Social Media Intervention to Improve University Students' Well-Being: A Self-Determination Approach

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Abstract

The debate on the effect of social media use on students' psychological well-being has attracted much attention and interest around the development of social media interventions in higher education. This study investigated university students' interactions with social media and its effect on their well-being. An intervention was designed to support and improve students' well-being. Guided by Ryan and Deci's (2000) Self-Determination Theory (SDT), this study aimed to assess associations between social media use and individuals' intrinsic motivation and psychological needs in the academic context. A focus-group qualitative approach was used to collect data among university students and explore the relationship between social media use and the way they cope with stress in their first year of undergraduate study. Results showed high social media use among students who experienced stress, but the effect of social media on students' well-being varies between their psychological needs of autonomy, competence, and relatedness. The study combined SDT and basic psychological needs to address the issue. We conclude that individual differences play an important role in social media use. This study used inductive coding approaches and offered a comprehensive approach to conceptualise students' social media use and well-being. We propose theoretically grounded design features that can identify stressors among students, reflect their psychological needs, and propose strategies that can be used to cope with social media. Many current educational policies and practices fail to recognise the importance of psychological needs satisfaction in learning contexts, despite substantial evidence, and therefore create a gap that this study aims to close. This study proves that individuals' consumption of social media does not solely justify their stressors and the effects on their well-being, but the autonomous form of motivations for specific social media use and psychological needs matter.

Keywords: social media use, well-being, intervention, Self-determination Theory, stress coping

Intervensi Media Sosial untuk Meningkatkan Kesejahteraan Pelajar Universiti: Satu Pendekatan Penentuan Kendiri

Abstrak

Perdebatan mengenai kesan penggunaan media sosial terhadap kesejahteraan psikologi pelajar telah menarik banyak perhatian dan minat, khususnya dalam pembangunan intervensi media sosial di institusi pengajian tinggi. Kajian ini meneliti interaksi pelajar universiti dengan media sosial dan kesannya terhadap kesejahteraan mereka. Satu intervensi telah dibangunkan untuk menyokong dan meningkatkan kesejahteraan pelajar. Berpandukan Teori Penentuan Kendiri (Self-Determination Theory, SDT) oleh Ryan dan Deci (2000), kajian ini bertujuan menilai perkaitan antara penggunaan media sosial dengan motivasi intrinsik dan keperluan psikologi individu dalam konteks akademik. Pendekatan kualitatif berasaskan kumpulan fokus digunakan bagi mengumpul data dalam kalangan pelajar universiti dan meneroka hubungan antara penggunaan media sosial dengan cara mereka menangani tekanan pada tahun pertama pengajian sarjana muda. Dapatan menunjukkan tahap penggunaan media sosial yang tinggi dalam kalangan pelajar yang mengalami tekanan, namun kesannya terhadap kesejahteraan pelajar berbeza mengikut keperluan psikologi mereka seperti autonomi, kompetensi dan keterhubungan. Kajian ini menggabungkan SDT dan konsep keperluan psikologi asas untuk menangani isu tersebut. Kami merumuskan bahawa perbezaan individu memainkan peranan penting dalam penggunaan media sosial. Kajian ini menggunakan pendekatan pengkodan induktif dan menawarkan kerangka konseptual yang komprehensif untuk memahami hubungan antara penggunaan media sosial pelajar dan kesejahteraan mereka. Kami mencadangkan ciri-ciri reka bentuk berasaskan teori yang boleh mengenal pasti faktor penyebab tekanan pelajar, mencerminkan keperluan psikologi mereka dan mencadangkan strategi untuk mengurus penggunaan media sosial. Banyak dasar dan amalan pendidikan sedia ada gagal mengiktiraf kepentingan bagi memenuhi keperluan psikologi dalam konteks pembelajaran meskipun terdapat bukti kukuh, namun masih wujud jurang yang cuba ditangani oleh kajian ini. Kajian ini membuktikan bahawa penggunaan media sosial individu tidak semata-mata menjelaskan punca tekanan dan kesannya terhadap kesejahteraan mereka, sebaliknya bentuk motivasi autonomi untuk penggunaan media sosial tertentu serta keperluan psikologi turut memainkan peranan penting.

Kata kunci*: Penggunaan media sosial, kesejahteraan, intervensi, Teori Penentuan Kendiri, penanganan tekanan*

Introduction

The negative effect of social media use on students' psychological well-being has attracted much attention and interest around the development of social media interventions at universities (Chatterjee, 2020; Mir et al., 2022). Some scholars argued that higher social media consumption caused lower social bridging, bonding capital, and increased loneliness, anxiety, and depression (Alsunni & Latif, 2021; O'Day & Heimberg, 2021). Those who are addicted to social media are more depressed (Hurley, 2018). However, recent studies have changed the initial negative view of the use of social media and its impact on well-being, which focused on measuring frequency and duration of use and less on users' emotional connections and the effects of those psychological needs.

Health literacy can be an issue of communication approaches (Karim, 2023). Social media is recognised for its mediating role in coping with negativity, such as anxiety and loneliness, among adolescents during the COVID-19 pandemic (Cauberghe, et. al., 2021). Meier & Reinecke (2020) suggest social media use has minimal negative association with mental health, while others emphasise that individual differences and motivation play an important role in social media use (Valkenburg, 2021; Kaye et al., 2020). Social media use and stress are two terms that regularly appear in the well-being literature, and the negative effects of social media use are usually correlated with stress. Wolfers and Utz (2022) found that social media can serve as resources, stressors, and coping tools depending on the situation that students face. The effectiveness of technology use depends on how well it is used and whether the chosen coping strategy fits situational circumstances (Lazarus and Folkman, 1984). The way students respond to issues is dependent on their knowledge and media use (Ngu & Balraj, 2015).

The debate surrounding social media use is two-fold; therefore, it is necessary to conceptualise a more robust understanding of the approaches used to target students' well-being. This study aimed to assess associations between social media use and individuals' intrinsic motivation and personality guided by the Self-Determination Theory (SDT) (Ryan & Deci, 2000). SDT has been applied in many settings, including education, and is regarded as an evidence-based theory (Sun et al., 2019). Increased well-being and intrinsic motivation are significantly impacted by the fulfilment of the three aims of SDT – autonomy, competence, and relatedness (Ryan & Deci, 2020). Students need to feel socially connected in a classroom environment, grow their own abilities and skills, and be self-autonomous (Garn et al., 2019). Despite substantial evidence for the importance of psychological needs satisfaction in learning contexts, many current educational policies and practices fail to recognise this and therefore create a knowledge and policy gap that this study aspires to close. Grounded in the SDT's intrinsic motivation discussions, this study investigates the effect of social media use on university students' well-being. It intends to answer two research questions:

1) What are the psychological needs of first-year students?
2) How does university students' social media use affect their well-being?

Literature Review

Social Media Use and University Students' Well-Being

Prior studies related to social media use and students' well-being have had mixed findings. Some studies have shown that heavy social media use causes loneliness and anxiety (Hunt et al., 2018; Cauberghe et al., 2021), significantly triggers social media fatigue (Dhir et al., 2018), increases social isolation (Primack et al., 2017), and suicidality (Twenge, 2020). During the pandemic lockdown, screen exposure among undergraduates and postgraduate students had intensified and led to reduced physical activity, which disrupted sleep patterns (Majumdar et al., 2020). When used excessively, social media interferes with students' capacity to function and negatively affects their academic performance (Sarfraz et al., 2022). It also causes phubbing behaviour due to smartphone addiction (Chatterjee, 2020).

However, some research literature suggested a more nuanced picture of social media use and well-being. Based on a meta-review of 14 meta-analyses, Meier and Reinecke (2020) found that social media use had a minimal negative association with mental health, and they concluded that the complex effects depend on the type and mode of use and the mental health indicator employed. Similarly, students' motivations (Sheldon & Titova, 2023) and individual differences determine why they go online (Valkenburg, 2021; Kaye et al., 2020). Other studies have shown that social media use can improve students' academic performance (Kolhar et al., 2021) and provide them with social support (Nabi & Prestin, 2013).

Basic Psychological Needs and Learning Contexts

In the education domain, social media platforms can improve students' learning performance (Alhussain et al., 2022). Online learning encourages self-paced, self-directed, and needs-oriented learning (Sun et al., 2008); technology and artificial intelligence can personalise and diversify learning (Wong, 2020). A blended learning context encourages students of different learning approaches to interact and build their competency (Wong, 2019), but their autonomy was affected by the institution's culture, assessment design, as well as teachers and students' habitual adherence to their conventional roles (Wong, 2020). Self-determination theory (Ryan & Deci, 2017) proposes three basic psychological needs (autonomy, relatedness, competence), which coincide with Ormrod's (2011) basic learning needs with an additional arousal component, which refers to psychological attentiveness.

Social Media Intervention in Higher Education

Social media use interventions can range from therapy-based approaches that take complete breaks from social media to limiting social media use for a few hours a day (Dogan et al., 2019; Zhang et al., 2020). They can help individuals to regulate their social media use through facilitating self-control and reflection, which further improves well-being (Michie et al., 2011). Allen (2014) has designed a Resilience and Coping Intervention (RCI) model, which assisted children and adolescents in identifying thoughts, feelings, and stress coping strategies related to their psychological, behavioural, and interpersonal issues in the context of stress. Houston et al. (2017) proposed that interventions can serve as a prevention of the increased mental needs in higher education that foster resilience and coping strategies among college students. Interventions enhance resilience by promoting strengths and protective factors rather than targeting deficits (Fergus & Zimmerman, 2005). This study contributes to existing literature by highlighting how social media intervention is necessary to guide students' social media use, which will positively influence their well-being by fulfilling their psychological needs. It hopes to close the gap and provide further insights into the associations between students' well-being and their psychological needs based on the SDT framework by focusing on intrinsic motivations and designing a semester-based intervention to improve first-year students' well-being through experiential methodology and reflections.

Theoretical Framework

Self-determination theory (Ryan & Deci, 2017) was used as the theoretical framework for this study. The theory assumes people are inherently prone toward psychological growth and integration and build connections with others. These proactive behaviours are not automatic, and individuals require support for their basic psychological needs (Ryan et al., 2019). It focuses on intrinsic and extrinsic motivations and emphasises the importance of creating need-supportive contexts that foster this inner resource. Intrinsic motivation refers to individuals' interest, enjoyment, and inherent satisfaction, while extrinsic motivation includes external regulation, introjection, identification, and integration (Ryan & Deci, 2000). SDT applications in education also explore facilitating the satisfaction of teachers' and students' basic psychological needs which shows the dynamic link between them, as teachers are constantly impacted and constrained by institutional pressures and their own leadership styles (Ryan & Deci, 2020).

Studies have proven that increased well-being and intrinsic motivation are significantly impacted by the fulfilment of SDT's psychological needs (Alturki & Aldraiweesh, 2024). The three fundamental needs consist of, i) *Autonomy* refers to the ownership of one's actions based on individuals' interest and values against being externally controlled by either reward or penalty. This need develops within the context of family and social

institutions, and it is critical to wellness in everyday life (Legate, Ryan & Weinstein, 2012). ii) *Competence* refers to the sense of ability to grow and overcome challenges. Individuals need to feel capable and effective in negotiating important life tasks and experiences. iii) *Relatedness* refers to a sense of belonging and connection with others. They need to feel connected to and cared for by others (Ryan et al., 2019).

Methods

Most of the social media use research has been largely quantitative; thus, it often elides the complexity of the issue. To capture the nuances and complexities that characterise students' psychological needs – autonomy, competence, and relatedness, our qualitative study was designed to examine first-year students' social media use and evaluate their social interactions through focus groups. Focus group refers to a group of individuals who were selected and assembled by researchers to discuss and comment on, from personal experience, the topic that is the subject of the research (Powell, Single, and Lloyd, 1996). This approach allows researchers to do face-to-face explanations with the participants and ask follow-up questions on experiences to elicit individual stories. Participants are positioned to be experts on their own life experiences and stories (Denzin & Lincoln, 2005). Through focus group discussions, researchers will be able to capture the psychological needs of the students in an academic setting and investigate the extent to which social media intervention can improve their well-being.

Participant and Setting

The data was collected from among first-year students who were enrolled in the undergraduate programmes at an Australian offshore campus in Sarawak. The sampling was purposively selected based on a referral system where, i) academic staff identified and recommended students in their class who fulfilled these criteria: first-year undergraduate, experiencing stress and actively using social media, ii) research assistants invited participants through student clubs or courses. Our research team sent out 30 email invitations, but only half were accepted and participated in the two-session social media intervention program. The mean age was 20, with a range of 19 to 26 years old, and most of them were Engineering students, Chinese (60%), and Male (60%).

Participants were grouped according to their undergraduate programme (Engineering, Business, Media and Communication, Information Technology, and Psychological Sciences) and personal schedule availability. They were divided into three groups with five participants each: i) Media and Information Technology group (3 females and 2 males), ii) Engineering and Commerce (5 males), and iii) Communication and Psychology (3 females and 2 males). Small groups were adopted for the social media intervention to allow each participant

sufficient time to interact and share their experiences within the one-hour session.

Two final-year students were recruited as research assistants to assist the principal researcher in facilitating the focus groups. Both were 21-year-old female Communication students who had experienced stress and actively used social media for their studies and social activities. Their roles as students and researchers who co-design the intervention sessions were somewhere between insider and outsider (Brannick & Coghlan, 2007). Being a senior at the same university meant that they had some prior contact with the juniors and were known to the lecturers. They were not directly engaged in the focus group discussions but attended all the sessions as observers and note-keepers. They also transcribed the focus group recordings and suggested to the principal researcher some themes that could be coded for further analysis. This two-step process allowed researchers to compare the similarities and differences between the participants' interpretations of the same phenomenon (Denzin & Lincoln, 2005).

Data Collection

We designed the social media intervention program by adapting Allen's (2014) Resilience and Coping Intervention (RCI) model, which assisted students in identifying thoughts, feelings, and coping strategies related to their psychological, behavioural, and interpersonal issues in the context of ongoing stress (Allen, 2014; Houston et al., 2017). This manualised model was chosen and redesigned in a social media context to assess how students' social media use impacts their well-being. This study intended to explore how the effect varied based on students' individual psychological needs of autonomy, competence, and relatedness.

The intervention was conducted at the beginning and end of the semester, at two-month intervals, to monitor students' well-being within a 12-week semester (Figure 1). We conducted focus groups in a meeting room at the university's compound on weekdays during office hours. Each session took approximately 60 minutes and was audio-recorded by the student research assistants. We used a funnel-based approach (Morgan, 1997) in our focus group sessions, where the participants were first asked to share their general feelings and experiences about social media use and stressors during their first year of study. Then, followed by a planned question guide to make the discussion more structured and focused.

Figure 1. Participants Flow Diagram
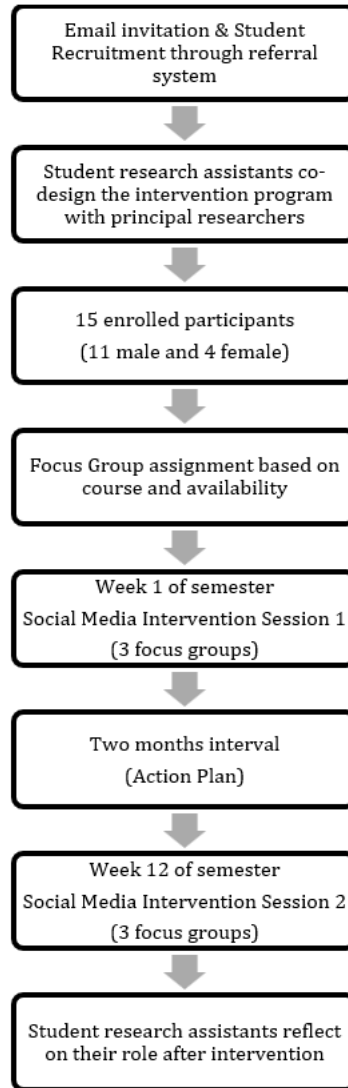
Data Analysis

This study adopted a thematic analysis because the qualitative approach is compatible with the constructionist paradigm and allows for epistemological flexibility in developing an analytical structure based on the data collected (Braun & Clarke, 2006). This approach emphasises context and integrates manifest and latent content (Vaismoradi et al., 2013). Our student research assistants assisted in recording the focus group discussions and transcribing them verbatim by using Microsoft Word. The principal researcher subsequently checked the transcripts to ensure that all identifiable information was removed. Participant names were replaced by the nicknames that they chose to ensure anonymity. Subsequently, a thematic analysis was conducted. First, the researchers familiarised themselves with the data by reviewing the transcripts, listening to the audio, and developing code based on keywords. Coding turns dense data into smaller, manageable pieces that can be categorised and analysed for patterns and themes and help researchers to identify specific elements of data that are relevant to the research question (Attride-Stirling, 2001; Creswell, 2015; Fereday & Muir-Cochrane,

2006). Codes were derived inductively from participants' narratives using an open and iterative semantic coding process and later analysed for further analysis.

Ethical consideration

Ethical approval was obtained from the university's Human Research Ethics Committee before the study commenced. Following ethics approval, participants were sampled based on demographic (e.g., age, gender, and ethnicity) and academic (e.g., faculty, programs, and study year) factors. They were provided with written explanations via email about voluntary participation, confidentiality, the right to withdraw, and potential risks and benefits. The research information sheet and consent form were attached to the invitation email sent to the participants before the social media intervention session. Consequently, before the focus groups started, researchers further reassured them that declining participation would not lead to any penalties or differences in their academic grades. By agreeing and signing the consent form, participants agreed to the terms and conditions of the research project. Participants received a food voucher worth RM10 after they completed the first intervention and another RM40 voucher after the second session.

Findings And Discussion

Designing Social Media Intervention in Promoting Students' Well-Being

To understand the effect of social media use on university students' well-being, we employed an SDT approach. The focus was on the extent to which the social media context that students engage with controls or supports their autonomy, or in other words, makes them feel supported for being who they are. Conversely, in low autonomy contexts, students feel pressured to be how others want them to be (Alturki & Aldraiweesh, 2024).

The first intervention focused on self-introduction and familiarity among participants (Table 1). They were put into groups to identify why and how they use social media in academic and personal settings, and whether their psychological needs were satisfied or if they had experienced any frustrations. When group members took an active role in the process of problem-solving, this in turn further strengthened each person's ability to solve problems in the future (Malekoff, 2014). Through a series of questions and sharing in the focus group, participants were encouraged to define key problems in their lives, and this practice was to assess the cognitive-emotional and practical effects of social media use on their well-being (Allen, 2014). They had opportunities to share and validate their own experiences with their peers, recognise one another's similar thoughts and feelings related to a shared problem, observe their own existing coping strategies, learn group problem-solving,

and gain satisfaction from helping others (Allen, 2014; Houston et al., 2017). At the end of the group discussion, each participant was required to assess the positive and negative effects of their social media use and develop an action plan to respond to psychological satisfaction and frustrations.

Table 1. Focus Group Questions about Social Media Use

NO.	QUESTIONS
1	How do you feel today?
2	What makes you stressed?
3	How do you cope with stress?
4	What do you want to achieve as a student?
5	How do you communicate with others?
6	How do you behave online and offline?
7	How regularly do you use social media?
8	Please give some examples of social media platforms that you always use.
9	Please explain the function of each social media platform that you use.

In between intervention sessions, participants were given two months' time to reflect on their social media use and its effect on their well-being. During the interval period, participants were required to apply their action plans in their everyday lives and share the weekly reflections in the WhatsApp group. They were encouraged to meet new, future challenges by considering the problem itself, analysing the problem's potential causes and effects, reviewing and prioritising potential responses, and committing to a series of action steps over time.

After two months and reaching the end of the semester, participants gathered at the same venue again. The second intervention focused on participants reflecting on the outcome of their action plans. They evaluated the effect of social media use on their well-being for the past two months and provided justifications. They were prompted to identify options for change and then assess whether they were positive (helpful), negative (harmful) to their well-being, or both. Each had to explain their evaluation of the options, whether these options helped to make them more resilient, and whether they would incorporate them into future stress coping strategies. To wrap up the session, students were engaged in short questions where they had to respond quickly to test their personalities and psychological needs (Table 2).

Table 2. Focus Group Questions about Psychological Needs

NO.	QUESTIONS
10	Do you always worry about things?
11	Do you think you are smart or hardworking?
12	Do you prefer to gain higher marks or learn new knowledge?
13	Do you view failure as an opportunity or a limitation?
14	Do you give up, or are you willing to try new things?
15	Do you accept challenges or avoid them?
16	Are you emotional or a problem-solver?

| 17 | Do compliments help you bounce back after failures? |
| 18 | How would you like the lecturer to comfort you when you do not perform well in class? |

Analysing Students' Stressors and Academic Challenges based on the SDT Framework

Most of the participants mentioned they struggled to juggle between academic work and remain engaged with the intervention, especially in executing the action plan. Two did not turn up for the second intervention, and the majority failed to submit their weekly reflections in the WhatsApp group due to assignment deadlines. However, they felt satisfied that they were able to balance competing priorities in life and managed to successfully complete the two-session intervention during the semester. Being able to own one's actions and regulate their behaviour to complete the tasks based on their interest gave participants a sense of autonomy as university students. This psychological need developed within the academic context and was critical to their wellness. When they are intrinsically motivated to learn, their learning tends to be deeper and long-lasting than when they are extrinsically motivated by grades (Froiland & Worrell, 2016).

Furthermore, the participants expressed that when they cope with stressful events, they usually try to make sense of their situations. They tried to use the skills and knowledge that they had learned to cope with stress and overcome the challenges. However, when they were incapable of maintaining a complete view of a constantly changing reality or situation, they experienced cognitive gaps. Therefore, communication and interaction with others and searching for useful information on social media helped them fill in these cognitive gaps to gain a better understanding of what was taking place. The sense of having the ability to grow their abilities and skills (Garn et al., 2019) to overcome challenges made them more confident in themselves and effective in negotiating important decisions in their lives as university students. By immersing themselves in doing a task well, people will experience deep satisfaction of competence (Standage & Ryan, 2019).

Another key component of social media intervention is building peer support and connection. The principal researcher facilitated a discussion that encouraged participants to share their experiences, thoughts, feelings, and coping strategies while learning from one another. During the intervention, the principal researcher asked participants to explain the option that they chose and the strategy used to cope with stress or challenges in their studies. Throughout the process, participants gained a sense of belonging and relatedness with their peers and felt satisfied through active listening and empathy (Audet et al., 2025). Supportive groups such as social media intervention are, by nature, a mechanism for facilitating connections and a sense of belonging, which has been shown to positively affect an individual's behaviour (Northern & Kurland, 2001). Deadlines, evaluations, and close supervision tend to diminish people's intrinsic motivation for activity (Deci et al., 1999), whereas providing choice and acknowledging people's feelings tend to enhance their intrinsic motivation. Therefore,

social contexts that support the satisfaction of psychological needs for autonomy, competence, and relatedness will lead toward deeper internalisation and more autonomous regulation (Ryan & Deci, 2023).

Figure 2. Thematic Approach Used in Analysing Psychological Needs of Students Based on the SDT Approach

Statement/Quotations (Stressors faced by Students)	Keywords	Codes	Themes (Psychological needs)
I would like teachers to tell me what <u>mistakes</u> I made, so that I can <u>improve myself</u>.	Mistakes Improve myself	Own one's action	**Autonomy**
I want to achieve <u>financial freedom</u> without burdening my parents.	Financial freedom		
I prefer my lecturers to <u>reassure</u> me whether I am on the right path and advise me on how to <u>improve</u>, rather than putting up a scary face or a serious, stern tone.	Reassure Improve		
I prefer lecturers to give me <u>constructive feedback</u> on how I can <u>improve</u> in the future.	Constructive feedback Improve		
<u>Learning new knowledge</u> is more important, but a <u>higher mark</u> is needed.	Learning new knowledge Higher mark	Ability to grow	**Competence**
I prefer the teacher to provide answers that will earn <u>more marks</u>. No need for emotional support.	More marks		
Compliments comfort me when faced with failures, but they also <u>add stress</u> to me as I am <u>expected to be perfect</u> in my next attempt, hence making me <u>less confident in myself.</u>	Add stress Expected to be perfect Less confident in myself		
Compliments help me <u>bounce back and motivate</u> me when I am down. It is not something that I would ask for, but more of a complement.	Bounce back and motivate		
I prefer people to <u>offer criticism about my failures</u>. <u>Emotional support</u> is great, but technical support broadens my horizons.	Offer criticism about failures Emotional support		
I am more <u>polite and reserved</u> online, but when it is offline, I am more <u>fun and outgoing.</u>	Polite and reserved Fun and outgoing	Build connection	**Relatedness**
I am <u>active in replying</u> to texts and like to	Active in		

crack jokes, but sometimes I am just too <u>lazy to respond</u>, so I reply in short form. When offline, I am usually <u>very talkative</u> and positive.	replying Lazy to respond Very talkative		
When online, I am more <u>aggressive</u> and feel like <u>having fun, provoking others</u>. But offline, I am <u>mellow and passive</u>.	Aggressive Having fun provoking others Mellow and passive		

The Effect of Social Media Use on Students' Well-Being

University students are more reliant on social media because of the limitations of in-person interactions during the pandemic (Haddad et al., 2021). Hence, it is important to explore whether they are at an increased or decreased risk of social media addiction after the pandemic (Nazari et al., 2023). Our findings showed that the abrupt transition from online learning to physical learning in the post-pandemic has caused stress for participants and thus required them to focus on their well-being. During the interventions, participants shared experiences such as staying alone or with friends, cooking their own meals, mingling physically, managing personal finances, and attending offline classes, which have formed new stressors for them in their first year of study. They had formed new habits of using social media as a coping tool to cope with different stressful situations. Social media helps them to distract themselves from a stressful encounter, for venting emotions (de Wit, J. et al., 2020; Wolfers, 2021) and solve stress-evoking problems (Veer, et al., 2016). They also claimed to use social media as coping tools to provide resources that buffer stress (Wolfers & Utz, 2022).

Several studies prove that stress is associated with well-being (Nabi & Prestin, 2013) and it triggers social support seeking on social media (Frison & Eggermont, 2015; Wolfers & Utz, 2022). Participants expressed that they used social media to improve their individual social capital by bridging, bonding, and maintaining relationships with people. Some said they acted differently offline and online; they tend to appear in the opposite way of how they normally behave to explore another dimension of themselves in a different space. Those who acted differently offline and online appeared to be more confident and bubblier during the focus group sessions, whereas participants who were observed as reserved and more self-conscious showed little difference in using social media to bridge their social capital. Social capital that stems from the networks they maintain, like connections, money, and knowledge, was used when they needed it. Even without using it, some participants expressed that knowing that one has social capital gives them confidence to cope with stress.

Figure 3. Thematic Approach Used in Analysing Social Media Use of Students Based on the SDT Approach

Social Media Use	Statement/Quotations	Keywords	Codes	Themes (SDT's Psychological Needs)
Social media is used to cope with stress and foster independence.	*I am facing unhealthy lifestyle habits, so I try to reduce online time and <u>watch YouTubers' videos focusing on lifestyle</u>.*	Watch YouTubers' videos focusing on lifestyle	Own one's action	**Autonomy**
	I am trying to cope with assignments, so I watch Disney+ Hotstar, listen to music, and scroll on TikTok to <u>release my stress</u>.	Release stress		
	Having <u>trouble budgeting</u> with groceries and daily expenses. I used Twitter/X to <u>earn art commissions as a side hustle</u>.	Trouble budgeting Earn commission as a side hustle		
	I <u>watch funny videos</u> online when I am stressed about friends' drama.	Watch funny videos		
Social media is used as information and resources for development.	*Exhausted due to academic workload. I realised YouTube videos did not alleviate my issue, so I lost interest in them. I tried to watch iLectures and podcasts and <u>committed to hybrid learning</u>.*	Commit to hybrid learning	Ability to grow	**Competence**
	I have to be more independent, so I <u>watch YouTube videos that educate me</u> about managing resources, rationing groceries, and managing finances.	Watch YouTube videos that educate me		
	I am facing financial issues, so I try to find <u>learning materials</u> through educational videos.	Learning materials		
	I am scared of presentations because I have a language problem. I seldom read English books, but I watch English videos on Instagram and YouTube	Improve English		

	to improve my English.			
	I feel the constant need to improve myself, hence I post more content on Instagram to reach out to people and showcase more of my skills.	Post more content Showcase my skills		
Social media is used to improve individuals' social capital	*I am too busy with my social life, and it's hard to cope academically. I use WhatsApp to communicate and seek advice from friends and family.*	Seek advice	Build connection	**Relatedness**
	I struggled with peer expectations. I check in with friends and reduce social media time. Selecting my close friends gives me peace of mind.	Check in with friends Selecting close friends		
	I struggled with studies. Social media helps me realise that I am not alone and there are others who feel the same as I do.	Not alone Feel the same		
	I have poor time management and a lack of motivation. I like listening to YouTube music to destress, but I find that working on assignments with friends is more effective.	Working with friends		
	Not knowing if I can do well in my upcoming test. I joined a Discord study group.	Join study group online		

Conclusion and Suggestions for Improvements

In summary, this study has introduced an experiential methodology where students were assigned to experience social media use for a short period of time (Sheldon & Titova, 2023). The effects of social media use on individuals' psychological needs were significant, and the intrinsic values made a difference (Ryan & Deci, 2000). SDT approach was adopted to focus on intrinsic motivation of individuals in engaging social media for their own sake, also known as more autonomous forms of motivation that enhance their engagement,

learning, and wellness. Our study suggests that merely looking at how students spend their time on social media may not justify its effects on their well-being. Social media use does not cause lower well-being, and thus, it is not necessarily imposing restrictions on their social media usage. More nuanced observations are required by understanding the reasons individuals chose specific social media use, each with its unique audience and engagement dynamics (Sinnappan et al., 2023), and their effect upon students' well-being. This is due to students acquiring not only knowledge at university, but also their mental health and confidence are affected by whether the university provides their support in response to students' experiences. Universities should strive to provide autonomy, competence, and relatedness-supportive environments in promoting student well-being. These insights will guide students in navigating uncertainties and cultivating resilience in the face of adversity.

The limitation of this study was the use of reflections, which participants might show positive self-presentation by over-or under-reporting their social media-related experiences, behaviours, and some stress or health-related conditions, which may directly or indirectly lead to social desirability bias, information bias, and reporting bias. The small sample size and purposive sampling also reduced the representativeness of the overall student population. The role of teacher is important in shaping student intrinsic motivation, but it is not discussed in this paper because of the growing reliance of students on social media in their daily lives and for learning. Therefore, we want to explore the autonomy support provided in a social media setting where students are more willing to express themselves differently and experience well-being in different contexts. This study was based on cross-sectional data where participants were observed within a semester in their undergraduate studies; hence, the results should be seen as associative rather than causative. Future studies would need to investigate causal effects by using a longitudinal or cohort design or another causal effect research design.

References

Allen, S. F. (2014). *Resilience and coping intervention*. Columbia: Disaster and Community Crisis Center at the University of Missouri. http://dcc.missouri.edu/rci.shtml Alhussain, T., Al-Rahmi, W.M., & Othman, M.S. (2020). Students' perceptions of social networks platforms use in higher education: A qualitative research. *International Journal of Advanced Trends in Computer Science and Engineering, 9*(3), 2589-2603. https://doi.org/10.30534/ijatcse/2020/16932020

Alturki, U. & Aldraiweesh, A. (2024). The impact of self-determination theory: the moderating functions of social media use in education and affective learning engagement. *Humanities and Social Sciences Communications, 11*, 693. https://doi.org/10.1057/s41599-024-03150-x

Alsunni, A. A., & Latif, R. (2021). Higher emotional investment in social media is related to anxiety and depression in university students. https://doi.org/10.1016/j.jtumed.2020.11.004

Audet, E., Moore, A., Fang, X., & Koestner, R. (2025). Autonomy support, emotion regulation, and subjective well-being during the omicron period of the COVID-19 crisis. *Personality and Individual Differences, 246*, 113369. https://doi.org/10.1016/j.paid.2025.113369

Attride-Stirling, J. (2001). Thematic networks: An analytic tool for qualitative research. *Qualitative Research*, 1(3), 385-405. https://doi.org/10.1177/146879410100100307

Brannick, T., & Coghlan, D. (2007). In defense of being "native": The case of insider academic research. *Organizational Research Methods, 10*, 59-74.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

Cauberghe, V., Vanwesenbeeck, I., De Jans, S. Hudders, L., & Ponnet, K. (2021). How adolescents use social media to cope with feelings of loneliness and anxiety during COVID-19 lockdown. *Cyberpsychology, Behavior and Social Networking, 24*(4). https://doi.org/10.1089/cyber.2020.0478

Chatterjee, S. (2020). Antecedents of phubbing: from technological and psychological perspectives. *Journal of Systems and Information Technology, 22*(2), 161-178. https://doi.org/10.1108/JSIT-05-2019-0089

Creswell, J. (2015). *30 essential skills for qualitative researchers*. London, England: SAGE.

Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin, 125*, 627-668.

Denzin, N., & Lincoln, Y. (2005). The SAGE handbook of qualitative research (3rd ed.). London, England: SAGE.

Dogan, H., Norman, H., Alrobai, A., Jiang, N., Nordin, N., & Adnan, A. (2019). A web-based intervention for social media addiction disorder management in higher education: quantitative survey study. *Journal of Medical Internet Research, 21*(10), 14834. https://doi.org/10.2196/14834

Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Research*, 5(1), 80-92. https://doi.org/10.1177/160940690600500107

Fergus, S., & Zimmerman, M. A. (2005). Adolescent resilience: a framework for understanding healthy development in the face of risk. *Annual Review of Public Health*, *26*, 399-419. https://doi.org/10.1146/annurev.publhealth.26.021304.144357

Frison, E. & Eggermont, S. (2015). The impact of daily stress on adolescents' depressed mood: the role of social support seeking through Facebook. *Computers in Human Behaviour, 44*, 315-325, https://doi.org/10.1016/j.chb.2014.11.070

Froiland, J. M., & Worrell, F. C. (2016). Intrinsic motivation, learning goals, engagement, and achievement in a diverse high school. *Psychology in the Schools, 53*(3), 321-336. https://doi.org/10.1002/pits.21901

Garn, A.C, Morin, A.J.S., & Lonsdale, C. (2019) Basic psychological need satisfaction toward learning: a longitudinal test of mediation using bifactor exploratory structural equation modeling. *Journal of Education Psychology, 111*(2), 354-372. https://doi.org/ 10.1037/edu0000283

Haddad, J. M., Macenski, C., Mosier-Mills, A., Hibara, A., Kester, K., Schneider, M., Conrad, R. C., & Liu, C. H. (2021). The impact of social media on college mental health during the COVID-19 pandemic: A multinational Review of the existing literature. *Current Psychiatry Reports*, *23*(11), 70. https://doi.org/10.1007/s11920-021-01288-y

Houston, J. B., First, J., Spialek, M. L., Sorenson, M. E., Mills-Sandoval, T., Lockett, M., First, N.L., Nitiema, P., Allen, S.F. & Pfefferbaum, B. (2017). Randomized controlled trial of the resilience and coping intervention with undergraduate university students. *Journal of American College Health*, *65*(1), 1-9. https://doi.org/10.1080/07448481.2016.1227826

Hunt, M. G., Marx, R., Lipson, C., & Young, J. (2018). No more FOMO: Limiting social media decreases loneliness and depression. *Journal of Social and Clinical Psychology, 37*(10), 751–768. https://doi.org/10.1521/jscp.2018.37.10.751

Hurley, L. N. (2018). The relationship between resilience, coping and social media [Master thesis, Eastern Illinois University]. United States. https://thekeep.eiu.edu/cgi/viewcontent.cgi?article=4680&context=theses

Karim, H. A. (2023). Health communication practice among rural communities in Sabah, Malaysia: Issue of literacy, accessibility and availability and communication approach. *Journal of Contemporary Issues in Media and Communication, 3*, 1-28.

Kaye, L. K., Orben, A., Ellis, D. A., Hunter, S. C., & Houghton, S. (2020). The conceptual and methodological mayhem of screen time. *International Journal of Environmental Research and Public Health*. https://doi.org/10.3390/ijerph17103661

Lazarus, R.S. & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, US: Springer.

Legate, N., Ryan, R. M., & Weinstein, N. (2011). Is coming out always a "Good Thing"? Exploring the Relations of Autonomy Support, Outness, and Wellness for Lesbian, Gay, and Bisexual Individuals. *Social Psychological and Personality Science*, *3*(2), 145-152. https://doi.org/10.1177/1948550611411929

Kolhar, M., Kazi, R.N.A. & Alameen, A. (2021). Effect of social media use on learning, social interactions, and sleep duration among university students. *Saudi Journal of Biological Sciences, 28*(4), 2216-2222. https://doi.org/10.1016/j.sjbs.2021.01.010

Majumdar, P., Biswas, A., & Sahu, S. (2020). COVID-19 pandemic and lockdown: cause of sleep disruption, depression, somatic pain, and increased screen exposure of office workers and students of India. *Chronobiology International*, *37*(8), 1191-1200. https://doi.org/10.1080/07420528.2020.1786107

Malekoff, A. (2014). *Group work with adolescents: Principles and practice* (3rd ed.). The Guilford Press.

Meier, A., & Reinecke, L. (2020). Computer-mediated communication, social media, and mental health: A conceptual and empirical meta-review. *Communication Research, 48*(8), 1182-1209. https://doi.org/10.1177/0093650220958224

Michie, S., van Stralen, M.M. & West, R. (2011). The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation Science, 6,* 42. https://doi.org/10.1186/1748-5908-6-42

Mir, E., Novas, C., & Seymour, M. (2022). Social media and adolescents' and young adults' mental health. National Center for Health Researchhttps://www.center4research.org/social-media-affects-mental-health/

Morgan, D. L. (1997). Planning and research design for focus groups. In *Planning and research design for focus groups* (Second Edition, pp. 31-45). SAGE Publications, Inc., https://doi.org/10.4135/9781412984287.n4

Nabi, R.L. Prestin, A. & So, J. (2013). Facebook friends with (health) benefits? Exploring social network site use and perceptions of social support, stress, and well-being. *Cyberpsychology, Behaviour and Social Networking, 16*(10). https://doi.org/10.1089/cyber.2012.0521

Ngu, I.Y. & Balraj, S. (2015). Creative pedagogies and video making: A study on Malaysian adolescents' participation in environmental issues. *Kajian Malaysia*, *33*(1), 43-66

Northen, H., & Kurland, R. (2001). *Social work with groups* (3rd ed.). New York: Columbia University Press.

O'Day, E. B. & Heimberg, R.G. (2021). Social media use, social anxiety, and loneliness: A systematic review. *Computers in Human Behavior Reports, 3*, 100070. https://doi.org/10.1016/j.chbr.2021.100070

Ormrod, J. E. (2011). *Human learning* (6th ed.). Pearson.

Powell, R. A., Single, H.M. & Lloyd, K.R. (1996). Focus groups in mental health research: Enhancing the validity of user and provider questionnaires. *International Journal of Social Psychiatry 42*(3), 193-206.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78. https://doi.org/10.1037/0003-066X.55.1.68

Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology, 61,* Article 101860. https://doi.org/10.1016/j.cedpsych.2020.101860

Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. New York: Guilford Publishing

Ryan, R. M., Ryan, W. S., Di Domenico, S. I., & Deci, E. L. (2019). The nature and the conditions of human autonomy and flourishing: Self-determination theory and basic psychological needs. In R. M. Ryan (Ed.), *The Oxford handbook of human motivation* (2nd edition., pp. 89-110). New York: Oxford University Press.

Ryan, R.M., & Deci, E.L. (2023). Self-Determination Theory. In Maggino, F. (eds) *Encyclopedia of Quality of Life and Well-Being Research*. Springer, Cham. https://doi.org/10.1007/978-3-031-17299-1_263033.

Sarfraz, M., Khawaja, K.F. & Ivascu, L., (2022). Factors affecting business school students' performance

during the COVID-19 pandemic: A moderated and mediated model. The *International Journal of Management Education, 20*(2), https://doi.org/10.1016/j.ijme.2022.100630

Sinnappan, S., Veltri, G.A., Lunt, P. & Periyayya, T. (2023). Usage of social media to engage with Malaysian youths concerning road safety awareness. *Journal of Contemporary Issues in Media and Communication, 3*, 80-106.

Sheldon, K. M., & Titova, L. (2023). Social media use and well-being: testing an integrated self-determination theory model. *Media Psychology*, *26*(6), 637-659. https://doi.org/10.1080/15213269.2023.2185259

Sun, P.-C., Tsai, R. J., Finger, G., Chen, Y.-Y., & Yeh, D. (2008). What drives successful e-learning? An empirical investigation of the critical factors influencing learner satisfaction. *Computers & Education*, *50*(4), 1183-1202. https://doi.org/10.1016/j.compedu.2006.11.007

Sun, Y., Ni, L., Zhao, Y., Shen, X.L., & Wang, N. (2019). Understanding students' engagement in MOOCs: An integration of self-determination theory and theory of relationship quality. *British Journal of Educational Technology, 50*(6), 3156-3174. https://doi.org/10.1111/bjet.12724

Twenge, J. M. (2020). Increases in depression, self-harm, and suicide among U.S. adolescents after 2012 and links to technology use: Possible mechanisms. *Psychological Research and Clinical Practice*, 2(1), 1; 19-25. https://doi.org/10.1176/appi.prcp.20190015

de Wit, J., van der Kraan, A. & Theeuwes, J. (2020). Live streams on Twitch help viewers cope with difficult periods in life. *Frontiers in Psychology, 11*, https://doi.org/10.3389/fpsyg.2020.586975

Wolfers, L.N. (2021). Parental mobile media use for coping with stress: A focus groups study. *Human Behaviour and Emerging Technologies,3(2),* 227-346. https://doi.org/10.1002%2Fhbe2.252

Wong, R. (2019). Basis psychological needs of students in blended learning. *Interactive Learning Environments*, *30*(6), 984-998. https://doi.org/10.1080/10494820.2019.1703010

Wong, R. (2020). When no one can go to school: Does online learning meet students' basic learning needs? *Interactive Learning Environments*, *31*(1), 434-450. https://doi.org/10.1080/10494820.2020.1789672

Veer, E., Ozanne, L. K., and Hall, C. M. (2016). Sharing cathartic stories online: The internet as a means of expression following a crisis event. *Journal of Consumer Behaviour, 15(4)*, 289-384. https://doi.org/10.1002/cb.1569

Vaismoradi, M., Turunen, H. & Bondas, T. (2013). Qualitative descriptive study. *Nursing and Health Sciences, 15*(3), 398-405. https://doi.org/10.1111/nhs.12048

Valkenburg, P. M. (2021). Social media use and well-being: What we know and what we need to know. *Current Opinion in Psychology, 45*, 101294. https://doi.org/10.1016/j.copsyc.2021.12.006

Vogel, E. A., Rose, J. P., Roberts, L. R., & Eckles, K. (2014). Social comparison, social media, and self-esteem. *Psychology of Popular Media Culture, 3*(4), 206-222. https://doi.org/10.1037/ppm0000047

Wolfers, L. N., & Sonja Utz, S. (2022). Social media use, stress, and coping. *Current Opinion in Psychology, 45*, 101305. https://doi.org/10.1016/j.copsyc.2022.101305.

Zhang X., Shi, X., Xu, S., Qiu, J., Turel, O., He, Q. (2020). The effect of solution-focused group counselling intervention on college students' internet addiction: a pilot study. *International Journal of Environmental Research and Public Health, 17*(7), 2519. https://doi.org/10.3390/ijerph17072519

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