²

401 The study also found that participants using multiple social media platforms (1-3 or 4-5
402 platforms) were more likely to spend 4-6 hours daily on social media. This finding is consistent
403 with research indicating that the number of platforms used correlates with total screen time.
404 According to Primack et al., using multiple platforms increases the likelihood of frequent
405 checking behaviors, as individuals seek to stay updated across all accounts. Furthermore, the
406 correlation between the number of platforms used and total screen time is consistent with prior
407 studies highlighting the addictive nature of multi-platform engagement.³³

408 The study showed that participants who spent more time on social media have higher
409 scores from the questionnaire. Among those spending 0-3 hours daily, 59 participants had scores
410 of <10, indicating lesser chance for depression, while 28 participants scored ≥10, indicating the
411 presence of depression. In contrast, for participants spending 4-6 hours daily, the distribution of
412 the participants was almost equal, with 47 scoring <10 and 48 scoring ≥10. The most concerning
413 results were among participants spending ≥7 hours daily, where a majority (37 participants)
414 scored ≥10, compared to only 20 participants scoring <10. Examination of the distribution of
415 participants shows that the more time the participants spend on social media the higher the
416 number of participants with depression.

417 This trend highlights the potential role of excessive social media use in depressive
418 symptoms. Statistical analysis confirmed a significant difference in depression scores across
419 these usage categories, as shown in Table 3. This finding is consistent with prior research by
420 Twenge et al., which linked prolonged screen time with increased risks of depression,
421 particularly among adolescents. The mechanisms underlying this relationship may include
422 exposure to cyberbullying, social comparison, disrupted sleep patterns, and reduced face-to-face
423 interactions. According to Keles et al., adolescents who spend more than three hours daily on
424 social media are more likely to exhibit symptoms of depression and anxiety.³⁴ These findings are
425 also consistent with Becker et al., who noted that prolonged social media engagement
426 exacerbates cognitive overload and emotional exhaustion, particularly among vulnerable
427 populations like adolescents.³⁵

428 The results of this study regarding the relationship between the number of social media
429 platforms used and depression scores among adolescents, indicate that a significant proportion of
430 the sample population uses 4-5 social media platforms, compared to those using only 1-
431 3 platforms. There is a nearly even distribution of depression scores within the subgroups.
432 Despite the larger sample size for multi-platform users, statistical analysis showed no significant
433 difference in depression scores based on the number of platforms used, as illustrated in Table 3.
434 This finding implies that the number of platforms used may not independently determine
435 depression. The findings align with existing research highlighting the complex relationship
436 between social media use and mental health. However, the lack of a significant difference in
437 depression scores in this study contrasts with previous findings that suggested a linear
438 relationship between the number of platforms used and mental health risks.³⁵

439 The findings of this study indicate a significant relationship between the amount of time
440 spent on social media and the severity of depression among adolescents. According to the data,
441 13.4% of participants with depression scores of 0-4 (indicative of no or minimal depression)
442 spend only 0-3 hours on social media daily. In contrast, 13.8% of participants with scores of 10-
443 14 (moderate depression) reported spending 4-6 hours on social media. A smaller but notable
444 group (10.5%) of participants with scores of 10-14 also spent ≥ 7 hours on social media. Among
445 participants with scores of 15-27 (indicative of moderately severe depression), 5% reported
446 spending ≥ 7 hours on social media.

447 The statistical analysis revealed a significant difference between time spent on social
448 media and the severity of depression, as shown in Table 4. These results suggest that increased
449 social media usage may cause depressive symptoms, supporting the hypothesis that extended
450 screen time is associated with greater mental health risks. The observed relationship coincides
451 with existing literature. This finding is supported by a study done by Liu which states that the
452 time spent on social media is associated with a higher risk of depression in adolescence in a
453 linear dose-response manner, remarkably for teenage girls.¹

454 Social media platforms often foster environments that amplify social comparison,
455 exposure to negative content, and feelings of inadequacy, contributing to emotional distress.
456 Twenge and Campbell also reported that prolonged social media engagement disrupts critical
457 activities like sleep and physical exercise, which are essential for mental well-being. They
458 highlighted that adolescents who spend more than five hours per day online are twice as likely to
459 report depressive symptoms compared to those who spend less than an hour.³² This study's
460 findings further support these claims, demonstrating a clear gradient in depression severity with
461 increased social media usage. Participants with moderate to severe depression scores were more
462 likely to spend ≥ 4 hours on social media, this proves the potential for adverse psychological
463 effects linked to excessive social media usage. This highlights a significant relationship between
464 time spent on social media and depression severity among adolescents.

465 This study has determined 113 participants with scores more than or equal to 10,
466 signifying high sensitivity and specificity for Major Depressive Disorder. A total of 35
467 participants also falls under those who have moderately severe/ severe depression group.
468 Participants who are determined to have depression based on their scores were coordinated with
469 the school administration for proper support and referral to a qualified mental health professional
470 such as guidance counselor, psychologist, and/or psychiatrist. Information regarding patient's
471 depression remained confidential and only those authorized personnel as well as their parents/
472 guardian who are involved in their care were notified. Sharing educational materials about
473 managing depression, self-care strategies, and the importance of seeking professional help is
474 encouraged and was coordinated with the school.

475

476 **VII. CONCLUSION**

477 This study emphasizes the negative effect of time spent on social media in adolescents'
478 mental health particularly on depression and its severity, considering the influence of
479 demographic factors such as age, gender, grade level, and social media platform usage. This
480 study reveals that younger adolescents (14-15 years old) as compared to their older counterpart
481 (16-17 years old) tend to use social media platforms more intensively which may increase mental
482 health risks particularly depression. This study highlights critical gender differences and platform
483 usage patterns in social media engagement among adolescents. Female users are identified as key

484 group with higher screen times, which may predispose them to depression. The study
485 underscores the prevalence of multi-platform usage among adolescents, with a higher proportion
486 using 4-5 platforms compared to 1-3. While there was no significant difference in depression
487 scores between these groups, the potential risks associated with multi-platform usage should not
488 be overlooked. Finally, Examination of the distribution of participants shows that the more time
489 the participants spends on social media the higher the number of participants with depression.
490 Also, the higher the screen time the more severe the depression in adolescents. Therefore,
491 highlighting the importance of moderating social media use to protect mental health.
492 Stakeholders can help adolescents navigate the digital landscape in a healthier and more
493 balanced ways by addressing excessive social media usage and content guidance through
494 targeted interventions, gender-sensitive approaches, awareness campaigns, digital literacy
495 programs, promoting offline activities, and through involving parents and the school in this
496 advocacy. Interventions aimed at promoting healthy social media habits must consider both the
497 quantity and quality of platform engagement to effectively support adolescent mental health.
498 Through continued research and intervention, it is possible to mitigate the potential negative
499 impacts of social media on this vulnerable population.
500
501

502 **VIII. LIMITATION OF THE STUDY**

503 This study is a cross-sectional study thus the variables are taken at a single point in time
504 and is difficult to track changes over time or determine the directionality of the relationship
505 between social media use and depression. This study can determine correlation but does not
506 prove that social media usage causes depression. This study is specific to the local setting and
507 may not generalize to broader populations. Therefor a larger population might be recommended
508 in future studies.
509
510

511 **IX. RECOMMENDATION FOR FUTURE RESEARCH**

512 The authors recommend conduction of longitudinal studies to better understand the
513 causal relationship between social media usage and depression among adolescents. Another
514 study that can be done is to analyze usage patterns such as studying the effects of passive
515 scrolling versus active engagement, and their respective impacts on mental health. To extend the
516 study to diverse cultural and socioeconomic setting as well as incorporating risk factors such as
517 romantic relationships, financial constraints, and family problems. And finally, to develop and
518 evaluate interventions such as social media detox programs, digital literacy training, or mental
519 health awareness campaigns to determine their effectiveness in reducing depression risk.
520
521

522 **X. ETHICAL CONSIDERATIONS**

523 This research was subjected to review and approval by the SLU - Research Ethics
524 Committee and Technical Review Board.

525 Confidentiality and privacy were observed. No names were placed in the questionnaire.
526 No participants had adverse reaction or was trigger during the duration of the study. No
527 incentives in monetary or any form was given to participants in the study.
528
529

530 **XI. DISCLOSURE OF POTENTIAL CONFLICT OF INTEREST**

531 There are no conflicts of interest as well as potential conflicts. The researcher has no
532 affiliation with any pharmaceutical or health facilities outside Saint Louis University – Sacred
533 Heart Medical Center.

534

535 **XII. FINANCING OF PROJECT AND OTHER SUPPORT AND ESTIMATED BUDGET**

536 This research is self-financed. No sponsor, either in part or whole, provided any financial
537 aid in this research.

538 **XIII. REFERENCES**

1. Liu, Mingli, Kimberly E. Kamper-DeMarco, Jie Zhang, Jia Xiao, Daifeng Dong, and Peng Xue. 2022. "Time Spent on Social Media and Risk of Depression in Adolescents: A Dose–Response Meta-Analysis" *International Journal of Environmental Research and Public Health* 19, no. 9: 5164. <https://doi.org/10.3390/ijerph19095164>
2. Azem, L., Al Alwani, R., Lucas, A., Alsaadi, B., Njihia, G., Bibi, B., Alzubaidi, M., & Househ, M. (2023). Social Media Use and Depression in Adolescents: A Scoping Review. *Behavioral sciences* (Basel, Switzerland), 13(6), 475. <https://doi.org/10.3390/bs13060475>
3. Chaddock L., (January 11, 2024), *What Percentage of Teens Use Social Media?* (2024), Sentiments.io
4. C. Balita, (September 7, 2023), *Children who uses social media weekly Philippines 2021, by age group*; Statista, <https://www.statista.com/statistics/1314741/phillippines-weekly-user-of-social-media-among-children-by-age-group/#:~:text=According%20to%20a%20survey%20on,aged%2016%20to%2017%20years> <https://www.meltwater.com/en/blog/social-media-statistics-philippines>
5. Kemp, S., (February 21, 2024) *Digital 2024: The Philippines*, Datareportal, <https://datareportal.com/reports/digital-2024-philippines>
6. Laborde S., (May 30, 2024), *Teenage Social Media Usage statistics in 2023*, Techreport, <https://techreport.com/statistics/teenage-use-of-social-media-statistics/>
7. Howe, S., (May 3, 2024), *Social media Statistics in the Philippines (updated 2024)*, Meltwater
8. Joseph H. Puyat, Ma. Cecilia Gastardo-Conaco, Josefina Natividad, Mariah Allyson Banal, Depressive symptoms among young adults in the Philippines: Results from a nationwide cross-sectional survey, *Journal of Affective Disorders Reports*, Volume 3, 2021, <https://doi.org/10.1016/j.jadr.2020.100073>
9. Malolos, G. Z. C., Baron, M. B. C., Apat, F. A. J., Sagsagat, H. A. A., Pasco, P. B. M., Aportadera, E. T. C. L., Tan, R. J. D., Gacutno-Evardone, A. J., & Lucero-Prisno Iii, D. E. (2021). Mental health and well-being of children in the Philippine setting during the COVID-19 pandemic. *Health promotion perspectives*, 11(3), 267–270. <https://doi.org/10.34172/hpp.2021.34>
10. Office of the Surgeon General (OSG). Social Media and Youth Mental Health: The U.S. Surgeon General's Advisory [Internet]. Washington (DC): US Department of Health and

575 Human Services; 2023. Social Media Has Both Positive and Negative Impacts on
576 Children and Adolescents. <https://www.ncbi.nlm.nih.gov/books/NBK594763/>

577 11. Farooq, H., Farrukh, H., Khan, Z. (2023). The Influence of Social Media on Adolescents'
578 Self-Esteem. *Qlantic Journal of Social Sciences and Humanities*.
579 4.173182.10.55737/qjssh.413440589.

580 12. Cataldo, I., Lepri, B., Neoh, M., Yee, J., Esposito, G.; Social Media Usage and
581 Development of Psychiatric Disorders in Childhood and Adolescence: A Review;
582 *Frontiers in Psychiatry*, vol. 11, 2021, <https://doi.org/10.3389/fpsy.2020.508595>

583 13. Blakemore, S. J., & Mills, K. L. (2014). Is adolescence a sensitive period for
584 sociocultural processing?. *Annual review of psychology*, 65, 187–207.
585 <https://doi.org/10.1146/annurev psych 010213 115202>

586 14. National Academies of Sciences, Engineering, and Medicine; Health and Medicine
587 Division; Division of Behavioral and Social Sciences and Education; Board on Children,
588 Youth, and Families; Committee on the Neurobiological and Socio-behavioral Science of
589 Adolescent Development and Its Applications, Backes, E. P., & Bonnie, R. J. (Eds.).
590 (2019). *The Promise of Adolescence: Realizing Opportunity for All Youth*. National
591 Academies Press (US).<https://doi.org/10.17226/25388>

592 15. Maza, M. T., Fox, K. A., Kwon, S. J., Flannery, J. E., Lindquist, K. A., Prinstein, M. J.,
593 & Telzer, E. H. (2023). Association of Habitual Checking Behaviors on Social Media
594 With Longitudinal Functional Brain Development. *JAMA pediatrics*, 177(2), 160–167.
595 <https://doi.org/10.1001/jamapediatrics.2022.4924>

596 16. Crone, E. A., & Konijn, E. A. (2018). Media use and brain development during
597 adolescence. *Nature communications*, 9(1), 588. <https://doi.org/10.1038/s41467-018-03126-x>

599 17. Orben, A., Przybylski, A. K., Blakemore, S. J., & Kievit, R. A. (2022). Windows of
600 developmental sensitivity to social media. *Nature communications*, 13(1), 1649.
601 <https://doi.org/10.1038/s41467-022-29296-3>

602 18. Draženović, M., Vukušić Rukavina, T., & Machala Poplašen, L. (2023). Impact of Social
603 Media Use on Mental Health within Adolescent and Student Populations during COVID-
604 19 Pandemic: Review. *International journal of environmental research and public
605 health*, 20(4), 3392. <https://doi.org/10.3390/ijerph20043392>

606 19. Zuckerbrot R.A., MD; Cheung, A. MD; Jensen, P.S., MD; Stein, R.E.K. MD; Laraque
607 D., MD; et.al, (March 1, 2018) Guidelines for Adolescent Depression in Primary Care
608 (GLAD-PC): Part I. Practice Preparation, Identification, Assessment, and Initial
609 Management, *American Academy of Pediatrics*, (2018) 141 (3): e20174081.
610 <https://doi.org/10.1542/peds.2017-4081>

611 20. Hinduja, S., & Patchin, J. W. (2010). Bullying, cyberbullying, and suicide. *Archives of
612 suicide research : official journal of the International Academy for Suicide
613 Research*, 14(3), 206–221. <https://doi.org/10.1080/13811118.2010.494133>

614 21. Ngis-ban, P.L, (December 7, 2019) *The prevalence of depressive features among students
615 in a secondary public school*. HERDIN,
616 <https://www.herdin.ph/index.php?view=research&cid=72170>

617 22. Chou, H.-T. G., & Edge, N. (2012). "They are happier and having better lives than I am":
618 The impact of using Facebook on perceptions of others' lives. *Cyberpsychology,
619 Behavior, and Social Networking*, 15(2), 117–
620 120. <https://doi.org/10.1089/cyber.2011.0324>

621 23. Nixon C. L. (2014). Current perspectives: the impact of cyberbullying on adolescent
622 health. *Adolescent health, medicine and therapeutics*, 5, 143–158.
623 <https://doi.org/10.2147/AHMT.S36456>

624 24. Vannucci, A., Flannery, K. M., & Ohannessian, C. M. (2017). Social media use and
625 anxiety in emerging adults. *Journal of affective disorders*, 207, 163–166.
626 <https://doi.org/10.1016/j.jad.2016.08.040>

627 25. Sherlock, M., & Wagstaff, D. L. (2019). Exploring the relationship between frequency of
628 Instagram use, exposure to idealized images, and psychological well-being in
629 women. *Psychology of Popular Media Culture*, 8(4), 482–
630 490. <https://doi.org/10.1037/ppm0000182>

631 26. Best, P., Manktelow, R., & Taylor, B. (2014). Online communication, social media and
632 adolescent wellbeing: A systematic narrative review. *Children and Youth Services
633 Review*, 41, 27–36. <https://doi.org/10.1016/j.childyouth.2014.03.001>

634 27. Richardson, L. P., McCauley, E., Grossman, D. C., McCarty, C. A., Richards, J., Russo,
635 J. E., Rockhill, C., & Katon, W. (2010). Evaluation of the Patient Health Questionnaire-9
636 Item for detecting major depression among adolescents. *Pediatrics*, 126(6), 1117–1123.
637 <https://doi.org/10.1542/peds.2010-0852>

638 28. Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: Validity of a brief
639 depression severity measure. *Journal of General Internal Medicine*, 16(9), 606–613.
640 <https://doi.org/10.1046/j.1525-1497.2001.016009606.x>

641 29. Livingstone, S., & Helsper, E. (2007). Gradations in digital inclusion: Children, young
642 people and the digital divide. *New Media & Society*, 9(4), 671–696.
643 <https://doi.org/10.1177/1461444807080335>

644 30. Valkenburg, P. M., & Peter, J. (2013). The differential susceptibility to media effects
645 model. *Journal of Communication*, 63(2), 221–243. <https://doi.org/10.1111/jcom.12024>

646 31. Anderson, M., & Jiang, J. (2018). Teens' social media habits and experiences. *Pew
647 Research Center*, 28. <https://www.pewresearch.org>

648 32. Twenge, J. M., & Campbell, W. K. (2018). Associations between screen time and lower
649 psychological well-being among children and adolescents: Evidence from a population-
650 based study. *Preventive medicine reports*, 12, 271–283.
651 <https://doi.org/10.1016/j.pmedr.2018.10.003>

652 33. Primack, B. A., Shensa, A., Sidani, J. E., Whaite, E. O., Lin, L. Y., Rosen, D., Colditz, J.
653 B., Radovic, A., & Miller, E. (2017). Social Media Use and Perceived Social Isolation
654 Among Young Adults in the U.S. *American journal of preventive medicine*, 53(1), 1–8.
655 <https://doi.org/10.1016/j.amepre.2017.01.010>

656 34. Keles, B., McCrae, N., Grealish, A. (2019). A systematic review: the influence of social
657 media on depression, anxiety and psychological distress in adolescents. *International
658 Journal of Adolescence and Youth*, 25(1), 79–93.
659 <http://doi.org/10.1080/02673843.2019.1590851>

660 35. Becker, S., Ehrlich, A., Mech, M., Lüpkes, C., & Wendisch, M. (2021). Meteorological
661 measurements by dropsondes released from POLAR 5 during MOSAiC-ACA 2020
662 [Dataset]. PANGAEA. <https://doi.org/10.1594/PANGAEA.933581>

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671 **XIV. APPENDICES**

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673 **CERTIFICATE OF APPROVAL FROM TECHNICAL REVIEW BOARD**

UNDER PEER REVIEW IN IJAR

Saint Louis University- Sacred Heart Medical Center
Technical Review Board
ORAL DEFENSE OF QUALITATIVE RESEARCH PROTOCOLS

Research Proposal Title: IMPACT OF SOCIAL-MEDIA USAGE ON DEPRESSION RISK AMONG ADOLESCENTS IN A LOCAL CONTEXT

Lead Author: Chermayne Tate A. Galletes, MD

Date of Defense: September 28, 2024

Comments and suggestions of reviewers:

Dr. A. Manalo:

- How will other risk factors for depression be eliminated?
- Formatting of references was not consistent.

Dr. J. Rimando:

- The RRL and background of the study seem to be redundant (no separate RRL in the protocol)
- How was sample size computed? Indicate well in the paper
- What if the patient has a different living condition (is the family intact?) that is not an option in the questionnaire?
- Why was this specific school selected?
- The social background is not indicated in the questionnaire, will you include this?

Recommendation:

Protocol is **APPROVED** by the Technical Review Board and may be endorsed to the Ethics Review Board. Kindly append the protocol with the suggestions listed above.

Reviewers: Annalee Manalo, MD

Jezreline Cacanindin-Rimando, MD

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CERTIFICATE OF APPROVAL FROM ETHICS REVIEW BOARD



**Saint Louis University
University Research and Innovation Center
Research Ethics Committee**

CONTROLLED

Document Code	FM-URI-025
Revision No.	00
Effectivity	SEP 01, 2021
Page	1 of 2

APPROVAL CERTIFICATE

The following protocol, with its related documents, is approved for implementation by the Saint Louis University -Research Ethics Committee.

Protocol No.	Principal Investigator		
SLU-REC 2024-243	Chermayne Tate A. Galletes		
Title	Impact Of Social-Media Usage On Depression Risk Among Adolescents In A Local Context		
Protocol Version/ Date	2/ October 29, 2024	ICF Version/ Date	2/ October 29, 2024
Type of review	<input checked="" type="checkbox"/> Expedited <input type="checkbox"/> Full board Meeting date: October 21, 2024 & November 7, 2024	Duration of Approval October 7, 2024 – November 7, 2024	Frequency of continuing review N/A

Responsibilities of investigator/s after the protocol approval:

- Seek approval from SLU-REC for any protocol/document amendment after this date
- Submit SAE and SUSAR reports to the REC within 7 days (see addendum next page)
- Submit progress report after/every ____ months
- Report protocol deviation/violation
- Abide by the principles of good clinical practice and ethical research
- Comply with all relevant international and national guidelines and regulations
- Submit final report after completion of study
- Others:

For the SLU-REC:

REC Chairperson	Signature	Date
RAINIER MORENO-LACALLE		November 7, 2024

Received by:

Principal Investigator	Signature	Date
CHERMAYNE TATE A. GALLETES		November 7, 2024

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LETTER OF REQUEST TO CONCERNED OFFICES

682 Mr. Jason W. Pascaden
683 School Principal
684 Sto. Tomas National High School
685 Apugan, Sto. Tomas Central (School Area)
686 Baguio City, 2600
687 October 2024

688

689 Dear Sir,

690 I hope this letter finds you well. My name is Chermayne Tate A. Galletes, and I am currently a
691 Pediatric resident at SLU – Sacred Heart Medical Center. I am writing to request permission to
692 conduct a research study at Sto. Tomas National High School, Apugan, Sto. Tomas Central
693 (School Area), Baguio City.

694 The aim of my research is to determine if there is correlation between time spent on social media
695 and depression in adolescents as well as its severity in the local setting. This study will provide
696 valuable insights into the factors that can lead to depression and to know if social media
697 exposure increases risk of depression. This could contribute to the development of guidelines and
698 recommendations for social media exposure to avoid mental health problems which can lead to
699 improvement of educational practices and student outcomes.

700 The research will involve a survey where students answer a questionnaire and will be conducted
701 with junior and senior high students. I assure you that answering the questionnaire will take little
702 amount of time and will be designed to minimize disruption to the regular school schedule and
703 will comply with ethical standards and guidelines for research involving children. Parental
704 consent will be obtained for all participating students, and confidentiality and anonymity of
705 participants will be strictly maintained.

706 I am kindly requesting your approval to conduct this research in November 2024. I am happy to
707 discuss any details of the study further and address any concerns you might have. Additionally, I
708 am willing to provide a summary of the research findings to the school administration upon the
709 completion of the study.

710 Thank you very much for considering my request. I believe that the findings from this research
711 could be highly beneficial in addressing the increasing number of adolescent depression. I look
712 forward to the opportunity to collaborate with your school. You may contact me at
713 chermayntate@gmail.com or at 0915-539-8023 for concerns.

714 Sincerely,



715 Chermayne Tate A. Galletes, MD
716 Pediatric Resident
717 SLU- Sacred heart medical center

718 LETTER REGARDING RESULTS TO CONCERED OFFICES

719
720 Mr. Jason W. Pascaden
721 School Principal
722 Sto. Tomas National High School
723 Apugan, Sto. Tomas Central (School Area)

724 Baguio City, 2600
725 December 2024

726

727

728

729 Dear Sir,

730

731

732 Good day, I am pleased to share the results of the recently conducted research titled "Impact of
733 Social Media Usage on Depression Among Adolescents in A Local Context". This study aimed
734 to explore the relationship between social media usage patterns and the risk of depression among
735 adolescents, in the local settings.

736

737 This study reveals that younger adolescents (14-15 years old) as compared to their older
738 counterparts (16-17 years old) and females more than males, tend to use social media platforms
739 more intensively which may increase mental health risks particularly depression. Examination of
740 the distribution of participants shows that the more time the participants spends on social media
741 the higher the number of participants with depression. Also, the higher the screen time the more
742 severe the depression in adolescents.

743

744 Attached with this letter is the list of participant numbers that had depression according to the
745 questionnaire answered. We highly recommend coordinating with the guidance counselor and
746 with an adolescent psychiatrist for further evaluation and proper management.

747

748 Thank you for your attention to this report. We hope these findings contribute meaningfully to
749 initiatives aimed at improving adolescent well-being in the digital age. Please feel free to contact
750 us for additional details or collaboration opportunities.

751

752

753 Sincerely,



754
755
756 Chermayne Tate A. Galletes, MD
757 SLU – Sacred Heart Medical Center
758 Department of Pediatrics
759 chermaynetate@gmail.com

760

761

762

763 List of participants number with depression (Scores >/=10)

8	155	220	283	341
10	156	231	285	342
11	157	235	289	352
16	158	236	290	353

17	159	237	295	354
92	160	239	296	359
96	161	241	297	360
98	164	243	308	361
99	170	244	309	363
100	171	245	311	364
101	175	248	312	365
118	176	249	313	367
125	178	250	314	370
127	181	254	320	
128	184	261	322	
130	185	263	323	
132	187	264	325	
133	191	266	330	
136	197	267	331	
137	207	268	332	
138	210	270	333	
140	212	271	335	
143	215	272	336	
144	217	280	338	
154	218	282	339	

764

765 List of participant numbers with scores more than or equal to 15 (moderate to severe depression).

8	157	197	248	314
125	158	207	249	322
128	164	210	263	323
132	178	215	266	336
133	181	220	272	352
140	185	235	282	364
156	191	245	283	370

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770 INFORMED CONSENT FORM FOR PARENTS/ GUARDIAN

771

772 This informed consent form is for parent(s)/ guardian of children between the ages of 13 - 17 who are currently a Junior or Senior high student and who we are inviting to participate in research entitled "Impact of Social-Media Usage on Depression Risk Among Adolescents in a Local Context".

773

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777

**Chermayne Tate A. Galletes
SLU – Sacred Heart Medical Center**

778 **Department of Pediatrics**
779 **Research**

780
781 **This Informed Consent Form has two parts:**

- 782 • **Information Sheet (to share information about the study with you)**
- 783 • **Certificate of Consent (for signatures if you agree that your child may participate)**

784
785 **You will be given a copy of the full Informed Consent Form**

786
787 **PART I: Information Sheet**
788 **Introduction**

789 My name is Chermayne Tate A. Galletes, and I am a pediatric resident and doing research on the Impact
790 of Social-Media Usage on Depression Risk Among Adolescents in a Local Context. We want to know if
791 the more time spent on social media the more teenagers are likely to be at risk for depression and we
792 believe that this research will help us determine this correlation.

793 *Ang pangalan ko ay Chermayne Tate A. Galletes at ako ay isang pediatric resident na nagsasagawa ng
794 pananaliksik tungkol sa Epekto ng Paggamit ng Social Media sa Panganib ng Depresyon sa mga
795 Kabataan sa Lokal na Konteksto. Nais naming malaman kung ang mas matagal na pag gamit ng social
796 media ay nagdudulot ng mas mataas na panganib ng depresyon. Ang pananaliksik na ito ay
797 makakatulong upang matukoy ang kaugnayan ng pag gamit ng social sa panganib ng depresyon.*

798 I'm going to provide you with information and invite your daughter/son to be part of a research study.
799 You can decide whether you consent to your child participating. We will ask your child for assent. Even if
800 your child agrees to participate in this research, we still need your consent as the parent/ Guardian.
801 However, if you do not wish your child to take part in the research, you can choose to disagree.

802 *Ibibigay ko sa iyo ang impormasyon at imbitahan ang iyong anak na maging bahagi ng isang
803 pananaliksik. Maari kang pumayyag o hindi sa paglahok ng iyong anak. Hihigan parin namin ng
804 pahintulot ang iyong anak. Kahit pumayag ang iyong anak na lumahok sa pananaliksik na ito, kailangan
805 pa rin namin ang iyong pahintulot bilang magulang. Gayunpaman, kung hindi mo nais na payagan ang
806 iyong anak sa paglahok sa pananaliksik, maari kang tumangi.*

807 There may be some words you don't understand or things that you want me to explain more about because
808 you are interested or concerned. Please ask me anytime and I will take time to explain.

809 *Maaaring may mga salitang hindi mo naiintindihan o mga bagay na gusto mong ipaliwanag ko nang
810 masmabuti. Mangyaring sabihin lamang sa akin upang magkapaglaan ako ng oras upang maipaliwanag
811 ang mga ito.*

812 **Purpose**
813 In light of the increased number of adolescent depressions, we want to determine the social media usage
814 impact on the risk of depression so that this can be used to find ways on how to prevent depression among
815 teenagers.

816 *Dahil sa pagdami ng mga kasu ng depresyon sa mga kabataan, nais naming tukuyin ang epekto ng
817 paggamit ng social media sa panganib ng depresyon upang magamit ito sa paghahanap ng mga paraan
818 kung paano maiwasan ang depresyon sa mga kabataan.*

819
820 **Type of Research Intervention**
821 This research is a survey type of research and questionnaires are to be answered.
822

823 *Ang pananaliksik na ito ay gumagamit ng talatanungan na siyang sasagutan ng mga kalahok.*

824
825

826
827 **Participant selection**

828 We are asking your children aged 13-17 years old to participate in the study since they can provide insight
829 into this matter. Their response is highly essential in arriving at a conclusion regarding the goal of this
830 research which is to determine if there is correlation between time spent on social media and risk of
831 developing depression in teenagers.

832 *Hinihiling naming na ang inyong mga anak, mga kabataan na nasa edad 13-17 taong gulang na lumahok
833 sa pananaliksik na ito, dahil maaari silang magbigay ng mahalagang pananaw tungkol sa bagay na ito.
834 Ang kanilang mga tugon ay napakahalaga upang makamit namin ang layunin ng pananaliksik na ito, na
835 tukuyin kung may kaugnayan ba ang oras na ginugugol sa social media at ang panganib ng pagkakaroon
836 ng depresyon sa mga kabataan.*

837
838 **Voluntary Participation**
839 Your decision to have your child participate in this study is entirely voluntary. It is your choice whether to
840 have your child participate or not. If you choose not to consent your child will not be punished and
841 nothing will change. You may also choose to change your mind later and stop participating, even if you
842 agreed earlier. You or your child can withdraw anytime during the study.

843 *Ang inyong desisyon na payagan ang inyong anak na lumahok sa pag-aaral na ito ay lubos na
844 boluntaryo. Nasa inyo ang pagpapasya kung nais ninyong lumahok ang inyong anak o hindi. Kung
845 pipiliin ninyong hindi magbigay ng pahintulot, hindi mapaparusahan ang inyong anak at walang
846 magbabago. Maaari rin kayong magbago ng isip sa hinaharap at itigil ang paglahok, kahit pa pumayag
847 kayo noong una. Kayo o ang inyong anak ay maaaring umatras anumang oras sa panahon ng pag-aaral.*

848
849 **Procedures and Protocol**
850 We are asking your child to help us learn about the risk of depression in correlation to social media use.
851 We are inviting your child to take part in this research via answering the questionnaires given to them in
852 the school. Before gathering data, rest assured that we have coordinated with the school regarding the said
853 research and that they have allowed us to distribute questionnaires. We will let your child bring the forms
854 home and let you review them first. We have explained the study, procedure as well as possible risks and
855 ways on how to address this. Feel free to ask us anything regarding the research prior signing the consent.

856 *Hinihiling namin ang tulong ng inyong anak upang matulungan kaming pag-aranan ang kaugnayan ng
857 paggamit ng social media sa panganib ng depresyon. Inaanyahan namin ang inyong anak na lumahok
858 sa pananaliksik na ito sa pamamagitan ng pagsagot sa mga talatanungan na ibibigay sa kanila sa
859 paaralan. Bago kami mangalap ng datos, makakatiyak kayong nakipag-ugnayan kami sa paaralan ukol
860 sa pananaliksik na ito at pinahintulutan nila kaming ipamahagi ang mga talatanungan. Hahayaan namin
861 na iuwi ng inyong anak ang mga form upang mapag-aranan ninyo muna ito. Ipinaliwanag na namin ang
862 pag-aaral, ang proseso, gayundin ang posibleng mga panganib at mga paraan kung paano ito
863 matutugunan. Huwag mag-atubiling magtanong sa amin tungkol sa pananaliksik bago lagdaan ang
864 pahintulot.*

865
866 The content of the questionnaire will also be shown to you and if there is a content that you feel poses
867 harm to your child, you can contact us researchers anytime for clarification and if you are still of the
868 opinion that the content will potentially harm your child, you can withdraw your consent.

869 *Ipapakita rin sa inyo ang nilalaman ng talatanungan, at kung may bahagi rito na sa tingin ninyo ay
870 maaaring makasama sa inyong anak, maaari kayong makipag-ugnayan sa amin anumang oras para sa
871 paglilinaw. Kung sa inyong palagay ay maaari pa rin itong makasama sa inyong anak, maaari ninyong
872 bawiin ang inyong pahintulot.*

873
874 If you agree for your child to participate, He/She will be asked to fill out a survey form and an informed
875 ascent will also be taken prior answering the questionnaire. If the child is not comfortable in answering a
876 question he/she might skip them and move on to the next question. The students can withdraw anytime
877 they want from the study. Rest assured that the information they provide will be kept confidential and for

research purposes only. Only the researcher will have access to the information and answers. After the all forms are filled out, the researcher shall collect these forms in the school.

Kung pumapayag kayong lumahok ang inyong anak, siya ay hihilinging sagutan ang isang survey form, at kukunin din ang kanyang pahintulot bago sagutan ang talatanungan. Kung hindi komportable ang inyong anak sa pagsagot sa isang tanong, maaari niya itong laktawan at magpatuloy sa susunod na tanong. Maaaring umatras ang mga mag-aaral anumang oras sa pag-aaral. Makakaasa kayong ang mga impormasyong kanilang ibibigay ay mananatiling kumpidensyal at gagamitin lamang para sa layunin ng pananaliksik. Ang mananaliksik lamang ang magkakaroon ng access sa mga impormasyong ito. Pagkatapos masagutan ang lahat ng form, ang mga ito ay kukunin ng mananaliksik sa paaralan.

Duration

The research shall take place over 2 months in total. During that time feel free to coordinate with the researcher. This is for us to ensure that you are well informed of the research and to clarify any inconsistencies or discrepancies. Questions for clarification are highly appreciated.

Ang pananaliksik ay magaganap sa loob ng kabuuang 2 buwan. Sa panahong iyon, huwag mag-atubiling makipag-ugnayan sa mananaliksik. Ito ay upang matiyak namin na naintindihang mabuti ang pananaliksik at upang maipaliwanag ang anumang hindi nauunawaan.

Side Effects

There are no direct side effects on physical health but answering this questionnaire might cause discomfort or mental/ emotional disturbance in your child. Rest assured that we will closely watch out for this, and we will provide a contact information that you can call if there are any side effects noted.

Walang direktaang epekto sa pisikal na kalusugan, ngunit ang pagsagot sa talatanungan na ito ay maaaring magdulot ng hindi kumportableng pakiramdam o mental/emotional na pagkabalisa sa inyong anak. Maging panatag kayo na aming babantayan ito ng mabuti, at magbibigay kami ng contact information na maaari ninyong tawagan kung may anumang epekto na mapansin.

Risks

Your children might have instances that they will feel uncomfortable answering the questionnaires, or that it may cause emotional or mental distress. If something like this happens, they may stop at any time and inform the researchers immediately for interventions. Researcher shall coordinate with guidance counselor and clinic of the school for proper referral to psychiatrist for proper management. Participants who are feeling overwhelmed or uncomfortable can withdraw from the study anytime.

May mga pagkakataon na maaaring maramdaman ng inyong mga anak ang hindi pagiging komportable sa pagsagot sa mga tanong, o maaaring magdulot ito ng emosyonal o mental na pagkabalisa. Kung mangyari man ito, maaari silang huminto anumang oras at agad na ipaalam sa mga mananaliksik para sa mga interbensyon. Ang mananaliksik ay makikipagugnayan sa Guidance counsellor at klinika ng paaralan para sa wastong pakikipagugnaan sa psychiatrist para sa tamang pag gamut. Ang mga kalahok na nakakaramdam ng labis na pagkapagod o pagkabalisa ay maaaring umatras mula sa pag-aaral anumang oras.

Discomforts

Your children might feel uneasy or feel pressured answering these questions. If this happens your child may stop answering questions and notify immediately the researcher. Participants who are feeling overwhelmed or uncomfortable can withdraw from the study anytime.

Maaaring makaramdam ng hindi pagkakomportable o pagka presyur ang inyong anak sa pagsagot ng mga tanong na ito. Kung mangyari ito, maaaring huminto ang inyong anak sa pagsagot at agad na ipaalam ito sa mananaliksik. Ang mga kalahok na nakakaramdam ng labis na pagkapagod o pagkabalisa ay maaaring umatras mula sa pag-aaral anumang oras.

929 **Benefits**

930 There will be no direct benefit to you or your child, but your child's participation is likely to help us find
931 ways to aid policy-makers, non-governmental organizations and other socio-civic organizations plan
932 support and guidelines that will help address adolescent depression in relation to social media use.

933 *Walang direktang pakinabang sa iyo o sa iyong anak, ngunit makatulong ang pakikilahok ng iyong anak
934 sa paghanap namin ng paraan upang matulungan ang mga tagapagbalangkas ng patakaran, mga hindi
935 pampamahalaang organisasyon, at iba pang mga sosyo-sibikong organisasyon na magplano ng suporta
936 at mga gabay na makakatulong sa pasugpo ng depression sa kabataan kaugnay ng pag gamit ng social
937 media.*

938 **Reimbursements**

939 Participants will not be given any incentives whether monetary or in any form for participating in this
940 study.

941 *Ang mga kalahok ay hindi bibigyan ng anumang insertivo sa paglahok sa pananaliksik na ito, pinansiya
942 man o sa iba pang paraan.*

943 The costs associated with conducting this study will be covered by solely by the researcher. However, if
944 additional care or treatment is required beyond what the study provides, these costs may be covered by
945 the participant's health insurance or by the participant/participant's family.

946 *Ang mga gastos na may kaugnayan sa pagsasagawa ng pag-aaral na ito ay sasagutin nang buo ng
947 mananaliksik. Gayunpaman, kung kakailanganin ng karagdagang pangangalaga o paggamot na lampas
948 sa ibinibigay ng pag-aaral, ang mga gastos na ito ay maaaring sagutin ng health insurance ng kalahok o
949 ng kalahok/pamilya ng kalahok*

950 **Confidentiality**

951 The information that we collect from this research project will be kept confidential. Information about
952 your child that will be collected from the research will have a restricted access. Once the forms are filled
953 up, the researcher shall collect the said forms and will place them in a secured cabinet which will only be
954 accessible to the researcher. Any information about your child will have a number on it instead of his/her
955 name. It will not be shared with or given to anyone except SLU SHMC research office. If data are to be
956 shared with a third party, these data shall correspond only to numbers and statistical figures unless
957 information to be shared is of emergent nature and requires immediate medical intervention.

958 *Ang impormasyong makokolekta namin mula sa pananaliksik na ito ay mananatiling kumpidensyal. Ang
959 mga impormasyon tungkol sa inyong anak na makokolekta mula sa pananaliksik ay itatago, at walang
960 makakakita nito maliban sa mga mananaliksik. Ang anumang impormasyon tungkol sa inyong anak ay
961 magkakaroon ng numero sa halip na pangalan. Tanging ang mga mananaliksik lamang ang makakaalam
962 kung ano ang nakatalagang numero sa inyong anak, at itatago namin ang impormasyong ito sa ilalim ng
963 lock at susi. Hindi ito ibabahagi o ibibigay sa kahit sino maliban sa opisina ng pananaliksik ng SLU
964 SHMC. Kung ang datos ay ibabahagi sa isang ikatlong partido, ang mga ito ay nakapaloob lamang sa
965 mga numero at estadistikal na pigura maliban kung ang impormasyon ay nangangailangan ng agarang
966 medikal na interbensiyo dahil sa isang pang-emergency na sitwasyon.*

967

968 **Sharing of the results**

969 The knowledge that we get from this study will be shared with you before it is made widely available to
970 the public. Confidential information will not be shared. This research will be presented in SLU SHMC
971 and at the Philippine Pediatric Society. Afterwards, we will publish the results in order that other
972 interested people may learn from our research.

973 *Ang kaalamang makukuha namin mula sa pag-aaral na ito ay ibabahagi muna sa inyo bago ito gawing
974 publiko. Hindi ibabahagi ang mga kumpidensyal na impormasyon. Ang pananaliksik na ito ay
975 ipresenta sa SLU SHMC at sa Philippine Pediatric Society. Pagkatapos nito, ilalathala namin ang
976 mga resulta upang ibang interesadong tao ay matuto mula sa aming pananaliksik.*

980
981 For participants who are determined to have depression immediate support and referral to a qualified
982 mental health professionals (eg. counselor, psychologist, psychiatrist) are to be done. This will be
983 coordinated with the school administration, guidance counselor, and school clinic. Information regarding
984 patient's depression shall remain confidential and only those authorized personnel as well as their parents/
985 guardian who are involved in their care will be notified. Access to the forms will be restricted.
986 Participants who are feeling overwhelmed or uncomfortable can withdraw from the study anytime.
987 Sharing educational materials about managing depression, self-care strategies, and the importance of
988 seeking professional help is encouraged and coordinated with school.

989 *Para sa mga kalahok na matutukoy na may depresyon, agad na magbibigay ng suporta at magrerefer sa
990 mga kwalipikadong propesyonal sa kalusugang pangkaisipan (hal. counselor, psychologist, psychiatrist).
991 Ang prosesong ito ay makikipag-ugnayan sa administrasyon ng paaralan, guidance counselor, at klinika
992 ng paaralan. Mananatiling kumpidensyal ang impormasyon tungkol sa depresyon ng pasyente, at tanging
993 mga awtorisadong tauhan, pati na ang kanilang mga magulang o tagapag-alaga na may kaugnayan sa
994 kanilang pangangalaga, ang aabisuhan. Magkakaroon ng restriksyon sa access sa mga form. Ang mga
995 kalahok na nakakaramdam ng labis na pagkapagod o pagkabalisa ay maaaring umatras mula sa pag-
996 aaral anumang oras. Hinihikayat at iniaayos din ang pagbabahagi ng mga materyal na pang-edukasyon
997 tungkol sa pagharap sa depresyon, mga estratehiya sa pag-aalaga ng sarili, at ang kahalagahan ng
998 paghahanap ng tulong mula sa mga propesyonal, kasama ang paaralan.*

999
1000 **Right to Refuse or Withdraw**

1001 You do not have to agree to your child taking part in this research if you do not wish to do so and refusing
1002 to allow your child to participate will not affect you or how your child is treated at school. You may stop
1003 your child from participating in the research at any time that you wish. Even if you agree now, you can
1004 still withdraw anytime during the study.

1005 *Hindi mo kinakailangang pumayag na makilahok ang iyong anak sa pananaliksik na ito kung ayaw mo.
1006 Ang pagtanggi na payagan ang iyong anak na makilahok ay hindi makakaapekto sa iyo o sa kung paano
1007 tinatratong iyong anak sa paaralan. Maaari mong itigil ang pakikilahok ng iyong anak sa pananaliksik
1008 anumang oras na nais mo. Kahit pumayag ka ngayon, maaari ka pa ring umatras anumang oras habang
1009 isinasagawa ang pag-aaral.*

1010
1011 **Who to Contact**

1012 If you have any questions, you can ask them now or later. If you wish to ask questions later, you may
1013 contact me at 0915-539-8023 or chermaynetate@gmail.com.

1014 Kung may mga katanungan ka, pwede mo itong itanong ngayon o sa ibang pagkakataon. Maari mo akong
1015 kontakin sa 0915-539-8023 o sa chermaynetate@gmail.com.

1016
1017 **This proposal has been reviewed and approved by the Saint Louis University – Research Ethics
1018 Committee (SLU-REC), which is a committee whose task it is to make sure that research
1019 participants are protected from harm. If you wish to find out more about the SLU-REC, contact
1020 DR. RAINER MORENO-LACALLE, Chair of the SLU-REC, 444-8246 Local 387.**

1021
1022 **PART II: Certificate of Consent**

1023
1024 **Certificate of Consent**

1025 I have been invited to have my child participate in a research about Impact of Social-Media Usage on
1026 Depression Risk Among Adolescents in a Local Context. I understand that my child will answer a list of
1027 questions in the survey form and that this might cause discomfort, but it will help in determining
1028 correlation between time spent on social media with risk of adolescent depression.

1029 *Ako ay naimbitahan upang isali ang anak ko sa pananaliksik na tungkol sa Epekto ng Paggamit ng Social
1030 Media sa Panganib ng Pagkakaroon ng Depression sa mga Kabataan sa Lokal na Konteksto.*

1078
1079 **I confirm that the parent was given an opportunity to ask questions about the study, and**
1080 **all the questions asked by the parent have been answered correctly and to the best of my**
1081 **ability. I confirm that the individual has not been coerced into giving consent, and the**
1082 **consent has been given freely and voluntarily.**

1083 *Kinukumpirma ko na binigyan ang magulang ng pagkakataon na magtanong tungkol sa pag-aaral, at*
1084 *lahat ng tanong na kanyang ibinato ay nasagot nang tama at sa abot ng aking makakaya. Kinukumpirma*
1085 *ko na ang indibidwal ay hindi pinilit na magbigay ng pahintulot, at ang pahintulot ay ibinigay nang*
1086 *malaya at kusang-loob.*

1087
1088 **A copy of this ICF has been provided to the participant.**
1089

1090 **Print Name of Researcher/person taking the consent** _____

1091

1092 **Signature of Researcher /person taking the consent** _____

1093 **Date** _____
1094 **Day/month/year**

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INFORMED ASSENT FORM FOR JUNIOR AND SENIOR HIGH SCHOOL

1116
1117 This informed assent form is for children between the ages of 13 - 17 who are currently a Junior or Senior
1118 high student and who we are inviting to participate in research entitled "Impact of Social-Media Usage on
1119 Depression Risk Among Adolescents in a Local Context".

1120

1121 **Chermayne Tate A. Galletes**

1122 **SLU – Sacred Heart Medical Center**
1123 **Department of Pediatrics**
1124 **Research**

1125
1126 **This Informed Assent Form has two parts:**

- 1127 • **Information Sheet (gives you information about the study)**
- 1128 • **Certificate of Assent (this is where you sign if you agree to participate)**

1129
1130 **You will be given a copy of the full Informed Assent Form.**

1131
1132 **Part I: Information Sheet**

1133
1134 **Introduction:**

1135 My name is Chermayne Tate A. Galletes, and I am a pediatric resident and doing a research on the Impact
1136 of Social-Media Usage on Depression Risk Among Adolescents in a Local Context. We want to know if
1137 the more time spent on social media the more you are likely to be at risk for depression and we believe
1138 that this research will help us determine this correlation. *Ang pangalan ko ay Chermayne Tate A. Galletes*
1139 *at ako ay isang pediatric resident na nagsasagawa ng pananaliksik tungkol sa Epekto ng Paggamit ng*
1140 *Social Media sa Panganib ng Depresyon sa mga Kabataan sa Lokal na Konteksto. Nais nating malaman*
1141 *kung ang mas matagal na pag gamit ng social media ay nagdudulot ng mas mataas na panganib ng*
1142 *depresyon. Ang pananaliksik na ito ay makakatulong upang matukoy ang kaugnayan ng pag gamit ng*
1143 *social media sa panganib ng depresyon.*

1144
1145 I am inviting you to be part of this research study. You can choose whether you want to participate. We
1146 have discussed this research with your parent(s)/guardian, and they know that we are also asking you for
1147 your agreement. If you are going to participate in the research, your parent(s)/guardian also must
1148 agree. But if you do not wish to take part in the research, you do not have to, even if your parents have
1149 agreed.

1150 *Iniimbitahan kitang makilahok sa pananaliksik na ito. Maaari kang pumili kung nais mong lumahok o*
1151 *hindi. Napag-usapan na namin ito ng iyong mga magulang/tagapag-alaga at alam nila na hihingi rin*
1152 *kami ng iyong pahintulot. Kung sasali ka sa pananaliksik, kailangan ding pumayag ang iyong mga*
1153 *magulang/tagapag-alaga. Ngunit kung ayaw mong lumahok sa pananaliksik na ito, hindi mo kailangang*
1154 *sumali, kahit na pumayag ang iyong mga magulang.*

1155
1156 You may discuss anything in this form with your parents or friends or anyone else you feel comfortable
1157 talking to. You can decide whether to participate or not after you have talked it over. You do not have to
1158 decide immediately.

1159 *Maaari mong talakayin ang anumang nilalaman ng form na ito sa iyong mga magulang, mga kaibigan, o*
1160 *sinumang komportable kang kausapin. Maaari kang magpasya kung sasali ka o hindi pagkatapos mo*
1161 *silang makausap. Hindi mo kailangang magdesisyon agad-agad.*

1162
1163 There may be some words you don't understand or things that you want me to explain more about because
1164 you are interested or concerned. Please ask me at any time and I will take time to explain.

1165 *Maaaring may mga salitang hindi mo naiintindihan o mga bagay na gusto mong ipaliwanag ko nang*
1166 *masmabuti. Mangyaring sabihin lamang sa akin upang magkapaglaan ako ng oras upang magpaliwanag.*

1167
1168 **Purpose: Why are you doing this research?**

1169 In light of the increased number of adolescent depression, we want to determine the social media usage
1170 impact on the risk of depression so that this can be used to find ways on how to prevent depression among
1171 teenagers.

1172 *Dahil sa pagdami ng mga kaso ng depresyon sa mga kabataan, nais naming tukuyin ang epekto ng*
1173 *paggamit ng social media sa panganib ng depresyon upang magamit ito sa paghahanap ng mga paraan*
1174 *kung paano maiwasan ang depresyon sa mga kabataan.*

1175

1176 **Choice of participants: Why are you asking me?**

1177 We are asking you children of ages between 13-17 years old to participate in the study since you can
1178 provide insight on this matter. Your response is highly essential in arriving at a conclusion regarding the
1179 goal of this research which is to determine if there is correlation between time spent on social media and
1180 risk of developing depression in teenagers.

1181 *Hinihiling namin sa inyo, mga kabataan na nasa edad 13-17 taong gulang na lumahok sa pananaliksik na*
1182 *ito, dahil maaari kayong magbigay ng mahalagang pananaw tungkol sa bagay na ito. Ang inyong mga*
1183 *tugon ay napakahalaga upang makamit namin ang layunin ng pananaliksik na ito, na tukuyin kung may*
1184 *kaugnayan ba ang oras na ginugugol sa social media at ang panganib ng pagkakaroon ng depresyon sa*
1185 *mga kabataan.*

1186

1187 **Participation is voluntary: Do I have to do this?**

1188 This research is voluntary. You don't have to be in this research if you don't want to be. If you decide not
1189 to be in the research, it's okay and nothing changes. There will be no punishment given and no changes in
1190 treatment will be made to you if you refuse to answer. Even if you say "yes" now, you can change your
1191 mind later and it's still okay.

1192 *Ang pananaliksik na ito ay kusang-loob. Hindi mo kailangang lumahok kung ayaw mo. Kung magpasya*
1193 *kang hindi lumahok, ayos lang at walang magbabago. Walang parusang ipapataw at walang pagbabago*
1194 *sa pakitituno sa iyo kung tatanggi kang sumagot. Kahit na sabihin mong "oo" ngayon, maaari mo pa*
1195 *ring baguhin ang iyong desisyon sa kalaunan at ayos lang iyon.*

1196

1197 **Procedures: What is going to happen to me?**

1198 We are asking you to help us learn about the risk of depression in correlation to social media use. We are
1199 inviting you to take part in this research via answering the questionnaires given to you. If you agree, you
1200 will be asked to fill out a survey and an informed ascent which will be provided and collected by the
1201 researcher at the school grounds. If you do not wish to answer an of the questions included in the survey,
1202 you may skip them and move on to the next question. Your name, contact number, and email address will
1203 not be required. Rest assured that the information you provide will be kept confidential. Only the
1204 researcher will have access to your information and answers.

1205 *Hinihiling namin sa iyo na tulungan kami upang matukoy ang panganib ng depresyon kaugnay ng*
1206 *paggamit ng social media. Iniiimbatahan ka naming lumahok sa pananaliksik na ito sa pamamagitan ng*
1207 *pagsagot sa questionnaire na ibibigay sa iyo. Kung ikaw ay pumayag, hihilingin sa iyo na punan ng sagot*
1208 *ang isang talatanungat at isang informed ascent na ipapamahagi at kokolektahan ng mananaliksik sa*
1209 *loob ng paaralan. Kung ayaw mong sagutin ang alinman sa mga tanong sa survey, maaari mo itong*
1210 *laktawan at magpatuloy sa susunod na tanong. Hindi mo kailangang ibigay ang iyong pangalan, numero*
1211 *ng telepono, o email address. Makatitiyak kang mananatiling kumpidensyal ang impormasyong ibibigay*
1212 *mo. Tanging ang mananaliksik lamang ang magkakaroon ng access sa iyong impormasyon at mga sagot.*

1213

1214 Risks: Is this bad or dangerous for me?

1215 Generally answering this questionnaire is safe. But you might experience social pressure in answering this
1216 questionnaire as well as mental or emotional distress. If this happens, you can stop at any time and inform
1217 the researchers immediately for support.

1218 *Sa pangkalahatan, ligtas ang pagsagot sa talatanungan na ito. Ngunit maaari kang makaramdam ng*
1219 *presyur mula sa iba habang sinasagutan ito at maaring magkaroon ng emosyonal o mental na*
1220 *pagkaalisa. Kung mangyari ito, maaari kang huminto anumang oras at ipaalam agad sa mga*
1221 *mananaliksik upang matulungan ka.*

1222

1223 Discomforts: Will it hurt?

1224 There will be instances that you will feel uncomfortable answering the questionnaires, or that it may
1225 cause emotional or mental distress to you. If something like this happens, you may stop at any time and
1226 inform the researcher immediately for interventions.

1227 *May mga pagkakataon na maaaring mong maramdam ang hindi pagiging komportable sa pagsagot sa*
1228 *mga tanong, o maaaring magdulot ito ng emosyonal o mental na pagkabalisa. Kung mangyari man ito,*
1229 *maaari kang huminto anumang oras at agad na ipaalam sa mananaliksik para sa mga interbensyon.*

1230

1231 Benefits: Is there anything good that happens to me?

1232 There will be no direct benefit to you, but your participation is likely to help us find ways to aid policy-
1233 makers, non-governmental organizations and other socio-civic organizations plan support and guidelines
1234 that will help address adolescent depression.

1235 *Walang direktang pakinabang sa iyo, ngunit makatulong ang iyong pakikilahok sa paghanap namin ng*
1236 *paraan upang matulungan ang mga tagapagbalangkas ng patakaran, mga hindi pampamahalaang*
1237 *organisasyon, at iba pang mga sosyo-sibikong organisasyon na magplano ng suporta at mga gabay na*
1238 *makakatulong sa pasugpo ng depression sa kabataan.*

1239

1240 Reimbursements: Do I get anything for being in the research?

1241 You will not be given any incentives whether monetary or in any form for participating in this study.

1242 *Hindi ka bibigyan ng anumang insertivo sa paglahok sa pananaliksik na ito, pinansiyal man o sa iba*
1243 *pang paraan.*

1244

1245 Confidentiality: Is everybody going to know about this?

1246 I will not tell other people that you are in this research, and I won't share information about you to anyone
1247 besides the research team. Information about you that will be collected from the research will be put away
1248 and no-one, but the researcher will be able to see it. Any information about you will have a number on it
1249 instead of your name. Only the researcher will know what your number is and I will lock that information
1250 up with a lock and key. It will not be shared with or given to anyone except theSLU SHMC research
1251 office.

1252 *Hindi ko ipapaalam sa iba na ikaw ay kasali sa pananaliksik na ito, at hindi ko ibabahagi ang anumang*
1253 *impormasyon tungkol sa iyo sa kahit na sino maliban sa mga miyembro ng pananaliksik na ito. Ang mga*
1254 *impormasyong makokolekta mula sa iyo ay itatago, at walang makakakita nito maliban sa mananaliksik.*
1255 *Ang anumang impormasyon tungkol sa iyo ay magkakaroon ng numero sa halip na pangalan. Tanging*
1256 *ang mananaliksik lamang ang makakaalam kung anong numero ang nakatalaga sa iyo, at itatago ko ang*
1257 *impormasyon na ito sa ilalim ng lock at susi. Hindi ito ibabahagi o ibibigay sa kahit sino maliban sa*
1258 *opisina ng pananaliksik ng SLU SHMC.*

1259

1260 Compensation: What happens if I get hurt?

1261 If emotional or mental distress happens to you during the research, please inform the researcher
1262 immediately for immediate intervention. We will coordinate with your parents/ guardian for proper care.

1263 *Kung makaranas ka ng emosyonal o mental na pagkabalisa habang isinasagawa ang pananaliksik,*
1264 *ipaalam kaagad ito sa mananaliksik para sa agarang interbensyon. Makikipag-ugnayan kami sa iyong*
1265 *mga magulang o tagapag-alaga para sa tamang pag-aalaga.*

1266
1267 **Sharing the Findings: Will you tell me the results?**

1268 Your identity will not be linked to any information you submit in our survey, nor will it be shared with
1269 anybody outside the study team. When we are finished with the research, I will tell you and your parents
1270 about what we learnt. Afterwards, we will be telling more people, scientists and others, about the research
1271 and what we found. We will do this by writing and sharing reports and by going to meetings with people
1272 who are interested in the work we do.

1273 *Ang iyong pagkakakilanlan ay hindi maiuugnay sa anumang impormasyong isusumite mo sa aming*
1274 *survey, at hindi rin ito ibabahagi sa kahit sino sa labas ng research team. Kapag natapos na namin ang*
1275 *pananaliksik, ipapaalam ko sa iyo at sa iyong mga magulang kung ano ang aming natutunan.*
1276 *Pagkatapos, ipapaalam namin ito sa mas maraming tao, kabilang ang mga siyentipiko at iba pa, tungkol*
1277 *sa aming pananaliksik at mga natuklasan. Gagawin namin ito sa pamamagitan ng pagsusulat at*
1278 *pagbabahagi ng mga ulat at sa pagdalo sa mga pagpupulong kasama ang mga taong interesado sa*
1279 *aming ginagawa.*

1280
1281 **Right to Refuse or Withdraw: Can I choose not to be in the research? Can I change my mind?**

1282 You do not have to take part in this research if you do not want to. No one will be mad or disappointed
1283 with you if you say no. It's your choice. You can think about it and tell us later if you want. You can say
1284 "yes" now and change your mind later and it will still be okay. We will give you an opportunity at the end
1285 of the survey to review your answers, and you can edit or change your answers before submitting them to
1286 us.

1287 *Hindi mo kailangang lumahok sa pananaliksik na ito kung hindi mo nais. Walang sino man ang*
1288 *magagalit kung sasabihin mong hindi. Ito ay nasa sa iyo. Maaari mong pag-isipan muna at ipagbigay*
1289 *alam sa amin ang iyong magiging desisyon sa kalaunan. Puwede kang magsabi ng "oo" ngayon at*
1290 *baguhing ang iyong desisyon sa kalaunan. Bibigyan ka namin ng pagkakataon sa dulo ng survey na*
1291 *suriin ang iyong mga sagot, at maaari mong baguhin ang mga ito bago mo ito isumite sa amin.*

1292
1293 **Who to Contact: Who can I talk to or ask questions to?**

1294 You can ask me questions now or later. You can leave your questions in the school clinic to be addressed
1295 by the researcher. You may directly contact me as well with this number 0915-539-8023. If you want to
1296 talk to someone else that you know like your teacher or doctor or auntie, that's okay too.

1297 *Maaari kang magtanong sa akin ngayon o sa ibang pagkakataon. Maaari mong iwanan ang iyong mga*
1298 *tanong sa klinika ng paaralan upang masagot ng mananaliksik. Maaari mo rin akong direktang kontakin*
1299 *sa numerong ito: 0915-539-8023. Kung nais mong makipag-usap sa ibang tao na kilala mo, tulad ng*
1300 *iyong guro, doktor, o tita, ayos lang din iyon.*

1301
1302 **This proposal has been reviewed and approved by the Saint Louis University – Research Ethics**
1303 **Committee (SLU-REC), which is a committee whose task it is to make sure that research**
1304 **participants are protected from harm. If you wish to find out more about the SLU-REC, contact**
1305 **DR. RAINIER MORENO-LACALLE, Chair of the SLU-REC, 444-8246 Local 387.**

1306
1307 **If you choose to be part of this research, I will also give you a copy of this paper to keep for**
1308 **yourself. You can ask your parents to look after it if you want.**

1309 **Do you know that you do not have to take part in this study if you do not wish to? You can**
1310 **say No if you wish to.**

1311 *Alam mo ba na hindi mo kailangang lumahok sa pananaliksik na ito kung ayaw mo? Maaari*
1312 *kang magsabi ng "Hindi" kung nais mo.*

1313 **Do you know that you can ask me questions later, if you wish to?**
1314 *Alam mo ba na maaari kang magtanong sa akin, kung gusto mo?*

1315 **Do you know that I have given my contact details so you can ask me any questions**
1316 **regarding this research?**

1317 *Alam mo ba na ibinigay ko ang aking mga contact details para makapagtanong ka tungkol sa*
1318 *pananaliksik na ito?*

1320 You can ask me any more questions about any part of the research study, if you wish to. Do you
1321 have any questions?

1322 *Maaari kang magtanong sa akin ng iba pang mga katanungan tungkol sa anumang bahagi ng*
1323 *pananaliksik na ito, kung nais mo. Mayroon ka bang mga tanong?*

1325 **PART 2: Certificate of Assent**

1326 I understand that the research is about Impact of Social-Media Usage on Depression Risk Among
1327 Adolescents in a Local Context. I understand that I will answer a list of questions in the survey
1328 form and that this might cause me discomfort, but it will help in determining correlation between
1329 time spent on social media with risk of adolescent depression.

1331 *Naiintindihan ko na ang pananaliksik ay tungkol sa Epekto ng Paggamit ng Social Media sa*
1332 *Panganib ng Pagkakaroon ng Depression sa mga Kabataan sa Lokal na Konteksto.*
1333 *Naiintindihan ko na sasagutin ko ang isang listahan ng mga tanong sa form ng survey at*
1334 *maaaring magdulot ito sa akin ng pagkabalisa ngunit makakatulong ito sa pagtukoy ng*
1335 *kaugnayan ng oras na ginugugol sa social media at panganib ng pagkakaroon ng depression sa*
1336 *mga kabataan.*

1338 **I have read this information (or had the information read to me), I have had my questions**
1339 **answered and know that I can ask questions later if I have them.**

1340 *Nabasa ko ang impormasyong ito (o naipaliwanag sa akin ang impormasyon), nasagot ang aking mga*
1341 *katanungan, at alam kong maaari pa akong magtanong kung mayroon man akong mga tanong sa*
1342 *hinaharap.*

1344 **I agree to take part in the research.**

1345 *Sumasang-ayon akong lumahok sa pananaliksik.*

1346

1347 **Only if child assents: (kapag pumapayag sa pananaliksik)**

1348 **Print name of child** _____

1349 **Signature or initials of child:** _____

1350 **Date:** _____
1351 **day/month/year**

1353 **Statement by the researcher/person taking consent**

1355 **I have accurately read out the information sheet to the potential participant, and to the best**
1356 **of my ability made sure that the child fully understood what s/he is being asked to do in the**
1357 **research project.**

1358 *Tama kong binasa ang impormasyon sa potensyal na kalahok, at sa abot ng aking kakayahan ay*
1359 *sinigurado kong lubos na naintindihan ng bata ang hinihiling na gawin niya sa pananaliksik na ito.*

1360
1361 **I confirm that the child was given an opportunity to ask questions about the study, and all**
1362 **the questions asked by him/her have been answered correctly and to the best of my ability.**
1363 **I confirm that the individual has not been coerced into giving consent, and the consent has**
1364 **been given freely and voluntarily.**

1365 *Kinukumpirma ko na binigyan ang bata ng pagkakataon na magtanong tungkol sa pag-aaral, at lahat ng*
1366 *kanyang mga tanong ay nasagot nang tama at sa abot ng aking makakaya. Kinukumpirma ko na ang*
1367 *indibidwal ay hindi pinilit na magbigay ng pahintulot, at ang pahintulot ay ibinigay nang malaya at*
1368 *kusang-loob.*

1369
1370 **A copy of this assent form has been provided to the participant.**

1371
1372 **Print Name of Researcher/person taking the assent** _____

1373
1374 **Signature of Researcher /person taking the assent** _____

1375 **Date** _____
1376 **Day/month/year**

1378

1379

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1391

DATA COLLECTION TOOL QUESTIONNAIRE

1392
1393 **Age:** _____
1394 **Sex:** _____
1395 **Grade level:** _____

1396

1397

1398 Medications being taken:

1399

1400 Diagnosed illnesses including mental health issues:

1401

1402

1403

1404

¹⁴²⁵ See H. and J. T. Smith, *Commercial and Industrial Statistics* (24th ed., 2 vols., London, 1925).

- How much Time do you spend on social media in 24 hours? Please place a check mark on the appropriate answer.

1408 () 0-3 hours () 7-9 hours

1409 () 4-6 hours () 10 or more hours

1410

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- What are the social media platforms you are using? Rank each from 1 – 5, 1 being the most used platform. If platform is not being used, please right 0.

1414 _____ Facebook _____ Tiktok

1415 [Messenger](#) [Youtube](#)

1416 Instagram

1417

1418 Instructions: [View](#) [Edit](#) [Delete](#)

1419 How often have you been bothered by each of the following symptoms during the past two weeks?

1420 weeks? For each symptom put an “” in the box beneath the answer that best describes how you

1421 have been feeling.

1422

Questions (Mga tanong)	(0) Not at all	(1) Several days	(2) More than Half the days	(3) Nearly every day
1. Feeling down, depressed, irritable, or hopeless?				
2. Little interest or pleasure in doing things?				
3. Trouble falling asleep, staying asleep, or sleeping too much?				
4. Poor appetite, weight loss, or overeating?				
5. Feeling tired, or having little energy?				
6. Feeling bad about yourself – or feeling that you are a failure, or that you have let yourself or your family down?				
7. Trouble concentrating on things like schoolwork, reading, or watching TV?				

<p>8. Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you were moving around a lot more than usual?</p>				
<p>9. Thoughts that you would be better off dead, or of hurting yourself in some way?</p>				
<p>In the past year have you felt depressed or sad most days, even if you felt okay sometimes?</p>				
<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>				
<p>If you are experiencing any of the problems on this form, how difficult have these problems made it for you to do your work, take care of things at home or get along with other people?</p>				
<p><input type="checkbox"/> Not difficult at all <input type="checkbox"/> Somewhat difficult <input type="checkbox"/> Very difficult <input type="checkbox"/> Extremely difficult</p>				

1423

<p>Has there been a time in the past month when you have had serious thoughts about ending your life?</p>	
<input type="checkbox"/> Yes	<input type="checkbox"/> No
<p>Have you EVER, in your WHOLE LIFE, tried to kill yourself or made a suicide attempt?</p>	
<input type="checkbox"/> Yes	<input type="checkbox"/> No

1424 **If you have had thoughts that you would be better off dead or of hurting yourself in some way,
1425 please discuss this with anyone who you feel comfortable talking to or your Health Care
1426 Clinician, go to a hospital emergency room.

1427

1428

1429

1430

1431

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1433

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1434