

International Students' Perceptions of Shelter-In-Place Notifications: Implications for University Officials

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Abstract

Emergency notifications and shelter-in-place warnings on college and university campuses are generally issued in English and presuppose either a common shared language and culture or the adaptation of the warning system to a multilingual and multicultural social structure. This study examined the roles that language, culture, and emergency literacy played in international students' perceptions of shelter-in-place notifications on a college campus. Students from Sweden, Bulgaria, and Kenya were recruited to participate in a focus group shortly after they had experienced shelter-in-place warnings after an armed robbery occurred near their campus. These students were interviewed about their perceptions of emergency notification and shelter-in-place warnings. The study's results suggest that, while international student may be proficient in the English language, cultural issues, local practices and customs, and emergency illiteracy may hinder international students from understanding and appreciating the need to shelter-in-place or engage in self-protecting actions during a violent crime. Further, the study's results may have policy implications for colleges and universities regarding emergency communication and training for international students who are not familiar with local crime, emergency terminology, and self-protective actions.

Keywords: Emergency notification, shelter-in-place, international students, college campus

Emergency notifications on most campuses are issued in English. When shelter-in-place warnings are issued, most institutions presuppose that students understand this term and what protective actions to take. In simple terms, sheltering-in-place means remaining in a structure or a safety area to protect one's self from a threat (Cova, Dennison, & Drews, 2011). Currently, campus emergency notification research pays little attention to international students' understanding of emergencies and emergency notifications. Therefore, this current research is important for a variety of reasons. First, the number of international students attending U.S. higher education institutions has increased by approximately 32% over the past decade and will continue to increase (Institute of International Education, 2011). Second, there has been a sharp increase in campus violence over the past two decades with over 75% of reported violent incidents since 1990 occurring during that period (Drysdale, Modzeleski, & Simons, 2010). Finally, while there have been studies that have assessed students' perceptions of campus safety (Burruss, Shafer, & Giblin, 2010; Weiss, 2008; Williams, 2010), these studies have focused on domestic rather than international students.

Recently, a masked gunman entered a credit union that was adjacent to a mid-sized southeastern university and committed a robbery. When the gunman fled the credit union, his

direction of travel was unknown. As soon as the University Police Department (UPD) learned of the incident, they immediately activated the university's emergency notification system (ENS) and instructed the campus community to shelter-in-place. Over the course of three hours from the time that the robbery occurred until the suspect was arrested on campus, four warnings to shelter-in-place were issued. Despite the presence of a credible threat and the issuance of warnings to shelter-in-place, there was a variety of responses to these warnings among international students. This study seeks to explore the various international students' understandings of and responses to the warnings and the response implications for university officials.

Related Literature and Theoretical Considerations

The issues of language and culture combined with unfamiliarity regarding emergency preparedness, or emergency literacy, becomes even more problematic during emergency communication situations. Research has shown that communication barriers regularly exist during normal communications (Tracy, 2002). For example, Kinni and Kinni (2005) indicate there are external barriers (environment and visual distractions), internal barriers (not listening or paying attention), and semantic barriers (language, culture, or education) that create problems with normal communications.

Language

Emergency notification on American college and university campuses "presupposes either a common shared language and culture or the adaptation of the warning system to a multilingual and multicultural social structure" (Aguirre, 1988, p. 73). Despite improvements in emergency communications over the past decade, emergency warnings and communications are still primarily in English and communicated at reading levels higher than that possessed by many individuals for whom English is not the primary language (Eisenman, Glik, Maranon, Gonzales, & Asch, 2009). Emergency signage, texts, and voice alerts for emergency response are in English. Further, the signs, texts, and voice scripts typically differ from those used in many other countries. Although many countries, including the United States, use international symbols in many contexts, most campus ENSs do not support multiple languages (Sullivan, Häkkinen, & Deblois, 2010).

Language issues are just some of the challenges faced by international students along with culture orientation, misunderstanding and complications in communications, adjustment and adaptation, and social isolation (Byram & Feng, 2006; Kinnell 1990; Klineberg & Hull, 1979; Ladd & Ruby, 1999; McNamara & Harris, 1997; Poyrazli & Kavanaugh, 2006; Senyshyn, Warford, & Zhan, 2000; Tomich, McWhirter, & King, 2000; Tompson & Tompson, 1996; Heggins & Jackson, 2003). While studying a subject at the university level is challenging, learning a new language with its cultural implications, technical terms, and slang and acronymic language creates additional challenges that may serve to isolate international students. For example, emergency notification messages are frequently short in length and issued quickly. In some cases, university officials may use abbreviations or acronyms. International students might not effectively receive and understand these messages.

Isolation may also affect how international students' receive emergency notifications. Studies suggest that Americans generally receive emergency information from formal sources while international students may prefer to rely upon informal sources such as friends and family (Perry & Nelson, 1991; Phillips & Ephraim, 1992). Additionally, language barriers may make international

students feel marginalized and isolated from the mainstream university community and this may force them to be more dependent upon familiar social networks (Erichsen & Bolliger, 2010).

Culture

Morrow (2010) suggests that even international students with an understanding of English may be hampered by a lack of understanding of the American culture. Cultural orientation affects an individual's understanding of a word, sentence, or even perception of a situation (Schuyve, 2007). According to Thanasoulas (2001), cultural competence, including the knowledge of the customs, beliefs, and systems of meaning of another country, is an integral part of foreign language learning and comprehension. Similarly, culture can affect how an individual responds to situations (Kadula, Lauderdale, & Baker, 2007). Genc and Bada (2005) argue that without an understanding of the cultural context of language, the learning of a second language is incomplete. The lack of understanding of the cultural elements of communication result in significant hardship in both communicating meaning to native speakers and understanding the messages concepts received from native speakers.

However, what is significant to understanding culture's effect on emergency communications is how the international student's culture relates to the local culture. Local culture is extremely important when receiving information about and responding to an emergency or disaster. For example, when the 2004 Indian Ocean Tsunami struck, communities with indigenous knowledge about tsunamis, local geography, and local practices more successfully survived than did migrants and tourists who did not have this knowledge (Arunotai, 2008).

In this context, culture includes not only a group's common beliefs, values, and meanings but also how they do things (Baligh, 1994). Hall, Neitz, and Battani (2003) expand on this definition and view culture as a toolkit that can be used to help ensure a group's survival. While individuals from the local community understand the geography and local practices that relate to emergencies, international students frequently do not.

Culture is closely linked to survival and disaster risk reduction (Kulatunga, 2010). Although the survival instinct is innate, how one makes choices or avails him- or herself of survival opportunities can be framed by his or her cultural orientation. When survival methodologies are incorporated into the local culture, these methodologies help ensure the group's survival. Further, when culture influences member behavior, culture has a stabilizing effect, which is necessary when a disaster occurs and people have to make quick decisions and respond appropriately (Kulatunga, 2010). Unfortunately, individuals who are not local culture members are usually disadvantaged when an emergency occurs.

Emergency Literacy

For the purpose of this paper, the author defines emergency literacy as competence or knowledge in emergency preparedness, mitigation, response, and recovery concepts and behaviors. Low emergency literacy is a barrier to effective communications and appropriate emergency responses. Low emergency literacy in international students is typically associated with language and culture barriers. This does not imply that the international students are not proficient in speaking and understanding English; however, this proficiency may serve to mask a low emergency literacy level. Dominant culture members may erroneously assume that, because an international student is proficient in English, he or she understands the various emergency communications and response components.

Emergency literacy is related to risk perception. Research suggests that individuals must hear, understand, believe, and personalize a risk before they take action (Mileti & Fitzpatrick 1993; Nigg 1982; Whitney, Lindell, & Nguyen 2004). Similarly, one must believe that he or she is responsible for his or her actions before engaging in behavior that enhances emergency literacy (Mulilis, Duval, & Rombach, 2001). Therefore, the more that one believes that he or she is vulnerable to a disaster and that he or she must take responsibility for preparing for a disaster, the greater the potential for an individual to have a high emergency literacy level.

This further suggests that students who have been exposed to disasters may have higher emergency literacy. For example, students from Japan or the Philippines, where there is a great potential for earthquakes, tsunamis, and cyclones, may have greater emergency literacy than students from Europe. Further, students from wealthy countries are likely to have greater emergency literacy due to wealthy countries have greater resources, better building codes and practices, better construction materials, and better prevention, mitigation, response, and recovery practices (FEMA, 2007).

The current study's purpose was to examine international students' perceptions of shelter-in-place warnings issued at a university after an armed robbery occurred at an adjacent credit union. Indeed, the presence of a gunman on campus is considered one of the most significant emergencies and serves as the working definition of the term emergency in this paper (Johnson, 2013). The specific focus was on international students' understanding and responses to these warnings as they were affected by language, culture, and emergency literacy. Since an emergency management hallmark on campuses is to provide for student, staff, and faculty safety (Naevestad, 2008), it is believed that this examination will provide insight for addressing the international students' needs during emergencies. The research questions addressed where what are the international students' perceptions of sheltering-in-place notifications, what factors affected their decisions and actions, and what are the implications for university officials.

Methods

Study Design

Due to the limited number of international students at the university, a focus group was used to obtain qualitative information regarding their shelter-in-place experience. An important focus group characteristic is that it usually results in interaction among the group's members that generates insight and qualitative data that can produce a thick, rich description of the students' experiences during the event (Morgan, 1997). Focus groups, usually consisting of 5-to-10 people who engage in spontaneous responses to questions and exchanges among its members, are formed by the researcher who leads it in a one-to-two hour interview (Krueger & Casey, 2009). Focus group members are not necessarily a representative sample of the population under study, but may be selected based upon convenience and their possession of characteristics, knowledge, or experiences that relate to the research topic (Schutt, 2012). This focus group was conducted approximately one month after the robbery.

In preparation for the focus group interview, the author developed an 11-question semi-structured protocol (see Appendix). One question addressed demographic information while a second question addressed the international students' initial impressions upon receipt of the shelter-in-place notifications. Two questions addressed the issue of the international students trusting the information that the university and its employees gave them since previous research suggests that individuals with higher levels of trust in emergency information tend to respond more appropriately

(Dombroski, Fischhoff, & Fischbeck, 2006; Drabek, 1985). Another question addressed the issue of international students confirming the information they received since previous research also suggests that individuals who confirm emergency information are more likely to respond appropriately (O'Leary, 2004). Two questions addressed whether the international students had registered for the university's ENS, which is an opt-in system. Previous research indicates significant problems with motivating students to register for opt-in ENS's (Davies, 2008; Ganosellis, 2008; NACUBO, 2009; Weiss, 2008). Four questions addressed the actions taken by the international students upon receipt of the shelter-in-place notifications. Bounded rationality theory suggests that individuals take actions based upon an understanding of the present threats and their consequences, and the options available (Pan, Han, Dauber, & Law, 2007).

Participants

A purposive sample was used for the focus group. Two criteria were established that participants had to meet: 1) the student had to be an international student enrolled at the university and 2) the student had to be on or near campus on the day and time that the robbery occurred and the shelter-in-place notifications were issued. The university's Office of International Programs and Services (OIPS) assisted in the participants' recruitment. The OIPS conducts international student meetings throughout the semester. Approximately two weeks before a scheduled meeting, the OIPS staff distributed recruitment notices to international students. No incentive was offered for the students to participate in the focus group.

Twenty-four students attended the meeting. At the meeting's conclusion, nine students remained to participate in the focus group. The nine students were from three countries: 1) Sweden, 2) Bulgaria, and 3) Kenya. Two students had been in America for approximately two years. The remaining students had been in America less time with the average stay being approximately a year. For all students, this was their first time attending an American university. The students were of traditional college age ranging from 18 to 21 years of age. All students indicated that they felt proficient in the English language. No personally identifying information was collected other than participant sex and country of origin. Seven males and two females participated in the focus group.

Procedures

Before the focus group commenced, informed consent was obtained. The interview lasted approximately one hour and was audio-recorded. The investigator asked the pre-determined questions; however, the investigator deviated from the questions when clarifying information was needed or additional avenues of investigation appeared. Upon completion of the focus group, the investigator debriefed the participants by informing them of the research's purpose and methods and allowing the participants to ask questions. Further, the investigator provided the participants with the investigator's contact information. The audio-tape was later transcribed with the transcript used for coding purposes. Responses were coded according to the research questions' categories.

Data Collection

A semi-structured protocol was developed to keep the focus group directed. Eleven questions were developed that allowed for data collection on the following areas: 1) how were shelter-in-place notifications received and understood, 2) what actions were taken in response to the notifications, 3) what did the term shelter-in-place mean, and 4) how much did the international students trust the university to keep them informed and provide instructions. The questions were asked in English. No interpreters were used although during the focus group, although one student did consult with

the other students for clarification on a question. All students indicated that they understood the questions and the investigator had no trouble understanding the students' response in English. During the focus group, the investigator only deviated from the questions to ask clarifying questions or to explore other issues that became apparent in the students' responses and behavior.

Data Analysis

Data were analyzed to identify core consistencies and patterns in the interviews that are referred to as themes. The transcript was reviewed with attention to discovering themes that emerged from the data. Transcript comments were coded and managed using Inspiration 9.0a software. After the information had no further value, the transcript was destroyed to further ensure confidentiality.

Results

During the transcript review, several themes were identified. These themes included communications, actions taken, sheltering-in-place, and trust in the university. A further theme that emerged not directly related to the structured questions was emotional affect to the event.

Communications

The university has a redundant ENS that provides for emergency notifications via e-mail, text messaging, outdoor siren/PA system, and telephone calls. However, with the exception of the outdoor siren/PA system, university members must opt-in to the system and select the method(s) by which they wish to be notified. According to Johnson (2012), the majority of registrants select text messaging and cellular telephone calls as the preferred notification method.

It was determined that no international students were registered for the ENS. Every student indicated they were unaware of the ENS. However, each student indicated that he or she had attended an international student orientation session upon arrival at the university. Unfortunately, it appeared that these sessions lacked the emergency information that is included in orientation sessions for other students. Despite not knowing about the ENS, each international student indicated that he or she was interested in registering for the ENS.

Ironically, although no international student was registered for the ENS, seven students received notifications about the shelter-in-place notice through text messages. However, the messages were from friends. Each student felt that the message was urgent and trustworthy because it came from a friend. One student received the emergency notification via the outdoor siren/PA system when she walked across campus with friends. The student indicated,

I didn't know what it meant. My friends said it was probably just a test, but then we heard them talking (over the speakers) and knew it wasn't a test. We were walking to the dorm and the siren went off again. At that point, I became afraid because my friends seemed afraid since it wasn't a test. We hurried up and went to the dorm.

The second student indicated that he received the notification from his professor who received the ENS notification. Additionally, other students in the class received the notification. The student noted, "I didn't know what was happening, but the professor told us we had to stay in class. I found out what was happening from the other students." One other student who previously indicated he received the notification via text messages from friends also was in class. This student

indicated that his professor also received the emergency notification and alerted the class. Therefore, other than the student who heard the warning via the outdoor siren/PA system, the only official warning to the international students came from professors.

Actions Taken

Despite most students receiving the information second-hand, all students indicated that they either sheltered-in-place or moved to safety. Most of the students were either in their residence hall room, a classroom, or a public area. Only one student was out on campus when the notification was issued and she was with friends walking to their residence hall. One student indicated that he was in his residence hall room when he received a text message from a friend. He decided to stay in his room and take a nap.

The student who was walking with friends on campus indicated that she and her friends began to walk faster when the emergency notification was issued. She indicated that they felt they needed to get to the residence hall quickly. According to this student, "I was scared and did not want to go back out, so I stayed inside with my friends."

The students in classrooms complied with the professors' instructions to remain in the classrooms. However, one student indicated that he became impatient with the waiting for the all-clear signal. The student stated, "I didn't see why I had to wait. I wanted to leave and the professor wouldn't let me." Another student stated, "I stayed in the classroom like I was told. But after a while, nothing had happened and I didn't understand why she wouldn't let me go."

The remaining two students were inside the student commons building. They indicated that most students in these areas remained and they did likewise. Further, they indicated that university employees were at the exits and encouraging students to remain until the all-clear notice was issued. Therefore, the students who were in the student commons chose to remain until the all-clear signal was issued.

Sheltering-in-Place

While most students indicated that they engaged in some form of protective behavior at the urging of university officials, classmates, or friends, no students indicated that they understood the meaning of sheltering-in-place. The only student who received direct notification to shelter-in-place was the student who was outside and heard the emergency siren/PA system. Although she heard the warning, she did not understand what she was supposed to do. However, her friends understood the meaning of sheltering-in-place. The student stated, "they told me to hurry up and get to the dorm."

The students who were directed by the professors to remain in the classrooms did not initially understand why they were directed to do so. Even after they learned of the robbery, they still did not understand why they had to remain in their classrooms. One student stated, "when I found out that the guy robbed the credit union and it was off-campus, I wondered why I had to stay in the classroom."

The students who were in the student commons building were asked that, if they did not understand what shelter-in-place meant, how did they know to remain in the building. Both students indicated that they initially took their cues for behavior based upon other students' actions. According to one student, "everyone else was just hanging around, so I that's what I thought I

would do.” The other student indicated, “I heard some of the students talking about we needed to stay put, so I did.” However, one student indicated that he later saw university employees at the exits encouraging students to remain in the building. The student indicated that, although he was not sure why he had to remain in the building, he felt obligated to do so because of the university employees’ actions.

Trust in the University

The siren/PA system announcements and the professors’ instructions were in English. All students who heard the announcements indicated that they understood them. The students indicated that, although they were initially unsure as to what was occurring, they trusted the university’s announcements that something was wrong. One student stated, “my professor kept telling us we had to stay put, so I felt that I had to.”

The only students who directly received instructions from a university source were those in classrooms with professors and the student who was walking with friends. These students readily followed instructions. One student stated, “I didn’t know for sure what was going on, but she was my professor. I mean I had to do what my professor told me.” However, as the shelter-in-place period continued, the students who were in the classrooms became impatient. Even when informed of the robbery, they did not make the connection between the crime and the need to continue sheltering-in-place. One student even had a confrontation with his professor. He stated laughingly, “I kept telling her that I wanted to leave but she yelled at me to stay.” The student who was walking across campus did not initially understand the purpose for the instructions that were issued over the siren/PA system. However, her friends did and she followed her friends’ cues.

Similarly, the students who did not directly receive the notice from a university source relied upon friends or other students for behavioral cues. Although several students indicated that they received text messages from friends, these students further stated that their friends’ text messages denoted that the information was coming from university sources. Therefore, despite not knowing the meaning of shelter-in-place, international students engaged in protective behaviors based upon university officials’ instructions and other students’ actions.

Emotional Affect

The themes of communication, actions taken, sheltering-in-place, and trust in the university were not unexpected. However, the theme of emotional affect as it relates to fear was unanticipated. When the participants were questioned about their reactions to the shelter-in-place notices, with the exception of the one student who was walking with her friends, students demonstrated no strong emotional reaction. The absence of a strong emotional response to the question suggested that the participants similarly did not experience a strong emotional fear response to the situation.

The students were asked if they were afraid during the event. Only the student who was walking with her friends admitted to being afraid. This student stated that, “at first, I didn’t know what was happening, but then, when my friends said that we had to hurry up and get to the dorm, I became scared.” She stated that once she arrived at the residence hall, her fears subsided, but she did not want to go outside.

The student who went back to sleep after receiving the text message from his friend readily admitted he was not afraid. He stated that since he was in his residence hall room, the incident did

not bother him. Further, since he eventually fell asleep, he had no concern for the incident. He also indicated that, after he awoke, he made no effort to ascertain the incident's outcome.

The students who sheltered in the classrooms seemed to have the strongest emotional reaction. However, the predominant emotion was frustration rather than fear. According to one student, "they (the professors) weren't telling us anything about what was happening; they just told us we had to stay put." Another student commented that this event occurred during finals week. The student stated, "I had to get to another class to take my test and she (the professor) wouldn't let me go."

The most interesting response seemed to occur with the students who stayed in the student commons. Initially, when describing their emotions about the event, they seemed unconcerned and did not fear for their safety. They agreed that there were other students present and they were able to engage in desirable activities. However, they did indicate that, at some point, university police officers did a walkthrough of the students' commons to check on students. These students saw the police officers and were curious as to why they were present. However, they indicated that they were merely curious and did not experience an increased sense of fear.

According to the UPD, the armed robber was a student who fled from the credit union and eventually arrived in the student commons. Later, UPD officers located and arrested the student. No international students were aware of this information. The students who were in the student commons appeared very surprised at this information. While saying little about their feelings, upon hearing this news, they sat up in their chairs with surprised looks on their faces and looked at one another. One student stated that, "I didn't know he was arrested there" while the other student indicated, "I wish I had known that." However, while they were surprised at this information, they did not articulate what, if anything, they would have done differently.

Discussion

In reviewing the international students' responses to the interview questions, several factors become apparent. Language did not appear to be an issue in the students' perception of the situation. Each student indicated that when he or she received warnings, regardless of the mode, he or she understood the warnings' language. The student's English comprehension was apparent during the interview. The interview was conducted in English and the students had no trouble understanding the interviewer.

The international students' culture appears to be a greater issue in affecting their sheltering-in-place perceptions. The students readily admitted that they did not know what the term meant as it is not used in their native cultures. The term shelter-in-place is ubiquitous in American higher educational culture. From the ominous beginning of mass campus killings with the Texas Tower massacre (Krebs, 1966) to the more recent school killings in Chardon, Ohio (Sheeran, 2012) and Newton, Connecticut (Scinto & Turmelle, 2012), Americans now recognize the violence threat on campuses. Educational institutions have developed plans and conducted training that address this violence. However, in other countries where campus violence is not pervasive, this term may be foreign.

Finally, the international students' emergency literacy appeared to be low. Just as they were unfamiliar with sheltering-in-place, they also did not appear to appreciate the threat that the armed robber posed to the campus community. An examination of violent crime and disasters in the participants' three countries of origin may provide an understanding for the low emergency literacy rate

The Swedish homicide rate is among the lowest among industrialized nations. In an assessment of 125 nations, Sweden ranked 109th (UNODC, 2011). Comparatively, the United States is ranked 43rd. Similarly, violent incidents on Swedish campuses are rare (The Center for Global Education, 2011). The major disaster threats in Sweden are winter storms and flooding (The Local, 2011).

Bulgaria also has a lower homicide rate than the United States and is ranked 79th (UNODC, 2011). Data on Bulgaria campus violence was not located; however, an Internet search revealed only periodic references to occasional fights and drunkenness. This may suggest that violent campus incidents are rare. The primary disaster threat in Bulgaria is earthquakes (Noinvite.com, 2011).

Information regarding the Kenyan homicide rate was not readily available. According to the U.S. State Department (2012), crime is high in Kenya; however, it appears to be predominantly property crime. Indeed, the information indicates that victims are seldom harmed if they cooperate with the criminals. No information could be located regarding campus crime. The primary disaster threats in Kenya are drought and wildfires (United Nations International Strategy for Disaster Reduction, 2008).

These low violent crime numbers in international students home countries may also account for the lack of emotional affect to the incident. International students are not acclimated to campus violence as are American students and may only be concerned about crime and violence when directly confronted by such events. Since no students were directly confronted by an armed gunman, they did not experience the physiological and emotional arousal typically associated with fear (Gleitman, Fridlund, & Reisberg, 2010). Therefore, any fear they would have experienced would have been based upon learned behavior. According to Bandura (1977), individuals can learn behavior by observing another individual demonstrating the behavior, hearing another individual describe the behavior, or observing the behavior being modeled through some medium, such as in a movie.

The low violent crime levels in their home countries and lack of previous exposure to violent crime in the United States suggests that the international students have not learned to be fearful or concerned with an armed gunman committing a robbery adjacent to campus. Further, the lack of orientation towards campus safety and the ENS deprives the international students of the opportunity to learn of events that should be causes for concern. Finally, it seemed that the only international student who felt any fear level was the student who was walking with friends when she heard the warnings. In this case, this student's fear was based more upon the friends' reactions than the warning.

A lack of training for international students in emergency situations, communications, and responses was apparent. The students readily admitted that they had received no such training from university officials. Further, when the shelter-in-place notices were being issued, they were required to comply with these notices by university officials; however, the students were not provided with an explanation as to why such compliance was necessary or important. Although not understanding crimes and emergencies including appropriate responses in America may suggest a cultural issue, a reluctance to question university officials may also suggest a different cultural issue. Students who come from cultures that require strict obedience to authority may be hesitant to ask questions and, thus, be deprived of opportunities to understand and learn about situations.

A final issue is that no international student knew about the university's ENS. Initially, this lack of knowledge seems remarkable given that each student had been on campus for at least a year. The university addresses the ENS during its orientation sessions that are conducted throughout the summer. Additionally, there is a link to the ENS registration site on the university's main web page. However, this university provides a separate orientation for international students, a common practice among many institutions. The sessions' content includes information regarding general university orientation, legal issues, and immigration status more so than campus safety.

This study's results suggest implications for university officials. First, university officials have to be concerned with language issues. While many international students are fluent in English, university officials must understand that this fluency does not necessarily translate into emergency literacy and an understanding of the local culture regarding emergencies and disasters. This concern suggests that university officials must educate international students in emergency terminology, common verbiage found in emergency messages and signage, and local customs and practices regarding emergencies.

Second, university officials must ensure that international students are integrated into the institution's primay culture, particularly regarding emergency and disaster training. While language and culture may serve to isolate international students from the mainstream community, institutions that establish orientation sessions and other activities apart from the mainstream community may serve to further isolate international students, thus enhancing their vulnerability. For the international students in this case study, their orientation session did not include information regarding the ENS that was provided to other students during regular orientation sessions. Third, university officials must incorporate emergency and disaster education into international student orientation. This orientation should include information about common threats to the campus, the local culture as it relates to emergency response, and the expected behavior of international students in response to an emergency notification.

Fourth, universities have different ENS types. University officials should include information regarding their specific institution's ENS in their international student orientation. This information should include how to register for the ENS if it is an opt-in system, the different enunciation forms, the different emergency message meanings, and the signals for notifying students when it is safe to discontinue sheltering-in-place. Indeed, university officials should help international students register for the ENS. This activity will not only ensure that international students are part of the campus ENS, it will help these students build trust for the institution's formal communication networks.

Finally, university officials may wish to work with faculty who have or may have international students in their classes. International students from countries with lower crime rates than the United States may not understand or appreciate a crime's consequences, particularly an armed person threat. Faculty who have international students may give extra attention to them when threats occur and ensure that these students are engaging in appropriate self-protective behaviors.

Conclusion

This study explored international students' perceptions of an armed robbery that occurred adjacent to the university campus and the subsequent shelter-in-place notifications that were issued. Further, this study examined the international students' understanding of and responses to these notifications. This information is important given the increased occurrence of violent events on or

adjacent to campuses that expose students to threats. This information is also important to university officials who have substantial responsibilities in directing student activities. First, university officials must ensure that international students are educated about local emergency issues including terminology and other verbiage associated with emergencies and emergency notifications. Second, university officials must ensure that international students receive training regarding appropriate self-protecting behavior during emergencies. This training should also include informing the students of the campus ENS and the process for registering for it.

One reason that this training may be overlooked by college and university officials may be due to the English proficiency possessed by many international students. The international students involved in this study's focus group were proficient in the English language. However, this proficiency did not translate into emergency literacy. International students did not understand what shelter-in-place meant or what other self-protective behaviors were appropriate for the notifications. Further, the international students did not appear to appreciate the concerns associated with an armed robber fleeing towards campus.

The international students were also not familiar with the university's ENS. It appeared that international student orientation failed to include information about the system. However, despite not initially knowing about the ENS, the international students were interested in registering once they learned of the system. This suggests that international students are willing to take responsibility for protecting themselves.

The international students based their response behavior upon instructions from their professor or other university officials. These behaviors were reinforced by other students engaging in similar behavior in adherence to these instructions. This behavior suggests that international students have high trust levels for university officials, trust that was vicariously reinforced through other students' actions. This trust can promote appropriate self-protective behavior during emergencies.

While this study may provide valuable information for university administrators, it is not without its limitations. Focus groups provide valuable data; however, they often consist of a small, non-representative sample of the population under study and this poses generalization issues. A future study with a larger representative sample may yield greater insights into how international students perceive emergency situations and communications.

This study also focuses on the experiences of international students at one institution. This focus group was created specifically for the incident that occurred at this university and may not be a valid or reliable research tool for other institutions. A study that uses a different methodology and samples larger groups of other institutions' international students that have experienced similar events may provide greater insights regarding international students' perceptions of emergency situations and communications. Further, this study focused on international students' perceptions of emergency communications and shelter-in-place notices pursuant to the presence of a gunman on campus. Future studies may explore international students' understanding of and responding to other disaster types.

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