Nature and Effectiveness of Online Social Support for Intercultural Adaptation of Mainland Chinese International Students

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Many mainland Chinese students have flocked to universities or colleges in Singapore. Inevitably, these students encounter difficulties adapting to their new lives. An online social support group called Living in Singapore Group (LSg), a subforum of the most popular forum on Chinese international study created in April 2000, provides various types of social-support messages for mainland Chinese students in Singapore. The present research explores the nature and effectiveness of these social-support messages. Study 1 uses a directed qualitative content analysis to analyze 1,736 posted messages collected from July 6, 2012, to February 6, 2013. Results suggest that social support messages can be categorized into subcategories of three existing main categories (informational, instrumental, and emotional) and a new category (network support). Study 2 conducts in-depth interviews with 21 LSg members from May 15, 2013, to July 15, 2013. Results demonstrate that social support messages provided by this group are effective in helping mainland Chinese international students to adjust to their new lives in Singapore.

Keywords: social support message, online support group, intercultural adaptation, mainland Chinese international students, Singapore

Introduction

Many mainland Chinese students have flocked to foreign universities or colleges to earn degrees. China has become the largest source of overseas students worldwide (Zhang, 2001). The Ministry of Education, China, reported that more than 1.27 million Chinese students were studying overseas by the end of 2010 (Chen, 2011). Although most Chinese international students go to the United States, Australia, and the United Kingdom, Singapore has become one of the top 10 popular destinations for Chinese international students (Zhang, 2001). Singapore's culture is similar to that of China to some extent (Tsang, 2001), but it also has Western influences, thus challenging students from mainland China (Zhang, 2001). Students from mainland China may encounter difficulties adapting to an education system with English as a medium of instruction as well as to the local culture and academic pressures in

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Singapore. Thus, many mainland Chinese students in Singapore feel homesick, isolated, and frustrated at the start of their overseas studies.

International student service centers have provided international students with a wide variety of services, including academic orientation, life counseling, and language support. However, these centers cannot fully address international students' personal issues, particularly psychological distress (Johnson, 1993). Other sources of social support are friends, family members, and relatives (Surdam & Collins, 1984). However, these groups remain in the home country. Providing social support to international students in the host country is difficult.

Online support groups have become an alternative source that provides various kinds of social support (Bakardijieva, 2003). People can anonymously seek help and expand their network to exchange social support in online support groups (Wright, Johnson, Bernard, & Averbeck, 2011). In April 2000, individuals in China preparing to study or studying abroad organized an online support group called Gter (bbs.gter.net), which is one of the most popular Chinese forums for overseas study, to provide mutual support for Chinese international students.

The research presented in this article consists of two studies. In Study 1, we perform a directed qualitative content analysis to identify the types of social support messages in relation to mainland Chinese students' intercultural adaptation in an online support group called Living in Singapore group (LSg), which is a subforum of Gter. In Study 2, we interview 21 LSg members to examine the effectiveness of these social support messages in LSg—that is, the extent to which social support messages meet the needs of mainland Chinese students in Singapore (Sullivan & Davila, 2010). The current research is the first to use both online and off-line data to identify the nature of social support messages in an online support group as well as the first to investigate how these messages help international students adapt to new cultures.

Intercultural Adaptation of International Students

Intercultural adaptation is a learning process of modifying behavior undergone by people who move to a new geographical area for various reasons, such as employment, travel, and studies (Pietilä, 2010). Oberg (1960) proposed the U-curve model to describe cultural adaptation. Generally, immigrants undergo four stages to gain accommodation in the host country: honeymoon, culture shock, recovery, and adaptation. They experience the most severe mood swings in the first two stages (Oberg, 1960).

The honeymoon stage is a period lasting less than two months (Black & Gregersen, 1991; Harris & Moran, 1979; Torbiorn, 1982). This stage is marked by excitement and euphoria of new life (Adler, 1975). Individuals will then reach the culture shock phase. In this phase, individuals experience tension, frustration, and depression, because they are unfamiliar with the new culture (Black & Gregersen, 1991; Torbiorn, 1982). Individuals will be comfortable with the new environment and be able to function normally only after the first two stages, which usually last six months or more (Oberg, 1960). Many studies on cultural adjustment of immigrants have supported the U-curve model of intercultural adaptation (Deutsch & Won, 1963; Heath, 1970). For example, Heath (1970) conducted a longitudinal study to

examine the adjustment of U.S. students in Spain. He found that when international students arrive in a strange environment, they first undergo the honeymoon and culture shock periods and experience severe mood swings before adjusting to the new environment.

Research on intercultural adaptation has focused on the adjustment of international students. In particular, many studies have explored international students in the United States from the perspective of cultural identity and psychology (Hayes & Lin, 1994; Pruitt, 1978). These studies have found that students who immigrate to a new country have difficulties adjusting to new social customs, defining their identities, and making new social relationships, which might cause severe mental health problems. Furthermore, researchers have examined the intercultural adaptation of international students in many other countries, including the United Kingdom (Gill, 2007), France (Pitts, 2009), Australia (Russell, Rosenthal, & Thomson, 2010), and Canada (Chataway & Berry, 1989). With the upsurge in the number of mainland Chinese students studying abroad, the attention paid to intercultural adaptation of Chinese international students, especially by Chinese scholars, including Spencer-Oatey and Xiong (2006) and Wang and Shan (2007), has broadened.

Chinese international students' adaptation to Singapore has been explored in many studies (i.e., Dimmock & Leong, 2010; Tsang, 2001), because an increasing number of Chinese students have studied in Singapore, and Singapore's culture is similar to China's (Tsang, 2001). However, some researchers (Dimmock & Leong, 2010; Tsang, 2001) have argued that, despite cultural similarities, mainland Chinese students encounter various challenges in Singapore. First, English language is the main issue of mainland Chinese students in Singapore (Zhang, 2001). The courses offered by Singaporean universities are taught in English. International students are required to listen to lectures, express academic ideas, and write in English. Mainland Chinese students, who live and study under a Chinese language environment and thus lack English proficiency, find this situation difficult (Dimmock & Leong, 2010). Second, Chinese students suffer from academic stress (Constantinides, 1992). For example, mainland Chinese students who are used to studying in a teacher-dominated environment method tend to acquire knowledge from teachers directly rather than self-reading and self-exploration (Zhang, 1995). Thus, these students have difficulty adjusting to the student-centered learning method used in Singaporean institutions. These differences in terms of culture and education between Singapore and China might cause severe psychological anxiety and depression (Tsang, 2001). Therefore, mainland Chinese students need help from supportive individuals to adapt to living in Singapore.

Social Support

Social support is regarded as a supportive resource embedded in interpersonal interactions, which provides emotional comfort, instrumental help, information, and appraisal (Berkman, 1985; Cutrona, Suhr, & MacFarlane, 1990). Social support has been categorized in several ways. Initially, House (1981) classified social support into four basic forms: emotional, appraisal, informational, and instrumental. Subsequently, researchers have proposed other categorizations of social support. Wortman and Conway (1985) categorized social support into four types: emotional aid, information, companionship, and instrumental help. Then, Kalichman, Sikkema, and Somlai (1996) classified social support into three

types: emotional, informational, and instrumental. This typology of social support also has been applied in examining online social support messages (Braithwaite, Waldron, & Finn, 1999; Civan & Pratt, 2007).

In addition, research has documented that social support has a positive impact on individuals' health and well-being (Cassel, 1976; Cobb, 1976). Berkman (1985) and Thoits (1982) reported that social support could provide a sense of belonging, esteem, information, and nurturing behavior to buffer psychological anxiety and depression. Furthermore, Yeh and Inose (2003) found that social support alleviated the negative effects of intercultural stress and culture shock among international students. However, new immigrants usually encounter difficulties receiving support from face-to-face networks because their main social relationships remain in the home country.

Alternatively, online support groups have proliferated in recent years to provide social support to patients or those who need or seek help. Compared with off-line social support, people seek and receive online social support usually from weak ties instead of their primary groups (Walther & Boyd, 2002). Based on the weak ties theory, individuals tend to receive more useful information from weak ties (Granovetter, 1973, 1982). Moreover, King and Moreggi (1998) found that online support groups could be considered weak-tied networks that provide an anonymous environment, which reduces individuals' shame and stigma and thus allows individuals to seek and provide social support more freely than in the physical environment. In addition, according to hyperpersonal interactions (Walther, 1996), online group interactions are more socially desirable than are parallel face-to-face interactions. Members of online support groups are more likely to provide social support to one another to optimize their self-imaginization within certain online communities. Thus, for international students who lack social relationships in a new culture environment, online support groups might provide a platform in which they can approach individuals who have encountered the same problems in cultural adjustment to receive social support.

Although many studies have investigated the presence and types of social support messages existing in online support groups using content analysis, these studies focused only on patient-initiated online support groups, such as online HIV support groups and online cancer support groups (Coulson, 2005; Shi & Chen, 2014). Thus far, no research has examined the types of social support messages in intercultural adaptation online support groups, especially in the context of intercultural adaptation of mainland Chinese international students. Thus, the first objective of the current research is to identify the kinds of social support messages in an online support group for Chinese international students' intercultural adaptation (LSg). After understanding the nature of social support messages in LSg, questions are raised on whether and how social support messages are effective in helping Chinese international students adjust to a new environment. Several studies have explored the effectiveness of traditional social support and found that social support can satisfy the needs of recipients and buffer psychological anxiety and pressure (Helgeson & Cohen, 1996; Rini, Dunkel-Schetter, Wadhwa, & Sandman, 1999). Moreover, studies have indicated that social support is important for international students' intercultural adaptation. Ye (2006) found that immigrants with higher perceived support felt less social difficulties and psychological disturbance in the host country. Cao and Bathurst (2012) argued that international students who received more social support felt more satisfied with their current life in the host country. However, these studies did not examine the effectiveness of online social support messages, especially in online support groups for the intercultural adaptation of Chinese international students in

Singapore. Thus, the second objective of the present research is to examine the extent to which online social support messages on LSg help Chinese international students adapt to Singapore. Two research questions are proposed:

RQ1:   *What types of social support messages exist in LSg?*

RQ2:   *To what extent do these social support messages in LSg satisfy the needs of mainland Chinese students' intercultural adaptation?*

STUDY 1
Method

Data

Data for Study 1 were gathered from LSg. All registered members in LSg are Chinese international students in Singapore. To explore the nature and types of online social support messages in LSg for international students in relation to intercultural adaptation, we collected original posts and comments in threads from July 6, 2012 (one month before the start of the academic year at National University of Singapore and Nanyang Technological University), to February 6, 2013 (six months after the start date). The time frame was arranged based on the theory of intercultural adaptation, which involves four stages. Immigrants have the most severe mood swings, ranging from euphoria to anxiety in the first two stages (i.e., honeymoon and culture shock), which usually last from three to six months (Irwin, 2007; Oberg, 1960). The original time frame is six months from the start of the academic year at the two universities. However, many members of LSg sent messages to communicate social support before arriving in Singapore. And Sawyer (2011) found that social media are widely employed by migrants to understand the new environment and seek various forms of assistance before their arrival. Therefore, the time frame was adjusted to extend to seven months: from one month before the start of the academic year at National University of Singapore and Nanyang Technological University to six months after that date.

Analysis

This study used a directed qualitative content analysis to analyze the 1,736 messages collected from LSg. All messages were written in Chinese. Prior to analysis, all messages were translated from Chinese to English using the back-translation method by a bilingual research assistant. Although the typology of online social support has been widely examined, the typology in previous studies might be different from the current study. Previous studies explored patient-initiated online support groups, whereas this study explores the intercultural adaptation of international students. Hence, further description is necessary (Hsieh & Shannon, 2005). Compared with quantitative content analysis, a directed qualitative content analysis can explore meanings, themes, and patterns to examine the types of online social support messages, especially unexpected kinds of social support in LSg, and to develop subcategories under these types of social support (Zhang & Wildemuth, 2009).

Similar to most Internet research, a single message in LSg was the unit of analysis. A message, whether an original post or a reply, was counted as one. The data were analyzed as follows: First, all messages collected from LSg were read. A total of 1,522 messages related to the intercultural adaptation of Chinese international students were highlighted (Hsieh & Shannon, 2005). Second, the highlighted messages were coded into initial categories that were predetermined based on the existing typologies of social support (i.e., emotional, informational, and instrumental; Kalichman et al., 1996), because most related research employed three types of social support as schemes (Goldsmith, 2008). Specifically, (1) emotional support involves caring, trust, and empathy; (2) instrumental support includes helping others with their work, loaning money, and going out with others; and (3) informational support includes giving information or teaching skills to provide a solution to a problem (Goldsmith, 2008). Third, the contents that were coded into each initial category were compared to create subcategories under each predetermined category. Finally, messages that could not be coded into the initial categories were assigned under a new category or a subcategory of existing categories (Hsieh & Shannon, 2005). Social demographic and private information were omitted.

Results

The 1,522 messages pertaining to the intercultural adaptation of Chinese international students were analyzed, among which 93.23% of the messages were categorized under the three predetermined codes. Specifically, most messages are related to informational support (n = 801, 52.63%), emotional support (n = 403, 26.48%), and instrumental support messages (n = 215, 14.13%). The remaining messages (n = 103, 6.77%) were coded under a new category (network support).

Emotional Support

Members of LSg posted messages to express their emotions as well as to encourage and reassure other members who felt depressed and isolated. A series of subcategories were created under emotional support, including expressing negative emotional states, giving encouragement and hope, and expressing empathy.

Expressing negative emotional states. Members of LSg expressed their stress and depression because of uncertainty of the future and fear of leaving their friends, family, and home. Members wished to obtain comfort and encouragement from others to relieve negative feelings. One member wrote,

> Next week, I will go to Singapore, but I suddenly feel uneasy today. I don't want to leave my friend, my boyfriend, and my family. This is my first time to go overseas. I don't know what will happen in the future. I am not sure if I can adjust myself to Singapore.

Another member wrote,

> I have packed my luggage. I will fly to Singapore tomorrow. But recently, I always have trouble falling asleep because I feel worried about my English capability. I am not sure

whether I can communicate with foreigners smoothly and whether I can make some new friends.

Other members expressed their sense of isolation and homesickness several weeks after arriving in Singapore. A member wrote,

I have been in Singapore for about one month. Sometimes, I don't feel so bad when I hang out with some new friends. But I always miss my parents and my friends in the evening. Moreover, I feel doubtful why I chose to study abroad. I am not sure the life here is what I exactly want.

Giving encouragement and hope. In response to members who expressed feelings and thoughts, messages were posted to encourage them and give them hope by stating that their discomfort and stress will disappear soon. For example, some members said, "I can understand your feelings, but you will feel better soon," "You will adapt to the new environment soon," and "Carry on! There is a light not far away."

Expressing empathy. Members posted messages to express empathy and validate the negative psychological experiences of other members as normal for international students. Members also provided advice to help others cope with their negative feelings. A member offered these kind words and a suggestion, "I'm so sorry to hear of your discomfort. But please trust me. Don't be too worried. Your experience is normal for each international student. You just need to relax. Everything will be better soon." Another member stated,

I felt the same as you do when I just arrived here. It is natural to feel discomfort when we are exposed to different cultures. But don't doubt your decision. Studying abroad is a significant experience which will help you overcome the difficulties you will encounter in the future and accomplish your goals.

Informational Support

Most members of LSg posted messages to seek and provide informational support on aspects of daily life, academics, and personal development, which were used as subcategories of informational support.

Daily life information. Many messages seeking daily life information, such as shopping, entertainment, accommodation, telecommunication, and transportation, were generated. For example, "Do I need to bring a mosquito net to Singapore?" "Can someone introduce shopping malls or supermarkets near NTU [Nanyang Technological University] to me?" "I want to go out for leisure this weekend, please recommend entertainment places." "Can someone tell me how can I rent an apartment before arriving in Singapore?" "Please, can anyone tell me how to set up a WiFi network in the Graduate Hall?" "Which mobile phone card is the best in Singapore?" and "I just want to know where I can find the details of bus route and fare in Singapore."

Related informational support messages were provided in response to those seeking daily life information. A member posted an informational support message relevant to shopping,

> Currently, there are two supermarkets in the campus. If you want to go to a large-scale comprehensive shopping mall, you can take . . . public buses to. . . . If you want to buy some luxury items, I think . . . will be the best choice. Anyway, I think Singapore is an ideal place for shopping.

Another member provided personal advice for someone requesting informational support related to telecommunication

> I think the prepaid SIM card along with an international mobile phone is the most economical and convenient solution for those who just arrived in Singapore. This is because you only need to pay the local rate for all of your calls. However, because Singapore SIM card and mobile phone service are prepaid, there is no contract to be signed. So I recommend that you sign a contract after the prepaid SIM card balance is exhausted. Hope this will help.

Academic information. Some members used LSg to seek advice for coping with some academic problems. A member wrote,

> I am an MSc student. I want to know what a workshop is. Our school provided many workshops for students, one of which is related to academic writing. My English is poor, especially academic writing. So I am interested in participating in this workshop. However, booking the workshop requires payment. So I want to check whether the workshop is worth the money. Thanks!

Another member asked specific academic questions under informational support, "I am currently studying a course . . . but my mathematics is weak. . . . Can someone recommend some useful books to me?"

Correspondingly, messages were posted to provide academic informational support. The following are examples: "I think a workshop is a lecture, but it focuses on a professional skill. If you want to improve your English writing, it is a good choice. . . . I took a similar one. . . . I think it is helpful for me" and "It is difficult to understand all the lecture content. . . . You can borrow related books and buy previous lecture notes from the library. . . . These can ensure that you will pass."

Personal development information. Several members were interested in personal career or academic development. They used LSg to gather information related to employment and immigration rules. A member asked, "My classmates told me it has become increasingly difficult to find a job in Singapore. . . . I want to find a job here after graduation, so I feel so worried. . . . Can someone tell me employment information about . . ."

Another member focused on the immigration issue: "I am a PhD student. . . . I need to fulfill my service obligation for 3 years after graduation. I want to know when I will be eligible to apply for PR [Permanent Residence]. Can I apply for Singapore citizenship after my 3-year service obligation?"

Members answered these questions to provide relevant informational support. A member offered,

Don't worry. I believe you can find a good job if you study hard. Of course, English is also important. So I think if you can master professional skills and speak English very well through the one-year study. I guarantee you will have a brilliant future.

Instrumental Support

Unlike other online social support groups, LSg provided a multitude of instrumental support messages. These messages were posted to request and provide practical assistance, including tangible resources or services. A member sought instrumental help before leaving the source country, "My flight will arrive at Changi Airport tomorrow evening. I have a great deal of luggage. So I am worried about that. . . . If anyone would like to stop by, please just pick me up. Thanks!"

Another member posted a message to seek instrumental help after arriving in Singapore, "I live in. . . . Is there someone who also lives in . . . or near my apartment. . . . I want to borrow an AC power adapter. Thank you very much."

Additionally, many messages were sent to express their willingness to provide instrumental support, "I also live in. . . . I have an extra AC power adapter. . . . So if you need one, I can give you the adapter. My room number is . . ."

Network Support

In addition to the three predetermined categories, members used LSg to search for physical or virtual groups to obtain a sense of social belonging and find companions for group activities. Some posted the following messages: "Can someone tell me how I can participate in . . . University Alumni Association? Is there any contact information for this organization?" "We want to travel to Bangkok next week. Do you or your friend want to join us? If so, please send a message to me."

Members also posted messages to provide network support, such as: "This is QQ [Tencent QQ] group of hometown association. . . . Welcome to join us"; "I have a friend who also wants to travel to Thailand, I will ask her to connect with you"; and "I know a girl who studied in. . . . She might know the contact information for . . . University Alumni Association. I can have you two in touch with each other."

Discussion

The results of Study 1 indicate that LSg offers a platform for members to seek and provide various types of social support messages to one another, including emotional, informational, instrumental, and network support messages.

This online group predominantly functions as a platform to exchange informational support, which is particularly helpful to new Chinese international students to understand a new culture and relieve anxiety caused by a strange environment. However, our findings are different from those of previous studies on online social support, which report that emotional support is the primary social support in an online support group (Braithwaite et al., 1999; Finn, 1999). The different results might be justified by the optimal match model. Cutrona and Suhr (1992) indicated that people with noncontrollable diseases and events, such as disability or advanced cancers, usually request more emotional support. Previous studies focused on such people. Thus, more emotional support was communicated among these individuals. By contrast, controllable problems, such as unhealthy diet or psychological depression, demand more problem-centered coping (Cutrona & Suhr, 1992). In this study, Chinese international students experience psychological stress and anxiety, which can be considered controllable problems, and thus they tend to request more informational support. Additionally, many different types of information are communicated through LSg, such as those related to daily life, academics, and personal development. The findings are in line with Granovetter's (1973, 1982) weak ties theory. Online support groups have been typically considered weak-tie networks that link most members who usually do not know one another off-line (Wright & Bell, 2003). These weak ties could provide diverse useful information to one another (Granovetter, 1973, 1982).

Although we observed less evidence of emotional support than of informational support in LSg, group members posted messages to express negative emotional states, give encouragement, and express empathy. Moreover, most emotional support messages were posted by members before leaving China and one month after arriving in Singapore, which is consistent with the theory of intercultural adaptation (Irwin, 2007; Oberg, 1960). On the one hand, immigrants who feel stress and discomfort request emotional help from supportive others for reassurance before leaving their home country. On the other hand, most immigrants pass the honeymoon phase and reach the culture shock stage after the first month of living in Singapore. In this stage, immigrants start to feel homesick, confused, frustrated, and depressed because of the cumulative stress brought about by the new cultural environment (Befus, 1988; Black & Gregersen, 1991). Thus, members of LSg posted messages to express their negative feelings and thoughts as well as give hope, reassurance, and encouragement to one another.

In addition, instrumental support is a crucial component of the messages in LSg. Unlike other online social groups that provide limited instrumental support (Eichhorn, 2008; Evans, Donelle, & Hume-Loveland, 2011), some LSg members sought practical assistance and tangible resources. Others expressed willingness to provide related physical assistance in LSg. A plausible justification might be that, although LSg is a weak-tie network, certain group members might be familiar with one another in the real world or have an overlapping social circle because they are studying in Singapore. Additionally, some of them might live close by or study at the same school. Members tend to provide tangible resources and

services to one another (Haythornthwaite, 2002; Wellman &Wortley, 1990). Therefore, many instrumental support messages were exchanged in LSg.

Network support was generated as a new category. Analysis on posted messages revealed that messages concerned with seeking and providing network support to expand personal social networks to meet new people or join groups cannot be coded into the three existing categories. In the intercultural adaptation stage, obtaining a sense of belonging is important for international students. Many members of LSg seek network support messages and provide them to one another to build new social relationships through which they can make friends within their new cultural milieu (Adelman, 1988). Additionally, the context is a plausible justification. China is a collectivist society, and a sense of belonging is more important in China than in an individualist society. Thus, these Chinese international students tend to seek and provide network support to one another when migrating to a new environment. In addition, this new category is consistent with the classification of social support in some other studies (Braithwaite et al., 1999).

STUDY 2
Method

Data

Study 2 identifies LSg members' attitudes toward the effectiveness of online social support messages on LSg to investigate the extent to which these messages satisfy the needs of Chinese international students. Compared to quantitative surveys, qualitative interviews gather more in-depth insights on participants' attitudes and thoughts (Kendall, 2008). But approaching a large number of LSg members to answer questionnaires is difficult, so, in this study, 21 LSg members were recruited to participate in in-depth interviews from May 15, 2013, to July 15, 2013. We sent an invitation letter to the manager of LSg, and then asked him to forward the letter to possible members. Twenty-one LSg members completed the interview. Ten were women, and 11 were men. In the group were 7 undergraduate students, 10 master's students, and 3 PhD students. The median age was 23 years (range was 19 to 28 years). Of the participants, 8 were engineering students, 5 were humanities and social sciences students, 5 were business students, and 3 were natural sciences students. All participants entered Singapore to start their studies in July 2012.

The interviews, which were conducted in Chinese, were unstructured and took the form of a guided conversation. Each interview lasted for 45 to 90 minutes and was divided into two parts. The first part focused on personal experience in intercultural adaptation. The second part investigated participants' use of LSg. The 21 interviews were tape-recorded, transcribed, and analyzed. All messages were translated from Chinese to English using the back-translation method by a bilingual research assistant.

Analysis

Conventional content analysis was employed to analyze the interview transcripts, because no existing coding scheme or theory can be used to analyze the messages to explore the effectiveness of

social support (Hsieh & Shannon, 2005). First, the transcripts were read repeatedly to achieve immersion and obtain a sense of the entire situation (Tesch, 1990). Second, by reading the transcripts, the two authors highlighted the exact words from the text as codes or created new codes to capture key concepts that arose with the initial coding scheme separately (Morse & Field, 1995). Third, these codes were sorted into categories based on their relations. The discrepancy was then resolved, and the decision rules were established to avoid ambiguities. Thereafter, the second and third procedures were repeated to keep the acceptability and reliability of the designated categories high. Finally, each category, subcategory, and code were defined. The validity of the coding was checked through deviant case analysis.

Results

Desire for Social Support for Intercultural Adaptation

The 21 interviewees posted messages on LSg to seek social support. However, they sought different types and levels of social support. The timing of seeking social support varied as well. Specifically, five interviewees needed social support before leaving China, and the remaining 16 were in need of social support after arriving in Singapore. Furthermore, the interviewees indicated that their main desire for social support changed over time. Particularly, they mainly desired for information and instrumental social support during the honeymoon stage of intercultural adaptation, and emotional and network social support became the main desire in the cultural shock stage.

Desire for Information and Instrumental Social Support

Information support is the most important for new mainland Chinese students before arrival and during the first few weeks of arrival in Singapore. For example, one interviewee stated,

> As a stranger, I was not familiar with the life here. I didn't know how to open a bank account, where to buy a textbook, where to buy Chinese products. . . . So I posted messages on the website, and the members helped me a lot.

Some interviewees valued instrumental support. For example, an interviewee said, "When I first arrived in Singapore, I found that I did not prepare well, such as for the daily necessities. I have to turn to someone for help and borrow the necessities from them." Students looked for local information and tangible help for daily life in the honeymoon stage, because they were trying to familiarize themselves with the new environment.

Desire for Emotional and Network Support

After the honeymoon stage, interviewees reached the cultural shock stage and experienced severe mood swings. Thus, the interviewees wanted to receive emotional support to relieve homesickness and depression. An interviewee stated:

> This was my first time to live abroad alone; knowing nothing about what I would encounter in a new environment made me feel uneasy and anxious, this reminded me of my family and friends who were always there when I needed them. . . . I expressed my feelings on the website hoping to get a response that could relieve me. . . . First, as a new arrival, I feel very excited to understand and experience a new culture. But after the freshness of the feelings of living abroad, I found it difficult to integrate into the society in Singapore, and this frustrated me a lot. I want to express my feelings to someone who may also go through the same situation.

An interviewee wanted to join the immigrant hometown and alumni association to seek a sense of belonging:

> I want to find people who come from the same university or hometown as me; making friends with them would give me feelings of familiarity. . . . Besides, I think it would be easier to communicate with people who have something in common with me.

In other words, new arrivals may need network support to avoid feeling a sense of isolation during the cultural shock stage.

Nature of Social Support in LSg

In our examination of the kinds of social support that individuals can receive through LSg, we found that most interviewees believed that LSg provided various social support messages, especially informational and emotional support. For example, an interviewee said, "I can obtain much information from LSg, including, academics, shopping, and entertainment." Another interviewee expressed,

> When I posted messages about my depression and homesickness, I received many replies comforting and encouraging me. Besides, I read many self-help stories on LSg, highlighting some LSg members' lives and study experiences. These stories encouraged me to overcome difficulties and have a better future.

Some interviewees received instrumental support through LSg. An interviewee said,

> The textbooks are very expensive, so it would be better to borrow than buy books. I posted a message on LSg to ask if anyone had the textbook that I needed. Then someone replied and lent me the book. It saved me a lot.

Additionally, an interviewee indicated that individuals can receive network support through LSg, "There is a large amount of information about migrant hometown and alumni associations in LSg, which allows us to seek some groups and companions that we want."

Effectiveness of Social Support Messages in LSg

Interviewees demonstrated a consistent attitude toward the effectiveness of social support messages in LSg. LSg provided various social support messages to mainland Chinese students in Singapore. Moreover, these messages effectively helped them adapt to a new environment. The interviewees said, "LSg members are like friends and families to me, which helps me a lot when I need accompany," and "LSg guides me to get through really hard times in Singapore. . . . Members from the website encouraged me a lot when I felt depressed and want to give up studying here." One interviewee stated:

> I got a lot of useful information from this group, such as where to shop and dine . . . besides, I learned a lot of information about interesting activities from the websites, such as concerts, musicals, and barbecues. Some members posted messages to find people to attend those activities with, and I went to concerts and barbecues with them several times. I think it is really a good way for me to know new people and to know more about local life in Singapore.

Another interviewee mentioned:

> LSg plays an important role in my life, especially when I just arrived in Singapore. . . . I got a lot of help, such as emotional support and useful information. . . . I think this group is very effective, at least to me, which helps me.

Finally, another interviewee explained:

> When I started staying here, receiving support from my friends and family was difficult. LSg really helped me accommodate a new culture. I not only obtained information, but also received much tangible help via this group. All of these were really important in knowing more about a new culture and relieving my negative feelings.

Discussion

The results of Study 2 reveal that mainland Chinese international students have a strong desire for various types of social support before arrival and during the first few weeks in Singapore. The results also demonstrate that four kinds of social support messages in LSg could meet the needs of mainland Chinese international students in Singapore.

First, mainland Chinese international students are in great need of informational support before they arrive in Singapore and during the first few weeks of arrival. When these Chinese students first arrive, they also need instrumental support, since they need both kinds of social support to address problems and difficulties in daily life, such as traffic, shopping, and eating. This result is consistent with previous research (Fenta, Hyman, & Noh, 2004).

Second, the results reveal that, after feeling fresh during the first several weeks, Chinese international students suffered from culture shock. They felt homesick and experienced psychological anxiety. In this stage, they need emotional help and need to expand their networks in the host country to comfort themselves. This result is in line with the intercultural adaptation U-curve model (Oberg, 1960). Immigrants undergo the most severe mood swings and psychological discomfort after passing the honeymoon stage and reaching the cultural shock stage. They need new social networks and emotional support to provide them with a new identity and sense of belonging and to help them relieve stress caused by culture shock (Chen & Choi, 2011).

Similar to the results of Study 1, the in-depth interviews suggest that LSg serves as a platform in which four kinds of online social support messages (informational, emotional, instrumental, and network support) are exchanged. These kinds of online social support messages can meet the needs of new mainland Chinese international students in Singapore and help them adjust to the new environment. This result is consistent with the social support theory, which asserts that social support positively affects individuals' well-being, such as psychological health, relationship quality, and social welfare (Adelman, 1988). Yeh and Inose (2003) posited that international students who received more social support would experience less stress and adjust to a new environment more easily. According to the weak ties theory (Granovetter, 1973, 1982), online social support is a kind of weak-tie network, which can provide students with useful information on acculturation. Although weak ties may exhibit less emotional attachment than stronger ties (Adelman, Parks, & Albrecht, 1987), online support group members sharing similar feelings, interests, and experiences may provide emotional help to one another in a more impartial way than strong ties without similar experiences (Wright, Rains, & Banas, 2010). Thus, online support groups are effective in helping immigrants adjust and settle to a new life in the host country.

Implications and Limitations

The present research offers several contributions. It is the first to combine online and off-line data to explore the nature and effectiveness of online social support messages in an online support group, which contributes to the literature of online social support. Additionally, our findings indicate that LSg provides various kinds of social support that effectively help mainland Chinese international students adapt to a new culture, suggesting that more online support groups should be created to provide social support for Chinese international students. The Chinese government and nongovernmental organizations could increase involvement in these online support groups to understand the need for social support of international students and contribute to the initiative.

Nonetheless, several limitations should be noted. First, the current research focuses only on one public online support group. The Gter forum is one of the most popular online groups for Chinese international students, but private online groups also may provide effective but different types of social support. Second, this research focuses on the first two stages of intercultural adaptation—the stages of honeymoon and cultural shock—based on data from LSg over seven months, including a month before and six months after the start dates of National University of Singapore and Nanyang Technological University. However, the length of time that individuals spend in a particular stage of intercultural adaptation may vary because of individual differences. Moreover, different types of social support may be needed in

different stages of intercultural adaptation. Thus, extended data collection is necessary in the future. Finally, although LSg effectively helps Chinese international students in their orientation to a new culture, few students use this kind of online support group. Thus, future studies should focus on creating and applying campaigns that attract more international students to use online support groups to adapt to a new environment.

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