

RGC Ref. No.: UGC/FDS15/H13/20 <p>(please insert ref. above)</p>

**RESEARCH GRANTS COUNCIL
COMPETITIVE RESEARCH FUNDING SCHEMES FOR
THE LOCAL SELF-FINANCING DEGREE SECTOR**

FACULTY DEVELOPMENT SCHEME (FDS)

Completion Report
(for completed projects only)

Submission Deadlines:

1. Auditor's report with unspent balance, if any: within **six** months of the approved project completion date.
2. Completion report: within **12** months of the approved project completion date.

Part A: The Project and Investigator(s)

1. Project Title

Stress-Buffering Effects of Coping Strategies and Social Supports on Psychological Distress:

A Longitudinal Panel Study of the Antecedents of Problematic Social Media Use

2. Investigator(s) and Academic Department(s) / Unit(s) Involved

Research Team	Name / Post	Unit / Department / Institution
Principal Investigator	Dr. ZHANG Xiao	Department of Journalism & Communication / Hong Kong Shue Yan University
Co-Investigator	Dr. LEUNG Ka Kuen, Dennis	Department of Journalism & Communication / Hong Kong Shue Yan University
Co-Investigator	Professor LEUNG Louis Wing-chi / Adjunct Professor	Department of Applied Data Science/ Hong Kong Shue Yan University

3. Project Duration

	Original	Revised	Date of RGC / Institution Approval (must be quoted)
Project Start Date	1 January 2021	N/A	N/A
Project Completion Date	31 December 2022	31 December 2023	29 May 2023
Duration (in month)	24	36	29 May 2023

Deadline for Submission of Completion Report	31 December 2023	31 December 2024	29 May 2023
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4.4 Please attach photo(s) of acknowledgement of RGC-funded facilities / equipment.

N/A

Part B: The Final Report

5. Project Objectives

5.1 Objectives as per original application

1.To identify the symptoms (i.e., early warning signs, including withdrawal, loss of control, salience, life dysfunction, conflict, compulsion/persistence, etc.) of problematic social media use (PSMU) so that heavy users can take precautionary measures to prevent the onset of psychological distress (PD).

2.To identify social media users who are the most vulnerable to becoming addicted based on the factors in the research model, especially the identified symptoms.

3.To explain the causal mechanisms of the effects of deficient self-regulation, Fear of Missing Out (FoMO), life stress, social media engagement, technostress, and the symptoms of problematic social media use on mental health.

4.To determine the relationships between the moderating role of coping strategies and social support between technostress and PD as well as between problematic social media use and PD.

5.2 Revised objectives

Date of approval from the RGC: N/A

Reasons for the change: N/A

1. N/A

2. N/A

3. N/A

5.3 Realisation of the objectives

(Maximum 1 page; please state how and to what extent the project objectives have been achieved; give reasons for under-achievements and outline attempts to overcome problems, if any)

Since the PI and Co-Is took over this project in June 2023 following the unfortunate passing of the former PI, the research team has undertaken significant steps to achieve the project objectives. These include conducting a comprehensive literature review,

analyzing two waves of survey data, drafting three journal articles (currently under review at two SSCI journals and one TSSCI journal), and disseminating findings at a prominent academic conference. The work of the former PI and the current research team has collectively enabled the full realization of Objectives 1 to 4 as detailed below:

To achieve *Objective 1*, the project incorporated a range of PSMU symptoms into the survey questionnaire, allowing for the identification of specific early warning signs of PSMU. Key symptoms, such as relapse, craving, mood modification, loss of control, salience, and negative consequences, were analyzed in relation to PD. These findings provide practical guidance for heavy users to monitor and manage early symptoms, thus preventing the onset of PD associated with excessive social media use.

To achieve *Objective 2*, the antecedents of PSMU were identified, and the most vulnerable groups of social media users were determined based on the analyzed data. These insights raise awareness of individual susceptibility to PSMU symptoms, enabling targeted interventions. Findings related to the above two objectives were shared in the first conference paper by the former PI.

To achieve *Objective 3*, the causal mechanisms linking deficient self-regulation, FoMO, life stress, social media engagement, technostress, and PSMU symptoms to PD were thoroughly analyzed using two waves of survey data. FoMO, life stress, and social media engagement emerged as significant predictors of PSMU. Additionally, technostress was identified as a crucial mediator between PSMU and PD. These findings, which illustrate the underlying drivers of PSMU and its impact on mental health, were detailed in two journal articles currently under review.

To achieve *Objective 4*, The moderating roles of coping strategies and social support in the relationships between (1) technostress and PD and (2) PSMU and PD were examined. The results offer valuable implications for mitigating the risks posed by PSMU and technostress through effective coping and social support mechanisms. These findings were presented in the second conference paper by the current PI, which was revised into the third journal article under review.

Despite the transition in leadership, the research team has effectively navigated challenges to deliver on all project objectives. The findings significantly enhance understanding of the antecedents of PSMU, its psychological impacts, and potential coping strategies, offering broad implications for public awareness, policy development, and mental health interventions. Beyond academic dissemination through two conference papers and three journal articles (currently under review), the research findings were also shared through a press conference, garnering significant attention with 13 news reports by media outlets.

5.4 Summary of objectives addressed to date

Objectives (as per 5.1/5.2 above)	Addressed (please tick)	Percentage Achieved (please estimate)
1.To identify the symptoms (i.e., early warning signs, including withdrawal, loss of control, salience, life	✓	100%

dysfunction, conflict, compulsion/persistence, etc.) of problematic social media use (PSMU) so that heavy users can take precautionary measures to prevent the onset of psychological distress (PD).		
2.To identify social media users who are the most vulnerable to becoming addicted based on the factors in the research model, especially the identified symptoms.	✓	100%
3.To explain the causal mechanisms of the effects of deficient self-regulation, Fear of Missing Out (FoMO), life stress, social media engagement, technostress, and the symptoms of problematic social media use on mental health.	✓	100%
4.To determine the relationships between the moderating role of coping strategies and social support between technostress and PD as well as between problematic social media use and PD.	✓	100%

6. Research Outcome

6.1 Major findings and research outcome

(Maximum 1 page; please make reference to Part C where necessary)

The research project has made significant contributions to understanding the antecedents, mechanisms, and consequences of PSMU, offering both theoretical insights and practical implications. Through a two-wave longitudinal survey of 447 respondents in Hong Kong, the findings advance theoretical understanding and provide practical strategies for mitigating the psychological risks associated with PSMU.

Key symptoms of PSMU were identified, including relapse, craving, mood modification, loss of control, salience, and negative consequences. These symptoms were explored in *Conference Paper I*, which highlighted mood modification as the most critical symptom in predicting PD. The research also identified demographic groups most vulnerable to PSMU: female users, younger users, and low-income users reported higher scores on various PSMU symptoms. Additionally, individuals experiencing higher levels of future uncertainty stress and social relationship stress exhibited higher PSMU symptom scores.

A major finding was the role of FoMO and social media engagement as key antecedents of PSMU. As reported in *Journal Article II*, FoMO emerged as a critical driver, initiating PSMU by motivating engagement with specific social media affordances such as broadcasting and connection-related activities. FoMO at Time 1 was positively associated with PSMU at both Time 1 and Time 2, demonstrating its influence both concurrently and longitudinally. FoMO also significantly predicted social media engagement behaviors, including broadcasting, lurking, and connection activities, across both time points. The study revealed that different social media engagement influence PSMU development differently. For example, connection-related engagement (e.g., liking and commenting on friends' posts) were consistently related to PSMU, even after accounting for prior use, while lurking lost its predictive power when prior PSMU was controlled for. Broadcasting related engagement showed a delayed impact on PSMU. These findings offer critical theoretical implications for Uses and Gratifications (U&G) research and practical recommendations for social media users, clinicians, and social media designers.

The research also explored the causal pathways of PSMU and its mental health impacts, uncovering significant relationships between stressful life events, PSMU, technostress, and PD. As revealed in *Journal Article I*, lagged panel regression demonstrated that future uncertainty stress at Time 1 was positively related to PSMU, the emotional exhaustion aspect of technostress, and PD at Time 2. PSMU at Time 1 also predicted emotional exhaustion and PD at Time 2, and emotional exhaustion at Time 1 also emerged as a positive predictor of PD at Time 2. Mediation analysis further revealed that future uncertainty stress at Time 1 indirectly influenced PD at Time 2 through PSMU (Time 1) and emotional exhaustion (Time 1). These findings enrich the stress-strain-outcome (SSO) literature and emphasize the importance of raising public awareness about PSMU during challenging times.

Furthermore, the study examined the moderating effects of coping strategies and social support on the relationships between PSMU, technostress, and PD. As reported in *Journal Article III*, social support negatively moderated the relationship between the emotional exhaustion aspect of technostress and PD, while behavioral disengagement strategies and self-blame strategies served as positive moderators. These findings highlight the critical role of social support in mitigating the adverse effects of technostress and underscore the need to avoid inappropriate coping strategies in a digitally connected society.

6.2 Potential for further development of the research and the proposed course of action (Maximum half a page)

While our study benefitted from the longitudinal panel method, we primarily relied on self-reported measures to assess PSMU. Although these measures are widely used and validated, we plan to incorporate objective behavioral data in our future research to better capture individual's PSMU. Additionally, we aim to explore personalized interventions to reduce FoMO-driven social media engagement, particularly in broadcasting and connection activities. These efforts will build upon the current research, advancing both theoretical understanding and practical solutions of PSMU.

7. Layman's Summary

(Describe in layman's language the nature, significance and value of the research project, in no more than 200 words)

Problematic social media use is characterized by cognitive preoccupation and impulsive behaviors related to social media use. This research project examines the roles of both external factors, such as life stress and technostress (i.e., mental fatigue resulting from social media use), and individual antecedents, such as the fear of missing out (i.e., the desire to continually stay connected with what others are doing) in providing a comprehensive understanding of why and how problematic social media use develops and contributes to psychological distress. Furthermore, we found that receiving social support and avoiding inappropriate coping strategies can help mitigate the harmful impacts of technostress and problematic social media use. These findings provide valuable insights for individuals, mental health professionals, educators and policymakers, offering tools and programmes to identify problematic social media use, promote healthier social media habits, provide sufficient social support and improve psychological well-being.

Part C: Research Output**8. Peer-Reviewed Journal Publication(s) Arising Directly From This Research Project**

(Please attach a copy of the publication and/or the letter of acceptance if not yet submitted in the previous progress report(s). All listed publications must acknowledge RGC's funding support by quoting the specific grant reference.)

The Latest Status of Publications				Author(s) (denote the corresponding author with an asterisk*)	Title and Journal / Book (with the volume, pages and other necessary publishing details specified)	Submitted to RGC (indicate the year ending of the relevant progress report)	Attached to this Report (Yes or No)	Acknowledged the Support of RGC (Yes or No)	Accessible from the Institutional Repository (Yes or No)
Year of Publication	Year of Acceptance (For paper accepted but not yet published)	Under Review	Under Preparation (optional)						
N/A	N/A	✓	N/A	LIANG Jingwen (the former PI), ZHANG Xiao*, LEUNG, Ka Kuen, Dennis, LEUNG, Wing Chi, Louis	Under the shadow of uncertainty: A longitudinal study tracing the pathway from future uncertainty to psychological distress through social media addiction and emotional exhaustion/ under review at <i>Social Media + Society</i> , SSCI journal (under review since 4 Dec, 2023)	No	Yes (Appendix I)	Yes	Under review
N/A	N/A	✓	N/A	Chen Cheng*, ZHANG Xiao, LEUNG, Ka Kuen, Dennis	Unpacking the Effects of Fear of Missing Out on Problematic Social Media Use: Examining the Mediating Role of Users' Engagement with Social Media Affordance/ under review at <i>Journal of</i>	No	Yes (Appendix II)	Yes	Under review

					<i>Broadcasting and Electronic Media, SSCI journal</i>				
N/A	N/A	✓	N/A	LIANG Jingwen, ZHANG Xiao*, LEUNG, Ka Kuen, Dennis, LEUNG, Wing Chi, Louis, CHEUNG, Marsena	<p>Surfing or suffering? The role of emotional exhaustion, social support, and coping strategies in the relationship between social media use for mood modification and psychological distress (In Chinese)</p> <p>Under review at <i>Communication and Society</i>, TSSCI Journal, ICA affiliate journal</p>	No	Yes (Appendix Appendix IVIII)	Yes	Under review

Under the shadow of uncertainty: A longitudinal study tracing the pathway from future uncertainty to psychological distress through social media addiction and emotional exhaustion

Abstract

Using two-wave panel survey data collected 12 months apart from a random sample of 447 Hong Kong respondents, this research builds upon the stress-strain-outcome model to examine the relationships among stressful life events, social media addiction, emotional exhaustion, and psychological distress. The panel lagged and autoregressive analysis demonstrated the impact of future uncertainty stress on social media addiction and psychological distress. In this process, social media addiction and emotional exhaustion were significant mediators between future uncertainty stress and psychological distress. These findings could enrich the extant literature about the antecedents, mechanisms, and consequences of problematic social media use.

Keywords: Social media addiction; Psychological distress; Future uncertainty stress; Emotional exhaustion; Longitudinal survey

Broadcasting, Lurking, and Connection: A Longitudinal Panel Study of Fear of Missing Out, Engagement with Social Media Affordances, and Problematic Social Media Use

Abstract

Fear of missing out (FoMO) has consistently been linked to problematic social media use in cross-sectional survey studies. However, the question remains: does FoMO cause problematic social media use over time? Given that FoMO often drive individuals to engage more with social media, how will different types of engagement—broadcasting, lurking, or connection—better explain the relationship between FoMO and problematic social media use? To answer these questions, this study used longitudinal panel survey data collected from 447 participants from Hong Kong at two points in time, 13 months apart. Results revealed that FoMO at Time 1 significantly

predicted problematic social media use at both Time 1 and Time 2. However, when accounting for problematic social media use at Time 1, the previously significant positive relationship became non-significant, suggesting that FoMO can initiate problematic social media use but not escalate the problematic behavior. In addition, engaging with broadcasting- and connection-related features at Time 1 positively mediated the relationship between FoMO at Time 1 and problematic social media use at Time 2, even after controlling for prior level of problematic social media use. By contrast, lurking behaviors at Time 1 positively mediated the relationship between FoMO at Time 1 and problematic social media use at Time 2, but the positive relationship became non-significant after accounting for prior problematic use. Findings are discussed regarding the theoretical implication for U&G research and the practical implication for preventing problematic social media use.

Keywords: Fear of missing out, Problematic social media use, Social media engagement, Longitudinal panel study.

Surfing or suffering? The role of emotional exhaustion, social support, and coping strategies in the relationship between social media use for mood modification and psychological distress

(In Chinese: 樂在其中還是深受其害? 情緒耗竭、社會支持及應對策略在基於心情改善的社交媒體使用與心理困擾關係中的作用)

Abstract

Social media has become a mood booster for many individuals living in a modern society, as they use social media with the purpose of improving their emotional state and promoting self-healing. However, previous research has indicated that excessive reliance on social media for mood modification is considered problematic. Based on the uses and gratifications theory and mood management theory, this study aims to explore the emotional and mental health impacts of social media use for mood modification, as well as the moderating role of external social support and internal coping strategies. Using a random sampling telephone survey conducted through the CATI system, 447 Hong Kong citizens completed the survey. The results revealed that social media use for mood modification was positively correlated with emotional exhaustion and psychological distress. Furthermore, a higher level of emotional exhaustion due to social media use was accompanied by a higher degree of psychological distress. Additionally, social support and various types of coping strategies exhibited different moderating effects in this process. This study enriches the research on social media use and psychological impacts from a motivational perspective, and the findings could raise public awareness of the potential mental health risks associated with social media use for mood modification. The results also provide practical implications for social workers and mental health professionals.

Keywords: social media use for mood modification, emotional exhaustion, psychological distress, social support, coping strategies

9. Recognized International Conference(s) In Which Paper(s) Related To This Research Project Was / Were Delivered

(Please attach a copy of each conference abstract)

Month / Year / Place	Title	Conference Name	Submitted to RGC <i>(indicate the year ending of the relevant progress report)</i>	Attached to this Report <i>(Yes or No)</i>	Acknowledged the Support of RGC <i>(Yes or No)</i>	Accessible from the Institutional Repository <i>(Yes or No)</i>
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July/2022 /Hong Kong	Investigate the Effects of Problematic Social Media Use and Technostress on Psychological Well-being by Taking Social Support as a Crucial Moderator	20th International and Interdisciplinary Conference on Communication, Medicine and Ethics	Yes (2023)	Yes (Appendix V)	Yes	Yes
July/2024 /Taipei	Surfing or suffering? The role of emotional exhaustion, social support, and coping strategies in the relationship between social media use for mood modification and psychological distress (In Chinese: 樂在其中還是深受其害? 情緒耗竭、社會支持及應對策略在基於心情改善的社交媒體使用與心理困擾關係中的作用)	2024 National Chengchi University College of Communication Academic Conference	No	Yes (Appendix VI)	Yes	Yes

10. Whether Research Experience And New Knowledge Has Been Transferred / Has Contributed To Teaching And Learning
(Please elaborate)

The findings of this research project have been effectively integrated into teaching to enhance students' learning experiences. Specifically, the results were shared in the GEB102 Media and Society taught by the current PI in Fall 2023 and Fall 2024. These findings helped students to understanding the complex relationships between PSMU, technostress, stressful life events, FoMO and psychological well-being, along with the moderating roles of coping strategies and social support. By engaging with these empirical findings, students were encouraged to analyze the impacts of PSMU and to critically reflect on their own social media behaviors. Discussions facilitated a deeper understanding of how to balance social media usage and adopt healthier coping mechanisms and maintain offline social support system to better manage their mental health.

Conceptualization, questionnaire design, hypotheses formulation, and data analyses of this FDS project were presented in JOUR 311 Communication Research Methods taught by the former PI in Fall 2021 to demonstrate the process and methodology applied in quantitative research.

11. Student(s) Trained*(Please attach a copy of the title page of the thesis)*

Name	Degree Registered for	Date of Registration	Date of Thesis Submission / Graduation
	BA (Hons) in Journalism & Mass Communication	September 2021	August 2025
	BA (Hons) in Journalism & Mass Communication	September 2020	August 2024
	BA (Hons) in Journalism & Mass Communication	September 2020	August 2024
	BA (Hons) in Journalism & Mass Communication	September 2020	August 2024
	BA (Hons) in Journalism & Mass Communication	September 2021	August 2025
	BA (Hons) in Journalism & Mass Communication	September 2020	August 2024
	BA (Hons) in Journalism & Mass Communication	September 2019	August 2023
	BA (Hons) in Journalism & Mass Communication	September 2021	August 2025
	BA (Hons) in Journalism & Mass Communication	September 2020	August 2024
	BA (Hons) in Journalism & Mass Communication	September 2021	August 2025
	BA (Hons) in Journalism & Mass	September 2021	August 2025

	Communication		
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12. Other Impact

(e.g. award of patents or prizes, collaboration with other research institutions, technology transfer, teaching enhancement, etc.)

Our commitment to disseminating knowledge and transferring new insights from our social media addiction research has been comprehensive and impactful, engaging various stakeholders.

a. Press Conference

On November 18, 2023, a press conference served as a pivotal platform for disseminating our research findings. The conference was led by the PI, Dr. Zhang Xiao, Grace and the Co-I, Dr. Leung Ka Kuen, Dennis from the Department of Journalism and Communication at Hong Kong Shue Yan University. This event attracted a diverse audience and provided an opportunity to showcase research findings of this FDS project. At the start of the conference and within the presentation materials and informational pamphlets, we acknowledged the support of the Research Grants Council (RGC).

To maximize visibility and reach, we designed a visually compelling poster (Image 1) and strategically disseminated it on social media platforms such as Facebook and Instagram. Additionally, these posters were prominently displayed in university academic buildings, ensuring awareness among students and faculty members. We also collaborated with our social work partners, [redacted], a social worker and the director of the Online New Page-Online Addiction Counselling Centre ("網開新一面" - 網絡沉溺輔導中心), part of the NGO Hong Kong Christian Service. Through this partnership, the posters were showcased at the NGO's community centers to reach a broader local audience.

During the press conference, the PI and Co-I presented the research findings through a formal presentation and informational pamphlets (Image 2). These pamphlets were carefully designed to ensure accessibility, offering a concise and understandable summary of the research findings for the general public. Attendees—including social workers, students, parents, scholars, and media professionals—received hard copies of the pamphlets. With the assistance of Mr. Tang, the pamphlets were also distributed to visitors at the NGO, further extending the reach of our research.

b. Media Coverage

The press conference attracted extensive media coverage, showcasing our findings to a wider audience. The following news organizations reported on our research (please see the screenshot of the 13 media reports in the Appendix IV):

INTUITION		
WEN WEI PO	仁大調查指社交媒體成癮 年輕、高學歷者風險更高	18/11/2023
HONG KONG TA KUNG WEN WEI	仁大調查：社交媒體成癮 年輕高學歷者風險更高	18/11/2023
ORIENTAL ENTERPRISE HOLDINGS LIMITED	研究發現愈年輕和學歷愈高 社交媒體成癮風險愈高	19/11/2023
MING PAO	樹仁團隊追蹤調查 447 港人 年輕高學歷更易社媒成癮	20/11/2023
TA KUNG PAO	井水集/正視社媒成癮症聞風	20/11/2023
ORIENTAL ENTERPRISE HOLDINGS LIMITED	調查：年紀細學歷高組群 易社交媒體成癮	20/11/2023
SING TAO DAILY	調查：擁大專學歷社媒成癮風險較高	20/11/2023
EDIGEST	大專學歷者 社媒成癮風險較高	20/11/2023
HONG KONG CHINA NEWS AGENCY	香港調查指年輕高學歷者更易沉迷社交媒體	20/11/2023
DOT DOT NEWS	社交媒體成癮？生活需要其他打開方式	20/11/2023
TVB NEWS	年輕高學歷者 更易社交媒體成癮	20/11/2023

c. Engagement with the Department of Health

Our research garnered widespread media coverage, which caught the attention of the Department of Health. Impressed by the extensive news reports, the Department of Health reached out to us, expressing their interest in obtaining more information related to our research. Recognizing the importance of this opportunity, we promptly supplied them with comprehensive data and insights. This fruitful exchange facilitated knowledge transfer but also established a connection with a key government department, reinforcing the significance of our research in addressing problematic social media use. Moving forward, we have committed to keeping the Department of Health updated with the latest research manuscript, ensuring the dissemination of our findings to benefit the wider community.

d. Collaborative Distribution: Strengthening Community Connections

As part of our commitment to social and community-based contributions, we forged a collaboration with _____, a social worker and the director of the Online New Page-Online Addiction Counselling Centre ("網開新一面" - 網絡沉溺輔導中心) in Hong Kong Christian Service. This center provides essential support to young people struggling with online addiction.

In addition to sharing his expertise at the press conference, _____ actively facilitated the distribution of informational pamphlets in both print and electronic formats. This collaboration enabled us to extend the reach of our research into the community, ensuring that our findings reached individuals who could benefit from the insights.

Moreover, the involvement of students and young teens in our initiatives enriched the impact of our work. By fostering a connection with the younger demographic, we aimed to address social media addiction at an early age and enhance the relevance of our research.

The collaborative distribution efforts with [redacted] and the active engagement of students and young teens signify our commitment to strengthening community connections in tackling social media addiction.

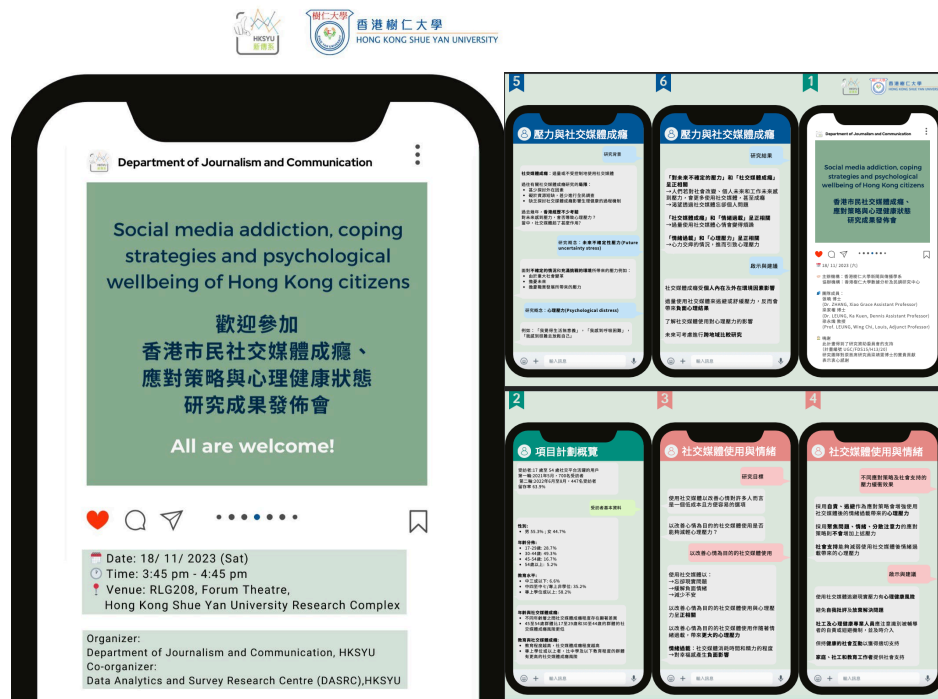


Image 1: Poster Design

Image 2: Pamphlet Design

Image 3: Press Conference

13. Statistics on Research Outputs

	Peer-reviewed Journal Publications	Conference Papers	Scholarly Books, Monographs and Chapters	Patents Awarded	Other Research Outputs (please specify)	
No. of outputs arising directly from this research project	3 journal articles under review	2	0	0	Type	No.
					Press Conference	1
					Media Coverage	13

14. Public Access Of Completion Report

(Please specify the information, if any, that cannot be provided for public access and give the reasons.)

Information that Cannot Be Provided for Public Access	Reasons
N/A	N/A