CHARLES UNIVERSITY

FACULTY OF SOCIAL SCIENCES

THE IMPACT OF SOCIAL MEDIA ON ADOLESCENT MENTAL HEALTH

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Abstract

The thesis examines the relationship between social media use and mental health among secondary-school students. The theoretical part defines social media and adolescent mental health, presents the explanatory mechanisms linking them, in particular social comparison, displacement of sleep and offline contact, and motive-dependent gratifications, and reviews the empirical evidence on anxiety, depression, sleep and well-being outcomes. The empirical part reports a quantitative cross-sectional questionnaire survey of 247 secondary-school students aged 15 to 19. Four hypotheses were tested using correlation analysis and independent-samples t-tests. The frequency of social media use was moderately associated with anxiety symptoms ($r = .31$, $p < .001$). Social comparison was the strongest correlate of depressive symptoms ($r = .38$, $p < .001$; high versus low comparators $d = 0.63$). Perceived online social support showed no significant association with life satisfaction ($r = .06$, $p = .34$), supporting the null hypothesis. Students who used social media primarily for educational purposes reported significantly better sleep quality than entertainment-primary users ($d = 0.54$). The results support a differentiated understanding of social media effects in which usage purpose and psychological processing, rather than raw screen time, determine mental-health outcomes. The thesis derives recommendations for media-literacy education, sleep-protective rules targeting evening entertainment use, and mechanism-based screening by school counsellors.

Keywords: social media, adolescents, mental health, anxiety, depression, social comparison, sleep quality, questionnaire survey

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Introduction

Social media platforms have become the default communication infrastructure of adolescence. Survey data summarised in recent reviews indicate that the overwhelming majority of secondary-school students maintain at least one active profile and that daily use measured in hours, rather than minutes, is now the statistical norm rather than the exception (Sharma & Sharma, 2026). At the same time, health statistics across Europe and North America record a sustained rise in self-reported anxiety and depressive symptoms in the same age group, a coincidence that has moved the relationship between social media use and adolescent mental health from a niche research question to a matter of public-health debate (Canady, 2025; Tølbøll, 2026).

The research problem addressed in this thesis follows directly from the unsettled state of that debate. The empirical literature contains well-documented associations between intensive platform use and symptoms of anxiety and depression (Dubey, 2026; Saleem et al., 2024), but it also contains null findings, protective effects connected with online peer support, and repeated warnings that aggregate screen-time measures conceal more than they reveal (O'Reilly, 2020; Cingel et al., 2022). Reviews therefore increasingly call for designs that separate the type of activity performed on a platform from the time spent on it, and that examine specific psychological mechanisms, above all social comparison, instead of treating social media as a single homogeneous exposure (Akhter et al., 2025; Tølbøll, 2026).

The relevance of the topic is practical as well as theoretical. Schools, parents and clinicians are being asked to formulate rules for a technology whose effects are contested, while professional bodies revise their own recommendations towards more differentiated guidance (Moreno & Radesky, 2023). Evidence gathered directly among secondary-school students, with instruments that distinguish usage purposes and psychological mechanisms, can therefore inform decisions that are currently made on the basis of intuition or media headlines (Glazzard & Stones, 2020).

The aim of the thesis is to examine how the frequency, purpose and psychological processing of social media use relate to selected indicators of mental health among secondary-school students, specifically symptoms of anxiety and depression, life satisfaction and sleep quality. Four hypotheses are tested. H1 expects a positive association between the frequency

of social media use and self-reported anxiety symptoms. H2 expects adolescents who engage in more frequent social comparison on social media to report higher levels of depressive symptoms. H3, formulated as a null hypothesis on the basis of mixed prior evidence, expects no significant correlation between perceived online social support and overall life satisfaction. H4 expects students who use social media primarily for educational purposes to report better sleep quality than students who use it primarily for entertainment.

The thesis is organised in five parts. After this introduction, the introduction builds the theoretical background: it defines social media and adolescent mental health, presents the theoretical models that explain their relationship, and reviews the empirical evidence on anxiety, depression, sleep and well-being outcomes. Chapter 2 describes the methodology of the empirical study, a quantitative cross-sectional questionnaire survey among 247 secondary-school students, including the instruments, sampling procedure and ethical safeguards. Chapter 3 presents the results of the survey, tests the four hypotheses and discusses the findings against the reviewed literature, including the limitations of the design. The conclusion summarises the conclusions and formulates recommendations for schools, parents and further research.

Two further considerations shape the framing of the study. First, the debate has a strong cohort dimension: the students surveyed here belong to the first generation whose entire secondary-school socialisation has taken place under conditions of ubiquitous smartphone access, so findings from earlier cohorts, in which social media use began later in development, cannot simply be extrapolated to them (Cingel et al., 2022). Second, the policy environment is moving faster than the evidence. Age-verification proposals, school phone bans and platform design regulation are being discussed across Europe while the underlying causal questions remain only partially answered, which makes methodologically transparent local evidence, however modest in scale, directly useful to the institutions that must act now rather than after the research literature settles (Moreno & Radesky, 2023; Canady, 2025).

1. Theoretical Background

This chapter establishes the conceptual ground on which the empirical part of the thesis stands. It first defines the two central constructs, social media and adolescent mental health, then presents the theoretical models that explain why and how the two may be connected, and finally reviews the empirical evidence accumulated on the most frequently studied outcomes.

Defining Social Media and Adolescent Mental Health

Social media are commonly defined as internet-based applications that allow users to create a public or semi-public profile, to produce and share content, and to interact with the content produced by others. The definitional core is interactivity and user-generated content; this distinguishes social media from older broadcast media, in which the adolescent was an audience rather than a participant (Cingel et al., 2022). Within this broad category, platforms differ substantially in architecture and therefore in the experiences they generate. Image-centred platforms organise interaction around curated visual self-presentation, short-video platforms around algorithmically ranked entertainment feeds, and messaging services around private or small-group communication (Kumar, 2025). Usage patterns differ along a second axis that has become central in recent research: active use, meaning posting, commenting and direct exchanges, versus passive use, meaning scrolling through the content of others without interacting (Guo & Sheibani, 2025).

Adolescent mental health is understood in this thesis in the dual sense used in contemporary research. It covers, on the one hand, the presence or absence of symptoms of common mental disorders, above all anxiety and depression, which show their typical first onset during adolescence; on the other hand, it covers positive indicators of well-being such as life satisfaction, self-esteem and healthy sleep (Glazzard & Stones, 2020). The World Health Organization framing adopted in health-promotion research treats mental health not as the mere absence of disorder but as a state in which the adolescent can cope with normal developmental stresses, which is why lifestyle factors such as sleep and physical activity are routinely measured alongside symptoms (DeSmet, 2019).

Adolescence itself amplifies the stakes of this definition. Identity formation, heightened sensitivity to peer evaluation and still-maturing self-regulation make secondary-school students structurally more responsive, in both directions, to the social feedback that platforms deliver in quantified form through likes, views and follower counts (Kumar, 2025; Ilyas, 2025). The same developmental features explain why research concentrates on this age group rather than on adult users.

Platform type	Dominant usage pattern	Primary documented concern	Key source

Image-centred networks	Curated visual self-presentation	Appearance comparison, envy	Kumar (2025)
Short-video feeds	Passive algorithmic scrolling	Sleep displacement, compulsive use	Sharma and Sharma (2026)
Messaging services	Private peer communication	Cyberbullying, exclusion	O'Reilly (2020)
Mixed-feed networks	Alternating active and passive use	Social comparison, FOMO	Guo and Sheibani (2025)

Table 1: Typology of social media platforms and the concerns documented for each. Source: own elaboration based on the cited authors.

For the purposes of the empirical part, two further distinctions matter. The first separates usage frequency, conventionally measured as average daily time, from usage purpose, the dominant motive with which the adolescent opens the application. Identical daily durations can hide entirely different behavioural realities: forty minutes of coursework-related information seeking on the one hand, forty minutes of pre-sleep entertainment scrolling on the other (Guo & Sheibani, 2025). The second distinction separates the platform as a technology from the practices it hosts. Risks such as cyberbullying or appearance comparison are not properties of an application as such but of specific practices that particular architectures make more or less likely, which is why outcome studies increasingly report the activity, not merely the platform brand (O'Reilly, 2020; Ilyas, 2025). Both distinctions are operationalised in the questionnaire described in Chapter 2.

Theoretical Models Explaining the Relationship

The literature explains the link between social media use and adolescent mental health through several complementary mechanisms rather than through a single theory. The first and most frequently invoked mechanism is social comparison. Feeds confront adolescents with a continuous stream of selectively favourable information about peers, and upward comparison with these idealised presentations has been shown to lower mood and self-evaluation; the mechanism is consistently identified as one of the strongest mediators between platform use and depressive symptoms (Ghergut et al., 2022; Sharma & Sharma, 2026). Because platform algorithms reward visually attractive and high-status content, the comparison standard

available to an adolescent user is systematically biased upwards, which distinguishes online comparison from its offline counterpart (Ilyas, 2025).

A second family of explanations concerns displacement. Time spent on platforms is time not spent on sleep, physical activity or face-to-face contact, and part of the association between heavy use and poor mental health is attributable to the crowding-out of these protective behaviours rather than to platform content itself (DeSmet, 2019). The clearest case is sleep: evening and night-time use delays bedtime, and the resulting short or fragmented sleep is an established risk factor for both anxiety and depressive symptoms in adolescents (Sharma & Sharma, 2026; Murali, 2024).

A third mechanism is rooted in uses-and-gratifications reasoning: adolescents approach platforms with different motives, and the psychological outcome depends on the fit between motive and activity. Communication-oriented and information-oriented use tends to satisfy needs for relatedness and competence, whereas escapist entertainment use is more often associated with procrastination, guilt and compulsive checking (Cingel et al., 2022; Guo & Sheibani, 2025). The same logic underlies the distinction between active and passive use, in which passive scrolling delivers the comparison stimulus without the compensating social reward of interaction (Guo & Sheibani, 2025).

The mechanisms reviewed above predict harm, but the same theoretical traditions also predict benefit. Online communities provide perceived social support that is especially valuable for adolescents whose support needs are poorly met offline, including chronically ill or marginalised youth, and digital interventions deliberately exploit the reach of platforms to deliver mental-health promotion at scale (Hamilton et al., 2022; Ugarte et al., 2023; DeSmet, 2019). Whether perceived online support translates into global well-being gains is, however, contested, with several studies finding that it fails to buffer the negative correlates of heavy use (O'Reilly, 2020; Cingel et al., 2022). This unresolved tension motivates the null formulation of H3 in the present study.

Finally, moderation-focused models warn that average effects mislead. The impact of identical usage depends on age, gender, pre-existing vulnerability, and contextual factors that most studies leave unmeasured; recent work explicitly calls for testing such moderators instead of estimating one effect for all adolescents (Akhter et al., 2025). The present study

responds to this call in a modest way by distinguishing usage purposes rather than treating use as homogeneous.

Beyond these core mechanisms, the literature describes several secondary pathways that the present study does not measure directly but that inform the interpretation of its results. Fear of missing out links platform design to anxiety through the permanent visibility of ongoing social events: the adolescent who is offline is, for the first time in the history of peer relations, continuously informed about precisely what is being missed (Sharma & Sharma, 2026). Feedback quantification links self-esteem to metric social approval, with likes and follower counts converting peer regard into a public score that fluctuates daily (Kumar, 2025). Cyberbullying extends conventional victimisation beyond the school day, removing the temporal and spatial refuges that offline conflicts allowed (Glazzard & Stones, 2020). Finally, algorithmic curation creates exposure dynamics with no offline analogue: recommendation systems can concentrate emotionally charged or appearance-focused content precisely on the users who linger on it, producing self-reinforcing exposure spirals that the adolescent neither chose nor can easily perceive (Ilyas, 2025; Sharma & Sharma, 2026).

These mechanisms are not independent, and their interplay is what makes simple time-based predictions fail. An adolescent who uses a messaging service to coordinate sports practice activates none of the harmful pathways; a structurally similar peer who passively follows appearance-centred feeds late at night activates three of them simultaneously, comparison, displacement and algorithmic concentration, within the same nominal hour of screen time (Guo & Sheibani, 2025; Murali, 2024). Theoretical synthesis therefore points towards the activity-specific and mechanism-specific measurement strategy that this thesis adopts, and away from undifferentiated exposure metrics whose explanatory ceiling the literature has repeatedly documented (Akhter et al., 2025).

Empirical Evidence on Social Media and Mental Health Outcomes

Empirical findings on anxiety are the most consistent part of the literature. Cross-sectional studies among secondary-school and university students repeatedly report small-to-moderate positive correlations between time spent on social media and self-reported anxiety symptoms, typically in the range of r =.20 to.40 (Dubey, 2026; Dikshit & Kiran, 2025; Lustosa et al., 2023). Mechanism-oriented studies attribute the association to fear of missing out, to the

pressure of permanent availability, and to pre-sleep cognitive arousal (Sharma & Sharma, 2026). The association survives in most multivariate models, although its size shrinks once offline stressors are controlled, which cautions against causal overstatement (Tølbøll, 2026).

For depressive symptoms the picture is similar in direction but more clearly mediated. Heavy use predicts depressive symptoms above all among adolescents who engage intensively in social comparison or who use platforms passively, whereas the direct association of mere time with depression is weaker and sometimes non-significant (Ghergut et al., 2022; Saleem et al., 2024). Population-level analyses nevertheless register rising depression indicators in cohorts with the heaviest platform adoption, which keeps the question of aggregate harm open (Canady, 2025). Longitudinal evidence summarised in umbrella reviews suggests bidirectionality: heavy use predicts later symptoms, but symptomatic adolescents also retreat into heavier use, so cross-sectional correlations partly reflect reverse causation (Tølbøll, 2026).

Sleep is the outcome with the most robust behavioural pathway. Evening use, device presence in the bedroom and entertainment-driven scrolling are associated with later bedtimes, shorter sleep and poorer subjective sleep quality, and short sleep in turn carries the association forward to mood outcomes (Sharma & Sharma, 2026; Murali, 2024). Because the displacement pathway depends on what the adolescent uses the platform for, purpose-of-use measures are more informative here than raw screen time, a point directly reflected in H4 of this thesis.

Evidence on positive outcomes is real but conditional. Perceived online social support correlates with belonging and can reach adolescents outside the reach of traditional services; platform-based interventions show measurable, if modest, preventive effects (Hamilton et al., 2022; Ugarte et al., 2023). At the same time, several studies find that online support does not compensate for the well-being costs of heavy or passive use, and qualitative work with adolescents themselves records a sober, ambivalent assessment in which the same platforms are described as both indispensable and harmful (O'Reilly, 2020; Cingel et al., 2022; Ilyas, 2025).

Methodologically, the reviewed literature is dominated by cross-sectional self-report surveys, with all the familiar consequences: common-method variance, recall error in time

estimates, and inability to establish causal order (Tølbøll, 2026; Akhter et al., 2025). Professional recommendations therefore converge on a differentiated message: neither moral panic nor dismissal, but attention to specific activities, mechanisms and vulnerable subgroups (Moreno & Radesky, 2023). The empirical study reported in the following chapters adopts exactly this differentiated lens at the scale of a bachelor project: it measures frequency, purpose, comparison and support separately, and tests their distinct associations with anxiety, depression, life satisfaction and sleep quality.

Several further strands of evidence complete the picture. Identity-formation research documents that platforms have become a primary arena in which adolescents experiment with self-presentation and receive feedback on it; this can support identity work when feedback is benign, but it couples a developmental task that was historically semi-private to a public, quantified audience, raising the stakes of ordinary adolescent self-exploration (Kumar, 2025). Studies of marginalised and clinical youth populations show the clearest benefits of online communities, where anonymity and reach provide contact with similar others that the immediate offline environment cannot, a finding that cautions against blanket restriction policies (Hamilton et al., 2022; DeSmet, 2019).

The intervention literature adds an applied perspective. School-based digital media-literacy programmes reduce the impact of idealised content by training adolescents to recognise curation and editing, with effect sizes comparable to other school health interventions (Glazzard & Stones, 2020). Platform-delivered prevention, including moderated peer-support communities and screening embedded in social media, reaches adolescents who would not contact traditional services, although engagement and retention remain weak points (Ugarte et al., 2023; Hamilton et al., 2022). Professional bodies have responded to this mixed evidence by replacing earlier time-centred recommendations with guidance organised around content, context and the individual child, an explicit acknowledgement that the same exposure carries different risks for different adolescents (Moreno & Radesky, 2023).

Finally, the regional evidence base deserves note. Most large studies originate from North America and Western Europe, but the associations replicate in samples from other regions and school systems, including the Latin American and South Asian student samples in which anxiety and depression correlates of heavy use have been reported with similar

magnitudes (Lustosa et al., 2023; Dikshit & Kiran, 2025; Saleem et al., 2024). This cross-context stability strengthens the expectation that the mechanisms reviewed here, rather than culture-specific artefacts, drive the observed associations, and it justifies testing the same hypotheses in the present Central European secondary-school sample.

2. Methodology

This chapter describes the design of the empirical study, the participants and the sampling procedure, the instruments used in the questionnaire, and the statistical methods applied to the collected data. The design decisions follow directly from the theoretical conclusions of Chapter 1, in particular from the requirement to measure usage purpose and psychological mechanisms separately from raw usage frequency.

Research Design

The study employed a quantitative, cross-sectional survey design. A standardised online questionnaire was administered to secondary-school students at a single measurement point. The design is correlational: it estimates associations between self-reported social media variables and self-reported mental-health indicators, and it tests the four hypotheses formulated in the introduction by means of correlation and group-comparison statistics. A cross-sectional design was chosen because it matches the descriptive-associational character of the hypotheses and the resource frame of a bachelor thesis; its inability to support causal claims is acknowledged and is returned to in Chapter 3 (Tølbøll, 2026).

Participants and Sampling

The target population were students of secondary schools aged 15 to 19. Participants were recruited through convenience sampling in cooperation with two secondary schools, supplemented by snowball distribution of the questionnaire link through class group chats. After the exclusion of 11 incomplete responses, the final sample consisted of N = 247 students, of whom 130 (52.6 %) identified as female, 114 (46.2 %) as male and 3 (1.2 %) chose another option. The mean age was 16.8 years (SD = 1.1). All respondents reported using at least one social media platform daily.

Participation was voluntary and anonymous. Respondents were informed about the purpose of the study on the opening page of the questionnaire and gave consent before proceeding; for participants under 16, school-mediated parental consent was obtained in line with the participating schools' procedures. No personally identifying data were collected, and the data were stored and processed solely for the purposes of this thesis. The procedure follows the ethical recommendations for survey research with minors in school settings (Glazzard & Stones, 2020).

The sample size was determined pragmatically by the recruitment window of one month, but its adequacy for the planned analyses was verified a priori: for a two-tailed correlation test at α =.05 with power of.80, a sample of 247 detects correlations of approximately r =.18 and larger, which lies below the smallest effect of practical interest defined here as r =.20 on the basis of the reviewed literature. The two participating schools,

one general-education gymnasium and one vocationally oriented secondary school, were selected to avoid restricting the sample to a single educational track, since track differences in daily structure plausibly affect both usage patterns and sleep.

Data Collection Instruments

The questionnaire contained 27 substantive items organised in six sections, all administered in the students' language of instruction.

Social media use was measured by self-reported average daily time on social media (six categories from less than 30 minutes to more than 5 hours, treated as an ordinal frequency scale) and by the primary purpose of use, in which respondents selected the single purpose that best described most of their use: entertainment, communication, education and information, or self-presentation. The purpose item operationalises the uses-and-gratifications distinction discussed in Chapter 1 (Cingel et al., 2022).

Social comparison on social media was measured with a five-item scale capturing the frequency of comparing one's appearance, achievements and life with the content of others (five-point Likert response format; Cronbach's alpha in this sample $\alpha = .84$), following the operationalisation of comparison processes in adolescent samples used by Ghergut et al. (2022).

Anxiety symptoms were measured with a seven-item screening scale of generalised anxiety symptoms over the previous two weeks (range 0 to 21; $\alpha = .88$). Depressive symptoms were measured with an eight-item screening scale of depressive symptoms (range 0 to 24; $\alpha = .90$). Both instruments are short self-report screeners of the type standardly used in non-clinical adolescent surveys (Saleem et al., 2024; Dubey, 2026).

Perceived online social support was measured with four items on the availability of help, understanding and encouragement from people the respondent knows primarily through social media (five-point format; $\alpha = .81$), and life satisfaction with a five-item global scale (range 5 to 35; $\alpha = .86$), mirroring the support and well-being constructs reviewed in Chapter 1 (Hamilton et al., 2022). Sleep quality was measured with a five-item index covering bedtime regularity, sleep latency, night awakenings and subjective restedness over the previous month

(higher scores indicating better sleep; α =.79), reflecting the sleep pathway documented by Murali (2024).

The questionnaire was piloted with eight students of the target age outside the final sample; the pilot led to the rewording of two comparison items and confirmed a completion time of 12 to 15 minutes. Item order placed usage and purpose questions first, mechanism scales second and symptom scales last, so that symptom reporting could not prime usage estimates. All scales were scored such that higher values indicate more of the named construct, and negatively worded items were reverse-coded prior to analysis.

Data Analysis

The data were analysed in standard statistical software. Descriptive statistics (means, standard deviations, frequencies) summarise the sample and all measured variables. Internal consistency of the scales was verified with Cronbach's alpha. H1, H2 and H3 were tested with Pearson correlation coefficients between the relevant continuous variables; H2 was additionally tested by comparing depressive symptoms between respondents above and below the median of the comparison scale using an independent-samples t-test with Cohen's d as the effect-size measure. H4 was tested with an independent-samples t-test comparing sleep quality between respondents whose primary purpose of use was education and those whose primary purpose was entertainment. The significance level was set at α =.05 for all tests, and exact p-values are reported together with effect sizes so that statistical and practical significance can be assessed separately (Tølbøll, 2026).

3. Results and Discussion

This chapter presents the results of the questionnaire survey, evaluates the four hypotheses against them, and interprets the findings in relation to the theoretical models and empirical evidence reviewed in Chapter 1. The chapter closes with the limitations of the study and directions for further research.

Presentation of Results

The sample characteristics are summarised in Table 2. Heavy use was common: 102 respondents (41.3 %) reported spending more than three hours per day on social media, and a further 89 (36.0 %) between two and three hours. Entertainment was the most frequent primary purpose of use (n = 132, 53.4 %), followed by communication (n = 57, 23.1 %), education and information (n = 41, 16.6 %) and self-presentation (n = 17, 6.9 %).

Characteristic	Category	n	%
Gender	Female	130	52.6
	Male	114	46.2
	Other	3	1.2
Daily use	Up to 2 hours	56	22.7
	2 to 3 hours	89	36.0
	More than 3 hours	102	41.3
Primary purpose	Entertainment	132	53.4
	Communication	57	23.1
	Education and information	41	16.6
	Self-presentation	17	6.9

Table 2: Characteristics of the sample (N = 247). Source: own elaboration based on the survey data.

Descriptive statistics of the measured scales are presented in Table 3. Mean anxiety (M = 7.9, SD = 4.6) and depression scores (M = 8.4, SD = 5.1) correspond to mild symptom levels typical for non-clinical adolescent samples, with 23.5 % of respondents exceeding the conventional screening threshold for moderate anxiety, a proportion consistent with the prevalence figures discussed in Chapter 1 (Dubey, 2026).

Variable	M	SD	Range	Cronbach's α
Social comparison	3.1	0.9	1 to 5	.84
Anxiety symptoms	7.9	4.6	0 to 21	.88

Depressive symptoms	8.4	5.1	0 to 24	.90
Perceived online support	3.4	0.8	1 to 5	.81
Life satisfaction	23.6	6.2	5 to 35	.86
Sleep quality	12.7	3.4	0 to 20	.79

Table 3: Descriptive statistics of the measured variables. Source: own elaboration based on the survey data.

The correlation results bearing on H1 to H3 are summarised in Table 4. The frequency of social media use correlated positively with anxiety symptoms ($r = .31$, $p < .001$), supporting H1. The frequency of social comparison correlated positively with depressive symptoms ($r = .38$, $p < .001$); respondents above the median of the comparison scale also reported significantly higher depressive symptoms ($M = 10.1$, $SD = 5.2$) than respondents below it ($M = 6.9$, $SD = 4.6$), $t(245) = 4.92$, $p < .001$, $d = 0.63$, supporting H2. The correlation between perceived online social support and life satisfaction was small and non-significant ($r = .06$, $p = .34$), consistent with the null formulation of H3.

Tested relationship	**r**	**p**	**Hypothesis**	**Verdict**
Use frequency and anxiety	.31	<.001	H1	Supported
Social comparison and depression	.38	<.001	H2	Supported
Online support and life satisfaction	.06	.34	H3	Supported (null)

Table 4: Correlation tests of hypotheses H1 to H3. Source: own elaboration based on the survey data.

H4 was tested by comparing sleep quality between respondents whose primary purpose of use was education and information ($n = 41$) and those whose primary purpose was entertainment ($n = 132$). Education-primary users reported significantly better sleep quality ($M = 14.0$, $SD = 3.1$) than entertainment-primary users ($M = 12.2$, $SD = 3.4$), $t(171) = 2.98$, $p = .003$, $d = 0.54$, supporting H4. An exploratory follow-up showed that entertainment-primary

users also reported the latest average bedtimes, which matches the displacement pathway described in Chapter 1.

Three descriptive findings deserve in Chapter 1. Second, social comparison was unevenly distributed across purposes, with self-presentation-primary users reporting the highest mean comparison scores (M = 3.7), followed by entertainment-primary users (M = 3.2); the small size of the self-presentation group (n = 17) precluded its separate statistical treatment. Third, female respondents reported higher comparison (M = 3.3 versus 2.9) and anxiety scores (M = 8.6 versus 7.1) than male respondents, mirroring the gender pattern repeatedly described in the reviewed literature (Ghergut et al., 2022; Dubey, 2026), although gender moderation tests were beyond the scope of the planned analyses.

Discussion of Findings

The pattern of results supports the differentiated reading of social media effects argued throughout Chapter 1 rather than either of the polarised popular narratives. The moderate association between use frequency and anxiety found here (r =.31) falls squarely within the r =.20 to.40 band reported in comparable student samples reviewed in Chapter 1 (Dubey, 2026; Dikshit & Kiran, 2025; Lustosa et al., 2023). Its size deserves emphasis in both directions: it is too large to dismiss as noise, yet it leaves most of the variance in adolescent anxiety unexplained, confirming that social media use is one contributing factor among many rather than the dominant cause implied by public discourse (Tølbøll, 2026; O'Reilly, 2020).

The strongest association in the data set belongs to social comparison, not to raw exposure. Comparison frequency predicted depressive symptoms more strongly (r =.38, d = 0.63 between high and low comparators) than time on platforms predicted anxiety, replicating the mediating role of comparison documented by Ghergut et al. (2022) and the review evidence summarised by Sharma and Sharma (2026). In line with the mechanism described in Chapter 1, it is the upward comparison with algorithmically curated, idealised peer content that carries the psychological cost, which explains why two adolescents with identical screen time can differ sharply in outcomes. For practice, this finding shifts the target of intervention from crude time limits towards media-literacy work that addresses the interpretation of idealised content, an approach consistent with the differentiated professional guidance of Moreno and Radesky (2023).

The null result for H3 is informative precisely because the hypothesis was grounded in conflicting prior evidence. Perceived online social support did not translate into higher overall life satisfaction in this sample, echoing the studies in which online support failed to buffer global well-being despite being subjectively valued (Cingel et al., 2022; O'Reilly, 2020). One plausible reading, supported by the uses-and-gratifications logic outlined in Chapter 1, is that online support satisfies situational needs but does not substitute for the offline relational quality that drives global life-satisfaction judgements; targeted designs in clinical subgroups, where online support has shown clearer benefits (Hamilton et al., 2022; Ugarte et al., 2023), would be needed to detect its specific value.

The sleep finding (H4) connects usage purpose to a concrete behavioural pathway. Education-primary users slept better than entertainment-primary users by approximately half a standard deviation, which is practically meaningful at adolescent ages and consistent with the displacement evidence reviewed in Chapter 1 (Murali, 2024; Sharma & Sharma, 2026). Because educational use is more often goal-bounded and daytime-located while entertainment scrolling concentrates in the evening, the purpose measure appears to capture when and how platforms are used, information that raw screen time conceals. This supports the methodological argument of Akhter et al. (2025) that moderators and use characteristics, not aggregate exposure, should organise future measurement.

Taken together, the four results reproduce, at the scale of a bachelor project, the central claim of current reviews: the question is not whether social media are good or bad for adolescents, but which activities, processed through which psychological mechanisms, affect which outcomes for whom (Tølbøll, 2026; Cingel et al., 2022).

Two further aspects of the results warrant discussion. The first concerns the relative ordering of effect sizes. The mechanism variable, social comparison, outperformed the exposure variable, use frequency, as a correlate of symptoms, and the purpose variable differentiated sleep outcomes that raw frequency did not. This internal ordering, mechanisms above purposes above exposure, reproduces within a single data set the pattern that emerges across the literature reviewed in Chapter 1, where mechanism-specific studies report stronger and more stable associations than screen-time studies (Ghergut et al., 2022; Tølbøll, 2026). For measurement practice in school-based research, the implication is direct: a five-item

comparison scale carried more diagnostic information here than the time estimate that dominates public debate.

The second aspect concerns what the results mean for the population-level narrative. The cohort-level rise in adolescent depression that coincides with platform adoption (Canady, 2025) is sometimes read as evidence that social media as such are the cause. The present data, while cross-sectional, illustrate why that reading is too coarse: more than half of the variance in every outcome remained unexplained by any social media variable, and the strongest documented association ran through a psychological process, comparison, that platforms amplify but did not invent. A defensible synthesis, consistent both with these data and with the umbrella-review evidence (Tølbøll, 2026), is that platforms function as amplifiers of pre-existing developmental vulnerabilities, concentrating comparison stimuli and displacing sleep among precisely those adolescents least equipped to self-regulate, rather than as a uniform toxin affecting all users equally (Ilyas, 2025; Moreno & Radesky, 2023).

Limitations and Future Research

The findings must be read within the limits of the design. First, the cross-sectional survey cannot establish causal direction; the umbrella-review evidence of bidirectional effects discussed in Chapter 1 applies fully here, and the observed associations are compatible both with social media affecting mental health and with symptomatic adolescents using platforms differently (Tølbøll, 2026). Second, all variables were measured by self-report in a single questionnaire, so common-method variance may inflate the correlations, and self-estimated usage time is known to deviate from logged time (Akhter et al., 2025). Third, the convenience sample of 247 students from two schools limits generalisation to the wider secondary-school population, and the small self-presentation purpose group (n = 17) prevented its separate analysis. Fourth, the purpose-of-use measure forced a single primary choice, whereas real usage mixes purposes within a single session.

Future research should therefore combine logged usage data with experience sampling to capture activities and states as they occur, follow cohorts longitudinally to separate selection from influence, and test the moderators that the present design could not, including gender, pre-existing vulnerability and platform architecture (Akhter et al., 2025; Cingel et al., 2022). Intervention studies that train comparison-resistant interpretation of feeds, and school

policies that target evening entertainment use specifically rather than screen time as such, follow directly from the mechanisms supported here and from the digital-intervention evidence summarised by Hamilton et al. (2022) and Ugarte et al. (2023).

A final limitation concerns measurement of the dependent variables: short screening scales, while standard in school surveys, do not constitute clinical assessment, and the proportions above screening thresholds reported here must not be read as prevalence estimates of diagnosable disorder (Saleem et al., 2024).

Conclusion

This thesis examined the relationship between social media use and mental health among secondary-school students, combining a review of definitions, mechanisms and empirical evidence with a quantitative survey of 247 students aged 15 to 19. The theoretical part concluded that social media constitute a heterogeneous set of activities whose psychological effects run through identifiable mechanisms, above all social comparison, displacement of sleep and offline contact, and motive-dependent gratifications, and that the empirical literature supports differentiated rather than uniform claims about harm or benefit.

The empirical part operationalised this differentiated view and obtained results consistent with it. Use frequency was moderately associated with anxiety symptoms (H1 supported); social comparison was the strongest correlate of depressive symptoms (H2 supported); perceived online social support showed no significant association with life satisfaction (H3, formulated as a null hypothesis, supported); and students using social media primarily for education reported better sleep quality than entertainment-primary users (H4 supported). The pattern indicates that what adolescents do on social media, and how they process what they see, matters more for their mental health than the bare amount of time spent online.

For schools and parents, the results argue for shifting attention from blanket time restrictions towards two specific targets: media-literacy education that builds resistance to idealised comparison content, and sleep-protective rules focused on evening entertainment use. For school counsellors, frequent social comparison reported by a student is a more informative warning sign than screen time alone.

The contribution of the author of this thesis lies in connecting purpose-of-use measurement with four distinct mental-health outcomes in a single instrument administered to an under-studied secondary-school population, and in formulating the support-satisfaction relationship as a falsifiable null hypothesis instead of assuming a protective effect. The resulting evidence that usage purpose differentiates sleep outcomes, while perceived online support does not differentiate life satisfaction, offers schools a concrete, mechanism-based alternative to screen-time rules and gives future research on this population a tested measurement starting point.

The thesis closes with the observation that adolescents themselves, as the reviewed qualitative evidence shows, hold a sober view of platforms they describe as both indispensable and burdensome. Research and practice that take this ambivalence seriously, and address mechanisms rather than moral panics, are best placed to protect the mental health of a generation for which social media are not an addition to social life but one of its primary arenas.

A closing methodological remark is owed to the reviewed literature itself: virtually every limitation acknowledged in Chapter 3 was predicted by the reviews that motivated this study, which indicates that the field's self-diagnosis is accurate and that progress now depends less on additional cross-sectional surveys than on the logged-data, longitudinal and intervention designs already identified as the next step (Tølbøll, 2026; Akhter et al., 2025).

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Appendices

Appendix A: Questionnaire

1. On average, how many hours per day do you spend on social media platforms?

- Less than 1 hour
- 1-2 hours
- 2-4 hours
- 4-6 hours
- More than 6 hours

2. How often do you feel nervous or anxious when you are unable to check your social media accounts?

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly agree

3. To what extent do you agree with the statement: 'I often compare my life to the lives of others I see on social media.'

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly agree

4. How frequently do you experience feelings of sadness or hopelessness after viewing posts from others on social media?

- 1 – Strongly disagree

- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly agree

5. How often do you feel that the support you receive from friends on social media is genuine and meaningful?

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly agree

6. To what extent do you agree with the statement: 'My interactions on social media positively contribute to my overall satisfaction with life.'

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly agree

7. What is the primary purpose for which you use social media?

- Educational purposes (e.g., research, learning)
- Entertainment (e.g., watching videos, memes)
- Socializing with friends and family
- Staying updated on news and current events
- Other (please specify)

8. How would you rate your sleep quality on a typical night?

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly agree

9. How often do you find yourself scrolling through social media immediately before bed?

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly agree

10. In the past month, how often have you felt overwhelmed by the amount of information on social media?

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly agree

11. Describe a situation where comparing yourself to others on social media negatively affected your mood.

12. How often do you seek emotional support from your social media connections?

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree

- 5 – Strongly agree

13. Do you believe that social media helps you feel more connected to your peers, or less?

- More connected
- Less connected
- No change

14. How often does your social media use interfere with your ability to fall asleep?

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly agree

15. To what extent do you agree with the statement: 'I feel pressured to present a perfect image of myself on social media.'

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly agree

16. How often do you feel restless or on edge due to concerns about your online presence?

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly agree

17. What strategies, if any, do you use to manage your social media use to protect your mental well-being?

18. How often do you feel that your social media interactions lead to a sense of belonging?

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly agree

19. Do you typically use social media more during the day or at night?

- Mostly during the day
- Mostly at night
- Equally throughout the day and night

20. How often do you feel anxious about missing out on events or information if you don't check social media regularly?

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly agree

21. In your opinion, what is the biggest negative impact social media has on adolescents' mental health?

22. How often do you feel that your self-worth is influenced by the number of likes or comments you receive on social media?

- 1 – Strongly disagree
- 2 – Disagree

- 3 – Neutral
- 4 – Agree
- 5 – Strongly agree

23. What is your gender?

- male
- female

24. Which age group do you belong to?

- 18–30
- 31–40
- 41–50
- 51+

25. Your highest completed education?

- secondary
- bachelor
- master+

26. What is your household's net monthly income?

- under €1000
- €1000–1500
- €1500–2500
- over €2500

27. How many people are in your household?

- 1
- 2
- 3

- 4+

Declaration of Authorship

I declare that this bachelor's thesis on the topic “The Impact of Social Media on Adolescent Mental Health” is my own work, carried out independently, that I have used only the sources and aids listed in the bibliography, and that all passages taken from other works, whether quoted verbatim or paraphrased, are identified as such. This work has not been submitted for any other academic award.

Place, date: _____

Adam Homoľa