International Doctoral Students Negotiating Support from Interpersonal Relationships and Institutional Resources during COVID-19

Yiwei Fu
New York University, USA

Die Hu
Tsinghua University, Beijing, China

Xitao Liu
Claremont Graduate University, USA

The COVID-19 pandemic has greatly affected international students around the world. Chinese international students are challenged in their daily life and study due to the travel restrictions, disruption of research, closure of labs, and the rise of anti-Asian racism. This study investigates the challenges, especially psychological ones, faced by international doctoral students from China studying in the United States. and explores how their social networks and support systems help them navigate their life and study during the pandemic. In light of social networks and support theory, we interviewed 20 Chinese international doctoral students studying in the U.S. and found that falling in between intimate relationships and student-institution relationships, academic departments and advisors are able to provide all types of support, namely, instrumental, informational, and emotional. Their ability to provide emotional support was heavily overlooked, especially during a global crisis. Concerted efforts must urgently be put together to deal with the mental health of international doctoral students on campus and rebuild a supportive and hospitable U.S. higher education system. This study can contribute to the scholarship of international higher education by capturing international doctoral student experiences and perceptions in this crucial time and assessing higher education institutions' capability to support international students.

Keywords: social support, international doctoral students, COVID-19, institutional response and support, American higher education institutions

Introduction

Since the outbreak of the COVID-19 pandemic, the higher education system has been hit particularly hard and Chinese international students are among a few student groups that have been greatly affected. A nationwide travel ban took effect in January 2020, in which non-U.S. citizens who have been to China in the past 14 days were not allowed to enter the country (Griffiths, 2020). The geopolitical tensions between the U.S. and China have also been intensified. In May 2020, a proclamation restricting the entry of Chinese graduate students and researchers connected to China's "Military-Civil Fusion (MCF) Strategy" was issued (Institute of International Education, 2020). Since June 1st, 2020, more than 1,000 visas from students and researchers have been revoked (Griffiths, 2020). Many Chinese students, especially those in STEM majors, reported that they may not be able to return home for many years due to practical concerns such as the inconvenience

of traveling and the high risk of having their visa revoked and thus their student status canceled.

Chinese international doctoral students are also challenged in their daily life and study. Research of doctoral students, especially those involving in-person fieldwork, is found in urgent need to be redesigned and rescheduled due to the shutdown of labs and public places. In Levine et al.'s (2020) focused group discussion, they found that doctoral students expressed their appeal for more funds, more senior-level guidance, and clearer expectations from the institutions. Also, past researchers have documented whether and how students' physical and psychological health are challenged. More than half of the students investigated in Inci and Danielle's (2021) survey on graduate students' well-being expressed feeling lonely, anxious, and fearful in March 2020. Villani et al. (2021) found in a cross-sectional survey that 35% of college students during traumatic events were classified as anxious and 72% were depressed. They related this occurrence of anxiety to the impossibility of physically seeing friends and partners and being distant from colleagues.

Moreover, the pernicious, yet hidden, xenophobic acts have been magnified since the outbreak: due to the rise of anti-Asian racism as the virus began to spread across countries, Asian people are becoming a feared, blamed, and harassed group (Gover, Harper, and Langton 2020). President Trump's insensitive reference to COVID-19 as "Wuhan virus" and "kong flu" may have aggravated Sinophobia, an intersection of fear and hatred of China, as well (Guardian News, 2020). These statements shaped not only the global understanding of this pandemic but also public memories of such disease as part of cultural genes, eventually being embodied in the negative stereotype of and the indiscriminate attacks against all members of Asian communities.

The recent Institute of International Education (IIE) reports evaluated the effects of COVID-19 on higher education institutions (HEIs) and international students and documented that only "a small subset of" overall Chinese international students are affected and all HEIs have taken actions to support international students (IIE, 2020). IIE's conclusion, leaving individual student's voice unheeded and misunderstood, drastically underestimated the negative impact on every individual's life. Additionally, doctoral students were uniformly left out in past studies and the role of higher educational institutions in hosting international students was seldom mentioned.

Many researchers (Zhang & Xu, 2007; Gebhard, 2010; Meriella, 2012) falsely attribute the difficulties that Chinese students experience to their incapability to adapt to a new culture, which is problematic because they not only reinforced negative stereotypes but also ignored the institutions' responsibility of recognizing student hardships and of creating a diverse and hospitable enough campus climate. Thus, this study aims to understand international doctoral students' experience and how they use their social support system during the pandemic. Institutional level response and support is a focus of the study analyzing students' social support system. Research questions that guide this study are 1) what is the impact of COVID-19 on international students' psychological well-being? 2) how does the social support that international students receive or seek might affect their experience during COVID-19?

Considering the intractable combination of COVID-19, COVID-related national policy, and neo-racism and the fact that the literature has shown the fragmented nature of Chinese doctoral students' perspective, it can be argued that investigating and understanding their experiences, especially the negative ones, are greatly needed to

ensure their satisfaction and give institutions much-needed insights to help them adjust their policies by the next global crisis. In this study, social support theory is used to guide our conceptualization. We highlight student agency in seeking and receiving help and in navigating social support resources. In this process, higher educational institutions' role is critically assessed. This study has potential implications for higher educational institutions in recognizing and better catering to student needs and interests.

Conceptual framework
Borgatti & Halgin (2011) describe a network as "a set of actors or nodes along with a set of ties of a specified type…that link them." Unlike groups, networks do not have natural boundaries or internal connections, holding a fluid and ever-changing quality. Students seek or receive social support from their social networks.

Social support
Social support is "the comfort, assistance, and/or information one receives through contacts from one's social network" (Wallston, Alagna, DeVellis, & DeVillis, 1984). Members of an individual's primary group, such as family members, friends, and significant others, are frequently considered immediate sources of support. People may also draw support from their secondary groups, in which relationships are more regulated or hierarchical. Relationships within schools and organizations are examples.

Social support requires the existence of social relationships, with their structure, strength, and type determining the type of social support available. The behavioral categories of social support, according to House (1981), are instrumental, informational, and emotional. Instrumental support refers to the provision of materials or assistance with practical tasks or problems. Informational support includes giving advice or providing information that may help a person solve a problem. Emotional support involves the expression of sympathy, caring, esteem, value, or encouragement.

From a structural perspective (Feeney & Collins, 2015), the size of the network may impact psychological well-being through the resources and opportunities that supporters provide. Individuals with larger support networks may have more opportunities to engage in beneficial social activities that are also conducive to healthy mental states. On the contrary, social isolation and lack of social support have been found to have an adverse effect on mental health and maybe that on physical health, insofar as mental is important for the physical. Kuo and Tsai (1986) demonstrated that levels of social support could be negatively correlated with stress and depressive symptoms, increasing the risk for suicidal behavior.

It has also been demonstrated by Wang and Miller (2021) that social support can mediate the association between optimism and stress in individuals who have experienced a traumatic event. In addition, empirical research has established that it is not the direct support that buffers the effects of stressors but its perceived availability. Zimet al. (1988) stated that perceived support from family, friends, and significant others was negatively and significantly correlated with the level of depression. This underscores the relevance of investigating how the perceived abundance or lack of social support may work during the COVID-19 pandemic, especially when the evolution of this global crisis is uncertain and may have long-term effects on students' physical and mental health. Thus, this study analyzes international doctoral students' social networks and how they make making their networks and navigate in their networks to deal with the COVID-19 pandemic.

Interpersonal Relationship
A good interpersonal network within a certain period determines to a large extent the level of international students' life satisfaction and study efficiency (Li, 2013). A large body of research (Rienties et al., 2013; Montgomery & McDowell, 2009; Hendrickson et al., 2011) found an inclination of international students to form social networks with people originating from the same national background. They come to a consensus that relationships with students from the same country form friendships more easily and cultural similarities, along with shared experiences of being in a foreign culture, bring them together. Also, as the interpersonal network, as well as the contact between relatives and friends, is inevitably affected by objective factors such as distance and time difference; it is not uncommon to find the fade of the original interpersonal network of international students and the expansion of their new friendship circles, which is usually achieved through participation in club activities and smooth communication with locals and various departments of the school (Zhong et. al, 2020). Unfortunately, however, these ways of improvement were greatly impeded by the COVID-caused social distancing and lockdown, posing enormous challenges for international students.

Mentor-Mentee Relationship
Mentoring is founded on the relationship between the mentor, as a more experienced professional, and the mentee as one who is learning about the profession. Mentors, going beyond supervising, play a crucial role in both the personal and professional growth of their mentees. Whether or not the mentor-mentee relationship is productive is underpinned by a variety of factors, ranging from the mentor's and mentee's personal and professional qualities (Rippon & Martin, 2006) to the environment or context in which mentoring operates (Rothman, 2007). In turn, Gormley (2008) found that obstacles to successful mentoring relationships mainly involve a mentor's lack of skills and knowledge, poor interpersonal skills, and insufficient two-way communication. Bradbury and Koballa (2008) identified the power dynamic between the mentor and the mentee as the main source of tension in mentoring relationships, where the mentee "may be unwilling to question the practices of the school or mentor teacher for fear of fracturing the relationship or affecting the mentors' evaluation of their progress" (p. 2135).

Student-Institution Relationship (SIR)
In higher education literature, the term student–institution relationship refers to the interaction between the college environment and the students. It is also often considered as a legal term regulating "the limits and nature of a college's legal responsibility for and jurisdiction over the student body" (Boyd, 2010). Williams (1986) proposed the concept of fit – "the congruence in values, style, and preferred characteristics between the student and the institution" (p.1). He argued that the effect of fit drastically shaped a students' attitudes towards as well as academic performance within the institution. Further, interventions made by the institutions to be responsive to student needs and interests, as claimed by Williams, could improve a students' sense of fit and satisfaction.

This study is conceptualized by the theoretical perspectives of social support and social relationships. The social networks that students seek or receive social support from can be thought of as gradated rather than binary, resembling ripples emanating from the individual or a concentric circle with the individual self in the center. Each ring, radiating outward, represents a reducing level of social connection or support and an increasingly stronger level of trust, mutual understanding, and care.

Methods

This study adopts the in-depth phenomenological approach that focuses on "the experiences of participants and the meaning they make of that experience" (Seidman, 2012, p.16). We seek to understand our participants' subjective reconstruction of their lived experience, while we acknowledge the positionality of researchers. This study was designed to be inclusive of Chinese doctoral students currently studying in the US. We sent out 300 interview invitations to several Chinese international student social media groups and eventually conducted 20 interviews in June of 2021. To keep participants anonymous, Table 1 presents some basic statistics of participant information.

All the interviews were conducted for about 90 minutes in Mandarin. We asked participants to share their experience amid COVID-19 in important aspects of their international study, life, and career trajectory in the U.S. Questions also include how interviewees' institutions respond to Anti-Asian movements and what kind of support they provide their students with. Interviews were then transcribed, coded, categorized, and analyzed. Both organizational categories and theoretical categories were made and analyzed (Maxwell, 2013).

Table 1
A breakdown of participants' information into gender, year of Ph.D. study, broad fields, and institutions

Gender		N
Female		10
Male		10
Year of Ph.D. study (2019-2020)		*N*
First-year		2
Second-year		3
Third-year		5
Fourth-year		5
Fifth-year		4
Sixth year		1
Broad fields		2
Humanities		5
Social Sciences		2
Life sciences		3
Physical sciences		8
Engineering		
Institution	*State*	*N*
UCs (UCB, UCLA, UCSD, UCSF)	CA	4
Claremont Graduate University	CA	2
Caltech	CA	1

Princeton University	NJ	1
MIT	MA	2
Harvard University	MA	2
New York University	NY	2
Boston University	MA	1
University of North Carolina at Chapel Hill	NC	1
University of Pittsburgh	PA	1
University of Maryland	MD	1
Columbia University	NY	1
University of Texas at Dallas	TX	1

Findings

This section will draw upon the main themes and present the findings arising out of the interview process and subsequent data analysis that was carried out. But before we present the themes, we consider it important to acknowledge the interviewees' emotions during the COVID-19 pandemic, as the themes are all somehow interconnected with and lean heavily towards an emotional nature.

Personal Psychological Well-being

Not all people were capable of responding to the rapid changes during the COVID-19 pandemic with ease and positivity. International students, to be specific, are amongst the most vulnerable groups of all kinds (Yilmazli Trout & Alsandor, 2021). Emotions that they experienced are complex and slight occurrences frequently disturbed the balance of their minds. Words such as "anxious," "stressed," "frustrated," "fearful," "worried," and "depressed" were used by almost all interviewees. Some also used "angry," "disappointed," and "discouraged". Take, for example, this field note passage of a 4th-year Ph.D. student majoring in computer science describing his feeling of helplessness and loss of control when talking about future possibilities of legally staying in the U.S.:

> Before, I felt that there was a choice, but now I feel that there is no choice or that the choice is in the hands of others.

For students who were in their last year of Ph.D. study, it is not uncommon to observe extraordinary academic stress. For example, a fifth-year doctoral student attributed this to his failure to create separation between work and home.

> The epidemic [pandemic] leaves you nowhere to go or get a state of rest. Scientific research, in my opinion, is supposed to be constructive. It may last for a while and then you rest for another period of time. During that time, I used to go out and refresh myself to regenerate my enthusiasm for research. But now you are working almost every day. It is a kind of chronic and long-term pressure, unreleased.

Some others revealed severe damage to their psychological well-being. As a 3rd-year Ph.D. student studying engineering put it:

> Before the epidemic [pandemic], there are many activities to choose from and many people to contact, many things can be resolved in time, and pressure can be released in time. But quarantine piles up annoyance and pressure, leaving them unresolved.

> I was unable to contain my own destructive feelings. It was also difficult to discipline myself. I felt depressed.

While many of them were and are still trying to navigate their path forward and it might not be salient to notice an apparent breakdown in their lives, these words are representative of the hidden, but pernicious, hardships that international students encountered. The findings from the thematic analyses will provide more insight into the various reasons for these feelings.

Relationships with Family, Partners, and Friends
As a consequence of the tight lockdown in early 2020, a large part of the participants' interview was located around isolation and the corresponding loneliness that came with it. They related this increased isolation to social distancing requirements, fear of being infected by the COVID-19 virus, and large amounts of online communication. While some reflected on "relying on the video calls with friends to live," others felt increasingly disconnected from the real world. Many were also experiencing a hard time having normal social activities. As is clear in the following excerpts:

> April 2020 was the loneliest. Everyone worked from home. Seminars were canceled. And many of my friends returned to China. So I didn't see anyone for weeks. This is quite unhealthy, nor is it how Ph.D. is supposed to go. What worries me, even more, is the difficulty to build up trust. For example, I am careful not to be infected by the virus, but I cannot guarantee that other people do so.

For some participants, parents were a source of concern and emotional labor, as they tried to arrange care from a distance or simply were worried about the health and safety of family far away. Four of the participants dealt with a strong feeling of homesickness, "spending thoughts on missing family members" and "dreaming about returning home." One participant, in particular, was going through a tremendous family crisis amid the COVID-19 as his family members were trapped in Wuhan and one is a doctor.

On the contrary, some reflected on experiencing continuity in the quality of their existing interpersonal relationships or even increased relationship closeness during the pandemic. For some, this involved having family and friends being on the same page and supporting each other as they go along:

> My relationship with my friends has become closer. We've been chatting and complaining about various challenges we faced. Now we are the support network for each other. It's nice to have someone to talk to.

Interestingly, not all participants longed for intimacy, especially during the pandemic when social distancing is deemed necessary. Some were fearful of being affected by their roommates, others had an increasing number of dormitory conflicts since they were forced to stay together all the time.

Connections with Lab Mates, Cohort, and Advisors
The possible adverse impact that COVID-19 left on research and academic progress was another key concern that many of our participants held. As strict regulations regarding school entrance were imposed shortly after the pandemic outbreak, students were forbidden to return and forced to shift to the work-from-home model. Staying motivated and productive was tough, but whether working from home is the key or impediment to their efficiency remains unclear. Participants reported that the pandemic had affected

their connection to other students and advisors, speaking about the difficulties and inconvenience in creating smooth academic communication and the excessive cost of time and energy while doing it. A fifth-year Ph.D. student in life sciences elaborated:

> The small talks after in-person seminars have been an important opportunity for me to learn and develop ideas. Now as they go online, not only did many people stop turning on the camera at all, they also ghost out immediately. It is also difficult to concentrate all the time when zooming, and sometimes it is difficult to hear.

Several participants, especially those who rely on in-person fieldwork or wet experiments in laboratories, experienced rapid change in their research design and severe delay in their research progress. One participant described a special circumstance in March 2020 where laboratories were shut down and all experimental animals like rats were deemed to be killed. Another participant observed the idleness of his classmates, who had nothing to do but "spend 10 hours a day playing switch games." Similar points were made by other participants as well:

> My research should have been done last summer. I was about to return to China in July but couldn't. In that case, it was neither impossible to design nor to carry out an experiment online. So, I changed it into a hybrid format.

In this case, lab and department seem to be the immediate superior that the students could reach out to. But people's satisfaction level with corresponding sub-organization support varies. In relation to instructional support, such as graduation postponement, some participants stated that their supervisors were supportive and showed understanding towards that. In some cases, the examination system was also made flexible in various ways, which was a relief to those who were about to take the exams:

> Because of my own reasons, my work efficiency has dropped a lot and I also have a little depression. I discussed with my supervisor about half a year off from school, he expressed understanding and said that I should take care of my health.

However, many other advisors did not seem to beware of the emotional fluctuations that their students were going through, resulting in a strained student-mentor relationship:

> My boss said to me, he encountered the 9/11 incident when he was a student. He thought at that time, everyone thought everything was over, but now it's pretty good. I think the two things are not the same, but I didn't argue with him directly.

Another participant reported feeling ashamed and uneasy rejecting her supervisor's research request due to personal problems:

> At that time, I felt that I was really unable to work, but my boss wanted to talk to me about academics or ask me how well my paper was written. He didn't do anything wrong, but I had no mental space to do that. I feel quite uncomfortable and that it is inappropriate for me to do this. I should have been ready for research anytime, anywhere.

One participant drew on receiving rather sufficient personal support from staff but inadequate systematic ones:

> My mentor takes the initiative to ask me if there is anything I need help with. The program officer also cares about my difficulties. As specific people, they are willing to offer support. But they somehow cannot fully represent the department.

Consequently, this delay or overall pivot in research projects and not being fully supported by the department might become an impediment to graduation, which helped increase these participants' level of anxiety. "Perhaps my biggest anxiety comes from not being able to graduate on time," a student remarked.

Perceived Support from Departments or Universities
In turn, participants emphasized their need for institutional resources in their professional contexts to support them in planning for changes to their research due to the impact of the pandemic. They also highlighted that the speed and efficacy of institutional response to major events play a pivotal role in assisting them both in life and in academia. This interest in institutional support ranged from providing more funds, psychological service, timely notification of events and policies, to increased flexibility in research and graduation.

There are a group of participants who did not show particular care about school policies, one of which indicated that it was because of his close connection with his supervisor. There is a consensus that the informational support that the schools provided was roughly adequate. Many shared that their schools did their best in staying with international students and protecting their interests by sending multiple statements via email. For one participant, in particular, he recounted that his school "reported issues of equal rights and the epidemic in a very timely manner, attaching great importance to the timeliness and correctness of information communication."

Instrumental support was also regarded as basically satisfactory. Some participants recalled being offered an opportunity to have their invoices reimbursed. Others acknowledged that a pandemic relief fund was issued at the beginning of the epidemic, which was no more than a few hundred dollars, but still "better than nothing." A fifth-year Ph.D. student in life sciences added:

> I personally feel that my school is doing a pretty good job. When the epidemic first started, we had an opportunity to apply for five hundred dollars if we find that COVID has brought a burden to our life. If you're working from home and need a printer, or you want to go home, but the air ticket has increased a lot, you can also apply for some funding.

Similarly, a third-year student studying economics from a large public university felt supported seeing his school's response to visa-related policies:

> I remember that there was an incident that if you can't enroll in an in-person class, your F-1 visa will become invalid. That time I felt that the school was pretty awesome. They sent some news updates and participated in some lawsuits. But because the matter was over quickly, there was no follow-up.

However, it is important to note that, while some were relatively satisfied with the resources that their universities provided, others indicated an absence of emotional support, as a student revealed, "public schools are usually financially tight so they can only do some basic things such as notifications, but there was nothing more." Others also expressed their disappointment towards the inadequacy and inaccuracy of the

institutional responses provided by their universities, especially compared to their previous undergraduate and graduate universities:

> The so-called free consulting service set up by our school for graduate students is actually not free. And if you go to school more often, he will tell you that if you have specific needs, for example, if you have a history of this kind of mental illness or something, we suggest you go to a doctor outside the school because our resources were reserved to undergraduates. I felt very sad when I heard that.

The anti-Asian wave that came together with COVID-19 also heightened our participants' fear of being physically hurt and trailing emotional stress of not having their rights upheld. Many of our participants recorded being treated unfairly and an avoidance of responsibility of their schools:

> For the Anti-Asian acts and crimes, my university's response is much slower. We wrote to the international center, but they did not reply and shirked their responsibility to other departments. When they finally did it, the resources were not displayed on the homepage. You have to click on several indistinguishable links. It hurt everyone's feelings.

The data analysis above revealed the sophistication and complexity of the experiences of international doctoral students. This further indicates significance in recognizing individual differences, creating channels of communication, and providing valid institutional support. That said, the extent to which COVID-19 and the international situation will impact institutions' ability to offer support and the nature of studying and working abroad (change the choice of students who planned to stay in the U.S. in the past) is yet to be fully explored.

Discussion and Conclusion

In this section, we discuss three major aspects of the findings: international students' reliance on past interpersonal connections, lack of essential support from institutions, and the role of advisors and departments in providing all types of support.

First, the findings of this study have proved that international doctoral students from China are much more likely to be reliant on close relationships, rather than secondary groups or society. Past studies on the friendship network of international students found international students socialize the most with peers from the same home country (Rienties et al., 2013; Montgomery & McDowell, 2009; Hendrickson et al., 2011). The findings acknowledged this point and found that lab mates are also a significant part of Chinese doctoral students' interpersonal networks during COVID-19. However, the previous interpersonal connections were also seriously fragmented during the pandemic. COVID-19 and social distancing policy have made maintaining or building interpersonal relationships incredibly difficult for the students. That is part of the reason why most of them relied heavily on their past networks, which is manifested by the fact that several participants were seeking comfort from their family members and old friends back home. Lack of regular social activities and consistent channels to communicate left the students with a greater sense of loneliness. In addition, the lack of mutual understanding between students in the US and families in China, affected by the different stages in COVID-19, conflicting media discourses, and the sociopolitical pressures between the US and China around the pandemic, has contributed to students' loneliness in the US and triggered more worry about their parents at home.

Second, the support provided by family members, close friends, and significant others was found to be only emotional, sometimes informational, as is in alliance with the social support theory, whereas the resources provided by higher educational institutions, theoretically informational and instrumental, were very limited. Investigating into what institutions did to confront critical issues created by COVID-19, it is not uncommon to find that many types of resources were in scarcity. Some of those mentioned by our participants include legal aid, financial aid, psychological counseling, and potential change in qualification modality. Also, not only was information such as chances to get relocation fees hidden in "countless web links", institutions also seldom proactively reach out to the students, leaving them uninformed. But this does not mean that the efforts that have been made were effective. The biggest issue was that the support provided was symbolic rather than practical. Without going beyond updating COVID-related information, institutions fall short in solving real-life problems as well as protecting the emotions of international students of color in the wave of Asian hate. In particular, a common feeling of being left out was expressed by many of our participants, who would want their universities to be responsible for raising people's awareness of emotional needs and nurturing an atmosphere of mutual support. When looking into the reason why students were somehow reluctant to be dependent on institutions, we found a lack of understanding and trust between them and the students, without which social support networks might be hard to form and manage and students' attitudes towards the institution might be negatively affected.

Figure 1
The role of the academic department and advisors in providing all types of support for international students
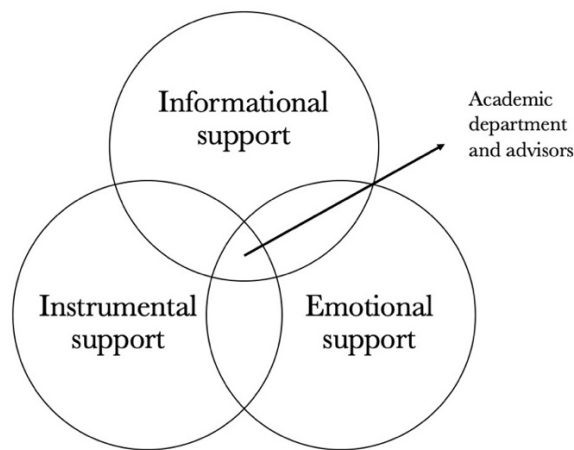
Third, what falls between intimate relationships and institutions is academic departments and their faculty. It is interesting to find that, in many cases, students seek emotional support rather than informational or instrumental support from their advisors and departments. The department is at the intersection between the larger discipline and the local HEI. Departments are basic organizing subunits within an HEI and administrative extensions of the institution. However, the varied organizational structures and cultures across departments such as policies and values also reflect the influences of the larger discipline and society (Clark, 1987; Lee, 2004). Academic departments and advisors, intersecting at students and institutions, could in fact provide all types of social support, namely, instrumental, informational, and emotional (Figure 1). Individuals, academic advisors and tutors could cater to the needs of students on a personal level. As members

of the subordinate body of the university, they hold a variety of resources at hand and could therefore act quickly to emergencies, providing instrumental and informational support when needed. As acknowledged in previous research (Gormley, 2008), a successful mentor-mentee relationship requires the mentors to go beyond the professional, or academic as in this case. One of our participants revealed that both her mentor and the program officer were willing to offer help and ready to talk her through any challenges she might be facing. Unfortunately, however, those that could be identified in this study are more at the individual level than at the institutional level. This further indicates a lack of systematic support in many higher education institutions and an unprecedented opportunity to redress this issue. As such, departmental support should be systemized, as it plays an irreplaceable role in creating a safe, supportive, and protective educational setting and in bridging the students and the institutions.

This study has several implications. First, it contributes to the scholarship of international higher education by researching and capturing international doctoral student experiences and perceptions in this crucial time. Second, unlike the past studies that place the burden on international students to overcome the challenges during their overseas study, this study focuses on examining whether HEIs have the capacity to provide a safe and supportive environment for international students in a global crisis. It gives voice to international students and provides HEIs with students' evaluations of institutional response and support. A chronic lack of trust and organizational support, which includes culturally and ethnically diverse training to school counselors, are exposed and exaggerated, resulting in their insufficiency in toolset and mindset to deal with the hardships that both themselves and their students experience. Concerted efforts must also urgently be put together to deal with the mental health of international doctoral students and rebuild a supportive and hospitable U.S. higher education system. Third, this study reveals some emerging patterns in international student mobility, especially doctoral student mobility from China. For the post-pandemic situation, one point that deserves mentioning is that the geopolitical tensions between the U.S. and China may change the decision-making of prospective international students from China.

Yiwei Fu *is a postgraduate student at New York University majoring in TESOL and Foreign Language Education. She gained her bachelor's degree in English Language at Southeast University in China. Her past work centered around post-colonialism and the identity crisis of Chinese Americans, racial bias in the TESOL industry, and classroom discourse in preschools. Currently, she is investigating international student experience in American higher educational institutions during the covid-19 pandemic.*

Die Hu *is a postdoctoral researcher at the Institute of Education at Tsinghua University. Dr. Hu's research examines faculty international collaboration networks, internationalization of higher education, and international student mobility and experiences in the U.S. and China. She holds a Ph.D. in Education from the University of California, Los Angeles. Correspondence concerning this article should be addressed to Die Hu at hudie@tsinghua.edu.cn*

Xitao Liu *is a Ph.D. student in Applied Social Psychology at Claremont Graduate University. Her research interests focus on improving social support among people with depression. Her current studies utilize moral elevation to increase helping behaviors toward people's loved ones with depression and cultural differences in moral judgement.*

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