SOCIAL IDENTITY, BELONGINGNESS, AND MENTAL HEALTH OF CHINESE INTERNATIONAL STUDENTS IN GREATER BOSTON

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ABSTRACT

International students in US higher education often experience high levels of mental health concerns, but have low rates of seeking formal help. As well, they often report lower sense of belonging to the university community. Chinese international students (CNIS), which comprises one-third of international students in the US today, face a particular socio-political climate that may paradoxically both encourage their cross-cultural engagement with Americans but also threaten them with marginalization and low belongingness.

Hence, this qualitative research project examines the experiences of CNIS in the Greater Boston area regarding belongingness, mental health, and identity-salient values and beliefs. I used the social identity model for identity change (SMIC), a subset of social identity theory, to interpret belongingness among CNIS as a state of positive integration of their dual identities as “Chinese persons” and “‘American’ students”. When their identity transitions (which include themes of impermanence, cultural minority status, and greater independence from social embeddedness) are positively integrated, CNIS experience higher belongingness and mental health. Strong social scaffolding, such as participation in CNIS communities and supportive university programs and structures, facilitated positive identity integration. Thus, the SIMIC helped identify areas of potential programmatic improvement for university services in mental health and diversity, equity, and inclusion, to better complement CNIS’ existing bottom-up organizing.

Lastly, I developed a strategic plan based on the collective impact framework, for the Center for Cross-Cultural Student Emotional Wellness (CCCSEW) at Massachusetts General
Hospital to disseminate this project’s findings and to build a coalition of local university and student community stakeholders for change action and advocacy. This project’s findings have broader implications towards the application of social identity theory in health and education research and practice, in support of a more holistic view of development and flourishing among CNIS, international students, or indeed students of all minority cultural identities.
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This doctoral project is dedicated to my fellow international students in the US, who may have experienced challenges and growth in the social, emotional, cultural, and identity development aspects of their lives during their study abroad. In particular, I would like to thank my study participants, who generously shared their life stories with me for the potential betterment of others in our community in the present and future.

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1. INTRODUCTION

1.1 Why this project? – international student mental health and social identity

International students are significant members of American society today. In the past decade, international student enrollment in the US has risen steadily from 583,000 in the 2006 - 2007 academic year to 1.04 million in 2016 - 2017, accounting for 5.3% of total US higher education enrollment [1]. They contribute to the cultural fabrics of their campuses and local communities. Upon completing studies, some may stay in the US and become immigrants, while those who leave often become de facto ambassadors of their American experiences. Thus, international students serve as important socio-cultural links between communities both within the US and across the world.

Despite this, US higher education institutions (HEIs) are often not strongly engaged in the social, emotional, cultural, and identity development experiences of their international students. Support services for international students typically focus on logistical issues, such as visas, employment, housing, and financial aid. Meanwhile, social, emotional, and cultural support services – primarily the purview of the offices for student life, diversity, and mental health – frequently display lack of insight in international students’ experiences and viewpoints [2-3]. This has resulted in a gap between needs and services. Increasing evidence shows that international students are at considerable risk for depression, anxiety, suicidality, and maladaptive coping, while rates of help-seeking through mental health services and other institutional channels remain significantly lower than for domestic students [4-6]. As well, stereotypical conceptions of international students among domestic students, faculty, and administrators [7-8] contribute to their marginalization and hinder constructive cross-cultural learning from both sides.
Lastly, it is often not well understood among educators how international students’ experiences in the US impact their identity-salient values and beliefs. The US is a major actor in global political, economic, and cultural arenas, and even high level policies or trends in domestic and international affairs can often affect the way international students view their experiences and identities in relation to the US or their own countries. In particular, the US is currently experiencing high social tensions along the dimensions of race / ethnicity, class, immigration status, and global competition. It is unclear how these tensions may impact international students’ social, cultural, and political beliefs. While studies have examined international students’ acculturation and enculturation processes, few have contextualized them within the students’ lifeworlds as a part of a larger contemporary socio-cultural climate.

Hence, this project aims to take a culturally specific approach to investigating how international students’ experiences in the US today may impact their social, emotional, cultural, and/or identity development journeys. Under this lens, I have chosen to focus on Chinese international students (CNIS) in the Greater Boston area. A number of factors contribute to this orientation. CNIS currently consist of one-third of all international students in the US \(^1\); thus, any learnings here will likely benefit a significant portion of international students on most campuses. As well, the relatively large sizes of CNIS communities may also help HEIs gain insights into community-generated solutions to the aforementioned issues, which may be applied towards supporting international students in general. Lastly, given China’s current rise in global prominence, CNIS in the US are subjected to a complex socio-cultural landscape where willingness for cultural exchange may have increased at the same time as antagonism, stereotyping, and xenophobia from both countries mutually.

Through this project, I hope to generate observations and recommendations for CNIS-serving institutions in the US – including educators, administrators, mental health professionals, and community and student organizations – to better understand the particular socio-cultural needs, challenges, and indeed strengths of CNIS’ experiences. I also hope to use my findings
as a basis for mobilizing these community stakeholders to create initiatives, programs, and advocacy in support of CNIS’ social, emotional, cultural, and identity journeys.

1.2 Why me? – the DELTA doctoral project as a practice of leadership

The Doctor of Public Health (DrPH) program at the Harvard T. H. Chan School of Public Health is a multidisciplinary degree in applied and implementation science, which aims to prepare candidates for diverse aspects of public health leadership. As such, a key component of this doctoral thesis project is to examine my conception and goals regarding leadership, in relation to the project’s issue topic, methodology, and axiological underpinnings.

I have been, on and off, an international student in the US for 10 years. During my first foray here as an undergraduate, I first came into my cultural, political, and racial consciousness by observing the contest of diverse discourses around these identity-salient issues in this country. All the while, I struggled to find a balance between shaping myself into a person that could fit into the cultural system around me, versus absorbing lessons from my environment that could fit well with how I wanted to see and move through the world. In hindsight, the greatest gift from my American college education was waking up to the existence of complex systems of dominance and marginalization that permeated my campus, US society, and everywhere else in the world. The greatest costs, however, were the wounds I sustained while trying to navigate that system, pushing against doors, and discovering they were instead brick walls painted over – walls that, infuriatingly, sometimes turned back into doors when the right kinds of people came around knocking.

Since then, I have learned how to heal those wounds. I have lived and worked in the US, mainland China, and Taiwan (my country of origin), where I came to consolidate my identity as a perpetual cultural outsider. When I knock on doors today that won’t open for me, instead of becoming enveloped in confusion and self-doubt, I know that there is often more at play than whether I have acted adequately in the doorkeeper’s eyes. And rather than teaching others like
me how best to present ourselves such that we could be accepted by the system, I believe that our project is to challenge and dismantle the system, brick by brick, such that every person can move through this society with the freedom, dignity, and respect they inherently deserve.

Hence, this thesis project is my attempt at defining leadership as an exercise in building bottom-up bases of knowledge and power, as well as an opportunity to give back to my communities. I focus on turning a critical eye to the cultural and systemic institutions that CNIS encounter during their time in the US, and identifying areas that may be fortified to lend strength and growth, as well as those that ought to be changed to reduce harm. I aimed to do so first by generating qualitative, narrative, and easily accessible knowledge about CNIS’ experiences. Meanwhile, although culturally specific advising and mental health care for international students are not currently a priority for most HEIs, and institutional and community support for building an action coalition is thin, I nonetheless aimed to use this project as an opportunity to begin mobilizing the diverse stakeholder communities towards communicating, coalescing, and experimenting with solutions in the near future. My work is, hopefully, only beginning.

1.3 Overview of contents

This thesis is organized into four major sections: the introduction, analytical platform, results statement, and a conclusion. The analytical platform consists of three subsections: 1) a problem statement that reviews existing knowledge on the issue and identifies gaps in knowledge and practice; 2) a summary of theoretical frameworks relevant to my inquiry, leading into the generation of research questions; and 3) a description of the project’s methodology.

The results statement section also consists of three subsections: 1) results from the qualitative research study, including general recommendations for institutions, practitioners, and student organizations; 2) strategic plans the host organization for disseminating results, organizing the community, and leading change; and 3) process learnings, on conducting a project with ultimate goals in change advocacy within an academic research framework.
Finally, the conclusion section consists of two subsections: 1) a summary of key findings and learnings from the project, and 2) implications for researchers, practitioners, and organizers in the future.
II. ANALYTICAL PLATFORM

2. UNDERSTANDING THE PROBLEM

2.1 International students and mental health

International students are a diverse and growing population on US HEI campuses, whose unique concerns and psychological risk factors are often overlooked. To our knowledge, unlike for US higher education students in general, or for domestic students of different racial-ethnic groups, there has been no large-scale, multi-site study to date focused on the mental health and associated issues of international students in the US. Instead, research has mainly examined conditions specific to each campus, including the prevalence of psychological symptoms and concerns, rates of help-seeking, individual and ecological risk factors, and related processes such as acculturation and institutional support.

Site-specific studies have shown wide variations in the prevalence of mental health symptoms among international students. Studies have generally reported them to experience similar levels of psychological symptoms and concerns compared to US domestic students in the same setting; however, specific rates differ considerably depending on the metrics used, students’ demographic compositions, and other contextual factors. For example, Soet and Sevig found in 2006 that international students at a large midwestern university reported similar rates of depression (11%), anxiety (3.9%), and other symptoms compared to domestic students using a 70-item screening instrument [9]. As well, Hyun et al reported in 2007 that international students at a large western US university scored 12.8 on a researcher-created depression index (0–25), and 44% reported “having experienced an emotional or stress-related problem that significantly affected their well-being or academic performance”, compared to a score of 13.3 and 46% reporting among US domestic students [6].

However, Han et al found in 2013 that among Chinese international students at Yale University, 45% reported depression symptoms via the Patient Health Questionnaire 9 (PHQ-9),
and 29% reported anxiety symptoms via the Generalized Anxiety Disorder 7 (GAD-7) measure [10]. These rates contrast strongly against contemporaneous national estimates per the Healthy Minds Study, in which only 17% of all students (across 26 colleges and universities) screened positive for depression and 10% for anxiety disorder [3]. While campus-specific conditions may contribute to this discrepancy, factors such as cultural distance are likely also significant. Mitchell et al found in 2007 that Asian international students at a large eastern university reported higher levels of psychological distress and concerns compared to North American and European international students [11]. Similarly, Yeh and Inose found in 2003 that European students at a large northeastern US university experienced less acculturative stress (including perceived discrimination / hate, homesickness, fear, stress due to change, guilt, and other stress) compared to students from Asia, Africa, and Latin America [12].

Indeed, research findings and practitioner experience both indicate that most major risk factors for international student mental health are strongly tied to cultural differences and acculturation issues. Across studies, international students have often reported their top psychological concerns as being related to (in rough order) academic performance, relationship issues, anxiety and depression, and isolation and loneliness [5, 11, 13-14]. Academic performance is in itself linked to several culturally-salient components, including English language ability; proficiency with American instructional and evaluation styles (which value direct verbal expression during class time and in assessments); and managing working relationships with professors and classmates [2, 15]. Relatedly, while international students often report having strong desire to befriend US domestic students, they often feel challenged by differences in communication style, social expectations, and US domestic students’ stereotypical conceptions of international students [7, 16].

These experiences of marginalization, compounded with the loss of or distancing from previous social networks from their home countries, can result in strong sense of loneliness and isolation in international students, which may further lead to mental health harms or negative
perceptions of their US experience. Lee found in 2010 that at a large southwestern US university, international students from countries with non-predominantly White populations report greater cultural adjustment challenges, as well as stronger perceptions of not being treated as equally or fairly as US students, compared to those from predominantly White countries [8]. Furthermore, perceptions of unequal treatment had the greatest impact on whether an international student would recommend the host institution to others, ahead of all other factors such as satisfaction with institutional services or financial security.

While the mental health status and risk factors among international students may vary across campus settings, international students are consistently observed to seek formal mental health support and treatment services at lower rates compared to US domestic students. Here we highlight a few examples measured through different approaches. Yakushko et al found in 2008 that during a 5-year period, only 1.8% of international students at a large midwestern university ever utilized the school’s counseling services [5]. In contrast, an estimated 9.0% of all higher education students nationally (across 86 HEIs) used counseling services at their institutions over a similar period [17]. Soet and Sevig found in 2006 that 9.4% of international students surveyed at a large midwestern university have ever been in counseling in their lifetime, in contrast to 33% among domestic students surveyed [9]. As well, Hyun et al found in 2007 that among graduate students at a large western US university, 33% of international students surveyed reported having considered seeking counseling, while only 17% actually used services; meanwhile, the gap among the domestic students surveyed was smaller, at 56% and 36%, respectively [6].

Cultural factors also play a major role in international students’ usage of mental health services. Due to differences in societal conceptions of psychological wellbeing, international students are less likely to see individual “talk therapy” – the primary mental health treatment modality in the US – as being helpful for addressing their concerns. Mori reviewed in 2000 that while Euro-American culture tends to view mental health as a property of the individual
psychological self, international students from more collectivistic or relational cultures are more likely to regard psychological concerns as being ultimately rooted in phenomenological forces beyond their personal control [4]. Hence, verbal emotional expression may be regarded as insufficiently solution-driven, or even a disgraceful admission of weakness. In light of this, a sizeable amount of research has focused on cultural stigma among international students towards mental health and help-seeking. For example, Zhang et al reported in 2003, while Yakunina et al found again in 2011, that Asian international students who espoused more “traditional” Asian values or lower levels American acculturation tend to endorse more stigma and lower confidence towards psychological counseling, and were less likely to seek mental health support when needed [18-19].

However, such studies run the risk of ethno-cultural reductionism, by using metrics that essentialize cultures into static characteristics along an either-or scale between “Asian” collectivism, humility, conformity, and “American” emotional self-control, versus individualism, assertiveness, and emotional expression. Instead, the cultural values and norms of a society or community is often dynamic and highly dependent on contemporary context. For international students, contextual factors that may influence formal help-seeking also include a student’s expectations towards meritocratic achievement (often related to their home country’s global political and economic position in relation to the US), general experiences with discrimination in the US, cultural and structural concerns around patient confidentiality, and care providers’ ethno-cultural proximity or humility [2, 4, 8, 16]. East Asian international students, for example, have been consistently reported to strongly prefer therapists with similar ethnic backgrounds as themselves, or at least those with similar lived experiences of marginalization [20-21].

Despite this, Pendse and Inman’s 2017 literature review on international student counseling practices revealed that while studies from 1980 - 2014 have repeatedly examined students’ help-seeking patterns, topics such as culturally sensitive interventions, alternative counseling modalities, and integration of mental health services with improved academic and
career advising, have scarcely received attention [22]. It may not be surprising, then, that Mitchell et al. found in 2007 that among users of counseling services at a large eastern US university, international students were more likely than domestic students to terminate psychotherapy treatment early, endorse suicide ideation, use crisis services, and be hospitalized [11]. There is thus a longstanding and continued need among US HEIs to improve the quality, delivery modality, and cultural fit of formal mental health services for international students, in order to reduce the avoidance, delay, and early termination of service usage.

Of note, much of the research evidence reviewed above were produced more than a decade ago. Meanwhile, much of the social, political, and cultural climates of both the US and the diverse home countries of international students have changed significantly. It is therefore worthwhile for new research, such as this project, to generate evidence contextualized within the current world.

2.2 Chinese international students in the US today

Given the importance of culture and context in international student mental health, this project aims to take a culturally specific approach to examining the social, emotional, cultural, and identity development experiences of Chinese international students (CNIS) in the US today. Here, we highlight some unique characteristics about CNIS in the US today that warrant the attention of this project as well as researchers, educators, and practitioners.

CNIS are currently the largest national group among international students in the US, rising precipitously from 11% of all international students in the 2005-2006 academic year to 34% in 2018-2019 [1]. Among CNIS, 40% are studying at the undergraduate level, 36% at the graduate level, with the remaining in non-degree study or post-completion work training [23]. Hence, while the student demographic compositions and contextual factors may differ across institutions, it is nonetheless likely that learnings from this project may be applicable to a significant portion of international students on campuses nationwide. As well, in addition to
relevance by numbers, the relatively large size of CNIS bodies within and across institutions may also offer insights in how bottom-up organizing of student communities can offer protective effects on mental health and identity development. Studies such as Iwamoto and Liu’s in 2010 have indicated that international students who identify and associate more strongly with co-nationals experience less race-related stress and higher wellbeing [24].

CNIS have founded and operated Chinese Students and Scholars Associations (CSAs) in many HEIs in the US and other countries for decades. Most CSAs have a relatively high degree of structure, including elected officerials, and may be registered with the region’s Chinese consulate where they receive at least tangential administrative support [25]. CSAs often play a major role in weaving together the fabric of social, intellectual, and community life among CNIS and even off-campus Chinese diaspora, through sharing information, hosting events, and providing connections across sectors and communities. Yet, their role in mediating the mental health and identity development of CNIS has scarcely been examined in research or well-understood by educators and practitioners. A closer examination of CNIS’ social organizing, formal and informal, may help HEIs gain insight into community-based solutions for international student mental health.

However, despite the likely benefits of community, CNIS in the US nonetheless often experience high levels of psychological distress. As described above, Han et al reported 45% depression and 29% anxiety rates among CNIS survey respondents at Yale University in 2013, while only 4% of respondents reported ever using campus mental health counseling services [10]. Similarly, Wei et al reported in 2007 that 32% of CNIS respondents at a midwestern university reported depression symptoms [26]. Lastly, Cheung found in 2011 that among CNIS at a large southwestern US university, 47.5% reported depression symptoms, and 48% reported anxiety. They also self-reported to be as likely to “do nothing” about depression symptoms as they were to seek professional mental health help, but more than twice as likely to seek advice about these symptoms and related issues from family or friends [27].
As with international students in general, a range of structural and cultural risk factors are known to contribute to low mental health and help-seeking among CNIS. As reviewed by Zheng and West-Olatunji [28], a series of studies by Yan and Berlinger from 2009 - 2013 summarized CNIS’ mental health risk factors as being related to academic stress, job opportunities, visa concerns, personal relationships, and culture shock and adjustment stress. Of these, academic stress is noted to be particularly high among CNIS, often self-attributed to their internally high motivations to achieve [29]. Other studies have probed the causes of this particular salience through a variety of theoretical lenses. For example, Wei et al focused on the interactive effect of maladaptive perfectionism (defined as the discrepancy between one’s expectations and actual performance), acculturative stress, and time spent in the US on CNIS’ depression symptoms [26]. As well, Young’s review of literature interpreted Asian international students’ socio-cultural stressors through the Confucian ethics of ren (仁, “human-heartedness” or benevolence), xiao (孝, filial piety), and li (礼, decorum or “correctness of behavior”) [15].

While these examinations of CNIS’ psycho-cultural characteristics may illuminate points of concern during their acculturation process, they must be considered in context of the cultural particularities of the US, in which CNIS are embedded. Otherwise, as stated in section 2.1, such analyses run the risk of reducing “Chinese culture” to a set of characteristics that heighten one’s risk for mental health harms. An alternative or complementary view of CNIS’ high academic stress may examine their drive to succeed through the narratives of “American meritocracy”, striving to make one’s individual and collective sacrifices worthwhile, and the “model minority” concept of Asian exceptionalism and resilience. These narratives interact in complex ways with the preconceptions and perceptions of US domestic students, faculty, and staff on CNIS, resulting often in experiences of cultural conflict and discrimination (real or perceived). For example, a 2013 study on US domestic students at a large midwestern university revealed stereotypical conceptions towards CNIS ranging from “smart/hardworking” to
“oblivious/annoying” [7]. Meanwhile, international students from non-predominantly White countries, including Asian countries, report stronger perceptions of unfair or unequal treatment as US domestic students, even compared to those from predominantly White countries [8].

Furthermore, CNIS in the US today are immersed in a particular socio-cultural climate that may further complicate their mental health and identity development. In the last several years, American society has been experiencing particularly high social tensions along the dimensions of race and ethnicity, class, immigration status, and global competition. This is may be attributed to a confluence of many social, historical, and geo-political factors, including the decades-long erosion of the American middle class, the US’ decline in global economic dominance in manufacturing and export, and China’s concurrent rise to economic and political prominence. Caught in the middle of an escalating “great powers” struggle between two nation states, civil society in both China and the US have been percolating in contradictory impulses, where willingness for cultural exchange has seemingly increased at the same time as mutual antagonism, stereotyping, and xenophobia. These tensions can be observed in contentious popular discourses in both countries around recent events, including the US-China trade war; political conflicts within Chinese territory (e.g. Xinjiang, Hong Kong); and the COVID-19 coronavirus global pandemic, which originated in China. Thus, CNIS in the US today are subjected to heightened cultural conflict between their host and home countries, which is likely to impact their mental health, identity development, and identity-salient values and beliefs (e.g. nativism vs. multiculturalism, social collaboration vs. competition) in ways not previously understood.

The linkage between these broad socio-cultural factors and an individual’s mental health may be best understood through a social psychology approach. While traditional models of psychology tend to focus on the individual’s internal traits and processes as the source of their behavior (including acculturation, coping, and help-seeking), a social psychology approach examines the interactions between a person’s internality, externalized behaviors, and the social
environment (including group dynamics, culture, and identity). For this project, we examine the experiences of CNIS through the lens of *belongingness*, a social psychology construct that has been applied to student mental health and behavior in a variety of educational settings. Further, we problematize CNIS’ belongingness issues in the context of diversity, equity, and inclusion (DEI) functions in US HEIs. The section below describe these issues in detail.

2.3 Belongingness in higher education

In the past two decades, the concept of belongingness has become increasingly important for education research and practice at the K-12 (“school belonging”) and higher education (“university belonging”) levels. Currently, a variety of functional definitions exist. Drawing on a body of research, Glass and Westmont described university belonging in 2014 as “students’ sense of connection with their college, degree of social support, and experience of both academic challenge and support” [30]. Similarly, Pittman and Richmond theorized in 2008 that the contributing factors include “a sense of commitment to the institution, individual commitment to work in this setting, and a sense of one’s abilities being recognized by others” [31]. Further, Slaten *et al* examined in 2014 and 2016 through two qualitative studies how undergraduates at a large midwestern US university defined the term. Among students in general, the main themes were “feeling valued by others in group settings, sustaining meaningful personal relationships, being aware of the campus culture, and feeling supported by the university environment” [32]. Among Asian international students in particular, 14 themes were identified under 5 domains, including “interpersonal interactions, experiences of acculturation, campus environment, emphasis on academic achievement, and intrapersonal factors” [33]. Given the diversity of definitions and constructs, no standard measurements currently exist for evaluating belongingness among higher education students.

Meanwhile, university belongingness is increasingly seen as a purview of diversity, equity, and inclusion (DEI) functions in US HEIs. For example, the 2018 Harvard University
Presidential Task Force on Inclusion and Belonging defines belonging as “the experience that flows from participating fully in the chances [the institution] offers to learn, to create, to discover, and to achieve” [34]. The Task Force then describes the work of achieving greater belongingness through improving campus DEI in four goal areas, including 1) recruitment, retention, and development; 2) academic, professional, and social integration; 3) academic freedom and culture of mutual respect; and 4) inclusive values, symbols, and spaces. Such a framework thus fully integrates DEI and belongingness issues into every aspect of university operations and campus life.

However, the implementation of DEI and belonging initiatives at US HEIs often fall short of including the needs and experiences of international students. Here, a brief history of DEI and internationalization in US higher education may be illuminating. As reviewed by Clauson and McKnight, DEI programs and centers evolved from Black, Hispanic/Latinx, Asian, and Asian American “cultural centers” that emerged during the 1960s civil rights movement [35]. In the 1970s-80s, many such centers consolidated into “multicultural centers” that incorporated other identity dimensions such as gender and sexuality, nationality, and religious affiliation. In the 1990s-2000s, centers expanded their mission from directly servicing the needs of underrepresented populations, to educating the broader campus community on social justice and intercultural competence [36]. Lastly, in the 2000s-10s, student activism and changing campus demographics led to the establishment of senior-level DEI administrators at many HEIs. The National Association of Diversity Officers in Higher Education (NADOHE) was formed in 2007 to provide a professional network and learning community for DEI affairs.

Perhaps due to its history rooted in US domestic social justice movements, DEI in higher education has largely focused on US-centric dimensions for equity. Among articles published in the *Journal of Diversity in Higher Education*, a joint publication by NADOHE and the American Psychological Association since 2008, the top 25 most frequent keywords contain 6 references to race, 2 to gender and sexuality, 2 each to college and graduate education, and none to
international students or nationality issues [37]. While international students do experience direct or structural racism and other forms of identity-based marginalization, US-centric framing of such issues is often unfamiliar and alienating for them, who may not see themselves as “persons of color” or identify with the particular experiences of US racial-ethnic minorities [38]. For Asian international students, in particular, a frequent implicit identification with the “model minority” construct as well as preconceived stereotypical notions of “persons of color” through US media consumption often lead to a further distancing from solidarity with US racial minority groups and associated programs and services [39].

Meanwhile, international student service centers at HEIs often define their purview as legal and logistical support, with little understanding or programmatic initiative in supporting students’ mental health, identity development, or belongingness. This belies a structural gap in how “internationalization” is conceptualized in US higher education. NAFSA: Association of International Educators, the main professional organization for international education in the US, consists of five “knowledge communities” for cross-learning and operational alignment: 1) education abroad advising and administration, 2) international education leadership development, 3) international enrollment management, 4) international student and scholar services, and 5) teaching, learning, and scholarship [40]. While study abroad advising for US students includes intercultural and personal development dimensions, no such equivalent exists for international student advising; instead, the core competency of the relevant professionals pertains solely to visa-related legal administration. As well, US campus internationalization, the purview of leadership teams, is typically defined through academic collaboration with international partner HEIs and the international student recruitment and enrollment pipeline, with little view towards students’ experiences once here. Coupled with the shortcomings of DEI services, this results in fragmented institutional landscapes in which belongingness issues for international students is multiply marginalized.
While institutional services have tended to overlook international students’ needs in mental health and belonging, students themselves – and in particular CNIS – have often built vibrant communities with co-national and diaspora members on and off campus. This raises two issues for research and practice. First: how might university belonging be redefined to incorporate international students’ relationships with co-national and diaspora communities? Current literature has focused on students’ belonging to “the university” in general; yet any large community, including at HEIs, inevitably consists of multiple sub-communities and targets of identification that may exist in parallel, in synergy, or in exclusion of each other. It is therefore of interest to examine how international students’ identification with and participation in different communities may enhance or deter their engagement with other communities, and the relevant factors thereof. Secondly: given this, how might HEI practitioners better integrate programs and services with student needs and initiatives, such that activities can mutually enhance (rather than deter) belongingness from international students to the larger campus of mainly US domestic students, faculty, and staff, and vice versa?

In sum, this project seeks to understand 1) CNIS’ sense of belonging during their time in the US; 2) how belongingness relates to their mental health and identity-salient values and beliefs; and 3) what HEI practitioners and student communities may try and do to support mental health, identity development, and belonging among CNIS. Section 3 below outlines the theoretical framework underlying this inquiry, and articulates the research questions.
3. THEORETICAL FRAMEWORK

3.1 Social identity approach to health

Social psychology is a broad field of study that examines how an individual’s cognition, emotions, and behaviors are influenced by social factors, including other individuals, groups, and social structures. Under this umbrella, a sub-field has emerged in the last two decades that focuses on the application of social identity theory to mental and physical health. Social identity is defined as “[an] individual’s knowledge that [s/he] belongs to certain social groups, together with some emotional and value significance to [him/her] of this group membership” \[41\]. The social identity approach to health (SIATH) combines this concept with a social analysis of the determinants of health, by emphasizing that both an individual’s membership in social groups, as well as their psychological identification with these groups, play central roles to health and illness \[42\].

Proponents of SIATH have defined 15 core hypotheses that outline this relationship, which may be summarized into the following: 1) that individuals are more likely to trust, interact with, and receive the health benefits of social groups with which they identify more strongly; 2) that an individual may have multiple social identities, which may be mutually compatible or contradictory, with accordingly interactive effects on their health; and 3) that much of human behavior can be understood as processes to enhance or restore positive social identities, and that many socio-ecological factors can help scaffold these efforts \[42\]. Thus, interventions that address either the individual or structural bases of social identity processes can constitute “social cures” against ill health \[43\].

For this project, I focus on a specific theoretical application of SIATH, the social identity model for identity change (SIMIC). As proposed by Haslam et al, SIMIC describes the social identity changes that accompany periods of major life transitions. Figure 1 outlines its major constructs. Transitional events may introduce stress and negative psychological and health consequences, particularly when existing social identities are threatened; however, they also
introduce opportunities to gain new identities. To mitigate transitional stress, individuals can benefit from three psychosocial pathways: maintaining pre-existing social identities, gaining new ones, and establishing greater compatibility between old and new identities [42]. These processes necessitates constructive interactions between the individual and their social-ecological environment; hence, interventions may occur at either proximal or distal levels, including psychotherapeutic interventions, socially creative measures to restore an identity group’s collective agency, or social change action to reduce disadvantage and stigma associated with certain identity groups.

SIMIC has obvious implications in both higher education and mental health service settings. Ethier and Deaux found in 1996 that among Hispanic students attending two US Ivy League universities, those with both low identification in their ethnicity as well as to the university environment experienced more transition stress and lower self-esteem [44]. Meanwhile, those with stronger ethnic identification tended to engage in related university activities, and were better able to “remoor” their previously family-based Hispanic identity to the university setting and connect with its supportive social elements. More recently, McNamara et al examined in 2017 the transition experiences of youth mental health patients from adolescent services to adult services in the UK [45]. They found that patient disengagement and drop-out were often due to poor coordination between adolescent and adult service providers: lack of preparatory information from the former led to patient’s uncertainty and low trust in the transition process, while lack of understanding and goal alignment from adult service clinicians resulted in further disengagement. This highlights the importance of having a “trusted other” in facilitating identity transitions.

3.2 Research questions

Given the above problem framing, this DELTA project aims to understand how CNIS in the Greater Boston area experience belongingness, defined through the social identity approach to health as the state in which students’ multiple social identities are able to achieve mutual compatibility. I will examine CNIS’ social identity transition by identifying the meanings they imbue on the transition process and on their dual identities as “Chinese persons” and “students at US HEIs”. Given the central role of social identities to health, I also investigate the relationship between students’ sense of belongingness and their mental health experiences, as well as other identity-salient values and beliefs. Lastly, I examine how different individual, institutional, or structural actors within CNIS’ social worlds serve to scaffold their social identity transition to their benefit or detriment. I aim to develop recommendations for
diverse community and institutional stakeholders to engage more effectively with international students' transition experiences. In summary form, the project’s research questions are:

1) What comprises CNIS’ sense of belonging during their time in the US?

2) How is belongingness related to CNIS’ mental health and wellbeing, as well as their identity-salient values and beliefs?

3) How might different actors (e.g. HEI staff and faculty, mental healthcare professionals, peer groups, etc) influence CNIS’ sense of belonging to promote positive identity integration and mental health?
4. METHODS

4.1 Overall project design

This DELTA project is a qualitative research study, which examines the relationship between social identity, sense of belonging, and mental health experiences among Chinese international students (CNIS). I seek to generate findings that present CNIS’ lived experiences to diverse community stakeholders, including educators, support staff, mental health professionals, and student organizations. As well, I aim to generate programmatic recommendations for these stakeholders that may further their understanding, engagement, and support of CNIS under their charge.

4.2 Host organization

This DELTA project is conducted under the auspices of the Center for Cross-Cultural Student Emotional Wellness (CCCSEW) at Massachusetts General Hospital (MGH) in Boston, MA. CCCSEW is “a consortium of clinicians, educators, and researchers who are passionate about understanding and promoting the emotional health and psychological resilience of students and scholars from diverse cultural backgrounds” [46]. It is a convening place for public health and clinical research, practice, and advocacy.

Currently, CCCSEW’s main target populations are Asian and Asian American students and families. Its core operations include: psychoeducation and public advocacy events about culturally-specific mental health issues among the populations of interest; trainings and seminars for educators and mental health professionals; individual consultations for students and families; and research on mental health needs and culturally appropriate interventions for these populations. One example of recent major output is the documentary Looking for Luke, co-produced by CCCSEW researcher Juliana Chen and the MGH Clay Center for Healthy Young Minds, which examines the 2015 suicide of Harvard undergraduate student Luke Tang.
The film has been screened on college campuses and at practitioner events to incite awareness and action about the salient intersection of mental health and culture.

The DELTA project will be overseen by the Director of CCCSEW, Dr. Justin Chen, MD MPH. Dr. Chen is the Medical Director of Ambulatory Psychiatry and Co-Director of Primary Care Psychiatry at MGH, and an Assistant Professor of Psychiatry at the Harvard Medical School. His clinical and research specializations include mood and anxiety disorders among young adults, cross-cultural psychiatry, stigma, and racial/ethnic disparities in mental health care utilization. Dr. Chen is a frequent collaborator with practitioners and researchers in the Greater Boston area to advance the treatment, prevention, and advocacy of mental health concerns for diverse student populations, particularly Asian and Asian American students.

4.3 Study population and participant recruitment

The study's population of interest is recent CNIS studying at higher education institutions in the Greater Boston area. While the research topic concerns student mental health, I decided not to restrict the sample to only those with documented mental health concerns, since 1) under-diagnosis and under-utilization of mental healthcare are known issues among CNIS; 2) due to socio-cultural and contextual factors, clinical diagnostic criteria for mental illness or emotional disorders may not fully capture the mental health risks and experiences of CNIS; and 3) this study seeks to assess the experiences and perceptions of CNIS in general, including the extent to which CNIS consider or understand mental health as an issue in their communities.

Participant recruitment was conducted via email and Wechat (a highly popular messaging and social media mobile application among Mainland Chinese communities), which included a link to a short demographic survey. Recruitment messages were sent to key informants in the CNIS community as well as public accounts of CNIS student organizations, as well as enrolled participants (i.e. snowballing), for referral to their networks. Participants were deemed eligible if they indicated on the survey as being 1) from Mainland China, and 2) either
currently enrolled in a post-secondary degree program on a F-1 or J-1 student visa, or was a holder of such status within the past 2 years (i.e. a recent graduate); \textit{and} 3) having lived / studied in the US for more than 1 year. Other items on the demographic survey included:

- Age;
- Gender;
- City / town of origin in China (including “urban” vs. “rural” designation); these indicators often correlate with family socioeconomic status;
- Degree level of current or most recent study in the US (i.e. undergraduate / graduate);
- Program / area of study (e.g. humanities, sciences, law, business, health, etc);
- Host institution of study;
- Previous educational experiences in China and (if applicable) abroad;
- “Do you know about, or think about, the mental health of Chinese international students? If so, how? (It's OK if you do not.)”
- “Do you know about, or think about, issues related to Chinese international students, Chinese immigrants, or Chinese/Asian Americans? If so, how? (It's OK if you do not.) Some examples might include: visa & immigration policies, university admissions, social welfare, US-China relations, discrimination, fairness, and any others of your choosing.”

Based on survey responses, participants were enrolled into the study using a purposive sampling approach, in which new participants were preferentially enrolled if their inclusion would increase variation across key demographic factors. I chose not to employ a strict maximum variation sampling approach, which would require constructing a matrix with tiers corresponding to each key demographic factor, and cells populated by 2-3 persons each to ensure thematic saturation; this would have led to an unmanageably large sample size requirement. Instead, the above factors were used as guidelines during sampling and analysis, to inform results interpretation in terms of potential biases, validity, and generalizability.
4.4 Data collection and analysis

Qualitative data was collected through semi-structured interviews between the lead researcher (i.e. myself) and individual participants. Interview sessions lasted between 47 - 82 minutes in length, and were held in locations of each participant’s choosing that granted privacy, such as university classrooms, library study rooms, and dormitory rooms. Interviews were mainly conducted in Mandarin Chinese, and were voice-recorded and manually transcribed in the original language(s). Participants were compensated for their time and effort with a $15 gift card at the close of the interview.

The semi-structured interview guide is included in Appendix A. The interview guide is based on the project’s research questions (see section 4.3), and probes at various experiential dimensions of the central themes of social identity, belongingness, and mental health. Interview questions can be roughly divided into five categories:

1) “Tell me about yourself”: participants were asked to give a narrative account of their personal background, motivations for studying abroad, and reasons for choosing their current environment specifically.

2) “What has it been like adapting to this place?": questions focused on descriptions of positive and negative experiences; challenges, facilitators, and solutions; and their emotional and behavioral responses to these situations. Here, the inquiry also often branches into what participants have observed among CNIS peers, or their perception of common issues.

3) “Who are you connected to currently? Who are you not?”: questions investigated participants’ social world, including sources of practical and emotional support and/or conflict, (cross-cultural) interaction challenges, participation in CNIS and other communities on and off campus, and use and/or perception of mental health services.

4) “What do you think about (social) issues related to CNIS and Chinese people in the US?”: using topics of potential concern to CNIS (e.g. US-based responses to the 2019 - 2020 Coronavirus outbreak in China; affirmative action and immigration policies; etc), I probed
participants’ for their interpretations for how their values and beliefs may be related to their national-ethno-cultural identities, as well their perceptions of how Americans’ views of the same issues may be related to these identities.

5) “Do you feel like you belong here?”: using oblique questions such as “if the university were to improve things for CNIS, what would you suggest?”, as well as “after your studies, do you plan to stay here or return to China?”, I probed participants for their sense of belonging to their campus environment and to the US.

Following transcription, qualitative data from interviews was analyzed for thematic content throughout and after the data collection phase. Transcripts were analyzed in Mandarin Chinese; the codebook was developed in English. Interview excerpts were translated at the end of data analysis for results reporting. Data analysis was conducted by the lead researcher (i.e. myself), with minor input from my host organization, doctoral committee, and the DrPH program’s qualitative research methods seminar for DELTA doctoral project students.

A combination of inductive and deductive approaches were used for identifying and developing salient themes. During the initial pass of analysis, three transcripts were chosen and read together inductively, and coded for salient thematic content that were similar, contrasting, or related. These codes were then organized in a table that attempted to visualize their relational structure. Three more transcripts were then read together and coded using the existing scheme, while any new codes identified were added to the codebook table. After this point, I re-organized the codebook table with guidance from the “social identity approach to health” theoretical framework (developed by Haslam et al; described in section 4.1). Salient connections between social identity processes, concepts of belongingness, and mental health and emotional wellbeing experiences were noted. This process (inductive code development using three transcripts – inductive code enrichment using three more transcripts – deductive code rearrangement using theory) was then iterated until all transcripts were incorporated into the existing scheme, and re-coded using the evolving codebook.
During data collection and analysis, a number of measures were used to reduce bias and enhance study validity. Regarding *internal validity*, themes emerging from data analysis were triangulated with literature with mental health researcher-practitioners in the host organization. As well, following preliminary data analysis, a brief summary of thematic learnings from each participant were provided back to the participant, i.e. “member-checked” for accuracy and credibility. Regarding *external validity*, this study does not claim generalizability beyond the bounded scope of CNIS in the Greater Boston area of today. Contextual factors around the interviews were documented and reported to allow reader’s interpretation of the findings’ transferability. Regarding *reliability and confirmability*, unfortunately the study budget and time does not allow for additional research personnel to assist in codebook development and inter-rater reliability checks. Future analyses may seek to improve upon this aspect.

### 4.5 Results dissemination and change advocacy

In accordance with the mission of the Harvard Chan School Doctor of Public Health program to provide practical training in public health leadership and change implementation, this DELTA doctoral project considers study results dissemination and change advocacy as part of its essential work components.

In the original project proposal, I planned to conduct two simultaneous work streams that would iteratively inform each other: 1) the *qualitative research* component, consisting of CNIS interviews; and 2) the *stakeholder consultation* component, consisting of a series of meetings with key community stakeholder groups (e.g. educators, mental health professionals, student organizations), which would set the groundwork for building a local community coalition for addressing CNIS mental health in Greater Boston’s higher education institutions.

The latter work stream was to be informed by principles of community-based participatory action research (CBPAR), in which community participation – often in the form of a community advisory board (CAB) – is infused at all stages of the project, from priority setting,
study design, implementation, to results dissemination. Due to constraints in the project’s timing and personnel capacity, I adopted a modified CBPAR model, wherein stakeholder engagement would take place concurrently with CNIS interviews. At the project’s end, I aimed to have built strong working relationships between community members and the host organization, such that formal advisory structures (e.g. CABs) may be convened for guiding future research and action. As part of my deliverables to my host organization, a stakeholder map was to be constructed that detailed the list of relevant stakeholders, their positions and powers, and potential strategies for mobilizing them towards supporting the cause [47].

However, early in the implementation of this dual work stream approach, it became apparent that organizing a diverse community of stakeholder groups to mobilize around a latent concern (rather than an acute crisis) was a significant challenge. In speaking to 6 stakeholder parties (4 university offices of student advising and diversity & inclusion, 1 mental health researcher-practitioner, and 1 start-up peer support organization), I was able to generate preliminary interest in my research findings, but unable to gain a sense of specific commitment towards organizing and mobilizing around the issue. As well, during the CNIS interview participant recruitment process, I realized that both myself and my project host organization lacked strong prior working relationships with local community stakeholders (in particular, CNIS student groups) even to mobilize them for participant recruitment publicity. These process learnings will be discussed in greater detail in section 8.

Hence, the project has since been redesigned to consist mainly of the qualitative research work stream, followed by a second phase focused on results dissemination, change advocacy, and stakeholder organization / mobilization. Due to the project’s timing, this second phase may not be significantly under way until after the DrPH doctoral defense and thesis submission. However, it is still considered to be an essential component of the project.

Per the new design, results from the qualitative study will be disseminated to community stakeholders through a variety of channels, including:
A summary report of findings and programmatic recommendations, published publicly under CCCSEW’s name, accessible through their website and by request;

- Publication of research findings in academic journals;
- Presentations at academic and industry conferences;
- Debriefing sessions or psychoeducation workshops with institutional practitioners and/or student groups;
- Public events based at universities, open to the relevant communities at large.

Based on the findings and recommendations from the qualitative research study, and in concurrence with community feedback from the above dissemination efforts, I will develop a strategic plan for community organizing and change advocacy with the host organization. The strategic plan will be structured upon evidence-based coalition-building and community organization frameworks, such as the SSIR collective impact model [48]. For more details and specific goals on dissemination and community organizing, see section 6 below.
III. RESULTS STATEMENT

5. QUALITATIVE RESEARCH

5.1 Sample characteristics

This section describes the basic characteristics of the study population. In total, 25 semi-structured interviews were conducted with CNIS who was either currently enrolled, or has recently been enrolled (within the past two years), at an HEI in the Greater Boston area. Data from these interviews constitute the results of the qualitative study portion of this project.

Tables 1 and 2 describe the overall demographic characteristics of the participants, as well as their host institutions of study. For a table of participant profiles (i.e. information listed by person rather than in summary categories), see Appendix B. The majority of participants female (76%), were between 23 -25 years of age (52%), currently or recently enrolled in master’s degrees (72%), and doing so at a large (>15,000 enrollees) private not-for-profit university in Greater Boston. The great majority (92%) reported their hometowns, or “hukou” residential registration locale in China, as an urban area. This is typically a strong indicator for familial socio-economic status, with urban residents having higher incomes, more likely to work in professional careers, and more access to education resources.

Fewer participants (40%) had previously studied abroad (outside of China) prior to their current or most recent degree than those who had not. These often included prior study in the US, hence more participants had been in the US for longer (4 years or more, 44%) than more recent arrivals. Possibly due to a snowballing sampling approach, their fields of study clustered around several topic areas, including business and management (e.g. accounting); clinical science (e.g. pharmacy); social science and humanities (e.g. economics, religion); professional social science (e.g. education, journalism); and science, technology, engineering, mathematics (“STEM”, e.g. public health, environmental science). While this sample is not intended to be representative of all CNIS in the Greater Boston area, it nonetheless provides a relatively diverse window into local CNIS perspectives.
Participants reported being current or recent enrollees at 8 higher education institutions (HEIs) in the Greater Boston area. Nearly all institutions were private not-for-profit universities offering 4 or more years of degree study, with “very high” research capacities (according to the Carnegie Classification of Institutes of Higher Education, 2018 data) [49]. The majority (76%) of participants were recruited from large institutions with >15,000 enrollees as of fall 2017; this may be attributed to larger institutions having larger and more active CNIS student networks that supported study recruitment. Note that the percentages of enrolled students who were international students, or CNIS, respectively, are estimates based on publicly available data from each institution’s websites, which may or may not have taken into account subtleties such as short-term exchange students (as opposed to full-time degree study) and J-1 visa scholars (who may either be in the US for study or employment). As well, these estimates refer to the overall rates across the entire HEI, which may consist of multiple colleges, professional schools, and other functional units; yet, participants reported that students (international or domestic) largely participated in academic and social life within their own functional units. Hence, these figures serve here as general reference only.

Table 1. Basic characteristics of study participants (n=25).

<table>
<thead>
<tr>
<th>Age</th>
<th>Count (n)</th>
<th>Degree of study</th>
<th>Count (n)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>3</td>
<td>Bachelor’s</td>
<td>3</td>
</tr>
<tr>
<td>23 - 25</td>
<td>13</td>
<td>Master’s</td>
<td>18</td>
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<tr>
<td>26 - 30</td>
<td>9</td>
<td>Doctorate</td>
<td>4</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>Institution of study</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>19</td>
<td>Private, &lt; 15,000</td>
<td>5</td>
</tr>
<tr>
<td>Male</td>
<td>6</td>
<td>Private, &gt; 15,000</td>
<td>19</td>
</tr>
<tr>
<td>Hometown in China</td>
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<td>Public, &gt; 15,000</td>
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</tr>
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<td>23</td>
<td>Field of study</td>
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<td>Business &amp; management</td>
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<td>Previous study abroad experience</td>
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<tr>
<td>Yes</td>
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<td>15</td>
<td>Social science - professional</td>
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<td>&lt; 2 years</td>
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</tr>
<tr>
<td>2 - 4 years</td>
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<tr>
<td>&gt; 4 years</td>
<td>11</td>
<td></td>
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</table>

Participants reported being current or recent enrollees at 8 higher education institutions (HEIs) in the Greater Boston area. Nearly all institutions were private not-for-profit universities offering 4 or more years of degree study, with “very high” research capacities (according to the Carnegie Classification of Institutes of Higher Education, 2018 data) [49]. The majority (76%) of participants were recruited from large institutions with >15,000 enrollees as of fall 2017; this may be attributed to larger institutions having larger and more active CNIS student networks that supported study recruitment. Note that the percentages of enrolled students who were international students, or CNIS, respectively, are estimates based on publicly available data from each institution’s websites, which may or may not have taken into account subtleties such as short-term exchange students (as opposed to full-time degree study) and J-1 visa scholars (who may either be in the US for study or employment). As well, these estimates refer to the overall rates across the entire HEI, which may consist of multiple colleges, professional schools, and other functional units; yet, participants reported that students (international or domestic) largely participated in academic and social life within their own functional units. Hence, these figures serve here as general reference only.
<table>
<thead>
<tr>
<th>Inst. #</th>
<th>Public / private</th>
<th>Research capacity</th>
<th>Undergrad enrollment</th>
<th>Graduate enrollment</th>
<th>% int'l std. enrollment</th>
<th>% CNIS enrollment</th>
<th># of participants</th>
</tr>
</thead>
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<td>1</td>
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<td>DU/VH</td>
<td>9965</td>
<td>21155</td>
<td>20 b</td>
<td>~5</td>
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</tr>
<tr>
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<td>DU/VH</td>
<td>18080</td>
<td>15275</td>
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<td>~11</td>
<td>7</td>
</tr>
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<td>19</td>
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<td>2</td>
</tr>
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</tr>
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<td>12</td>
<td>N/A</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 2. Institutional characteristics. a) Data from the Carnegie Classification of Institutes of Higher Education for AY2017-18. DU/VH: doctoral university, very high research activity; DU/H: doctoral university, high research activity; MU/L: master’s college and university, larger programs. b) Data from Institute of International Education (IIE) Open Doors data set for AY2017-18. Remaining data on international student and CNIS enrollment are from each HEI’s websites, including institutional research reports on student demographics.

In addition, 6 informational interviews were held with local community stakeholders including student advising staff (n=2), DEI staff (n=2), and a mental health practitioner (n=1) at various HEIs and supporting institutions, as well as an organizer of a CNIS peer support service under start-up development (n=1). This constituted formative research on institutional support practices for international students, which served as validity checks against student interview data, supplementary information for formulating program recommendations, and relationship-building groundwork for future change advocacy. These interviews were not audio-recorded, and field notes are not included in formal qualitative data analysis below.

5.2 Belongingness: social identities under transition

Thematic analysis of the interview data using the social identity model for identity change (SIMIC) revealed that CNIS conceptualize their identity transitions during study abroad along three major experiential dimensions. CNIS in the US contend with maintaining their prior
social identity as “Chinese persons”, while acquiring the new identity of “American’ students”, meaning students studying at HEIs in the US. The superimposition of these two identities create experiential conditions that, in general, contrast with their prior experiences in China: 1) “from permanence to impermanence”, 2) “from cultural majority to cultural minority”, and 3) “from a more embedded self to a more independent self”. The interactions between these experiential transitions define the compatibility between the maintained identity (“Chinese persons”) and the new one (“American’ student”), which in turn results in either a high or low sense of belonging in their environment. Meanwhile, social environment “scaffolding” around the individual may actively or passively influence these experiential and identity integrations. This section describes these transitions, interactions, and their effects on belongingness in greater detail.

The first transition, “from permanence to impermanence”, describes CNIS’ existence in the US as being both substantively and psychologically impermanent, temporary, and conditional on external factors beyond their own control (such as immigration policies and university regulations). This experiential dimension impacts many aspects of international students’ time in the US, including academic performance, employment opportunities, personal and intimate relationships, and social and professional community-building. Impermanence may often become a source of stress, particularly when combined with experiences that result in threats to material and existential security (e.g. loss of visa status). However, it may also become a source of empowerment, when positively combined with appropriate opportunities and risks to “try out” things that a more permanent environment may not have afforded.

The second transition, “from cultural majority to cultural minority”, denotes a frequent and significant challenge in many CNIS’ experiences abroad. Approximately 90% of China’s population today are of the Han ethnic majority, which also predominates higher-income regions in the country with more access to international education; among the participants of this study, no one has indicated ethnic minority status. Hence, the experience of becoming an ethnic,
cultural, and linguistic minority in the US are often a significant psychosocial challenge to CNIS. Of note here is that English proficiency is often regarded by participants not only as a basic, necessary tool for their academic study, but also as a facilitator for identity building and expression. Participants frequently cite “not having common language” with US students and peers, both in the sense of not being able to find adequate expression of their own thoughts, and in the sense of lacking common cultural references and interests to build emotionally salient interactions. As a result, one participant stated:

CNIS #18: I’ve felt like, for a long time, that I haven’t really been able to be myself… I had a personality and confidence from back in China that only my Chinese friends here know. It’s very hard trying to convey a personality in English. I feel like I’ve gotten better at it, but I wonder how long it will take before I can be my real self again.

The third transition, “from a more embedded self to a more independent self”, is linked with the fact that many CNIS are at a relatively early stage of their adult development, for which social, psychological, and material self-efficacy is an important growth challenge. A great majority of participants cited their motivation for studying abroad to a desire to “see more of the bigger world outside [of China]”, in addition to academic field-specific learning and career goals. While CNIS in graduate studies have typically had experiences living, and sometimes working professionally, away from their families of origin prior to leaving China, a significant portion of the participant had their first study abroad experiences at the undergraduate or even high school levels. Students must often contend with the developmental processes of learning how to manage personal priorities with increasing independence, while grappling with a loss of continuity in social identity.

As posited by the SIMIC, when the transition experiences are positively interactive, participants were better able to integrate their “Chinese person” identity with their “American student” one, resulting in a stronger sense of internal compatibility as well as belongingness to their current environment. In general, participants spoke of their study abroad experiences as a
process of becoming more “capable”, more “mature”, and “more able to know what I want and how to get myself there”, even while the process was at times “anxiety inducing” and “high pressure” due to the threat of insecurity and uncertainty, as well as “lonely” or “isolating” due to their status as cultural minorities. A few participants spoke of relatively serious psychological and behavioral consequences, such as temporary formal withdrawal from studies, somaticizing mental pressure into eating disorders, and violent conflict with others over racist interactions. Upon analysis, the impact of appropriate social and structural scaffolding became apparent in guiding CNIS towards positive integration of one’s social identities and sense of belonging. This was often achieved through a combination of support via social identity in-groups (e.g. other CNIS), as well as a select group of “trusted others” (e.g. academic advisors, mental health service counselors, and occasionally non-CNIS peers).

One example of positive identity integration can be found in participants #21. Participant #21 came to the Boston area for master’s studies in finance. She received her bachelor’s degree in a relatively remote region in China, so she aimed for her graduate studies to take full advantage of the wide range of academic, professional, and social opportunities that a metropolis like Boston could offer. Through networks on the digital group messaging and social media platform Wechat, she explored events and activities hosted by and affiliated with the Chinese students and scholars’ associations (CSAs) of her university and other local HEIs. Within 1.5 years, she participated in four internships, start-up endeavors, and student-led conference organizing efforts, on top of online coursework additional to her degree studies. While the pressure to accomplish all her goals were at times “terribly exhausting”, she felt that she had gained skills and experiences that would advance her career, as well as a sense that:

    CNIS #21: I know now that these are all the things I’m capable of; you could not possibly know, until you try. If I were back in China, I’m not sure that I’ll have access to all these different things, or even have the guts to experiment with myself. But here I can do that.
As well, participant #21 acknowledged that access to CSA-led events, and CNIS-focused project opportunities, were instrumental to her growth: “if I had to try to do the same kinds of things in an English-only environment, working only with Americans, I don’t think I’d be able to do nearly as much.” Hence, through the scaffolding of CNIS-dominant communities and opportunities that reduced the “cultural minority” threat, participant #21 was able to integrate the “impermanence” and “becoming independent” aspects of the international student experience to achieve greater self-efficacy and belonging.

In contrast, one example of experiential transitions integrating in a negative manner can be found in participant #9. Participant #9 first left China to study abroad at the undergraduate level, at a large public university in a small college town in eastern Canada. He described the environment as isolating and “difficult to adjust to”:

**CNIS #9:** *Class sizes were big, and people didn’t really have a chance to get to know each other. There weren’t many CNIS, but there were Asian Canadians who mainly spoke English; I was able to bond with many of them over video games and sports… It could often get really hard though. I’m from a warm climate, and the place was so cold, that lots of people didn’t really go outside. Sometimes you could be in your room all day – get lecture notes from classmates, do the assignments, and then just never leave. There were some people I knew there who wouldn’t go outside for weeks.*

Participant #9 eventually took formal leave of absence from the university, and returned to his hometown in China to readjust, before returning to finish his bachelor’s degree. When asked why he chose to study abroad again for a master’s degree in Boston, he expressed a combination of pragmatism and optimism:

**CNIS #9:** *For the field I’m going into, it’s best if you have a degree from outside China; you’ll be taken more seriously. Also, Boston is a bigger place, with more things to do. So far I’ve felt pretty good here. And it’s not nearly as cold as the other place!*
In this case, the impermanence of the student’s time at the HEI and in its country, his status as a cultural minority, and the lack of effective structural support during his transition towards adult independence, interacted negatively to produce low belongingness. The general resulting sense was one of disposability, in which a student’s active engagement with coursework, the outside world, and their own personal development were seemingly of no significance to the institution and its associated actors; hence, loss of engagement with the HEI was not surprising.

In sum, the experiential transitions tied to CNIS’ social identity change may lead to positive integration and high belongingness, or negative integration and low belongingness; during this process, the social and structural scaffolding around an individual can play significant roles in facilitating the integration. Generally, participants identified positive scaffolding in the forms of 1) substantively or psychologically helpful interactions with social groups or institutional structures, which may be one-time or long-term in nature; and 2) general rapport- and trust-building with social identity in-groups or “trusted others. Most frequently, social identity in-groups consist of fellow CNIS; however, for some students, particularly doctoral students embedded in research teams, in-groups may also include non-CNIS graduate students undergoing similar educational and life transition processes.

“Trusted others”, on the other hand, are relatively rare among participants’ descriptions. A few participants were able to establish supportive relationships with faculty advisors; however, the terms of these relationships were nearly always defined by the advisor rather than the student. Participant #6, for example, described her interactions with her doctoral supervisor:

CNIS #6: He was a nice person, but didn’t seem to mind his students very much; he basically let us do things ourselves, even when I didn’t really know what to do… I was getting very anxious and stressed about being able to produce enough results to publish and graduate, but it was hard to get his attention and guidance. I got through with help from a more senior PhD in the lab, and a postdoc, and a lot of pep talk from friends.
In contrast to this *laissez faire* attitude, participant #23 had a more constructive advising relationship:

**CNIS #23:** *I think he’s semi-retired and doesn’t have to teach courses anymore, so he is very active about checking up on me and all his advisees, even though we’re just master’s students… I was having a lot of trouble finding an internship, but I met with him, and he contacted people he knew in the industry, who are now interviewing me for this summer. It was incredibly helpful; even if I found a suitable job opening myself, I doubt I would’ve gotten this far in the process on my own.*

Hence, like most higher education students, CNIS must contend with the unpredictability of when “trusted other” relationships may or may not emerge, as well as the precariousness of managing structured, often hierarchical relationships that may hold material power over themselves (e.g. academic committees, research supervisors, employers, etc). However, these stressors can interact with CNIS’ social identity transitions in ways that amplify their sense of insecurity, being a cultural minority, and pressure to handle situations independently and capably. All of these factors bring into question, as participant #10 puts it, “whether this place was meant for me – or, if I’m meant for this place”. The section below discusses how social identity transitions and belongingness impact participants’ mental health states, their attitudes towards mental health and help-seeking, and their view of identity-salient issues such as US-China cross-cultural exchange and xenophobia.

### 5.3 Mental health and identity-salient values and beliefs

This section examines how social identity transitions and belongingness impact CNIS’ mental health, their attitudes towards mental health and help-seeking, and their views of identity-salient issues such as US-China cross-cultural exchange and xenophobia. In addition to their effect on CNIS’ overall study abroad experience, the latter also have implications in student engagement strategies for offices of advising and diversity, equity, and inclusion (DEI).
In general, participants reported experiencing mental health conditions during their study abroad periods that varied widely with their academic, professional, logistical, and social situations at the time. Since the focus of this project was not to diagnose mental illnesses, and was in fact to move away from a clinical view of mental health and towards a psychosocial one, I did not assess participants’ mental health states using any predefined instruments. Subjectively, participants described challenging mental health experiences as “I had a hard time adjusting”; “I was in a bad condition (状态不好)”; and “I felt a lot of pressure and was anxious for a long time over X issue”. Experiences of flourishing were described in terms as “I think I adjusted pretty well to here” and “I felt good about the experience”. No participants reported neurological conditions, functional disabilities, or severe illnesses such as psychosis. Instead, most participants’ discussion the term “mental health” (心理健康) concerned mood disorders (e.g. depression) or anxiety disorders.

Participants’ mental health states were, on the whole, closely tied with their integration between the “Chinese person” and “American’ student” identities, and their sense of belonging to the experience of studying abroad. A few participants experienced more clinically identifiable mental illness symptoms. Participant #1, for example, reported having developed an eating disorder in her third undergraduate year in the US:

CNIS #1: I can’t say exactly when and why I started having trouble eating. Possibly it was around the same time when I chose a major, and was trying to figure out what to do for my thesis, internship, and post-graduation options. I felt a lot of pressure. It gradually got bad enough, and I had taken some psychology classes, for me to go – OK, I should do something about this. So I went to counseling services. It did help. I mostly didn’t tell anyone else about this, including my parents. Only my closest friends knew.

Contrary to older research on international student mental health, nearly all participants were aware of mental health as an issue area possibly relevant to their own lives; the majority
also expressed interest or concern for this topic as being specifically relevant to CNIS communities. It may be possible that a certain amount of sampling bias may have contributed to this, since participants were invited during recruitment to voluntarily take part in a study explicitly titled “Social identity, belongingness, and mental health among Chinese international students”. Nevertheless, it gives an indication of the level of knowledge penetration about mental health among student or proto-student communities in China. In particular, three participants mentioned having had awareness of, and access to, mental health and counseling services at their previous HEIs in China. Two participants mentioned having friends in China currently receiving outpatient mental health treatment for various disorders. As well, most participants were aware of the availability of such services at their HEIs in the US.

At the same time, participants’ concept of mental health may not necessarily match up with their concept of mental health care, which often resulted in a sense of vagueness and uncertainty regarding what to do about mental health. Per above, participants generally conceived of their own mental health states in subjective, experiential, and largely non-clinical terms. Paradoxically, participants largely thought of mental health care in clinical terms, under a model similar to seeking a physician’s help for specific physical illnesses that “need fixing”. Participants frequently characterized their own experiences of maladjustment, anxiety, and “being in a bad condition” as “not serious enough to require treatment”, thus foregoing seeking counseling services and other formal support. Among those with knowledge of mental health care in China, the general perception was that these services were of “not very high quality” and questionable effectiveness. As participant #2 described:

CNIS #2: My college friend in China has a lot of issues with her family, with whom she still lives. She was diagnosed clinically, and she both takes medication and sees a counselor. But I’m not sure how well it’s working for her. We talk about her issues, and I try to help her think through things. It’s not clear that the treatment is making things better. Some things might need to be fixed in other ways, like addressing the problems.
Meanwhile, six participants reported having used university counseling and mental health services (CAMHS) at their US HEIs. Their assessments of the experiences were mixed. Four participants mentioned using CAMHS “only once or twice”. Some reported that talk therapy was helpful because it helped them “work through emotions and look at things from another angle” (participant #11), while some felt it not helpful, since the therapeutic discussion “didn’t lead to any clear solutions or conclusions that I could use” (participant #7). Most participants reported feeling awkward about using English during therapy sessions, and that “it’s difficult to be precise about what you want to say in a language you don’t know as well” (participant #20). As well, CNIS’ discomfort with cultural distance often extended to therapists who were not Chinese in heritage or nationality: “it’s hard to know whether an American could fully understand what I’m going through, not having had similar experiences” (participant #7). However, a minority of participants expressed satisfaction with non-Chinese clinicians: “the key thing was that she knew how to listen well, and interpret me… although I think maybe it helped that she was a racial minority herself; she might have had more empathy” (participant #11).

These experiences and perceptions largely confirm existing literature on CNIS mental health and help-seeking patterns. They can also be viewed through the SIMIC framework as reactions to the ways that a largely biomedical model of mental health care fails to sufficiently address the psychosocial nature of mental health concerns. Under our model, many of CNIS’ mental health concerns can be understood as negative, detrimental interactions between the social identity transition dimensions concerning impermanence, cultural minority status, and struggle towards independence and efficacy. It is often incredibly challenging for talk therapy, particularly one-time, non-continuous sessions, to adequately disentangle these complex social identity concerns, let alone identify ways to address them. As well, talk therapy typically do not focus on confronting the social conditions that give rise to negative or incompatible identity transition experiences, instead focusing on an individual’s psychological responses to such. It
may not be a surprise, therefore, for CNIS to have low confidence in the effectiveness of CAMHS interventions.

Nonetheless, a minority of CNIS reported receiving psychological benefits from CAMHS talk therapy treatment. A key component may be in setting and negotiating appropriate goals and expectations between therapist and client. For example, participant #22, a psychology master’s student, sought university counseling services for two months following graduation (while student insurance still guaranteed access). Her main issues were high anxiety symptoms due to logistical and internalized pressure to find a job that would “pay a salary, help advance my career development, and also sponsor my work visa after the training period was up”. She described her therapeutic experience positively:

**CNIS #22:** Before graduation, I met once with a CAMHS therapist who was not Chinese… It was OK, but it was better when I was able to schedule again with a Chinese therapist, after. She was also a CNIS before practicing, so she really understood what I was going through… But she also didn’t provide practical solutions. It was more that she could guide me to talk things through in a helpful way. Most of the time I talked; she just asked a few questions. But she was skilled about it. I was able to come away with clearer thinking, and ways to better observe myself… My husband was very emotionally supportive during this time, and I relied on him a lot. But he couldn’t do what she could do.

Two things are of note here from the viewpoint of the social identity approach to health. First, due in part to their common ethno-cultural background and similar experiences as CNIS, participant #22 was able to establish a strong therapeutic alliance with her therapist. In this sense, the relationship was a mixture between that of a social identity in-group and a “trusted other”, which likely improved the psychological salience of the support she received. Second, due in part also of an academic understanding of the field of psychology (even if not, specifically, clinical counseling psychology), participant #22 was able to manage and negotiate expectations for the goals and limitations of talk therapy. Viewing the therapeutic process as
inherently long-term, self-understanding oriented, and a venue for skill acquisition likely sustained her engagement and increased the psychological value of the experience. Both of these observations have implications for CAMHS practice and psychoeducation initiatives in the HEI setting, which will be discussed in section 5.4.

In addition to CNIS’ attitudes and perceptions towards mental health and health care, the SIMIC may also help elucidate how studying abroad in the US in today’s socio-political climate shapes CNIS’ views towards identity-salient issues such as cultural exchange, xenophobia, diversity, and equity. This has strong implications for HEI offices for diversity, equity, and inclusion (DEI), which may aim to engage with CNIS as part of its mission towards improving campus belongingness. Generally, CNIS participants viewed “American culture” within their experience as being “more direct” than their view of Chinese culture, with widespread awareness (particularly in HEI settings) towards supporting people of different backgrounds and identities. However, nearly all participants also described Americans generally as being disinterested in the stories, perspectives, and concerns of non-Americans, or often “judgmental of others” (participant #17) using US-centric frameworks. Participant #3, a master’s student in journalism, described her experiences:

CNIS #3: Of course every individual is different, but in general, I do find Americans to be less interested in learning about us than we are about them. I had an exchange semester in the UK before, and European students were much more interested in talking to us Chinese students than the Americans here are… It’s sometimes difficult to talk about China from our perspective. Two months ago, a student from Hong Kong talked about the protests there in class. No one said anything to contradict them. We Chinese students didn’t want to start a fight, and we knew most of what we say would be taken negatively. The professor basically moved us on without discussion… When you try to talk about China, Americans will often say you’ve been brainwashed by the Chinese media… We used to think in China that
American media is more objective than Chinese media. But after being here, I realized that they are just as biased, depending on who you read and watch.

While not all participants shared the same critical view of American attitudes towards the non-US world, there is often disillusionment for “American” ideals and values after they’ve lived and studied in the US. Some of this may be attributable to a difference between American hegemonic culture’s global branding of itself as “a country of progressive values” (participant #8), and the reality of a society burdened with a deep history of inequality, particularly along ethnic-racial and nationality lines. Participants often described the Americans they encountered in the lives as “having more (right to a) voice (有话语权)”, in contrast to their own cultural marginalization. As participant #17 described:

CNIS #17: **In high school, I had my mind set on coming to the US. I fought hard against my parents’ wishes for me to take the Chinese university entrance exam… I came here thinking it will be a place for freedom and respect. But it turned out it’s not true. You can see it in the way people treat each other… My landlord at one point was a white man. One day, he got drunk and came harassing me in my bedroom, calling me racial names and trying to lick me. We argued, and I punched him. I then also got hurt, but I didn’t file a police report. Who would believe me? It’s my word against his. Plus I didn’t want to be evicted. I eventually moved out. But that was when I realized that there are good and bad people everywhere, and you just have to take care of yourself… I would definitely move back to China once I’m done with my PhD.**

While participants did not draw direct connections between their cultural frustrations with the US and their mental health states, experiences of marginalization and harm can amplify the threatening aspects of social identity transition such as impermanence, cultural minority salience, and loss of social embeddedness, leading to a low sense of belonging. This in turn can lead to mistrust in, and disengagement from, mainstream US institutions and authorities,
including (in the above) HEI learning spaces and law enforcement, furthering the cycle of power imbalance and marginalization. Hence, there is a need for DEI functions and personnel at US HEIs to learn to engage CNIS on issues of cross-cultural learning, mutual respect, and anti-racism and xenophobia.

Throughout the past several decades, US institutions and popular discourse around racial and nationality-based justice have consistently overlooked Asian – and particularly East Asian – populations and issue topics. The myth of East Asian immigrants and international students as the “model minority” without socialized disadvantage and concerns invisibilizes the need for providing all students (including CNIS) with proper social and structural scaffolding to facilitate positive cultural experiences. However, this need has become increasingly apparent as interactions between CNIS and Americans increased over the last few decades, along with geopolitical frictions between China and the US. Most currently, these tensions are coming to the fore of American, Chinese, and CNIS’ attention, due to the devastating health and economic effects of the ongoing COVID-19 coronavirus global pandemic. DEI operations at HEIs would heed well to begin addressing issues of CNIS belonging on and around their campuses. The section below discusses recommendations for HEIs on how to do so.

5.4 Scaffolding the transition and potential interventions

The above analysis described CNIS’ sense of belonging during study abroad in the US through a social identity transition framework, and examined the impact that the transition experience may have on mental health and identity-salient values and beliefs. Meanwhile, these processes are continuously influenced by the social and structural scaffolding around the individual. In this section, I analyze which types of scaffolding have lent meaningful support to CNIS participants, and generate recommendations for educators, mental health practitioners, and student community leaders for ways to improve their services to CNIS and other international students.
In scaffolding their social identity transition experiences, CNIS have relied most frequently on CNIS peers for substantive and psychological support. At the same time, while most CNIS described “talking about our problems” with other CNIS peers, most also characterized their emotional coping as solitary, “deal[ing] with the really tough times mostly by myself” (participant #16). Both of these patterns fit with the social identity transition model: while seeking the support of identity in-group members can help assuage feelings of threat, isolation, and norm confusion due to being a cultural minority, CNIS are also seeking to understand and assert their self-efficacy and independence as (often just emerging) adult individuals. It is also likely for this latter reason that CNIS rarely discuss their challenges with parents, who were often “on the other side of the world, with no experience or point of comparison for our situations; if I tell them things, they'll only worry, or try to suggest solutions that won’t work” (participant #16).

From a classic social identity theory viewpoint, CNIS peer groups may be the most efficacious site of identification, mutual support, norm setting, and self-efficacy development. Indeed, participants who actively engage in CNIS social life often reap both practical benefits in terms of housing and roommate matching, internship and employment opportunities, and support in navigating through university and state regulations; as well as heightened emotional salience in having “done something together with others like me” (participant #13). In particular, CSAs of larger HEIs in the Greater Boston area often consist of structured officerships, regular social and academic events, newsletters through the ubiquitous messaging platform Wechat, and connections to other CSAs and professional networks locally and in China. Most CNIS rely on some aspect of this resource at different points of their study abroad.

At the same time, CSAs and other CNIS peer groups have limitations. A majority of participants reported only periodic engagement with CSAs, as “most of the events tend to be purely social in nature; which is nice, but I can hang out with friends any time… it’d be better to have educational and constructive events, based on different topics” (participant #12). This may
be comprehensible by recognizing that CSAs are, in large part, completely student-run; hence, event and service offerings are only as diverse, strategic, and based in specialized knowledge as the student officers at the time are capacitated to make them so. As participant #13, a finance officer for her HEI’s CSA, explained: “we work hard to serve our members, and to build connections with local sponsors to be self-sustaining; but we’re all learning as we do it”.

Hence, HEI administrations have an opportunity to improve student service and advising functions to better dovetail with student-initiated, bottom-up efforts such as CSAs. This is in alignment with a current movement in DEI-informed student mental health programming, led by best practice research and advocacy organizations such as the JED Foundation and the Steve Fund [50]. Here, social identity theory may also inform high level strategic alignment and policy. Since students are more likely to reap health benefits from positive interactions with their identity in-groups and “trusted others”, HEIs can strive to establish both co-social spaces to foster in-group connections, as well as clearly define specific offices or figures within the administration where students may come to trust. As McNamara et al argued in 2017 through their study on youth mental health patients’ service transitions, trusting relationships between authority figures and service recipients may be better established when the parties can establish a strong intergroup relational identity, based on a “common purpose that relies on collaboration” and alignment of ultimate goals.

Currently, as CNIS participants of this study could attest, most DEI, student support, and faculty advising functions at HEIs do not understand or prioritize the cultural and social identity needs of international students. Yet, most CNIS participants had articulated their motivation for studying abroad not merely in terms of academic and professional development, but also to see and learn from a bigger cultural world. If HEIs – particularly those with large international student enrollment – were to fulfill their commitment to DEI and belonging as an essential function of campus life, it behooves them to incorporate the representation of, allyship with, and advocacy on behalf of CNIS and other international students into an established programmatic
function. Depending on the administrative structure of the HEI, this may be best positioned within a number of possible offices, such as general student advising; DEI and multicultural centers; international student services (most of which, currently, only concern visa status compliance advising); student organization coordination; or counseling and mental health services (CAMHS). Below are some recommendations for DEI and CAMHS administrators, based on data and direct feedback from CNIS study participants.

For DEI offices, a number of measures may be employed to build stronger relationships with CNIS communities (particularly student groups such as CSAs), enhance cultural awareness in different areas of campus life, and coordinate structural changes that reduce students’ marginalization and promote belonging. First, pending capacity, DEI offices may serve as the focal point for hosting joint student events with CSAs and other organizations or offices, which lend space for discussion and cross-learning about the nature of belongingness, mental health, and skill-building for meeting social identity challenges such as racialized encounters. A combination of in-group-members-only and cross-group events (e.g. an alliance for US domestic students of color and international students) may be beneficial, with intention towards inclusive use of non-English languages. Secondly, DEI offices may be better positioned than most to develop cultural competency training for faculty, staff, and student audiences. Training content may include generalized frameworks such as the SIMIC, as well as culture- or group-specific concerns such as the identity transitions identified for CNIS in this study. Trainings may serve as the basis for more in-depth explorations for interested campus community members, or for campus climate monitoring and evaluation.

Thirdly, DEI offices may also coordinate with other student service operations, to enhance structural change for equity. Clear examples of dovetail include CAMHS (discussed in detail below) and career advising services. As most CNIS participants had mentioned, job searching for post-graduation employment is often a highly stressful process for international students, due to immigration legal restrictions on job types and visa sponsorships. Many CNIS
participants described it as a trial and error process with little direction and high failure rates, between the ad hoc discovery of opportunities through peer or alumni networks, lack of explanation from employers around visa requirements, and negotiating terms with little certainty of success. Some CNIS have even been intentionally exploited in the process: though a lack of better options, participant #14 signed on to work post-graduation for an employer familiar with international students’ employment visa needs, who pushed her to work excessive hours under emotionally abusive conditions without proper compensation, and eventually terminated her without sponsoring a visa for her. Hence, career services may do well to supplement job databases with international student specific resources, such as a list of employers who have historically offered visa sponsorships in the past 5 years. As well, stronger legal advisory and training for students and career services staff around visa disputes, employee’s rights, and recourse against post-graduate exploitation may be helpful.

For CAMHS, a number of relatively simple modifications to typical practice, as well as new approaches, can be helpful for promoting mental health in CNIS or other international students. First, while CNIS and other students in US HEIs today may generally be aware of the availability of CAMHS, contradictory messaging from various institutional and popular sources may have resulted in disclarity in the mission, goals, and limitations of psychotherapeutic services. CAMHS may do well to improve general campus outreach on what is and isn’t possible during counseling, with intention towards aligning messaging with structural reality (e.g. wait times and staff demographics may result in certain demands being difficult to fulfill). Secondly, talk therapy with students of minority identities, including international students, may benefit from incorporating the social identity approach to health into the treatment paradigm. Clinicians may support students by providing them with guidance in acquiring psychological skills for building the social resources necessary to positively integrate their disparate social identities, and to mitigate the psychological harms of identity incompatibility or structural marginalization.
Third, while most CAMHS at HEIs today remain focused on clinical service provision, progressive practices such as the JED Foundation and Steve Fund’s *Equity in Mental Health Framework* recommend increasing the capacity and role of mental health services to include campus community-based prevention measures [50]. This necessitates a public health approach to mental health, and effective coordination with other offices, programs, and student groups to provide psychoeducation events, early interventions, and other forms of context-informed mental health practice. The use of cultural affinity based “discussion groups”, held in non-clinical settings but including evidence-based therapeutic structure and content, can be helpful for reducing barrier to entry for students experiencing stigma or mistrust of CAMHS. Delgado-Romero and Wu described in 2010 one such small-group intervention for Asian international students based in an academic department, which showed high effectiveness in facilitating psychotherapeutic discussions and empowered students to advocate for structural changes within the department to support their needs [51]. Here, CAMHS may most effectively collaborate with DEI offices and student organizations to guide programming, publicize access, and ensure alignment between mental health and belonging priorities.

Lastly, in addition to existing HEI functions such as DEI and CAMHS, the current social ecology of CNIS communities and relevant social stakeholders in US metropolitan areas offer opportunities for new interventions. Here I discuss two examples of potential. Formative research for this project discovered a new start-up social enterprise, *Been There*, founded by CNIS in the Greater Boston area [52]. The company offers a combination of free, “chatline” peer support services by and for CNIS in the US, as well as paid, “skill building” workshop series focused on personal efficacy and psychological management. Services are offered through a website as well as the Wechat messaging platform, which has very high penetration among Chinese and diaspora mobile users. CNIS peer counselors are trained by a core team of clinical psychologists who had themselves been CNIS, with regular feedback and quality control meetings and processes. A number of CNIS participants for this study had volunteered
for or interned here. While we have yet to see whether this enterprise may become a sustainable model for CNIS mental health and belongingness interventions outside of education or clinical institutional settings, it holds promise for innovative directions.

As well, the host organization for this project, the Center for Cross-Cultural Student Emotional Wellness (CCCSEW) at Massachusetts General Hospital (MGH), is a center for clinical research and practice with a particularly strong focus on promoting mental health among Asian American and Asian international students in the US [46]. CCCSEW is therefore relatively well-positioned for potentially forming a strategic coalition with local HEIs to coordinate mental health and belongingness related programming for CNIS and international students. Thus far, CCCSEW has regularized its community outreach capacity through psychoeducation speaker and panel events at HEIs, conferences, and community events around the US. It also has research and administrative assistance capacity to produce online content in both English and Mandarin Chinese. It may be possible for CCCSEW to develop evidence-based speaker and facilitated dialogue event series in collaboration with Boston area HEIs, or, borrowing upon the Wechat newsletter model of many CSAs, an online resource platform that regularly disseminates educational material, event announcements, and even interactive content in support of CNIS mental health and belonging. Section 6 of this thesis presents a potential strategy plan for such an initiative, currently under discussion with the host organization.

5.5 Limitations

This project has a number of technical limitations. First, in designing the project, I had limited its scope to examining the subjective, self-reported experiences of CNIS. This has certain theoretical advantage, in that data analysis is kept relatively straightforward as an interpretation of CNIS’ perceptions and meaning-making of their own lifeworlds. However, it limits the generalizability of my findings to broader applications, such as a systems-oriented understanding of how mental health and belongingness processes occur in the HEI setting.
Future studies may seek to triangulate and expand upon the findings here through investigating the viewpoints of other community stakeholders in the system, such as HEI administrators, educators, mental health practitioners, and student organization leaders.

Secondly, the participant pool for this project was defined as any CNIS who had recently attended an HEI in the Greater Boston area. In spite of a focus on mental health, I did not wish to focus the sample to only those with diagnoses or significant experiences with mental disorder or illness. The relatively broad sampling scope was intended to capture how CNIS themselves define mental health, their relationship to the issue topic, and popular discourse and conceptualization of the issue among CNIS communities. This is in contrast to interviewing only those members of the community who have been pre-screened by the Western psychological diagnostic paradigm, who may thus think about the issue in particular ways not found in the greater community. At the same time, by recruiting through social networks among the general CNIS population, I may have lost on the opportunity to focus more on those for whom mental health may be a more salient topic due to significant personal struggles. This is a balance that must be struck for any study of relatively limited sample size. Future studies may look to focus more on such specialized sub-populations within CNIS communities.

Lastly, my study did not explicitly examine the role of socio-economic status on CNIS’ mental health and belongingness during their study abroad. This was mostly due to methodological challenges in discussing relatively sensitive topics, such as family income, in one-time in-person interviews, without threatening rapport with the interviewee. Even so, many participants’ descriptions of their pre-study abroad life in China gave indications of family socio-economic status, through culture-bound descriptors such as “my parents were civil servants (公务员)”, which suggested relatively high levels of education, stable middle-class income, and low class mobility for the individual (parent) but high potential for upward mobility down generation (interviewee). Only a minority of CNIS interviewees mentioned the financial dimension of
studying abroad; most who did described their situation as “my family isn’t wealthy, but they had put together enough resources to support me through this experience” (participant #13).

Given that international students typically have very limited access to financial aid, scholarships, and employment opportunities during their study in the US, while needing to certify financial ability at the time of matriculation, study abroad eligibility can often be a selection bottleneck against those without strong economic means. Thus, the minority of students from lower-income backgrounds who do manage to pass through the selection process may face additional social identity related challenges. Future studies may focus on a more nuanced investigation of class differences among international students, as well as the psychosocial scaffolding necessary to facilitate positive integration and belonging.
6. STRATEGY RECOMMENDATIONS FOR HOST ORGANIZATION

6.1 Next steps: dissemination and strategizing

The HSPH Doctor of Public Health program aims to provide training for applied and implementation science in public health leadership. Hence, this DELTA project includes both a research component and a change advocacy component. Due to project implementation timing, the change advocacy component will consist of the development of a strategic action roadmap for the host organization to carry forward. I intend to remain engaged with the host organization following the end of this doctoral project period to facilitate study results dissemination, relationship building with community stakeholders, and the potential creation of a practitioner’s coalition for cross-learning, public education, and advocacy. This sub-section analyzes the current strategic landscape for these endeavors and describes near-term goals.

As described in section 4.5, the qualitative research results will be disseminated through a combination of academic journal publications, lay-language 1-or-2-page summary briefs (in English and Mandarin Chinese), and speaking opportunities at conferences and outreach events. The lay-language summary briefs will be publicly accessible at CCCSEW’s website, and may be cross-promoted through newsletters and information channels accessible to CCCSEW member affiliates, many of whom are employees or students at Greater Boston area HEIs. Due to the current and ongoing COVID-19 global pandemic, however, speaking opportunities may be greatly reduced, as conferences and events continue to be canceled or postponed. At the moment, it remains unclear if HEIs in Greater Boston will return to regular in-person instruction and operation in the fall semester, and if other conferences and events will resume. Any knowledge dissemination and coalition building strategy must take into account this rapidly shifting reality and be sufficiently flexible to adjust as needed.

At the same time, the ongoing US national crisis surrounding the COVID-19 pandemic may in fact serve as a “policy window” for advancing a change advocacy agenda related to CNIS mental health and belonging. The fact that the global pandemic had originated in China
has fueled an alarming rise of anti-Chinese xenophobic sentiments in many countries across the world, including the US. This is currently being aggravated by the severity of the epidemic in the US, the multi-pronged system failures faced by the US public health sector to effectively respond to the pandemic, and rhetoric from the highest levels of the US federal government to lay blame of the pandemic on “the Chinese”. Since the rise in COVID-19 cases and media reporting in early March, Asian Americans from around the US have reported higher than usual incidence of racialized and discriminatory encounters [53]. Meanwhile, many Chinese Americans, as well as the great majority of CNIS, must also contend with the particularly prolonged psychological burden of supporting family and friends in China through their localized epidemic since January, as well as the current epidemic in the US. Hence, the issues of mental health, belongingness, and social identities among CNIS are now more salient than ever.

As HEIs begin to define their operations for the summer and fall terms over the upcoming weeks and months, this may be an opportunity for the CCCSEW to engage with personnel at key HEI functions (such as CAMHS, DEI offices, and student organizations) to develop programming that address the mental health needs of CNIS, as well as campus climate initiatives to combat xenophobic sentiments and promote cross-cultural inclusion. The next subsection describes a potential strategic approach for CCCSEW in implementing this vision.

6.2 Coalition building and change advocacy

Within the Greater Boston ecology of community stakeholders, CCCSEW is relatively well-positioned to take action towards building a coalition for furthering HEI programming and change advocacy in support of CNIS mental health and belonging. As a strategic roadmap for CCCSEW’s potential engagements, I recommend using the FSG collective impact framework to guide its planning and action [47].

The collective impact framework for structured multi-sector collaborations was first proposed in 2011 by the senior leadership of social impact management consulting firm FSG.
Since then, it has been popularized by organizations in public, private, and civic sectors as a prominent approach to designing, coordinating, and executing complex goals, such as social change advocacy and implementation. Meanwhile, critiques of collective impact have also challenged its applicability to different organizational and socio-ecological contexts, particularly for causes and projects for which organizational authority is intentionally decentralized. A review by Wang et al in 2020 summarized the organizational approaches of 55 action and advocacy coalitions for education reform in the US, and categorized them into four basic forms along two principles: high versus low cross-sector engagement, and centralized versus decentralized governance [54]. Under this scheme, collective impact may be categorized as a “high cross-sector, high centralization” approach to coalition work. Rather than holding it as a hegemonic standard for inter-organization collaborations, then, it may be most productive to view collective impact as one of many possible organizational approaches for coalitions to flexibly adopt or adapt as needs arise.

Given CCCSEW’s capacities and positioning among Greater Boston area community stakeholders, I believe that a collective impact approach is the most appropriate model for it to facilitate the building of a coalition for change advocacy and programmatic action. Below, I examine the five core principles (“pillars”) of collective impact, how CCCSEW may leverage its strengths in each area, and propose strategic actions forward:

1) **Backbone organization:** Typically listed as the final item in the five pillars of collective impact, here I describe up-front the “backbone organization’s” role, to highlight the importance of having defined leadership in an ecosystem where current interest and capacity to participate in change advocacy is diffuse and not clearly focused across different parties. In a classic collective impact framework, the backbone organization provides ongoing support to the coalition through staff members specifically tasked with six critical functions: a) guide the vision and strategy; b) support the aligned activity; c) establish shared measurement practices; d) build public will; e) advance policy; and f) mobilize funding. Ideally, staff capacity for coordinating the
coalition should be separate from implementation capacity, to ensure neither is prioritized over the other. In our case, CCCSEW is a suitable candidate to serve as the backbone organization for a potential Boston-area based coalition supporting CNIS mental health and belonging, due to its independence from HEIs, their implementing offices, and student communities. It can build on its current position as a source for technical consultation, and take on a coordinating role without conflicts of interest or priority with providing direct services to students. Upcoming strategic discussions with CCCSEW will focus on defining its operational capacity towards these “backbone” activities, as well as short- and long-term goals of coalition and coordination efforts.

2) Common agenda: All participating organizations and actors in a collective impact coalition should have a shared vision for social change, including a common understanding of the problem, and a joint approach to solve it through agreed upon actions. Since this is the basis on which the next three items in the framework are built, establishing a common agenda should be CCCSEW’s first major goal and set of actions in building a coalition. This may be accomplished through a series of outreach activities to relevant stakeholders, using the evidence base generated from this study and otherwise, to make a compelling argument for the importance of supporting CNIS and international student mental health at this particular time using a belongingness-oriented approach. It may be most beneficial to begin this process with HEI offices and student organizations with whom I have already initiated contact and discussion through my DELTA doctoral project.

3) Mutually reinforcing activities: Once a coalition is initiated, all organizations should coordinate activities such that they mutually reinforce the common agenda. Here, our coalition may deviate somewhat from the prototypical collective impact model, which emphasizes the setting of shared measurement metrics prior to initiating programmatic activities. While shared metrics can often be important for defining and actualizing the common agenda, here it may not be realistic to expect or demand complete alignment across diverse HEIs and student organizations on the exact aims and approaches for achieving greater mental health and
belonging. Given that each HEI mostly operates as an autonomous, self-contained cultural environment, it is more feasible and appropriate to identify a general vision of greater student belonging, provide a guiding framework of operation, and allow the different operational bodies within an HEI (including institutional offices and student groups) to generate context-specific goals, programs, and implementation measures.

A similar approach can be found in the JED Foundation’s “learning network” of 17 HEIs, initiated in 2018 to promote institutional cross-learning as they implement JED and Steve Fund’s *Equity in Mental Health Framework* over a 3-year project period [55]. While the precise programmatic content, engagement methods, and assessment metrics may differ, HEIs in such a cross-learning coalition can advise each other on effective practices and highlight opportunities and innovations for continuous improvement. CCCSEW’s role can be to facilitate cross-learning through aggregating, maintaining, and disseminating the knowledge base of institutional practices between participating organizations and, when appropriate, the general public. For further strategic analysis on the sharing of information internally and externally, see the fifth item below (“continuous communication”).

4) **Shared measurement system**: Defining shared key indicators and measurement approaches across participating organizations can help consolidate the coalition towards clear common goals and enhance overall effectiveness. However, per the above analysis, it may not currently be beneficial or feasible for CCCSEW to coordinate strict metrics across all bodies of the coalition, either in terms of clinical mental health outcomes, belongingness outcomes (for which there is no research consensus on standardized recommended metrics), or process measures such as “number of events held” or “number of students reached”. Nonetheless, the coalition may define the establishment of meaningful metrics for across institutions as one of its eventual operational goals. In line with the learning network model, CCCSEW may serve to aggregate, review, and suggest metrics helpful to the Boston area HEI context.
Many HEIs in Greater Boston currently conduct periodic campus-wide surveys on student mental health and/or campus climate; however, the exact metrics used may differ, either due to localized, institution-specific needs, or participation in wider standardized studies. For example, the Healthy Minds Study [56] and the National College Health Assessment [57] currently conduct annual, standardized surveys of student mental and physical health in 79 and 156 HEIs, respectively. Yet these surveys do not include items that meaningfully investigate student belongingness, beyond one or two generalized questions such as “do you feel like you belong on campus”. On the other hand, the Global Perspective Inventory (GPI) is another standardized assessment on the “cognitive, intrapersonal, and interpersonal dimensions of global learning” in higher education, currently administered in nearly 200 HEIs nationwide [58]. The 2018 edition of the survey includes a group of 6 questions on belonging, phrased in terms of “strong sense of affiliation with my [HEI]”, “my [HEI] honors diversity and internationalism”, “I understand my [HEI’s] mission”, “I am both challenged and supported by my [HEI]”, “I am encouraged to develop my strengths and talents at my [HEI]”, and “I am a part of a close and supportive community of colleagues and friends” [58]. These items approach belonging in a lens compatible with the social identity model of mental health and identity change. Yet they must be defined broadly to fit the needs of the entire student body, and cannot incorporate culturally specific insights such as the three major identity transition experiences that this study has identified for CNIS. Hence, CCCSEW and the coalition may seek to find an appropriate balance between using generalized metrics to bridge with the broader landscape of research and practice, and more specific metrics to be developed in-house.

5) Continuous communication: Lastly, frequent and ongoing communication between participating organizations help build trust and encourage cross-learning and adaptation. As the backbone organization, CCCSEW may facilitate this process through a combination of methods that can be broadly categorized as internal to the coalition itself and external to the general public. Internal communication may include regular conference calls for troubleshooting and
best practice sharing, as well as an online repository of literature, tools, practices, experiences, and suggestions maintained by CCCSEW staff. The goal is to align internal activity and metrics to enhance continual learning and action towards the mission. On the other hand, external communication may include a regular newsletter, subscribable by the general public, providing updates on relevant upcoming and recently concluded events, general knowledge on mental health and DEI, and resources and channels of support for CNIS and other students in need. Pending capacity, this newsletter may be distributed in English and Mandarin Chinese, via email and the Wechat messaging platform. The goal here is to generate interest and engagement on the issue topic among student communities and other external parties, in order to lend transparency, momentum, and sustainability to the coalition’s change advocacy and operations.

In sum, the collective impact approach can be a productive framework for CCCSEW to consider its role in facilitating coalition building and change advocacy across diverse community stakeholders in the Greater Boston area on CNIS and international student mental health and belonging. Further discussions with CCCSEW will focus on assessing and building internal capacity to phase in different aspects of the collective impact framework in graduated steps over the next months.
7. PROCESS LEARNINGS

7.1 Working within a research ecology

This section discusses some of the strengths and challenges associated with conducting an applied public health project within the context of a research ecology. The project’s host organization, the Center for Cross-Cultural Emotional Student Wellness (CCCSEW), is a unit for research and advocacy at the Massachusetts General Hospital. The Center is itself a coalition of mainly Greater Boston-based mental health researchers and practitioners with professional focus in cross-cultural care and prevention, particularly for Asian international and Asian American students. As such, the Center provides a strong opportunity for disseminating the research outcomes of the project.

However, working within this research-oriented setting poses some challenges for the change advocacy component of the project. While the Center has provided strategic consultations for a number of local K-12 schools on minority student mental health, and co-hosted psychoeducational panel events at conferences and student organizations at local HEIs, it does not have ongoing existing collaborative relationships with CAMHS, DEI, or student advising offices at local HEIs. Hence, to carry out change advocacy at the HEI implementation level as I had initially envisioned, would require building working relationships with these HEI implementing bodies and aligning ourselves around international student mental health as a priority. This proved to be challenging. I was able to conduct preliminary consultation meetings with six such community stakeholder parties (2 student advising office staff, 2 DEI staff, 1 mental health researcher-practitioner, and 1 organizer of a CNIS peer support social start-up) to inquire about their existing practices for international student mental health, as well as their interest level in further engagement. However, without strong prior relationships, or a compelling case for acting on this issue urgently at this particular time, I did not have sufficient time or social capital to build the working relationships beyond this point.
Given this reality, I focused on the research component for the duration of the doctoral project period. Since the Center’s role in the community is first and foremost as a disseminator of knowledge, I aimed to produce a piece of research that can be rigorous enough to contribute to the scientific canon, but framed and presented in such a way that can be directly applied to higher education CAMHS and DEI practice. My revised goal is thus to use my research output to support the change advocacy work to come, by providing potential stakeholders with local and contextualized evidence as well as practice recommendations.

7.2 The long road to structural change advocacy

I was initially concerned that my inability to push for stakeholder relationship building in parallel to the research component of the project would mean that my change advocacy goals would need to be forfeited. However, I have come to appreciate that the timeline of my overall, work on this topic would merely be extended beyond the DELTA doctoral project period. In fact, I have realized that my current status as an international student might actually be best suited to the research phase of this project, since it reduces the power distance between myself and the study participants. Meanwhile, I may continue to conduct change advocacy work as an affiliate of the Center, while otherwise employed at a position related to HEI student mental health or DEI issues. This is the role definition of most other staff at the Center, and it may make for a more equitable relationship between myself, the Center, and stakeholders we work with.

I am also encouraged by lessons drawn from history, particularly cases of change advocacy coalitions that bring together grassroots organizing with expertise-led policymaking. For example, the Violence Against Women Act (VAWA) was a piece of US federal legislation passed in 1994 that provided a range of legal protections and recourse for women who may suffer from violent crimes, including in intimate partnership contexts. By most recounting, the impetus for this bill originated in 1989, after the “Montreal Massacre” shooting of female university students prompted select US senators to investigate legislative possibilities to extend
stronger protection for women [59-60]. Legal staffers supporting the senators then employed a large toolkit of change advocacy tactics to move the agenda forward, including: gathering a social scientific evidence base; building strategic partners and allies with existing civil advocacy groups; pursuing media exposure to gain visibility and build a base of political support; generating legislative policy proposals through the evidence base and in consultation with the civic sector partners and allies; and leveraging the political base to negotiate with political opponents.

From the viewpoint of policymakers, the creation of VAWA took 5 years between ideation to legislative passage. Yet from the viewpoint of grassroots advocates and organizers, the movement for legislative protection began even earlier in the decade. The change advocacy process took significant investments in time and social capital to build up both the knowledge and power bases needed to create something new, against system inertia and the existing power order that marginalized the priorities of those the bill sought to protect. In this light, I view the research output and preliminary strategic plans from my DELTA project to only be the beginnings of what is hopefully a sustained and fruitful change advocacy process for international student mental health.
IV. CONCLUSION

8. CONCLUSION

8.1 Key findings

The main findings of this project can be summarized in two major categories: 1) key experiential themes about CNIS’ sense of belonging and mental health, which lead to programmatic recommendations for educators, practitioners, and student community groups; and 2) process learnings and strategy recommendations for the host organization to lead a strategic coalition of local actors addressing CNIS mental health and belonging.

In the first category, results from the qualitative research study showed that the social identity model of identity change (SIMIC) can be productively applied to the issue area of CNIS belongingness and mental health. I identified three key themes that characterized CNIS’ study abroad experience, which necessitated the integration of a pre-existing “Chinese person” social identity with a new “American’ student” identity. These themes include the transitions “from permanence to impermanence”, “from cultural majority to cultural minority”, and “from embeddedness to independence”. Analysis showed that when a student experiences these transition dimensions in positive compatibility with each other, belongingness and mental health is improved; and vice versa. As well, proper social and structural “scaffolding” can positively influence the identity transition experiences, and thus also belongingness and mental health. Based on these observations, I generated programmatic recommendations for actors such as university mental health services and diversity, equity, and inclusion (DEI) offices, to better support belongingness and mental health in CNIS and other international students. I also identified existing capacity for innovative solutions based on CNIS student communities.

In the second category, I generated a strategic plan for the host organization CCCSEW to facilitate the building of a local multi-sector coalition to promote programmatic activities and change advocacy supporting CNIS and international student mental health and belonging. I
analyzed the suitability of the collective impact framework for this endeavor, and identified potential steps that CCCSEW can take to serve as an effective backbone organization in coordinating the diverse community stakeholders. I outlined ways to build on existing programmatic activities, frameworks, metrics, and communication channels to generate mutually reinforcing actions and outcomes. Finally, I observed the limitations and opportunities of working within a research-oriented setting, where resources and activities are aligned first and foremost towards knowledge generation and dissemination, compared to programmatic change. I also recognized that change advocacy and action may have an inherently long timeline, especially when operating against institutional inertia, and that preparing a sound knowledge base and strategy as this project attempted may often just be the beginnings of a long-term effort towards change.

### 8.2 Future implications

Given the above findings, this project has a number of generalizable implications for research and practice in student mental health, DEI, and belonging in US higher education. First, this project contributes to the growing field of the social identity approach to health and wellbeing. It demonstrates that social identity can be a productive framework for examining acculturation concerns and mental health experiences in CNIS, international students, and likely other students of minority cultural identities. It builds on the work of Slaten et al. [32-33] in attempting to define university belongingness through social psychology terms, and echoes the work of McNamara et al. [45] in using a social identity change model to describe young people’s adjustment experiences when transitioning from one cultural and institutional setting to another. In particular, the main transitional experience themes identified here (i.e. “from permanence to impermanence”, “from cultural majority to cultural minority”, and “from a more embedded self to a more independent self”) appear to also be potentially applicable to non-Chinese students,
including other international students as well as US domestic students experiencing significant cultural transition upon attending higher education.

Thus, this project also resonates with broader research supporting racial-ethnic minority and underprivileged students in US higher education, such as Anthony Jack’s study on social capital (or lack thereof) and academic engagement among economically disadvantaged Black and Latinx students at an “elite” US HEI [61]. Further research may seek to clarify how these resonances across student identity groups may be most constructively utilized to promote their belonging, mental health, and positive adjustment. In designing student-facing programs or interventions, it may be important for educators and practitioners to keep in mind that social identity groups tend to draw clear in/out-group distinctions, and thus programs must often be group-specific rather than generalized. However, a social identity framing may help thematically unify seemingly disparate student experiences and the programs aimed to address them. This may be helpful for HEI administrators in designing overall strategies on student belongingness and mental health, and for students in developing inter-group solidarity.

Secondly, this project argues for mental health and education research and practice to take a more strength-based view towards international and other cultural minority students. Simultaneously, due to the social identity framing, it also argues for taking a more socially and structurally contextualized view of students’ adjustment experiences. Traditional approaches to minority student mental health and education often fall trap to a deficit-based view of students and their cultural particularities, with interventions designed towards “catching them up” to the standards of majority students in psychological or behavioral outcomes. As well, traditional approaches tend to overemphasize the role and responsibility of the student as an independent agent to develop psychological resources for coping with challenges and acculturating to the mainstream environment. This project, as well as other studies based in theories of social identity and social justice, invite researchers and practitioners to center the role of social scaffolding in facilitating students’ ability to make meaning, build trust, and develop their own
identities at the same time as shaping their environments. CNIS, like many other international students and cultural minority students, have often created vibrant communities largely outside of the knowledge of educators and HEI administrators. As these communities have supported and lent meaning to students’ higher education experiences, it may in fact be a loss to HEIs for neglecting to connect with these resources for strength. Hence, rather than over-relying on generalized best practices, mental health and DEI practitioners may benefit from grounding their practice in a strong understanding of the particular context, needs, and strengths of the student communities under their constituency.

As the student body of US higher education continues to diversify, HEI administrations and campus communities must grapple with their mission to provide all students with constructively challenging and nourishing experiences that foster technical learning as well as personal growth. The increasing internationalization of US HEIs, both through enrolling international students and incorporating international perspectives in and outside the classroom, are an important component of this effort. The issue of belongingness will only become more central over the next decades, as hegemonic paradigms of teaching, learning, and socializing continue to be challenged by the needs of diversifying students. A social identity lens to belongingness and mental health may allow us a more humane and holistic understanding of student experiences, as well as the capacity to identify “social cures” against maladjustment and marginalization. Indeed, by seeking to understand and facilitate the interactions between personal agency and social, cultural, and structural factors, we may help move both individual students and campus communities towards greater cross-identity integration and overall flourishing.
REFERENCES


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APPENDICES

Appendix A. Semi-structured interview guide

1. Self-introduction, thank-you, and explain purpose: This study aims to help universities better understand how Chinese international students’ experiences in the US influence their sense of belonging, mental health, and identity-related values and beliefs.

2. Tell me a bit about yourself.
   - What / where are you studying here? Why did you decide to come study abroad / to the US / to Boston?
   - What is your background? (Family, upbringing, former schooling, work, social economic class, etc)
   - How long have you been here? Have you studied or lived abroad before this? How (or not) do you think that might have influenced your current experiences?

3. What has it been like adapting to this place?
   - What have been the best (most fulfilling) parts of your experiences here? The worst (most invalidating)? How did they make you feel?
   - How have you coped with changes or challenges? How did they make you feel? What did you do as a result?
   - Has being here changed you / your goals / how you see yourself? If so, how?
   - Do you see mental health as a significant topic of concern among CNIS? For yourself? How / why?
   - Do you think there should be better support for CNIS mental health? If so, how do you think that can happen?

4. Who are you connected to currently? Who are you not?
   - Who do you now interact with the most on a daily / monthly basis?
   - From whom do you receive support (emotional, logistical, etc)? To whom do you give it? What has been the most / least effective? How / why?
   - Who knows or understands you? Who do you know or understand?
   - Who (if any) do you wish to have better / stronger connections with? How / why?
   - Compared to before you came here, are you now connected to different types of people / groups? How (if at all) has this changed you?

5. What do you think about (social) issues related to CNIS and Chinese people in the US?
   - What topics (if any) come to mind? Why these?
   - How, and how often, do you engage with these topics? (e.g. via media, forums,
in-person discussions, organized activism, etc)
  o Do you discuss these issues with other CNIS / American classmates / faculty / staff / others? What kinds of viewpoints do these groups usually express? How does that make you feel?
  o Do you wish certain people / groups would see these issues differently? If so, how do you think that can happen?

6. Do you feel like you belong here?
  o Do you feel satisfied about being here (at this school / in Boston / in the US)? Given the choice, would you rather be somewhere else? How / why?
  o Do you want to stay in Boston / the US after graduation? Why?
  o What do you think of if I ask you whether you “feel like you belong to a place”? Why?
  o Do you want to feel a stronger sense of belonging to this place? If so, how do you think that can happen?

7. Is there anything else you’d like to talk about? Or, do you have any questions?

访谈指南（60-90 分钟）：

1. 研究者自我介绍、感谢参与者、解释目的：本研究的目的，是希望帮助美国的高等教育机构更加了解中国留学生，以及留学生社会身份认同如何影响其归属感、心理健康、及相关社会价值观等。

2. 首先，我想了解你的一些基本情况。
  o 你在这里学习什么？为什么决定来这里（出国学习、到美国、波士顿等）？
  o 请介绍你来美国之前的背景（家庭、成长、教育、工作、社会经济状况等）。
  o 你在这里多久了？在此之前，你是否在国外学习或生活过？你认为这对你目前的经历有影响吗？

3. 你到美国留学的适应情况如何？
  o 你的留学生活中最好的（最让你感到自我肯定的）经历有哪些？让你如何感受？
  o 你的留学生活中最坏的（最不让你感到自我肯定的）经历有哪些？让你如何感受？
  o 当你面对变化或挑战时，你如何应对？有哪些情绪反应？采取哪些行为？
  o 自从到此留学，这边的环境有没有改变了你？或对自己的目标和期望？或看待自己的方式？（若是，请说明。）
你认为心理健康对中国留学生是重要的议题吗？对你自己呢？请说明。
你认为中国留学生的心理健康，是否应该得到更多的重视和支持？若是，你认为如何才能实现？
4. 以下问题，关于你和他人的联系和关系：
你平时（每日/周/月）与哪些人或群体的互动较多？
你从哪些人或群体获得支持（精神、情感、实际各方面）？你给与哪些人支持？哪些支持对你来说最有效？哪些较无效？请说明。
你认为哪些人或群体（最）能理解你？你理解谁？
你会希望与（校内或校外的）哪些人或群体，建立更良好的关系吗？请说明。
与到此留学之前相比，你现在的社会圈子是否有所不同？或者，你和以前的某些人或群体的关系是否有所改变（例如家人）？这你感受如何？
5. 你对中国留学生或在美华人相关（社会）议题有哪些看法？
提起这个主题时，你会想到哪些议题？为什么是这些？
你平时会关注或参与这些议题吗？多久一次？以哪些渠道关注或参与？（例：媒体报道、网络讨论、面对面讨论或参与、组织活动、等）
你会与其他中国留学生、美国同学、教职员工、或其他人讨论这些问题吗？这些人或群体通常会表达什么样的观点？于此，你的感受如何？
你希望某些人或团体，对这些问题的看法能有所改变吗？若是，你认为如何才能实现？
6. 你对于现在所在的环境有归属感吗？
你对在这里（这所学校/波士顿/美国）感到满意吗？如果有选择，你会想去别的地方吗？请说明。
你毕业后会想留在波士顿或美国吗？请说明。
“你对这个地方有归属感吗？”：提起此问题时，你会想到哪些方面？请说明。
你希望对这里（这所学校/波士顿/美国）有更强的归属感吗？若是，你认为如何才能实现？
7. 你还有什么想谈的吗？或者，有任何问题吗？
### Appendix B. Participant demographics

<table>
<thead>
<tr>
<th>ID</th>
<th>Age</th>
<th>Gender</th>
<th>Hometown in China</th>
<th>Previous study abroad</th>
<th>Years in the US</th>
<th>Degree of study</th>
<th>Institution of study</th>
<th>Field of study</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<tr>
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<tr>
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<td>Social science - professional</td>
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<tr>
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<tr>
<td>6</td>
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<td>Social science &amp; humanities</td>
</tr>
<tr>
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<td>STEM</td>
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<tr>
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<tr>
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<tr>
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<tr>
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<tr>
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<td>STEM</td>
</tr>
<tr>
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<td>1 - 2</td>
<td>Master's</td>
<td>3 - Private, &gt; 15,000</td>
<td>STEM</td>
</tr>
<tr>
<td>19</td>
<td>26</td>
<td>Male</td>
<td>Urban</td>
<td>No</td>
<td>2 - 4</td>
<td>Master's</td>
<td>2 - Private, &gt; 15,000</td>
<td>Social science &amp; humanities</td>
</tr>
<tr>
<td>20</td>
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<td>Urban</td>
<td>No</td>
<td>1 - 2</td>
<td>Master's</td>
<td>2 - Private, &gt; 15,000</td>
<td>Social science &amp; humanities</td>
</tr>
<tr>
<td>21</td>
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<td>1 - 2</td>
<td>Master's</td>
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<td>Business &amp; management</td>
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<tr>
<td>22</td>
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<td>Female</td>
<td>Urban</td>
<td>No</td>
<td>2 - 4</td>
<td>Master's</td>
<td>7 - Private, &lt; 15,000</td>
<td>Social science - professional</td>
</tr>
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<td>&lt;1</td>
<td>Master's</td>
<td>1 - Private, &gt; 15,000</td>
<td>STEM</td>
</tr>
<tr>
<td>24</td>
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<td>Female</td>
<td>Urban</td>
<td>No</td>
<td>1 - 2</td>
<td>Master's</td>
<td>1 - Private, &gt; 15,000</td>
<td>Social science - professional</td>
</tr>
<tr>
<td>25</td>
<td>30</td>
<td>Female</td>
<td>Urban</td>
<td>No</td>
<td>&gt;4</td>
<td>Master's</td>
<td>3 - Private, &gt; 15,000</td>
<td>Clinical sciences</td>
</tr>
</tbody>
</table>

For “hometown in China” (hukou residence registration system): “urban” vs. “rural” designation is self-reported by the participant.
For “institution of study”, numbering corresponds to institution ID in Table 2.
### Appendix C. Thematic analysis codebook

<table>
<thead>
<tr>
<th>Theme</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social ID transition</td>
<td>From “permanence” to “impermanence”</td>
<td>Transitioning from a state of permanence (in home country) to a state of impermanence or insecurity (in US, during study abroad). May be associated with positive or negative mental health consequences.</td>
</tr>
<tr>
<td></td>
<td>From “cultural majority” to “cultural minority”</td>
<td>Transitioning from being a member of a cultural majority (in home country) to being a member of a cultural minority (in US, during study abroad). May be associated with positive or negative mental health consequences.</td>
</tr>
<tr>
<td></td>
<td>From “more embedded self” to “more independent self”</td>
<td>Transitioning from being more strongly embedded in social structures (e.g. family, school, peers, cultural environment) to being more independent of these structures (emphasis on individual will, action, and capacity). May be associated with positive or negative mental health consequences.</td>
</tr>
<tr>
<td>Social ID scaffolding</td>
<td>“In-group” interactions – CSAs</td>
<td>Interactions with Chinese students &amp; scholars associations.</td>
</tr>
<tr>
<td></td>
<td>“In-group” interactions – other CNIS</td>
<td>Interactions with Chinese international students, outside of the CSA structure.</td>
</tr>
<tr>
<td></td>
<td>“In-group” interactions – close friends &amp; family</td>
<td>Interactions with close friends and family, outside of the above categories, including friends in China, non-CNIS international student peers, or US domestic student peers with whom one has significant social ID attachment or rapport.</td>
</tr>
<tr>
<td>Mental health and care</td>
<td>“Trusted other” interactions</td>
<td>Interactions with trusted parties who are not from one’s own social ID groups, including with faculty advisors, mental health counselors (if trust was established), and non-CNIS peers (except those with significant social ID in-group salience).</td>
</tr>
<tr>
<td>experiences</td>
<td>Other (neutral) interactions</td>
<td>Interactions with other parties outside of the above categories, including other faculty members, supervisors, university administrators, etc.</td>
</tr>
<tr>
<td></td>
<td>Positive (+) mental health experience</td>
<td>Descriptions and narratives about positive mental health experiences, including a sense of thriving, growth, “fit” (belonging), and overcoming challenges.</td>
</tr>
<tr>
<td>Negative (-) mental health experience</td>
<td>Descriptions and narratives about negative mental health experiences, including maladjustment, “in a bad condition”, stress, frustration, anxiety, depression, or maladaptive behavioral coping (e.g. disordered eating and sleep).</td>
<td></td>
</tr>
<tr>
<td>Experience with formal mental health care</td>
<td>Experiences with formal mental health care, including university counseling services at the current HEI of study, or in other settings in the US or in China.</td>
<td></td>
</tr>
<tr>
<td>Experience with informal mental health support</td>
<td>Experiences with informal mental health support, including conversations with close friends and family, discussions with CNIS, or consultations with peer support channels.</td>
<td></td>
</tr>
<tr>
<td>Cultural expectations and interactions</td>
<td>Prior knowledge of US / study abroad</td>
<td>Descriptions of one’s prior knowledge of the US and of studying abroad, including the nature, extent, and source of the knowledge (i.e. by experience, via peers/classmates, via the internet / media, via commercial study abroad support agencies, etc).</td>
</tr>
<tr>
<td></td>
<td>Expectations match well with reality</td>
<td>Experiences where expectations of the US and study abroad match well with reality.</td>
</tr>
<tr>
<td></td>
<td>Expectations match poorly with reality</td>
<td>Experiences where expectations of the US and study abroad match poorly with reality.</td>
</tr>
<tr>
<td></td>
<td>Two-way cultural exchange (equal power)</td>
<td>Experiences of being listened to, given voice / space, and respected for one’s (non-US) identities and perspectives by Americans or non-CNIS others.</td>
</tr>
<tr>
<td></td>
<td>One-way cultural assertion (unequal power)</td>
<td>Experiences of being stereotyped, marginalized, or actively discriminated against by Americans or non-CNIS others.</td>
</tr>
<tr>
<td>Stressors</td>
<td>Academics / achievement</td>
<td>Academics / achievement related stressors.</td>
</tr>
<tr>
<td></td>
<td>Relationship with authority</td>
<td>Relationships with academic advisors, professional supervisors, HEI administrators, or parents/guardians</td>
</tr>
<tr>
<td></td>
<td>Job / internship search</td>
<td>Job / internship search related stressors.</td>
</tr>
<tr>
<td></td>
<td>Visa status</td>
<td>Visa status related stressors, mainly tied to post-degree completion optional practical training (OPT) and long-term work or spousal visa application issues.</td>
</tr>
<tr>
<td></td>
<td>Personal relationships</td>
<td>Relationships outside of the authority category above; including with family, intimate partners, roommates, friends, classmates, and others.</td>
</tr>
</tbody>
</table>