GECC4130 Senior Seminar Proposal Chung Chi College, The Chinese University of Hong Kong

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<u>Topic: Investigate the emotional management of university students in Hong Kong and the feasibility of incorporating AI tools into university emotion support services</u>

1. Introduction to the research topic

Centre for Suicide Research and Prevention (2023) survey results showed that the suicide rate among the population aged 15 to 24 has doubled from 2014 to 2023, with university students accounting for more than a quarter (27.3%) of the suicides. In the context of the increasing frequency of news about suicides among university students in Hong Kong in recent years, this project aims to explore the changes and trends in emotional management among Hong Kong university students, identifying the factors influencing emotional management among Hong Kong university students and examine the extent and effectiveness of emotional support services provided by local universities to their students.

Additionally, conventional emotional support services like counseling have their limitations. A recent survey showed that the main reason (30.0%) secondary school students do not seek outside emotional support is "fear of others knowing and being mocked" (HK Christian Service, 2023). Students may also be reluctant to share their troubles with a stranger and counseling services requiring appointments may be inconvenient to students seeking urgent emotional support.

AI chatbots may be the solution to this as they provide high privacy and have no manpower limitations. In the most recent Chat-GPT update, the software is shown to be able to hold highly realistic verbal conversations with humans (Open Ai, 2024). Furthermore, Students may be more accepting of AI as they are familiar with the technology. However, AI technology is still in its infancy, and its effectiveness in being a tool for emotional support is still unclear. Therefore, the project will also discuss potential assistance offered by AI in emotional management for Hong Kong university students. A step-by-step manual on how to utilize AI-Chat bots will be devised if possible.

2. Literature review

2.1. "Supports for university counselors impacted by student suicide: A systematic review and thematic synthesis" (Diab, 2024)

This research demonstrated that student counsellors often face challenges such as emotional exhaustion and burnout from the ever-increasing demand for emotional counselling and the need to cater for each student's specific needs. Furthermore, in the case of the suicide of a student client, the counsellors often suffer from grief, distress, and other long-lasting emotional impacts, which undoubtedly affect the counsellors themselves and their future clients.

It demonstrated that while emotional counselling for students can be an effective safety net for suicide prevention, the long-term sustainability can often be overlooked especially in the case of inadequate support staff. This points to the inadequacies of emotional counselling as the sole means of suicide prevention and emotional support for university students.

2.2. "Associations Between Emotion Regulation and Life Satisfaction Among University Students From Germany, Hong Kong, and Japan: The Mediating Role of Social Support" (Schunk et al., 2021)

This research suggests that Hong Kong university students are more likely to employ emotional suppression as a strategy of emotional regulation to enhance life satisfaction. The study highlighted that this strategy appears to be more effective in Hong Kong students compared to those in Western cultures while also reaffirming the benefits of social support systems in shaping the relationship between emotional regulation and life satisfaction. It highlighted the differences in emotional regulation strategies in students with different cultural backgrounds.

This suggests that cultural context should also be taken into account when providing support, especially for international students.

2.3. "Mental health promotion and suicide prevention in emerging adulthood: importance of psychoeducational interventions in University students" (Pérez-Marín et al., 2024)

This study identified the emergence of adulthood, which is characterized by a significant change in emotional, social, academic, and work domains, as a major cause of stress and anxiety in university students. It demonstrated the integration of psychoeducational intervention and suicide prevention programs into university curriculums fostered a positive impact by destignatising mental health issues and building resilience.

This suggested the integration of mental health-related programs into university curriculums is an important strategy to combat the crisis, in addition to counseling.

2.4. "Emotional Support from AI Chatbots: Should a Supportive Partner Self-Disclose or Not?" (Meng & Dai, 2021)

This study suggested that reciprocal self-disclosure of past experiences by those providing emotional support is an important part of the emotional support process. It highlighted that while both real conversational partners and AI chatbots can provide some level of emotional support, human partners can facilitate a higher level of stress reduction and perceived supportiveness.

Without deception, AIs cannot self-disclose past experiences reciprocally as humans can. This points to AI chatbots not being able to replace human counselors; however, their utility in providing minor support cannot be overlooked.

2.5. "AI can help people feel heard, but an AI label diminishes this impact" (Yin, Jia, & Wakslak, 2024)

This study revealed that AI-generated responses can allow the recipients to feel more "heard" than human-generated responses. This was attributed to the greater emphatic accuracy of AI over humans from text-based inputs, and the tendency of AIs to provide support while refraining from giving excessive practical suggestions whereas humans tend to do the

opposite by sharing thoughts and past experiences. The authors suggested that humans can do more by doing less. However, the study also showed that the label of AI-generated response lessened the effectiveness of such responses down to the effectiveness of human responses.

It demonstrated that AI chatbots are viable emotional support providers in text-based scenarios, even when the labeling effect is taken into consideration.

3. Research design

The objective of this research is to examine the emotional management of university students in Hong Kong and assess the effectiveness of the emotional support services offered by local universities. Both quantitative and qualitative research methods would be included in this project research.

The first method employed in this research would be a survey to collect the data on the current state of emotional management among university students in Hong Kong. The survey would include The Positive and Negative Affect Scale (PANAS) to measure the assessment of positive and negative affect; Perceived Pressure Scale (PPS) to measure the stress level of university students and any emotional support-seeking behaviors.

This survey can gather information on Hong Kong University students on emotional well-being, overall emotional management, factors affecting their emotional management, and the willingness to use the emotion support facilities provided by Hong Kong's University. The survey will be administered to a representative sample of university students, planning to collect data from around 400 university students, ensuring diversity in terms of academic disciplines, gender, and year of study. Through this method, comprehensive understanding of emotional experiences and challenges faced by University students in Hong Kong, and establish further basic data and information for interviews.

The second method employed in this research is data research and data analysis. This method involves collecting existing data from various sources and conducting in-depth analysis to gain insights into the emotional management of university students in Hong Kong. Data research can provide a comprehensive understanding of the current state of knowledge in Hong Kong and offer a deeper view of recent changes in emotional management, such as reviewing the report on numbers of depressed university students. The numbers with analysis can provide valuable conclusions on changes in emotional management of Hong Kong University students. Reviewing data and scholarly literature can provide more theories that support the phenomena observed in the survey results, which increases the reliability of the research.

Once the relevant data is collected, data analysis will be processed. Data collected from the survey would use statistical analysis techniques such as descriptive statistics, correlations, and regression analysis to identify trends, patterns, and relationships related to emotional management among university students, this can help to seek up potential factors which affect the emotional management of Hong Kong university students such as family factor, social factor, and stress. Findings from previous qualitative studies or textual data from reports will be analyzed thematically to extract key themes, perspectives, and insights.

Interviews would also be included in this research. Subsets of survey participants who have suffered from emotional distress or have used the university emotional support service would be invited to have a further deep interview. The interview can provide a more nuanced exploration of participants' experiences, perceptions, and suggestions for improving

emotional support services in Hong Kong universities. Interviews of the counselors providing emotional support services to students would also be included in this research project for more insight, which would give us unique perspectives from their observations and experiences.

An overall analysis will take place after all interviews and survey analysis are done, based on the results of the survey, the project can have a deeper understanding of the factors affecting the emotional management of Hong Kong University students, the changes and overall development of emotional management of Hong Kong University students, and the factors affecting willingness on using the emotional support services provided by universities.

4. Research planning

Date	Task	Person-in-Charge
01/06 - 20/06	1. Survey Drafting Similar surveys on emotional problems and questionnaires by government medical institutions will be studied to generate a survey for this project. If the draft is completed ahead of schedule, the survey will be administered immediately.	All Group members
12/06 - 31/08	2. Survey data collection The survey will be sent to all friends studying at university with a goal of 400 surveys completed. Sufficient responses are needed as a significant amount of data is required to be collected for accurate statistical analysis. If the number of surveys completed reaches 600, data collection will end. 3. Conduct Interviews When students fulfilling the interviewee criteria are identified, they will be contacted to do an in-person individual interview. The goal is to interview 6 students. In addition, we will also interview 2 counsellors to gain more perspective.	All Group Members
01/09 - 01/11	4. Data Analysis and Report Drafting Collected data will undergo quantitative analysis to find correlations among data to identify factors causing emotional distraught. Qualitative analysis will be done with interview data. A report will be drafted and presentation materials will be prepared.	Quantitative Analysis: Chan Cheuk Ka, Zhang Ziang Qualitative Analysis: Long Hio Lam, Tam Ho Yee

5. Cross-disciplinary Collaboration

It is evident that communication style can make a huge difference when it comes to seeking emotional support. The idea is to use AI chatbots as an alternative to human counsellors for emotionally distressed students in times of need. We hope to collaborate using our interdisciplinary knowledge to help promote the use of AI chatbots and similar tools as a means of support to university students.

Graphical guides can be developed to assist university students in using AI tools such as ChatGPT on seeking emotional support. The guide aims to offer students a user-friendly resource, highlighting the advantages of using AI tools to provide emotional support.

The proposed graphical guide will include: an introduction to AI chatbots as a means of emotional support including their advantages and drawbacks, a list of emotional distress symptoms to identify their own emotional needs, and a step-by-step guide on how to start conversations of related nature with chatbots to best utilise them to provide recommendations of genuine support while avoiding pitfalls such as unreliable information.

In addition to the graphic guide, we will also create a list of available websites to look for AI chat tools as well as a map to identify locations on campus where students can seek emotional support. The guide will be posted on notice boards around the campus so that students in need can easily access the information.

6. Conclusion

The research aims to investigate the emotional support services provided by universities in Hong Kong. Surveys and interviews with students and counsellors will be conducted to assess the effectiveness and gain insights of problems of the various services provided. The utility of AI chatbots as a complementary means of emotional support in addition to traditional counselling will also be investigated. We will also design a graphical guide for students to teach them how to best utilise this technology.

7. References

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