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I, Longwei Li, hereby submit this original work as part of the requirements for the degree of Master of Design in Design.

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A Study on International Cultural Sensitivity: How to Eliminate Barriers of Chinese International Students at DAAP to Access Better Mental Healthcare

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[A study on international cultural sensitivity: How to eliminate barriers of Chinese international students at DAAP to access better mental healthcare]

A thesis submitted to the Graduate School

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ABSTRACT

Chinese international students face high rates of professional mental health (MH) concerns, but they demonstrate less help-seeking behaviors, such as seeking professional counseling. The underutilization of MH resources presents a challenge to colleges and universities.

This study is aimed at assessing the perceptions and the barriers of international Chinese graduate students that prevent them from accessing professional MH services at UC. The goal of this study is to create a toolkit that addresses cultural sensitivity to help these students easily conduct self-directed MH care at an early stage.

This study uses qualitative research methods to allow participants to extensively express their experiences and perceptions of professional MH services. About 10 in-depth interviews were conducted with graduate Chinese international students at UC, that included but not limited to the College of Design, Architecture, Art, and Planning (DAAP) students.

Three significant barriers preventing Chinese graduate students from accessing MH services are lack of mental health resources, concerns of privacy protection, and language interpretation. Additionally, limited knowledge of self-directed care, lack regular treatment time due to busy academic schedules and a shortage of culturally appropriate services pose further difficulties.

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GLOSSARY, LIST OF SYMBOLS AND ABBREVIATIONS

UC   the letter University of Cincinnati

DAAP   the letter College of Design, Architecture, Art, and Planning,

CAPS   the letter Counseling and Psychological Services

CISs   the letter Chinese international students

AUCCCD   the letter University and College Counseling Center Directors

MH   the letter Mental health

CHAPTER 1.   <u>INTRODUCTION</u>

The underutilization of MH resources by Chinese international students (CISs) presents colleges and universities with a challenge. As the amount of CISs continues to grow, institutions of higher education may find themselves with an increasing percentage of their students not utilizing mental health (MH) resources. There may be a multitude of factors that contribute to graduate CISs' have less positive attitudes toward counseling. The need to understand these factors is crucial for university and college counseling centers as CISs continue to become a more significant presence on campus.

Regarding to the Institute of International Education (2015), there were 974,926 international students studying in the United States during the 2014-2015 academic year. The Association for University and College Counseling Center Directors (AUCCCD) reported that international students comprised 6.67% of the students seeking MH services at all participating institutions' counseling centers (Reetz, Krylowicz, & Mistler,

2014). MH professionals in college counseling centers see international students as an underserved population.

Asians (including CISs) experience unique problems including cultural barriers, academic performance, homesickness, and stress from acculturation in the USA. Chinese international students who fail to manage their issues are at higher risk for psychological distress, like anxiety, depression, social anxiety. Further, Chinese international students possess more negative attitudes toward seeking professional help than their American counterparts.

Cultural barriers such as language interpretation have contributed significantly to the low help-seeking rates among Chinese students. Practical barriers include limited knowledge of symptoms, concerns about therapy costs, lack of regular treatment time due to busy academic schedules, and lack of culturally appropriate services. As for limited knowledge of symptoms, Chinese cultures, like several other Asian cultures, do not acknowledge mental illnesses. They are usually

considered as physical symptoms. With limited knowledge, they are more likely to receive care from primary care physicians.

Some in-depth interviews will be conducted. The in-depth interviews data will be collected from Chinese international students at UC, including but not limited to DAAP. The first phase of the study will focus on Chinese students at DAAP but will later on be expanded to other colleges at UC. The findings from the interviews should be used for designing toolkit for multiple stakeholders. Additionally, to build a MH application that would improve help-seeking behaviors, eliminate barriers of Chinese students who have mental health concerns.

This study used in-depth interviews to identify:

1. Current mental health conditions among graduate Chinese international students at DAAP.

2. Knowledge about mental health symptoms (i.e. Depression/anxiety) among this group of students.

3. Important causes of depression/anxiety.

4. Perceptions and impressions of professional metal health service provided at Chinese universities.

5. Rates of mental health professional service use in the last 12 months at UC.

6. Perceptions and attitudes towards help seeking behaviors among this group of students.

7. Help-seeking preferences for managing psychological distress.

8. Perceived barriers.

This study is aimed at assessing the perceptions of graduate CISs and explored their barriers to accessing professional MH service. The goal of this study is to eliminate the obstacles that prevent them from obtaining efficiently and cultural appropriately professional MH support at the UC.

CHAPTER 2.   <u>LITERATURE REVIEW</u>

Current research has shown that CIS, as the most extensive and fastest-growing international student population in the United States. In 2016, over half a million Chinese students were studying abroad, with more than 300,000 of them based in the United States.

A survey conducted by Yale researchers in 2013 found that 45 percent of international Chinese students on campus reported symptoms of depression, and 29 percent reported symptoms of anxiety. However, while these students suffer from high rates of MH issues, they demonstrate almost no help-seeking behaviors, such as seeking professional counseling. The underutilization of university MH resources by CIS appears to be a major contributor to the persistence of their deteriorated mental faculties. (Han, Han, Luo, Jacobs, & Jean-Baptiste, 2013)

This literature review begins with a brief overview of the existent literature on CIS' help-seeking practice for their MH issues. This section

includes a summary of mental health concerns that are specific to college students and will address barriers to help-seeking. Three major areas regarding this phenomenon have been discussed: transcultural adjustment, academic performance, and help-seeking behaviors and preferences. Additionally, the factors associated with preventing international college students from seeking MH care will also be reviewed.

2.1 Transcultural Adjustment

Language barriers are a significant anxiety-inducing, acculturative stressors for international students that negatively impact academic performance (Chen, 1999).

"Chen states that international students may face academic struggles that are inconsistent with their previous academic performance. They may also face familial pressure to achieve academic excellence."

International students are facing social and cultural stressors, such as leaving friends behind, forming new friendships, adapting to new cultural practices, feeling loneliness and pressure to conform to the norms and values of the American culture. In the process of cultural adaptation, they hope to be loyal to their cultural customs which make international students feel burdened (Smith & Khawaja, 2011).

2.2   Academic Performance and help-seeking behavior

Some research also suggests that while CISs may underutilize MH resources, they have strong demands to seek help when concerned about their academic performance or future development.

While CIS manifest non-help-seeking behavior, the underutilization of MH resources is a common behavioral phenomenon across all Asian international students. Help-seeking behavior is most apparent obstacles in this group.

Researchers have examined the role of prior counseling in help-seeking behaviors and have reported mixed findings. Much of the literature suggests that prior utilization of counseling services is predictive

of future help-seeking behaviors across college students of various racial and ethnic backgrounds (Kahn & Williams, 2003). In summary, while academic distress appears to encourage help-seeking behavior in international Chinese students, the role of previous experiences in counseling is unclear.

Taken together, the above studies provide a window into cultural values that govern help-seeking behaviors for CISs. Although there are mixed findings within the literature about the predictive nature of previous counseling experiences in help-seeking behaviors for CIS, it appears that academic stress is a common predictor of seeking counseling services. International students seeking psychological services are more likely to be diagnosed with academic problems than American students, although there is no significant difference in academic performance between the two groups (Mitchell, Greenwood, & Guglielmi, 2007).

Overall, this series of literature supports the view that if ICS encounter major difficulties in their academic performance than any other concern, they may be more likely to seek MH resources.

Despite the numerous studies that have been conducted examining students' reasons for seeking or avoiding MH services, there is still a need for additional research to identify these factors. The following section will explore various factors that have been identified as influential on college students' decision to seek mental health services.

CHAPTER 3.   <u>METHODOLOGY</u>

This study used qualitative research methods to allow participants to fully express their experiences and perceptions of mental health services.

3.1   Participant Recruitment

3.1.1   Selection Criteria

To start from a more comprehensive perspective, two types of participants were considered: Chinese international student participants and counselor participants.

To be eligible as an in-depth interview participant, student individuals must:

1. Be Chinese international student at UC.

2. Have MH problems.

To be eligible as an in-depth interview participant, counselor individuals must have provided counseling services to CIS.

3.1.2 Recruitment methods and procedures

Researcher searched and collected the potential candidates' information via The University of Cincinnati listserv of. Then, Researcher emailed recruitment messages to the candidates who met the recruitment criteria inquiring about their availabilities. In the emails, individuals were informed about the project purpose and the face-face nature of the interview. Further, the researcher asked interview participants to refer other potential candidates for the study.

3.2 Interview Questions & Process

3.2.1 Interview Questions

Each participant completed a face-to-face, in-depth interview. The interview consisted of few demographic questions, fifteen open-ended questions, and six domains. The interviewer also utilized unplanned follow-up questions to help clarify participants' responses.

Category 1: Demographic questions

It was designed to find out the basic characteristics of this specific group of students. In particular, to understand Chinese international students background and mental health history which included some basic information, for instance: time for staying in the United States, family structure, weekly hours spend on academic assignment, relationship with their advisors, religious affiliation, etc.

Category 2: Questions about the perception of study aboard

The purpose of this study is to understand the perception of being an international student and find the difficulties of adjusting to fit American culture.

Category 3: Questions about anxiety/depression experiences

The goal of this study is to design a toolkit in the form of a mobile application to provide healthcare treatment to Chinese students facing depression, anxiety issues. This category helps to understand characteristics and causes of their anxiety/depression experiences.

Category 4: Questions about help-seeking behaviours

This category of questions is designed for understanding the characteristics of Chinese international students' help-seeking behaviours. They are aimed to find answers of the following:

1. The person they talked to if they are anxious or depressed.

2. The types of problems that trigger them to find professional MH healthcare.

3. Whether gender impacts their perception and attitudes towards seeking professional help.

Category 5: Questions about perceptions of professional mental health services

This category of questions is designed for understanding what the students sought in MH service and their perception of counselling service in the United States as compared to Chinese counselling services.

Category 6: Open questions

3.2.2 Interview Process

In general, the duration of interviews ranged from 20 to 30 minutes. Firstly, the participants were asked if they were comfortable with the interview being audio recorded. They were informed the research data will be stored in a folder that is only reviewable by the author and thesis committees during the study period. Once the study is done and the manuscript is published, the folder will no longer be shared with others and the research data can only be accessed by the author. After getting the permission, the interviewer set up the facilities and started to record the audio. Further, the interviewer started to ask previously prepared questions, at the same time, the interviewer took notes to collect respondent's answers. The interviewer not only asked the in-depth questions but also came up with more detailed questions to encourage respondents to elaborate their answers. Furthermore, according to the notes, the interviewer could have the chance to ask more unstructured follow-up questions. At the end, the interviewer normally express appreciation to interview participants.

3.3 Qualitative Data Analysis

This study mainly used thematic analysis method for generating patterns of the interview data. Thematic analysis is a process of identifying characteristics or themes within qualitative data.

3.3.1 Demographics Summary

To list out the crucial basic information and summarize the patterns of the participants, the study began with several basic demographic questions. These questions sought information regarding their age, gender, college major, and hometown, etc. Demographics make certain generalizations to identify this concrete group of students. Additionally, it also included gathering data on their family structure, main financial sources, mental health symptoms, factors of lifetime management, help-seeking history and more. (Table 1)

1. Participant ID

   Interviewees were classified by designation of the initial of interview participants (IP), followed by the number in a consecutive order.

2. Name

   Name of each Interviewee.

3. Interview Date

   Date when individual was interviewed.

4. Gender

   Gender of each interviewee.

5. Age

   Specific age of each interviewee.

6. College Major

   Individual's major can further help to identify whether it is
   associated closely with their mental health conditions.

7. Time have stayed in America

   Specific time have stayed in America of each interview participant.

8. Permanent Hometown

Permanent hometown information of each interviewee.

9. Family Structure

Family structure reflects an individual's childhood experience, which can show the common factors within the group of international students.

10. Religious Affiliation

The question elicited information on their particular religious affiliations.

11. Main Financial Source

This question was used to gain an initial understanding of whether interviewees' financial conditions contribute to their mental health problems.

12. Relationship with Advisor

Relationship with advisor reflect part of interview participant academic daily life on campus. Individual's major can further help to identify whether their major is associated closely with mental health conditions.

13. Academic hours/week

Academic hours per week can further help to measure the students' effort spend on studying. To verify whether it influence Chinese students' mental health problems.

14. Exercising hours/week

This question asked participants to measure how many hours average they spend on exercising each week. Which can further help to find out what are the reasons behind that support Chinese students keep exercising or not, as well as how it impacts on their mental health conditions.

15. Mental health conditions

It was designed to elicit the participants' initial ideal of their mental health conditions and their awareness approaches in general.

16. Help-seeking history

This question helps to identify whether they have help-seeking history or not. Additionally, some further associated questions were asked if the participant does seek help before, such as: who they seek help from, as well as how their previous professional help-seeking experience has been, etc.

Table 1 – Demographic questions table.

Participant ID	Interview Date	Gender	Age	College Major	Family structure (siblings)
Time have stayed in America	Religious Affiliation	Main Financial Source	Relationship with Advisor	Academic hours/week	Exercising hours/week

Mental health conditions	Help-seeking history

3.3.2   Thematic Analysis

To begin this thematic analysis process, after gathering data from 10 in-depth interviews, the first step in this process was to go through the transcripts to get familiar with the data, and jot down early impressions. The second step was to organize these data systematically. Then, the author color coded similarities and differences, captured interesting patterns across the entire data collection corresponding to the several question categories. The third step was according to these color code data, author generated these significant patterns then come up with several different themes. These themes had been organized into broader way to say something more generate. At the end, some subthemes had been developed from the preliminary themes to say something more specific about these research question categories. Here are the main question categories:

1. Important causes of mental health problems.

2. Life transformation.

3. Participants' help-seeking behaviors.

4. Participants' perceptions of professional MH service.

5. Barriers of seeking professional MH service at UC.

Overall, each theme has obvious distinction but still keeps coherent.

3.3.3 Personas

The purpose of personas is to create reliable and authentic representations of the key audiences for reference. In other words, it helps the author to focus on the vital needs of the essential user groups.

After some representative themes were generated from the real data, the first thing was to organize elements by synthesizing research findings into personas that represent target users. Next, some rough personas were combined and prioritized based on their identified characteristics. The content was divided into primary, secondary

categories. Additionally, their pain points were highlighted. To end with developing the appropriate descriptions of each personas background information, pain points, experiences, behaviors and expectations.

CHAPTER 4.   <u>RESULTS</u>

After conducting the data analysis, several domains emerged from the participants' responses. Firstly, participant demographics which included general interviewee's MH primary information (e.g., MH conditions;) Specifically, participant IDs are used in this demographics table to maintain the anonymity of participants while allows each interviewee to be more recognizable. Next, the thematic analysis which includes various themes by summarizing and emphasizing essential characteristics of the in-depth interview data. Further, based on the categories of facts gathered from previous qualitative research, the author came up with some personas. Furthermore, several solutions which included main features of the campus-based MH application and potential interventions are created to help CISs access to professional MH support easier.

4.1   Participant Demographics

By the recruitment criteria, participate upon request, ten volunteer CIS consented to in-depth interviews. Among all the participants, 60 percent are recruited from DAAP programs, 40 percent were referred by other participants, 60 percent are females and 40 percent are males. (Table 2)

Table 2 – Participant Demographics.

Participant ID (anonymous)	Interview Date	Gender	Age	College Major	Family structure (siblings)	Time have stayed in America	Religious Affiliation
P01	10/29/2018	Female	25	Master of Design	Only child	2 years and 4 months	N
P02	11/5/2018	Female	24	Master of Design	Only child	1 year and 5 months	N
P03	11/13/2018	Female	24	Master	One	2 years	N

					sibling	and 4 months	
P04	11/21/2018	Male	23	Master of Design	Only child	1 year and 3 months	N
P05	11/28/2018	Female	24	Master of Design	Only child	1 year and 3 months	N
P06	01/05/2019	Female	24	Master of Design	Only child	5 months	N
P07	01/06/2019	Male	22	Master of Design	Only child	5 months	N
P08	01/06/2019	Male	23	Master of	Only child	5 months	N

				Design			
P09	01/10/2019	Male	27	Master of Engineering	Only child	7 years	N
P10	01/10/2019	Female	23	Master of Music	Only child	7 months	Christian-ism

Table 3 – Participant Demographics (continued.)

Participant ID (anonymous)	Main financial source	Relationship with advisor	Academic hours/week	Exercising frequency/week	Mental health conditions	Professional help-seeking history
P01	Fellowship, TA, Family aid	Great	50-70	Twice	Low mood	N
P02	Family	Good	Over 70	2-3 times	Anxiety	Y, In the

	aid					US
P03	GA, Family aid, Friends support	Normal	Over 70	N	Depression	Y, In the US
P04	Fellowship, GA, Family aid	Great	Over 70 hours	3 times	Anxiety, distress	N, intend
P05	Fellowship, Family aid	Normal	50-70 hours	4 times	Anxiety	N, intend
P06	Family aid	Good	less than 50 hours	1-2 times	Low mood	N, intend
P07	Family aid	Normal	Over 70	N	Anxiety	N, intend
P08	Family	Normal	50-70	3 times	Depressio	N, intend

					n	
P09	Family aid	Normal	Less than 50	3 times	Anxiety	N
P10	Family aid	Normal	50-70	N	Anxiety	N, intend

All of them are graduate students, their ages range from 22 to 27 years. Ninety-percent of the participants are the only child in their family, while the remaining participants have only one sibling. This data reveals how most CIS have no social or emotional support from siblings, who would have provided a form of reliable kinship.

One of the demographic questions inquire about their religious affiliation. Among the ten answers, nearly all of the students have no religious affiliation. The only exception is a female who identified as a Christian. She mentioned that she had been newly converted about 3 months ago who identified having previously no religious affiliation.

Due to the special status of the CIS, most of their main financial support is through family aid. Around forty percent of the participants have

an amount of fellowship, part of them have a graduate assistant or teaching assistant work that provide them a biweekly stipend additionally. However, among of the volunteers, one student had little family financial support due to her family's business bankruptcy. Regard to American policy, international students are eligible to work outside of campus. Above all the difficulties she met, financial problems become one of the causes of her mental health issue.

With regards to the relationship with their advisor, 60% of the participants affirmed that they share a normal relationship, while 40 percent claimed that they have a good relationship with their advisors. As for how long they spend on academically related work (e.g. academic assignments, classes, and teamwork) per week, the majority of them stated that they spend average 50 hours on academic, with a range from 38 to 76 hours a week. In other words, they spend almost 5 to 11 hours each day of a week on school, which means most of them spend up to 21 percent to 46 percent of their daily time working on academics.

While the data represented that all participants have a certain degree of mental health problems. However, no one sought professional MH counseling while residing in China. Only two females among the participants at most sought help from their friends who majored in psychology. Further, outside of seeking expert counseling, a few female students were willing to discuss their feelings with their peers who studied psychology rather than others. This behavior was conducted in the attempt to compromise between seeking the help of a professional, albeit unknown counselor and getting informal advice from their tight social circle. Seven of the participants claimed that they intended to eventually seek professional help on campus.

The research in seeking MH care appears to be disproportionate to the levels of MH need among CIS. Interestingly, among this demographic population, it showed the majority of participants have demonstrated they have certain levels of MH problems, for instance: low mood, anxiety, and depression. However, only one of them sought campus-based MH support. Most concerning are the members who intend to alleviate and treat their MH but still no real action while in the US.

4.2　Thematic Analysis Chart

The qualitative themes from this study illuminate the various positive and negative perceptions regarding MH held by international students. Besides, the author analyzed several barriers that prevent students from seeking MH professional help in time from internal and external perspectives. Additionally, this domain was divided into six categories and several subcategories which are organized in the sections below. Specifically, five theme categories were generated from different facts of CIS interview responses. The last category was emerged from counselors' responses.

4.2.1　Causes for increased MH detriment

The first theme that emerged from the interview data indicated that CISs are facing a complex situation when coming to the United States. Their whole life has been changed dramatically. Particularly, a common factor amongst interviewees was that they started their master program in the United States as soon as they finished their undergraduate program. This creates additional stressors as these students have never been self-

sufficient or have never lived full time outside of China. As a consequence, their mental health conditions get worse due to these increased challenges. This theme was divided into description and comparison, which are illustrated and compared in Table 4.

Table 4 – Causes for increased MH detriment

Description	Different causes of MH issues among Chinese students before coming to USA & in USA	
Comparison	In China	In USA
	Academic performance and close relationships	Academic performance, future concerns (e.g. career, place of living), lack of resources, smaller social circles, relationship barriers, financial problems
Conclusion	With life dramatically changed, the causes of mental health problems are increased and become more complicated after CIS began living in US.	

In China.

1. Academic performance: Asian students are under extreme distress while they are in school, even at young ages. Compared to students in western countries, Chinese students may

experience more academic anxiety, as their school performance and standardized test scores have a more significant impact on future opportunities. The "Gaokao" is a country-wide exam administered to all prospective high school graduates. Scores on the Gaokao either expand or severely restrict a student's future education and career possibilities. As one interviewee said: " Exam scores brought a large amount of distress to me, and so did comparing scores with my peers and the high expectations from my parents."

2. Close relationship: The demographic table above illustrates that nearly all the participants are the only child in their family. This result showed that they lack emotional support from siblings. Which causes additional stress on CIS's. Part of the respondents indicated that they have some problems with their tight social circles (e.g., relationship with parents and friends). Talking about this issue an interviewee said: "We always fight with each other, it was difficult for us finding a harmonious communication style.

After I broke up with my first love, I spent such a long time to move on."

In USA.

1. Academic performance: The participants, on the whole, reported that they faced some academic difficulties when they came to the US in the first few months. Regarding US class discussions, interviewees stated they had faced a challenge, when trying to contribute to discussions and team work, which is due to English being their second language. Especially regarding team project, CISs struggle to communicate their ideas and often feel self-conscious and anxious because of language barriers. Another interviewee who got a full scholarship first academic year, when asked if he ever had distress from academic performance, he responded: "Definitely yes! I have a low mood when I worry about my future, career development, academic performance, and a discrepancy between my performance and expectations. For instance; I focus my efforts on academic work. Specifically, I

spend almost 72 hours per week to get high GPA. Otherwise, I will face a potential risk of losing my scholarship. Without the scholarship, my limited family aid cannot support me for the coming school year. Besides, I'm a person who lives a life of austere self-discipline, which leads to my emotions being repressed for a long time." This theme of inundating anxiety is represented as a common occurrence in which academic performance has a significant negative impact on CIS; even if they are succeeding academically.

2. Future concerns: Amongst all the participants, concerns were expressed frequently regarding uncertainties about their futures (e.g., future career, living place). Anxiety over the ability to find future successful careers is an ever constant thought in CIS minds. Even as undergraduates in China, interviewees conveyed their fear of not finding a good job. Since coming to the US to further their education and improve their odds of gainful employment, the stress of compounding school debt, maintaining high GPAs, retaining their scholarships, and feelings of isolation

have only exacerbated their trepidation of an uncertain future. CISs differ in opinion on whether they want to return to China or stay in the US. Individual causes and magnitudes of stress are the deciding factors. For students who wish to remain in the US, anxiety over finding a job is further compounded by their tentative F1 status and future visa requirements. In most situation, residency status is not directly reliant on individual efforts but on current US immigration/residency policies, which can be significant obstacles to CISs seeking US-based careers.

3. Lack of resource: It not only represents the resource at the campus but also outside of UC (e.g., mental health lectures, design conference, innovation events.) Some participants said that they occasionally receive emails about the latest school events and external opportunities. However, they treat school email address as a place for receiving academic emails where they easily ignore the emails from the international office or IPALs (International Partners and Leaders). A small number of

participants said that they reviewed some information through Facebook.

Regarding their usage manner of social media, they are addicted to WeChat, using it on a daily basis, instead of using Facebook like American students. Primarily, these facts indicate that there are few approaches for CISs receiving real-time information of resource which prevent them from engaging with the UC community.

4. Small social circles: CIS came to the US alone which means they stayed away from their family, friends, and previous social networking circle. Compared with their stable social circle existed in China, on the contrary, while limited time, limited opportunities, and limited social source prevent them from expending their new social circle in the US. A quote from a male student exemplifies this: "Since I came to the United States, I realized that networking is far more important than I imagined. I am anxious for finding a job about an extreme shortage of social networking resource in

the US. If I were in China, my family have accumulated much more social connections. By contrast, I have to start from zero here."

5. Relationship barriers: A common cause of anxiety amongst interviewees was that various levels of relationship problems (relationship with roommates, parents, love, and teammates.) As one participant mentioned: " Although I live with someone together, I feel lonely more than ever before. I had a different lifestyle from my Chinese roommate, for instance: personal life routine, personal interests, and personal health habits, which brought some encounters between us. Additionally, she always cares about herself instead of others. I decide to live alone next semester." While another participant said: "No one I would like to express my real feelings. Normally, I talk with my parents only something pleased by video call by-weekly." With the barrier of long distance, parents even know nothing about what happened on us which is hard for parents showing empathy to CIS. Talking about this issue, an interviewee said: "Because of the severe

relationship problem with my boyfriend (jet lag, long distance) which triggered me to find therapy help when I came to the US in the first few months." Another participant also mentioned: "Due to my poor oral English, I isolated by other American teammates when I worked on a team project. In the end, they even ignored me and only discussed within themselves which makes me felt upset." It was such a tough time for her to get more engaged with team discussion. It indicates a problematic relationship with teammates is a potential cause of mental health problem amongst CIS. A variety of perspectives expressed about the relationship barriers between CIS and their tight social circle, which indicates except academic performance, relationship problems have a significant impact on CIS's mental health conditions.

6. Financial problems: There is a surprising result from one interviewee, and she mentioned: "My family business meets some financial problems recently. Oh, my god. What makes me feel terrible is that my mom told me I have to pay third of my

tuition fee by myself. You know, it is too difficult for me to figure out how to pay it by myself." According to the demographic table above, it shows that less than half of the participants received an amount of fellowship. However, nearly all of them still need some family aid to support their living. In other words, family financial conditions will lead to some potential crisis, which will directly affect their life and mental health conditions.

In summary, with the dramatic changes that appeared on CIS's life, they are meeting much more various complex challenges than ever before. However, these causes have different levels of influence on participants' mental health conditions.

4.2.2 Facts of intensive life transformation

A typical theme that emerged from the in-depth interview indicated that there is an intensive transformation occurred on CISs' life after they were coming to the US, which changed the rhythm of their life. (See Table 5)

Table 5 – Intensive life transformation

Description	Life become out of control when CIS coming to USA	
Comparison	In China	In USA
	Pay all attention to study, simple life trend	Time management, complex life trend
Conclusion	With intensive transformation, CIS learned to be more independent. Challenges are everywhere.	

In China.

1. Pay all attention to study: With the vast population status, the CISs faced fiery competes of "GaoKao" examination. Under this ideology of society, the majority of Chinese parents believe that studying is one of few fair-minded chances for their children knocking the door of high-quality life in the future. On consequence, CIS faced extreme high pressure on their study especially when they were in high school, even though, part of them are still required by their parents to take extracurricular tutoring classes. As one interviewee complained: "Study occupied

most of my time. I even don't have enough time to develop my interests." High-frequency examinations, excessive expectations from parents, grade comparison with peers all contribute different levels of anxiety to CIS before they were coming to the US.

2. Simple life trend: The majority of those interviewees felt that they used to live a simple life between school and home, day in and day out. There is nothing else worried them during their lifetime. One participant commented: "Most of us study at the campus, eat at the dining hall, sleep at student residence, work out at the campus. Three words can describe the theme of my life in the past few years: studying, eating, sleeping. As you see, they comprised of most of my past few years."

In USA.

1. Time management: Time management plays a vital role in better balancing students' learning, work for CIS. However, lack of time management toolkit is the main barrier that prevents CIS from living in a more efficiency life path. As one interviewee mentioned:

"I found it is super hard to balance study and graduate assistant work. It usually occupied twice or even three times for me completing papers than my American peers. I do not have experience of studying and working together before. I am still trying to find a better way to manage my limited time."

2. Complex life trend: A new life brings series of challenges occasionally to CIS (e.g., find a cost-effective apartment, do grocery shopping without a car, cook for themselves daily, take a driving examination, control living expenses, finish multiple class assignment in time, chat with peers from other cultures.) However, to adopt the new life in the US, CIS have to dump out of their comfort zone actively or passively. As one individual said: "In the first few months, I was struggling and anxious about how to adapt my new life here."

In summary, this theme came up for examples in discussions of what are the characteristics of CISs' intensive life transformation. Furthermore, the author made a comparison of CISs' experience in China and US,

discussed what adjustments they have made to better suitable their life in the US, and how they life changes influence their mental health conditions.

4.2.3 Factors of different help-seeking behaviours

This theme that emerged from the in-depth interview indicated that there are several different characteristics of help-seeking behaviors between male and female. Author synthesized the theme into different aspects by genders, which was illustrated and compared in Table 6.

Table 6 – Different help-seeking behaviors between genders

Descriptions	Gender differences have a great impact on help-seeking behavior	
Comparisons	Help-seeking behaviors of the male	Help-seeking behaviors of the female
	Rely on myself, hidden real emotions	Prefer to talk with someone studied in psychology, intend to seek professional MH help
Conclusions	Compared with the female, it is crucial for male whether he could receive some helpful suggestions and substantial help. However, female pay more attention to the experience during the whole process.	

Help-seeking behaviors of the male.

1. Rely on myself: All of the male interviewees expressed that they preferred to self-directed care when they faced some initial mental health problems. They kept regular exercising over two times a week because they believed it encourages their brain to secrete dopamine that helps to ease their stress. Interestingly, in the awareness stage, they read psychologically related articles and filled out an online scale to find out how severe their mental health problems are. In Chinese ideology, the male was treated to take much more responsibility than female. For example: as one participant said: "When I was a kid, I was taught by my parents to solve problems by myself. This rule has had a profound impact on my growth. When I faced some low mood status, I'd like to read psychological papers to cure myself. Further, concerns about my career future are the main reason that caused my anxiety; I do not think counseling have any solutions for curing me originally. Only you can help yourself."

2. Hidden real emotions: In our culture, adults, especially male adults repress their real feelings to look more mature. As an old saying said: "A true man should not easily shed tears." The facts indicated that CIS male lack of appropriate emotional vents to express their real emotions.

Help-seeking behaviors of the female.

1. Prefer to talk with someone studied in psychology: Unexpectedly, all of the participants have several experiences of talking about their distress to their friends. Specifically, majority of them told to their friends who studied in psychology as well. As one of them mentioned: "I would like to talk with one of my friends who was pursuing a psychology degree. She showed much more empathy than others when I expressed my negative emotions. I found she is such a helpful person to talk. However, with the time equation between us now, it is not convenient for us finding a general availability." Compared to talk with friends about their mental

health problems, talk with someone have psychology background showed more positive impacts on their emotions.

2. Intend to seek professional help. A view generated by the demographic and in-depth interview data, a common characteristic amongst female interviewees was that they intend to seek professional mental health help even when they were in China, regarding some of them used to struggle with their MH problems. As one participant mentioned: "Talking to friends maybe is a way to express my emotions. However, it helps to relieve me of a superficial level in a short period. The method can't cure my underlying problems which may exist for a long time; it is difficult for my friends sympathizing my real emotions."

In summary, when they faced some mental health problems, different from those male interviewees who like to hide their real emotions as well as relying on themselves, female participants have more positive help-seeking behaviors towards professional help, male of CIS treated

counseling as a helpful place only when they can receive substantial support.

4.2.4 Different perceptions of MH service in the United States and China

In general, this theme that emerged from the data indicated that CIS have different perceptions toward professional MH service compared to China and America. From the in-depth interview data, author synthesized the theme by different countries, which was illustrated and compared in Table 7.

Table 7 – Perceptions of professional MH service

Descriptions	Compared with negative perceptions of Chinese professional MH service, students have more positive attitudes toward MH service in the United States	
Comparisons	In China	In USA
	Unprofessional service	Professional service
Conclusions	In general, Interview participants viewed counseling as more developed, professional, capable, and trustworthy in the United States.	

In China.

1. Unprofessional service: Talking about CIS perceptions of Chinese MH service, the majority of interviews have a negative attitude toward it. There are few approaches for them receiving counseling-related information at the campus, even no enough information about the service, no enough background introduction about the counselors provided for students. For example, one participant said: "My college had provided counseling service, it is the only thing I know about it, no more information I had. Thus, I have no idea if anyone goes there for help. As for me, I do not trust them at all so that I never seek help from them." Unexpectedly, one interviewee mentioned that there had widespread dissemination about counseling service at the campus when she attended freshman orientation. However, she still had other concerns about their location, as she said: "It sounds wired, our counseling service center located in the student center where others can easily notice you. Student privacy is not well-protected."

In USA.

1. Provide professional services: Interestingly, there are some different perceptions of MH service in American and China, as some interviewees stated that "American is the world leader in psychology medical field. I know their counselors are well-educated and have a high degree in psychology." And another commented: "Regarding my previous counseling experience in the US, I found counselors are professional and extremely helpful." These responses indicated that CIS portrayed American counseling as professional, and maturity compared to Chinese counseling.

Taken together, these results indicated that different perceptions of influenced participants' decision-making of seeking MH professional support. Regarding CIS have more positive impressions of American MH service which lead to they have initial ideas of seeking MH professional help if they were faced MH problems in the US.

4.2.5 Barriers of accessing professional MH service at UC

In general, this theme explored barriers prevent CIS' from access to MH professional service. Author synthesized in-depth interview data from two aspects: Internal and external obstacles. Essentially, internal barriers are the decisive factors that prevent CISs from seeking professional help. However, external barriers have a crucial impact on their whole counseling experience (see Table 8.)

Table 8 – Barriers that prevent CIS seeking professional help

Descriptions	The author has divided the barriers of seeking professional MH help into two aspects: internal and external. All the obstacles contribute to preventing CIS from seeking professional help in time.	
Comparisons	Internal barriers	External barriers
	Language interpretation, concerns of cultural barriers, lack of regular treatment time, limited knowledge of self-directed care	Rarely approaches to campus-based resource, long waiting time
Conclusions	Majority of CISs have no actual action of seeking professional MH help even though they intend to, because of some internal and external obstacles.	

Internal barriers.

1. Language interpretation: Among the CISs who intend to seek professional help in the US, one main reason prevent them from seeking support is their worries about using English to express their real emotions adequately. As one participant said: "It is difficult to express my emotions even though speaking in Chinese, I can't imagine how it works in English."

2. Concerns of cultural barriers: Regarding the demographic table above, it shows the majority of the participants stayed in the US for less than three years. Which indicates culture imprint still has a profound impact on an individual's ideology and their value systems. Interestingly, one male interviewee mentioned: "Everyone's sorrows and gladness are not the same. Others can't empathize my real happiness and pains. In particular, my anxiety associated with Chinese social ideology." From the responses, it has demonstrated that concerns of cultural barriers have a negative impact on amongst all the participants.

3. Lack of regular treatment time: Time is a realistic factor to support CISs go for campus-based MH professional service; there is only face-to-face service existed at UC campus. For example, one interviewee said: "It's tough to find a regular treatment time for taking counseling service. I have struggled to balance the time of project assignment, team-work, classes, and graduate assistant works already, that will be pretty helpful if CAPS can provide a more convenient way for us accessing to professional MH service."

4. Limited knowledge of self-directed care: All of the participants have a strong need to understand their own MH conditions and tried some instruments to relieve themselves initially, especially at the stage of self-awareness. As one interviewee commented: "I tried to take care of myself by reading some books associated with psychology when I had a low mood condition, the more serious the situation is, the more I realize that my knowledge of self-directed MH care is not enough."

External barriers.

1. Rarely approaches to campus-based resource: A variant number of participants stated that they learned about counseling through random chances, for instance: word of mouth. As one interviewee said: "I heard CAPS occasionally when I participated in a research project about academic coaching system, one of the interviewees mentioned CAPS." Another participant commented: "One of my professors recommend to me about CAPS when I have a short conversation with her about my depression problems." However, one interviewee participant from the international office mentioned that the most common way students were informed about counseling resources was through student orientation. Different from other orientations, campus-based MH professional help mentioned in the international orientation was not spoken as loudly as others which appear in the booklet for each international student.

2. Long waiting time: One participant who has counseling experience at UC commented: "Last time, I felt upset because my appointment was be pushed to next month, I guess CAPS must extreme busy at the middle or end of one semester." Long waiting time of a counseling appointment may easily increase CISs severity of mental health condition, due to their vulnerable emotions.

In summary, the results generated from in-depth interviews showed there existed quite a few obstacles paused CISs for seeking professional MH help at UC.

4.2.6 Potential problems of MH service at UC from counselors' perspective

From counselors' perspective, this domain demonstrated several characteristics of potential MH service problems.

1. Concerns of privacy protection: Interestingly, as one counselor mentioned that: "Some students email me of where contains their private information. I usually call them back, but it seems not an

efficient way to get in touch with them because they easily miss my phone call. The potential issue is that they may never notice the university can warrantlessly go through students' university emails." The response indicated that CISs' privacy might be invaded if they contact counselors through email, which tend to become tragedies.

2. Lack of communication mechanism: Improving communication mechanism between different stakeholders is the crucial factor of providing efficient MH professional service especially for students who have a severe MH issue. As one of the counselor interviewees said: "I collaborated with international office getting the connection with students' parents. It is such an inefficient and complicated procedure."

3. Some CISs have severe MH problems: Unexpectedly, there are some CISs students faced a serious MH issue even before they come here. Therefore, UC should be more vigilant about this potential crisis. For example, one counselor mentioned: "I had

some diagnosis experience with CISs, some of them had been forced to study abroad by their parents what leading them attempted to suicide to escape from the realistic."

Overall, six categories and a multitude of subcategories, and further subcategories emerged from the data analysis and were summarized in this chapter. Regarding the several research questions, participants reported some factors contributed to their barriers of accessing campus-based professional MH service including but not limited to how participants learned about UC counseling, help-seeking behaviors differences between genders, and participants' different perceptions of counseling resources. The results also illustrated several factors of potential problems associated with UC professional MH service.

4.3 Personas

The purpose of personas is to create reliable and realistic representations of major user groups for reference. These representations based on previous qualitative research, express the crucial needs and expectations of the key audience. Additionally, personas help to uncover

gaps, highlight future opportunities. By generating the factors of thematic analysis in this study, the author came up with three personas which mainly based on different characteristics of CISs' mental health conditions and help-seeking behaviors:

1. CISs who prefer self-directed care rather than seeking others' help or who current in self-awareness stage.

2. CISs who intend to seek professional help in the past. However, they faced some barriers to prevent them from seeking professional help. (majority of them are female.)

3. CISs who faced severe mental health problems or used had a suicidal tendency.

Personas consisted of several portions, which included CISs demographic information, current mental health conditions and factors of their help-seeking behaviors, and potential needs and expectations. Regarding these personas, the author came up with several solutions to eliminate the barriers prevent students from seeking professional MH care at the right time.

4.4 Main features of campus-based MH care application

4.4.1 Design guideline for MH care application

Author created a design guideline for campus-based MH care application, which included app features, specific recommendations, and support evidence. The author illustrated in Table 9.

Table 9 – Design guideline for campus-based MH care application

Features	Recommendations	Evidence
Mental healthcare education services	Provide professional mental health community service to help users gain more knowledge about mental illness	"It's not part of some countries' cultural frame to talk about mental illness. In many parts of the world symptoms of anxiety and depression often show up more as physical symptoms and so they may not think about coming to a mental help professional."
Provide professional MH resource; establish	Provide in time and efficient service to users who are in crisis.	"Lack of community support, especially during some holidays."

self-directed care community		
Provide online counseling services	Provide multiple available entries for students accessing mental health service more flexible, public calendar, online appointment schedule.	"Lack of regular treatment time, complex process to schedule an appointment."
Professional peers support services	Provide an entry for users selecting peer support services.	"It's pretty hard to schedule a service especially when some peak time, Last time, the nearest appointment I can scheduled successfully was in next month."
Crisis support services	One-click feature, automatically transfer to CAPS 24/7 service.	"Lack of students background information. It's hard to know their childhood, developmental history, previous mental illness experience."
Privacy protection services	All their activities are anonymized in order to protect their privacy.	"Sometimes, students like contacting us by email, but because of sharing server their privacy is not protected, even some students afraid of their privacy will be shared with

		professors."

4.4.2 Main features of campus-based MH application

In response to these most prominent barriers which indicated in each persona, the author came up with three main features for the campus-based MH application.

1. Provide approaches of gathering MH associated resources: Specifically, design for some CISs who feel like lacking campus-based support, have few approaches for accessing to MH associated resource or anxious about how to expend social networking circle or attempt to self-directed care when they are facing some low mood situations. This feature helps to provide an online channel by establishing several different communities with integrating the fragmented MH resources around campus (e.g., MH self-care related articles sharing, upcoming events.)

2. Provide efficient campus-based professional MH service: basically, it designed for some CISs who intend to seek professional MH support at the campus, however, because of

some obstacles, they found it is hard for receiving efficient and culturally appropriate service in time (e.g., long waiting time for a counseling service, have no idea which counselor will suit for them.) There are some filters provided for helping CISs schedule a counseling service with a proper counselor efficiently, receive a flexible MH support timely, obtain more culturally appropriate support. Such as public counselors' calendar, online video counseling service, invite a Chinese interpreter to join the counseling sections.

3. Crisis support service: It mainly designed for helping the group of CISs who have severe MH problems, even attempt to suicide before. With simple one-click actions on the floating button which can help to transfer to CCAPS twenty-four hours, seven days service automatically. Based on the phenomenon that mobile phone is carried around everywhere with individuals, it is more efficient and convenient to access a mobile platform rather than opening the CCAPS official website.

4.5 Potential interventions

Interventions implemented using multiple strategies may be the most effective and comprehensive because of the potential to reach different stakeholders' needs in a variety of ways, especially with short-term and long-term considerations. The author came up with potential interventions create change by influencing individuals' knowledge, attitudes; optimizing campus-based service; creating supportive environments, resources; enhancing collaborations amongst different departments (see Table 10.)

Table 10 – Potential Interventions

Sections	Users Pain points	Recommendations	Core stakeholders
Provide Education	**Limited knowledge about self-care.** "I'm interested in reading psychological field books for self-care." **No idea about the procedure.** "For someone who have mental health problem, they	**Fundamental Education (short-term.)** Digitized education materials; student orientation; self-directed care workshop.	Students, counselors.

	extremely need timely help."		
Optimize Service	**Long waiting time.** "Last time, I felt really upset because my appointment was be pushed back to next month, I guess they must really busy at the middle or end of one semester."	**Hire interpreters (long-term.)** It should be considered hiring some Chinese student interpreters with a psychology background.	Students, counselors, International office, each college.
	Language interpretation. "I afraid it's hard to fully express my emotions to counselors. Especially in English."	**Hire more counselors (long-term.)** Hire some counselors who have counseling experience with Chinese.	
	Concerns about cultural barriers. "Everyone's sorrows and gladness are not the same. Others can't empathize my real happiness and pain. Especially, my anxiety severe impacted by Chinese ideology."	**Privacy Protection (short-term.)** Online Video calls; send messages; face to face communication.	
	Privacy protection concerns. "Some students email me	**Mobile Application (short-term.)** Improve efficiency of scheduling procedure;	

	something contained their privacy. However, I always call them back. Because they may don't know colleges can warrantlessly go through their university emails." **Lack of resources.** "Since I came here, I found that networking is much more important than I imagine. I was anxious for extremely lack of social networking resources."	integrate fragment resource; provide flexible appointment possibilities.	
Enhance Collaborations	**Rarely approaches.** "I heard CCAPS occasionally when I participant in a research project about academic coaching system." **Lack of communication mechanisms between different stakeholders.** "I collaborated with international office getting connection with students'	**Increase exposure (long-term.)** Collaborated more with professors, departments, student groups; establish the online community; collaborative workshops. **Hire a coordinator (long-term.)**	CIS, counselors, international office, each college, UC, local communities.

| | parents. It's a long and complex process. I think they need to consider set up a stable position for someone like me, for improving communication efficiency."

"Patients' families, friends, caregivers and support groups are crucial for outpatient self-care. For my previous experience, it's hard to have an efficient collaboration with international students' parents." | Set up a stable position for someone who has a psychological background to communicate efficiently with student family at the International Office.

Remotely collaboration (short-term.)

Provide remotely collaboration possibilities for eliminating distance gap for Chinese parents. | |

The results in this chapter indicate that life transformations, lack of social networking resources have made students feel anxious about their time management, academic performance, and future development. To relief students' negative emotions and fit some students' needs who prefer self-directed care, establish an online community by the interpersonal atmosphere, cultural environment, and enhancing students sense of

identity and belonging is crucial for promoting a more active online community. Self-care MH services are conducive to alleviating the shortage of counselors, mobilizing the enthusiasm of community residents, and improving the effectiveness of online community services. Next, provide a flexible online professional MH service approach, especially for CISs who are facing some barriers (e.g., lack of regular treatment time) when they intend to seek professional MH support. Last, provide crisis support service for CISs who need immediate help when they meet an urgent situation.

The next chapter, therefore, moves on to discuss the limitations and future work.

CHAPTER 5.   DISCUSSION AND CONCLUSION

The purpose of the current study was designed to estimate the perceptions and the barriers of Chinese international students (CISs) that prevent them from obtaining professional mental health (MH) support at the University of Cincinnati (UC). The most significant finding to emerge from this study is that CISs have divided into several different categories based on differences of their MH condition, perceptions about MH service, and seek-help behaviors.

The most significant finding is that gender has an immense impact on individuals' help-seeking behaviors. For instance: female has more positive perceptions about professional MH service and more likely talk to someone to express their real emotions. However, male more prefer relief their mood rely on themselves by regarding some tips from psychology related article. They are expecting substantial help rather than emotional support.

Further, CISs are facing some barriers to prevent them from seeking professional mental health help, such as lack of regular treatment time, long waiting time of a counseling section, or culturally appropriate service. Furthermore, lack collaboration between International office, counseling service, and CISs have a negative impact of providing timely, efficiently MH support to them.

Based on these pain points gathered from research, the author created a toolkit which mainly included some features of a campus-based MH mobile application and potential interventions. Taken together, an eco-system map below (see Figure 1) indicates how the app would help to bridge the gap between different stakeholders (e.g., CIS, counseling service, international office), how it would help them collaborate actively with each other to build a better MH care environment on encouraging CISs to seek professional MH support in time.

Figure 1 – Bridge the gap between different stakeholders
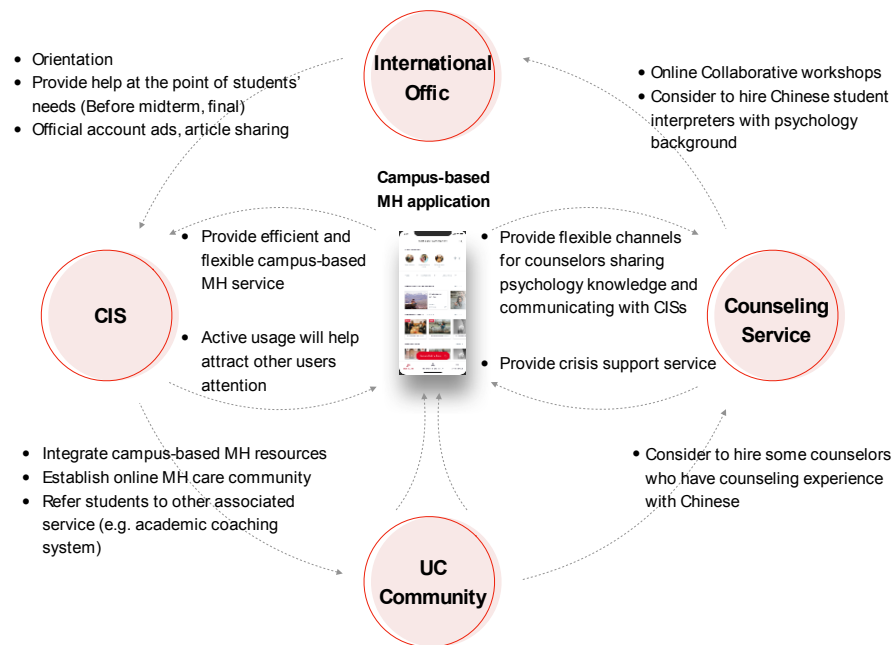
5.1 Limitations

Firstly, it is unfortunate that the study did not evaluate when would be an appropriate time for providing help at the point of Chinese international students' needs. Secondly, the study was limited by the absence of examining the role of parents in the mental health care

process. Thirdly, the study did not include the information on providing the resource for students to expect what will happen in counseling.

5.2 Future opportunities

For recommendations for future work. To connect with CISs closer, "WeChat" should be considered by the University of Cincinnati as an official carrier due to the high rate of usage, and widespread use of amongst CISs. With "WeChat" as the carrier, it is easier to attract CISs attention. Once they have an urgent need for accessing to the MH campus-based resource, CISs can directly obtain MH support.

REFERENCES

Mistler, Brian J, David R Reetz, Brian Krylowicz, and Victor Barr. (2012) "The Association for University and College Counseling Center Directors Annual Survey," n.d., 188.

Mori, Sakurako Chako. (April 1, 2000) "Addressing the Mental Health Concerns of International Students." Journal of Counseling & Development 78, no. 2 137–44. https://doi.org/10.1002/j.1556-6676.2000.tb02571.x.

Kutcher, Stan, Yifeng Wei, and Mina Hashish. (2018) "Schools and Mental Health: Is Some Necessary Reexamining in Order?" In Handbook of School-Based Mental Health Promotion: An Evidence-Informed Framework for Implementation, edited by Alan W. Leschied, Donald H. Saklofske, and Gordon L. Flett, 83–101. The Springer Series on Human Exceptionality. Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-89842-1_6.

Jarrahi, Leila. (2004) "Under-use of counseling services by low - acculturated Chinese international students." http://search.proquest.com/docview/305073978/abstract/8300E3CE 2F44874PQ/1.

Han, Xuesong, Xuemei Han, Qianlai Luo, Selby Jacobs, and Michel Jean-Baptiste. (2013) "Report of a Mental Health Survey among Chinese International Students at Yale University." Journal of American College Health: J of ACH 61, no. 1: 1–8. https://doi.org/10.1080/07448481.2012.738267.

Mitchell, Sharon L., Andrea K. Greenwood, and Maggie C. Guglielmi. (2007) "Utilization of Counseling Services: Comparing International and U.S. College Students." *Journal of College Counseling* 10, no. 2: 117–29. https://doi.org/10.1002/j.2161-1882.2007.tb00012.x.

Chen, Charles P. (1999) "Professional Issues: Common Stressors Among International College Students: Research and Counseling Implications." *Journal of College Counseling* 2, no. 1: 49–65. https://doi.org/10.1002/j.2161-1882.1999.tb00142.x.

Smith, Rachel A., and Nigar G. Khawaja. (2011) "A Review of the Acculturation Experiences of International Students." *International Journal of Intercultural Relations* 35, no. 6: 699–713. https://doi.org/10.1016/j.ijintrel.2011.08.004.

Kahn, Jeffrey H., and Mona N. Williams. (2003) "The Impact of Prior Counseling on Predictors of College Counseling Center Use." *Journal of College Counseling* 6, no. 2: 144–54. https://doi.org/10.1002/j.2161-1882.2003.tb00235.x.

Galligan, Patrick Kenneth. (2016) "Male Chinese international students' utilization of and barriers to mental health resources." https://search.proquest.com/docview/1834310376/abstract/C01348 C12A36445EPQ/1.

APPENDIX A： Demographic questionnaire

1. How old are you?

2. What is your identified sexual orientation?

3. What is your relationship/marital status?

4. How long have you stayed in the United States?

5. What is your major at University of Cincinnati?

6. Where were you born? How long did you live there?

7. How is your family structure, do you have siblings?

8. What are your current main financial source?

9. How is the relationship with your advisor?

10. Do you keep workout? If yes, how many hours per week do you spend
    on exercising?

11. Do you have religious affiliation? If yes, what is your religious affiliation?

12. Have you ever had professional mental health service (counseling/therapy) in China?

13. Have you ever sought help from a professional counselor, therapist in the United States?

APPENDIX B： Interview protocol

Interview questions for Chinese international students.

1. Tell me about what's your perception of being an international student?

2. What kinds of things are stressful about being an international student in US?

3. Could you describe what adjustments did you make to fit American culture?

4. Do you ever feel depression, anxiety in China or after you came to US?

5. What do you think are the important causes of depression and/or your peer Chinese students in the U.S?

6. Would you talk about an experience that you have deepest impression of making you feel anxiety or depression before and/or after you came to US?

7. Have you ever talked to someone surrounded you about your stress, anxiety, etc. For example: your peers, friends, parents, and/or professors? If so, why? If not, why?

8. Have you ever sought counseling service before? Do you know if someone surrounded you sought? How is your experience?

9. What type of problems cause you to seek help from a professional counselor, psychologist?

10. What trigger you to find professional mental health help instead of talking with friends?

11. How does being a man impact your perception and Attitudes towards seeking professional help?

12. Do you know if UC have professional mental health service for students? If yes, what are the approaches for receiving information?

13. Are there any barriers for you to receive professional mental health service? Any problems you meet during the diagnosis process?

14. Could you compare the counseling service in the United States to China?

15. Is there anything else you would like to mention instead of what I have already asked you above?

Interview questions for CAPS counselors.

1. What is your job title and responsibility?

2. How many years have you been in this position?

3. Do you follow a standard protocol or is this a process that you have developed through your practice?

4. Would you walk us through your typical mental health diagnose process? (What are the typical steps in your process to diagnose mental health conditions?)

5. Have you ever diagnosis Chinese international students, do you make any adjustments for diagnose process according to the diversity of patients, especially for Chinese international students?

6. What multicultural counseling competencies are required to effectively meet international students' needs?

7. How do these multicultural counseling competencies contribute towards each step?

8. Any difference of how you deliver care to Chinese international students versus a patient from the United States?

9. Are there any barriers when you diagnose with Chinese international students?

10. How do you educate your patients?

11. Any difference of how you educate Chinese international students versus American students? If no, why? If yes, why?

12. What type of problems cause these Chinese international students to seek help from a professional counselor, psychologist?

13. What are the behavior characteristics of the Chinese international students seeking help?

14. Are there any differences of these characteristics between American students and/or other international students?

15. Do you know what are the main causes impact their perceptions and Attitudes towards seeking professional mental health service?

16. Is there anything else you would like to mention instead of what I have already asked you above?

APPENDIX C： IRB protocol

February 11, 2019

Longwei Li
lilw@mail.uc.edu

Dear Longwei Li:
On 2/8/2019, the IRB reviewed the following protocol:

Type of Review:	Initial Study
Title of Study:	A study on international cultural sensitivity.
Investigator:	Longwei Li
IRB ID:	2019-0064
Funding:	None
IND, IDE, or HDE:	None
Documents Reviewed:	• IRB protocol.pdf, Category: IRB Protocol; • A study on international cultural sensitivity: How to eliminate barriers of Chinese international students at DAAP to access better mental healthcare, Category: IRB Protocol;

The IRB determined that the proposed activity is not research involving human subjects as defined by DHHS and FDA regulations.

IRB review and approval by this organization is not required. This determination applies only to the activities described in the IRB submission and does not apply should a ny changes be made. If changes are made and there are questions about whether these activities are research involving human in which the organization is engaged, please submit a new request to the IRB for a determination. You can create a modification by clicking **Create Modification / CR** within the study.

Thank you for your cooperati on during the review process.

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