The Psychological Well-Being and Sociocultural Adaptation of Short-Term International Students in Ireland

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ABSTRACT

This article reports on an empirical study of the psychosocial adaptation of international students in Ireland. Using measures of social support, loneliness, stress, psychological well-being and sociocultural adaptation, data were obtained from international students and a comparison sample of Irish students. The study found that, although international students had high levels of social support and low levels of loneliness and stress, students were experiencing high levels of sociocultural adjustment difficulties and psychological distress. Significant differences in variables were reported across time, whereas differences between international and Irish students were also discovered. Suggestions for further research and for individuals working with international students are proposed.

INTRODUCTION

Rapidly increasing numbers of university students are traveling abroad each year to enhance their education through an international perspective. Indeed, demand for education beyond national boundaries has increased by 40% over the last decade (International Educational Board Ireland [IEBI], 2008). It is now estimated that there are more than 2.9 million

International students enrolled in postsecondary institutions worldwide and researchers anticipate that this figure will rise to at least 6 million by 2020 (Organisation for Economic Cooperation & Development, 2008; United Nations Educational, Scientific & Cultural Organization, 2006). In recent years, Ireland has become a popular destination for many students who choose to study abroad. Since 2002, Irish higher education institutions have experienced percentage growth rates in international student numbers. Annual growth rates have leveled out from highs of almost 20% to around 8% for 2006/2007 and there are now approximately 27,000 nonIrish students registered in postsecondary institutions around the country (IEBI, 2008).

The majority of international students (57%) in Ireland are studying on fulltime programs, that is, they are studying in the country for the duration of their degree. The remaining 43% of international students are studying in Ireland as part of an exchange program, such as a junior year abroad, European Region Action Scheme for the Mobility of University Students, or non–European Union exchange program. Students on exchange programs come to Ireland for either a semester or year abroad and are classified as short-term international students. According to the IEBI (2008), there are students from more than 142 different countries studying in Ireland at present. In terms of nationality, the largest single group of international students studying in Irish higher education institutions are from the United States (16%). Indeed, a recent Open Doors report (2008) cited Ireland as one the top 10 leading destinations for US students studying abroad.

Problems Experienced by International Students

Although the growth in the international student population is a positive development, research investigating the adaptation of international students has consistently reported that students often struggle to adapt to life in the host country. Findings from several studies have indicated that international students experience more adjustment problems than their domestic counterparts and have limited resources to deal with these problems (Abe & Zane, 1990; Poyrazli & Lopez, 2007). Researchers propose that this is because of a range of demands placed on the individual, including the pressures created by language difficulties, academic difficulties, financial problems, diminished social support, loneliness, and sociocultural demands (Butcher & McGrath, 2004; Fritz, Chin, & DeMarinis, 2008; Ng, 2006; Poyrazli & Grahame, 2007; Simmons, Klopf, & Park, 1991; Ward & Masgoret, 2006). These difficulties can have a detrimental effect on a student's psychological wellbeing and interfere with their education (Lin & Yi, 1997).

Language is one of the most important differences between cultures, and can be a major barrier to migrant adaptation. When students from other countries enter foreign speaking nations, they must adjust rapidly and learn fast. Even students who speak a variety of the language of the host country may have difficulties with local accents or the use of unfamiliar idiomatic expressions. Research investigating the adaptation of international students has found that students report language difficulty as one of their biggest concerns and several

studies have reported that international students who have higher language proficiency report better adjustment (Ng, 2006; Poyrazli, Arbona, Bullington & Pisecco, 2001).

Another major challenge for international students concerns their academic performance abroad (Mak, Westwood, Ishiyama, & Barker, 1999). International students often report feeling pressure to do well when studying abroad. Indeed, several researchers have found that international students often experience significant academic adjustment difficulties and that the academic needs of international students are often poorly understood within institutions (Butcher & McGrath, 2004; Poyrazli, Arbona, Nora, McPherson, & Pisecco, 2002). Findings from a number of studies have indicated that language proficiency has a significant effect on academic performance, and that international students have also reported experiencing problems relating to differences in study techniques, test taking, or classroom instruction (Cadieux & Wehrly, 1986; Poyrazli & Grahame, 2007).

In addition to adjustment problems relating to students' academic experiences abroad, many international students struggle financially. Although some international students travel abroad with large amounts of cash, others struggle to pay for their daily meals and cannot afford to return home during holidays (Butcher & McGrath, 2004). Because immigration regulations sometimes limit nonresidents' opportunities for employment, international students' monetary problems are difficult to resolve. When students can work, they are often not allowed to work outside the host university. Thus, international students need to find jobs on campus, which are typically in short supply (Lee, Koeske, & Sales, 2004).

Equally important for international students is the issue of diminished social support. When students first go abroad, they tend to feel a deep sense of loss when leaving friends and family behind (Sandhu, 1995). Several studies have found that international students often report feeling isolated from host students and that students experience difficulties making host national friends when they travel abroad (Fritz et al., 2008; Zheng & Berry, 1991). Previous researchers have identified language and cultural differences as barriers to forming relationships between international students and host nationals (Heikinheimo & Shute, 1986; Sodowsky & Plake, 1992). Differences in social interaction styles have also been suggested as a reason for preventing international students from forming close relationships with host students (Cross, 1995).

Research has also shown that there is a strong association between social support and loneliness. For example, Ying (2003) found that international students who formed more relationships with host students felt less lonely and enjoyed themselves more. Indeed, several studies have shown that loneliness and homesickness are often the greatest problems for international students. For example, Simmons et al. (1991) discovered that Korean international students were significantly lonelier than US university students, whereas Poyrazli and Lopez (2007) also found many international students studying in the United States were extremely homesick and lonely.

Although many of the problems described here are experienced by host students who are adjusting to life in university, international students also face the additional challenge of

coping with sociocultural differences. For example, students traveling abroad may find it difficult to adjust to a new diet, adapt to a different climate or to understand the norms, values and attitudes of host nationals. Thus, international students traveling to a country where the sociocultural rules are very different to that of their home country often feel very confused (Ward & Masgoret, 2006).

Experiencing such difficulties can have significant consequences for the psychological wellbeing of students. International students often have high expectations and experience psychological crises or social dysfunctions when their expectations are unmet (Leong & Chou, 1996). Students have reported suffering psychological and social distress, including depression, anxiety, and psychosomatic disorders and experiencing headaches, a persistent lack or loss of appetite and sleep, low stamina and energy levels, ulcers, and gastrointestinal problems (Sam & Eide, 1991; Thomas & Althen, 1989).

Conceptual and Theoretical Framework

Research exploring the nature of the difficulties experienced by international students has been guided by three main conceptual frameworks, namely, culture learning, stress and coping, and social identification theories. In an attempt to bring conceptual integration to crosscultural research, Ward and Searle (1991) proposed a model of crosscultural adjustment which incorporates aspects of the three frameworks. According to Ward and colleagues, crosscultural adaptation implicitly incorporates psychological and sociocultural dimensions (Searle & Ward, 1990; Ward & Kennedy, 1993). Psychological adjustment is defined as psychological wellbeing or satisfaction in a new cultural environment, and sociocultural adjustment refers to an individual's ability to "fit in" or interact with members of the host culture. Ward and Kennedy (1993) propose that these dimensions are broadly consistent with the literature on stress and coping, social skills, and culture learning; psychological adjustment can best be understood in terms of a stress and coping framework, whereas sociocultural adaptation is best explained within a social skills or culture learning paradigm.

Several studies exploring this model have discovered that psychological adjustment is predicted by loneliness, sociocultural adaptation, and social support, whereas sociocultural adaptation depends on variables such as language ability and interaction with host nationals. Although Ward and colleagues have not, to date, examined the relationship between college stress and international student adaptation, the link between stress and psychological wellbeing is widely recognized in the academic literature (Chen, Wong, Ran, & Gilson, 2009). College related stress, therefore, seems to be an important part of international students' adaptation. The present study is part of a larger project which ultimately aims to refine and update Ward and Searle's (1991) model of international student adaptation. However, here the focus is on a consideration of results from a particular group of students.

Support for Ward and Searle's model has been borne out by several studies of crosscultural adaptation and it is a popular theoretical basis for research with international students (Ward & Masgoret, 2004; Ward & Rana-Deuba, 1999). Unlike most models of crosscultural

adaptation, Ward and Searle's (1991) model does not emphasize the negative aspects of crosscultural adaptation, namely, what is often referred to as "culture shock." Ward and colleagues have criticized researchers for focusing solely on the negative aspects of coming into contact with new cultures and ignoring the fact that, for many people, intercultural contact can have consequences that benefit participants (Ward & Kennedy, 1993; Ward & Searle, 1990). Their model reframes the relocation experience as something more positive and emphasizes the importance of adjustment (James, Hunsley, Navara, & Alles, 2004). Indeed, this change reflects the general paradigmatic shift in psychology from a discipline primarily concerned with pathology to a new model of psychological health and thriving (Seligman & Csikzentmihalyi, 2000). A second strength of Ward and Searle's (1991) model is that it clearly delineates between psychological and sociocultural adaptation. James and coworkers (2004) have pointed out that confusion has arisen in the literature on international student adjustment because these two aspects of adjustment are often collapsed into one construct. A further strength of this model is that Ward and colleagues have relied on standardized assessment techniques for the measurement of variables relating to crosscultural adaptation, thereby enabling the development of theory and research in this area of research (Ward & Kennedy, 1999). Whereas other studies have looked at particular aspects of international student adaptation, such as homesickness, motivation, acculturation, and learning styles, Ward and Searle's (1991) model remains the most comprehensive and appeared the most appropriate framework for this research on international students in the Irish context (Chirkov, Vansteenkiste, Tao, & Lynch, 2007; Dao, Lee, & Chang, 2007; Gu & Schweisfurth, 2006; Poyrazli & Lopez, 2007).

Research Aims and Justification

One of the issues concerning research in this area has been the failure to distinguish between the types of international students being studied. Because the experiences of short-term (study abroad or exchange) international students and international students studying abroad for the duration of their degree are likely be very different, it is important to inform the reader of the type of international student being studied. For example, short-term international students are more likely to be part of a program and invited to attend events organized by the host university. As a result of this, short-term international students may find it easier to make friends with other international students. International students studying abroad full time often do not benefit from this additional source of social support. However, both fulltime and short-term international students must cope with cultural differences between the host and home country; short-term international students may find it as difficult as fulltime international students to meet academic challenges, understand the host language, or manage their finances. Despite the fact that short-term international students are only studying abroad for a short time, students may still feel homesick and lonely and experience psychological difficulties. A second issue concerning research in this area has been the failure of studies to collect prearrival information from international students. Indeed, Ying and Liese (1990) have pointed out that very few investigations of international student adaptation begin before the students' arrival in their university of choice. Furthermore, only a handful of studies have

been carried out using comparison groups; many researchers have failed to take the countries or cultures from which the international students come and those to which they go into account.

Guided by the literature in the area of international student adaptation, the purpose of the present study was to examine the following research questions.

How do short-term international students adapt to life in Ireland?

Following Ward and Searle's (1991) model of crosscultural adaptation, adaptation is assessed by measuring levels of language proficiency, social support, loneliness, college related stress (which included social, academic, and financial difficulties), sociocultural adaptation, and psychological wellbeing.

How does the cross-cultural adaptation of short-term international students change across time?

Given that very few studies have collected prearrival information from students, this study explores the adaptation of the participants in the current study over time, from before they traveled abroad (prearrival) to later.

How do the experiences of short-term international students compare with the experiences of host students?

It is necessary to look at the local students' experience to understand what aspects of adaptation to postsecondary life are common to all students and which are specific to international students. Thus, the experiences of international students are compared with a comparison sample of Irish students.

METHOD

Design and Participants

Three groups took part in the current study. The first group of international students completed three questionnaires over the course of the research; the first within 2 to 3 weeks before arriving in Ireland (time 1), the second 6 weeks after they had arrived in Ireland (time 2), and the third 12 weeks after their arrival (time 3). A second group of international students Completed one questionnaire 6 weeks after arriving in Ireland (time 2). A comparison sample of Irish students was also recruited and participated in the present study at time 2.

Participants were 124 students enrolled in a large Irish university. The first group of international students ($n = 60$; 48%) were recruited before arriving in Ireland. Thirty-nine students in this group were interviewed 6 weeks after arriving in Ireland (time 2) and 33 students were interviewed 12 weeks after their arrival (time 3). A second group of 20 (16%) international students and a comparison group of 44 (36%) Irish students took part in the study at time 2.

In all, 51 (63.8%) female and 29 (36.3%) male international students took part in the study. Their mean age was 21.27 years ($SD = 2.05$). The proportion of students by chosen fields was as follows: 28 arts and humanities (35.0%), 42 business (52.5%), 5 science (6.3%), and 2 law (2.5%). Three (3.8%) students did not identify their chosen field. The majority of students were studying at undergraduate level (n = 72; 90.0%); eight (10.0%) were enrolled as postgraduate students. Students came from a variety of different countries (see Table 1).

A comparison sample of 44 Irish students was also recruited. Of this group, 36 (81.8%) participants were female and 8 (18.2%) were male. The mean age of the comparison group was 20.48 years ($SD = 2.28$). The proportion of Irish students by chosen fields was as follows: 28 arts and humanities (63.6%), 10 business (22.7%), 2 science (4.5%), and 1 law (2.3%). Three students (6.8%) did not identify their chosen field. Forty Irish students (90.9%) were studying at undergraduate level; 4 (9.1%) were enrolled as postgraduate students.

Table 1. Country of Origin on International study sample ($n = 80$)

Nationality	Frequency	Percentage (%)
US	51	63.8
France	7	8.8
Australia	4	5.0
Canada	3	3.8
Germany	3	3.8
Norway	3	3.8
Poland	3	3.8
Italy	2	2.5
Czech Republic	1	1.3
Romania	1	1.3
Russia	1	1.3
Singapore	1	1.3
Total	80	100.00

Measures

All measures were administered in English. Participants first completed a short demographic questionnaire where they answered questions relating to their age, gender, nationality, degree level, and area of study. Participants also completed a measure of English language proficiency, which consisted of three questions designed by the researcher: "What is your present level of English fluency?", "How comfortable are you communicating in English?", and "How often do you communicate in English?"

Social support was measured using the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988). The MSPSS is a 12item scale that measures perceived social support from family, friends, and a significant other. The reliability, validity, and factorial structure of the MSPSS have been demonstrated across

many different populations worldwide (Edwards, 2004; Kazarian & McCabe, 1991; Ritsner, Modai, & Ponizovsky, 2000). Cronbach's alpha at time 2 was .90.

Loneliness was measured using the revised version of the UCLA Loneliness Scale (ULS3; Russell, 1996). The scale consists of 20 items that ask to evaluate their feelings of loneliness on a 4point scale with higher scores indicating higher levels of loneliness. The reliability and validity of the ULS3 have been well documented (Çeçen, 2007; Ponizovsky & Ritsner, 2004). In the present study, Cronbach's alpha was .90 at time 2.

College related stress was measured using the College Stress Inventory (Solberg, Valdez, Villarreal, & Falk, 1991). This scale is composed of 25 stress items and has three subscales that tap academic, financial, and social stresses. Variations of the College Stress Inventory have been used in several studies in the United States (Falk, 1995; Solberg, Hale, Villarreal, & Kavanagh, 1993; Solberg, Valdez, & Villarreal, 1994; Solberg & Villarreal, 1997). In the present study, Cronbach's alpha at time 2 was .85.

The K10 (Kessler et al., 2002) is a 10item measure of psychological distress in the previous 30 days. Respondents report frequency of symptoms on a 5point scale. The K10 has been extensively used in various studies (Andrews & Slade, 2001; Furukawa, Kessler, Slade & Andrews, 2003). Cronbach's alpha for the K10 was .85 at time 2.

The Brief Symptom Inventory (BSI; Derogatis & Spencer, 1982) was also used to assess psychological distress. The questionnaire has 53 items that ask participants to describe feelings or thoughts. The reliability, validity, and utility of the BSI have been tested extensively across cultures (Broday & Mason, 1991; Cochran & Hale, 1985; Sinha & Watson, 2007). Cronbach's alpha the BSI in the current study was .96 at time 2.

International students also completed the Sociocultural Adaptation Scale (Ward & Kennedy, 1999). This 29item measure asks students how much difficulty they have experienced since they arrived in Ireland in, for example, "finding food you enjoy," "making friends," or seeing two sides of an intercultural issue." At time 2, Cronbach's alpha was .85.

Social support was also assessed using the Index of Sojourner Social Support (ISSS; Ong & Ward, 2005). The ISSS is an 18item measure that contains two subscales for instrumental support and socioemotional support. Cronbach's alpha for the ISSS was .95 at time 2.

Procedure

Incoming international students (*n* = 300) were contacted by the receiving university inviting them to take part in the research project before they arrived in Ireland. Participants interested in participating in the project were directed to a secure website where they filled out a questionnaire containing the first five of the measures. International students did not complete the BSI (Derogatis & Spencer, 1982) at this stage because permission to use this measure online could not be obtained.

Furthermore, given that the Sociocultural Adaptation Scale (Ward & Kennedy, 1999) and ISSS (Ong & Ward, 2005) measure variables specific to adaptation in a new country and that the reliability and validity of both measures is well established, the researcher did not administer these scales at the prearrival phase of data collection. Six and 12 weeks after arrival, international students took part in a semistructured interview with the researcher and also filled all of the measures listed.

A second group of international students was recruited from an orientation meeting for incoming international students to increase the number of participants. Students who gave contact details to the researcher were later contacted to participate in a face-to-face interview, where they also filled out all the above measures. Overall, the response rate for international participants was 26.67%. Each interview took between 15 and 20 minutes, depending on the participants' level of English proficiency.

The comparison sample of Irish students was recruited using snowball sampling. Students known to the researcher were emailed initially and asked to participate in the research. If students were interested in taking part in the study, they met with the researcher to participate in a brief interview wherein they filled out the first six measures. These students were then asked to forward the researcher's email address to classmates so that they could contact her if they were interested in taking part in the project. Interviews with Irish students took between 10 and 15 minutes.

Students in the comparison sample of Irish students completed measures of social support (MSPSS), loneliness, college stress, and psychological wellbeing. Again, the researcher felt it was unnecessary to administer measures of sociocultural adaptation or sojourner social support to the comparison sample of host students given that the reliability and validity of both instruments is well-established.

RESULTS

Descriptive Statistics

Table 2 presents the descriptive statistics for the study variables. The international students in this study had a high level of English proficiency, with the highest mean score reported at Time 3 ($M = 4.67$; $SD = 0.62$). Overall, international students were experiencing high levels of social support as measured by both the MSPSS and ISSS. Furthermore, they were not experiencing a significant amount of college related stress or loneliness.

However, international students were experiencing a significant amount of sociocultural difficulty. Students reported experiencing the most difficulty "using the transport system" at time 2, $M = 2.29$; $SD = 1.00$; whereas at time 3 students found "understanding Irish politics" particularly difficult, $M = 2.12$, $SD = 0.93$. International students also reported higher than average levels of psychological distress. Although there is no standard cutoff point for caseness on the K10, Andrews and Slade (2001) have identified cutoffs for moderate and severe distress.

Table 2. Mean (Standard Deviations) for Study Variables by Time and Group

	Time 1	Time 2		Time 3
	International	**International**	**Irish**	**International**
ENG[a]	4.52 (0.93)	4.60 (0.70)	-	4.67 (0.62)
MSPSS[b]	6.07 (0.73)	6.20 (0.72)	5.82 (0.70)	6.22 (0.70)
UCLA-R[c]	35.48 (6.57)	36.56 (8.14)	36.5 (8.22)	35.88 (8.50)
CSI[d]	15.18 (10.71)	15.36 (7.61)	23.7 (12.43)	14.03 (7.70)
K10[e]	17.00 (3.88)	17.07 (3.69)	19.8 (6.42)	16.33 (3.14)
BSI[f]	-	0.42 (0.31)	0.72 (0.56)	0.36 (0.23)
SCAS[g]	-	48.51 (9.81)	-	44.48 (9.54)
ISSS[h]	-	64.23 (14.27)	-	61.76 (16.33)

a Measure of English language proficiency (designed by author).
b Multidimensional Scale of Perceived Social Support (Zimet et al., 1988).
c UCLA-R (Russell, 1996).
d College Stress Inventory (CSI; Solberg et al., 1991).
e K10 (Kessler et al., 2002).
f Brief Symptom Inventory (BSI; Derogatis & Spencer, 1982).
g Sociocultural Adaptation Scale (SCAS; Ward & Kennedy, 1999).
h Index of Sojourner Social Support (ISSS; Ong & Ward, 2005).

Table 3 compares distress levels among the Australian norm sample and the present study and shows that international students were experiencing much higher levels of moderate distress at all three phases of data collection. With regard to psychological distress as measured by the BSI, international students experienced higher levels of distress than the norm group and this held across time. At time 2, whereas the adult non-patient norm mean score for the BSI 0.30, the mean score for the international student sample was 0.42 (*SD* = 0.31) and at time 3 the mean score was 0.36 (*SD* = 0.23).

Table 3. K10 Distress Levels among Study Sample of International Students[a] and Australian Norm Sample[b]

Distress Levels	Frequency (%)			
	Norms	**Time 1**	**Time 2**	**Time 3**
Little or no distress (K10 total < 15)	68	28	27	24
Moderate distress (K10 total 15-29)	29	72	73	76
Severe distress total (K10 total > 30)	3	0	0	0

a Kessler et al. (2002)
b Andrews and Slade (2001)

Inferential Statistics

Differences in Variables Across Time

International students reported higher levels of social support at six weeks after their arrival, $M = 76.10$; $SD = 7.4$; as compared with before their arrival, $M = 72.21$; $SD = 9.59$. A paired sample t test (two-tailed) found this difference to be significant, $t(-4.31) = 38$; $p < .05$; 95% confidence interval (CI), 5.73 to -2.07; power = .922. A paired sample t test (two-tailed) also revealed a significant difference between social support scores at social support scores at 6 and 12 weeks after their arrival as measured by both the MSPSS, $t(0.732) = 32$; $p > .05$; lower = .795; and the ISSS, $t(1.38) = 32$; $p > .05$; power = .795.

As regards psychological wellbeing, international students reported higher levels of distress as measured by the K10 at prearrival, $M = 17.88$; $SD = 2.77$, compared with 12 weeks after their arrival, $M = 16.33$; $SD = 3.14$. A paired sample t test (two-tailed) found this difference to be significant, $t(2.85) = 32$; $p < .05$; 95% CI, 0.44–2.65; power = .878. However, there was no significant difference in K10 scores at prearrival and 6 weeks postarrival, $t(1.57) = 38$; $p > .05$; power = .922; or between 6 and 12 weeks postarrival, $t(0.89) = 32$; $p > .05$; power = 795. Furthermore, no significant difference was found between BSI scores at 6 and 12 weeks postarrival, $t(0.55) = 32$; $p > .05$; power = .795.

A paired sample t test (one-tailed) showed that sociocultural adaptation improved significantly between 6 and 12 weeks postarrival, $t(1.95) = 32$; $p < .05$; 95% CI, -0.15 to 6.93; power = .795. International students experienced significantly less sociocultural difficulty at 12 weeks, $M = 44.48$; $SD = 9.54$; than at 6 weeks, $M = 48.51$; $SD = 9.81$.

A paired sample t test (two-tailed) found no significant difference in stress levels prearrival and at 6 weeks postarrival, $t(0.00) = 32$; $p > .05$; power = .922. There was no significant difference between scores at the prearrival stage and at 12 weeks, $t(0.59) = 32$; $p > .05$; power = .878, or between scores at 6 and 12 weeks postarrival, $t(0.45) = 32$; $p > .05$; power = .795 (two-tailed). Furthermore, a two-tailed paired sample t test found no significant difference in loneliness scores between prearrival and at 6 weeks postarrival, $t(0.88) = 38$; $p > .05$; power = .922. Similarly, no difference was reported between ULS3scores at the prearrival stage and 12 weeks postarrival, $t(-0.07) = 32$; $p > .05$; power = .878, or between scores at 6 and 12 weeks postarrival, $t(-0.67) = 32$; $p > .05$; power = .795.

Differences between International Students and Irish Students

One-tailed independent sample t tests were used to test for differences between international and Irish students for social support, loneliness, stress and psychological distress. Because homogeneity of variance was not observed for stress or distress, degrees of freedom were adjusted to account for this inequality of variances and maintain alpha at .05.

The results of the one-tailed independent t test found that international students had significantly higher levels of social support, $M = 6.20$, $SD = .72$; than Irish students, $M =$

5.83, $SD = .70$; $t(2.64) = 101$; $p < .05$; 95% CI, 1.12–0.85. A significant difference was also found in stress levels, $t(-3.94) = 66.499$; $p < .05$; 95% CI, -12.30 to -4.42; with the Irish sample having higher stress scores, $M = 23.70$, $SD = 12.43$; than the international sample, $M = 15.36$, $SD = 7.61$.

Significant differences were reported in levels of psychological distress as measured by the K10, $t(-2.53) = 63.88$; $p < .05$; 95% CI, -4.89 to -0.57; and the BSI, $t(-3.17) = 62.39$; $p < .05$; 95% CI, -4.84 to -1.10. Irish students scored significantly higher levels of distress on the K10, $M = 19.8$; $SD = 6.42$; than international students, $M = 17.07$; $SD = 3.69$; and also scored significantly higher on the BSI, $M = 0.72$; $SD = 0.56$; than the international sample, $M = 0.42$; $SD = 0.31$. However, a one-tailed independent t test did not reveal any significant difference the two groups in levels of loneliness as measured by the ULS3, $t(0.04) = 101$; $p > .05$.

DISCUSSION

This study explored the psychological and sociocultural adaptation of short-term international students in Ireland. The results indicated that, overall, short-term international students adapt to life in Ireland reasonably well. In comparison with previous research, this sample of international students reported having a higher level of social support (Kazarian & McCabe, 1991; Ong & Ward, 2005; Zimet et al., 1988). This finding may be explained by the fact that most of the group lived with other international students on campus. Furthermore, other participants in the international student group shared accommodations with students from their home university. This group of international students may, therefore, have felt that they had extra support from their new friends with whom they are sharing the experience of studying abroad.

International students' scores on the measure of language proficiency indicate that, overall, participants had a high level of English fluency. In general, research has shown that international students who are more proficient in the host language experience fewer adjustment difficulties when they study abroad (Poyrazli et al., 2001; Yeh & Inose, 2003). The high level of English fluency reported by participants in the present study could explain why they experienced low levels of stress and loneliness and may also have contributed to the high level of social support which students reported. Because participants in the present study had a high level of English proficiency, they may have found it easier to make Irish friends or friends from other countries; that is, students may have had more sources of social support.

It was noteworthy that the international students in this study did not seem to be experiencing a significant amount of college related stress and their level of loneliness is lower than that reported by other researchers (Çeçen, 2007; Solberg et al., 1994; Solberg & Villarreal, 1997). Previous research has consistently found that social support ameliorates the negative effects of stress and adjustment (Cohen & Wills, 1985; Sarason, Sarason, & Pierce, 1990). The high level of social support reported by international students in this study may thus have buffered the debilitating effects of stress and loneliness and could explain their low scores on scales measuring these variables. It is also possible that the transient nature of short-term

international students stay in Ireland allows students to see this period as less integral to their overall academic success, and this view may have mitigated their levels of college stress.

It seems that the approach currently taken by the receiving university is effective in providing short-term international students with a network of new friends from which students can obtain social support. However, this may also have the effect of reducing students' interaction with local students, thereby lessening the potential for cultural enrichment for students. This may also contribute to their difficulties in coming to terms with the sociocultural differences they experience. Indeed, international students in this study were experiencing higher levels of sociocultural adaptation difficulties than have been previously reported (Swagler & Jome, 2005; Wang & Mallinckrodt, 2006; Ward & Kennedy, 1999). Compared with published norms, international students also had higher than average distress levels, which is a cause for some concern (Andrews & Slade, 2001).

In terms of changes in variables across time, international students reported significantly higher levels of social support at 6 and 12 weeks after their arrival as compared with before their arrival. Again, it may be that sharing accommodation with other international students on campus contributed to the high levels of social support experienced by students when in Ireland. The present study also found that international students were experiencing significantly less sociocultural difficulty at 12 weeks after their arrival compared with 6 weeks after their arrival. This finding is in line with those reported by previous researchers who found that sociocultural adjustment difficulties decrease over time (Ward, Okura, Kennedy, & Kojima, 1998; Ying, 2005). Consistent with previous studies, international students' distress levels were highest at the point of entry to the host country and decreased significantly over time (Ward et al., 1998). The reason for this may have been that international students filled out the questionnaires 2 to 3 weeks before leaving for Ireland, a time when they may have been particularly anxious or nervous about traveling abroad to study.

Interestingly, in comparison with Irish students, international students reported greater levels of social support and lower levels of stress and distress. These differences could be explained by the fact that international students in short-term exchange programs do not have to fulfill as many academic responsibilities as fulltime students. As a result, they are under less pressure in terms of meeting deadlines, taking exams, and preparing assignments. Difficulties meeting academic requirements may have led to increased psychological distress for the Irish participants. Indeed, previous researchers have highlighted that academic satisfaction is an important aspect of psychological adaptation (Leung, 2001; Ying, 2005). The psychological distress noted among the Irish participants in this study is a cause of some concern and meshes with the recognition of the university in question for the need to increase awareness of student counseling services.

The current study has several strengths that warrant attention. Unlike previous research, research, which has failed to clearly demarcate whether participants were short-term exchange students or studying abroad for the duration of their degree, the present study identified the type of international students under study. As highlighted earlier, much of the

research in this area has failed to collect prearrival information from students, but the addition of data collection during this time gives a significantly better understanding of the adaptation process. The use of a comparison sample of host national students allowed for a fuller investigation of the needs of international students. Furthermore, whereas much research investigating the adaptation of international students has been conducted worldwide, virtually nothing is known about the experiences of international students in Ireland. The current study provides the first in-depth analysis of the psychosocial adaptation of international students in Ireland.

Although the international sample included participants from 12 different countries, the current study is limited by the fact that the majority of the participants are from the United States. However, this trend reflects the figures reported by the IEBI (2008), namely that the majority of international students in Ireland are from the United States. Furthermore, when US students' scores on the various measures used were examined the same significant patterns emerged. Another feature of this sample was the preponderance of female participants. Again, the IEBI (2008) found that short-term international students are more likely to be female; about 57% of short-term international students studying in Ireland are female. There is a slight chance that as measures were administered in English, students who did not speak English as their first language did not completely understand the questions they were being asked. Although every effort was made to ensure the information sheets and measures were in simple English, a certain standard of English (a minimum Test of English as a Foreign Language score of 600 or 6.5 International English Language Teaching System) is required from all international students entering Irish universities. The present study is also limited in that the response rate was 26.67%. This figure, however, is not uncommon with this population as students historically have lower than average survey participation rates.
Indeed, previous researchers using similar methods of data collection with university students have reported response rates as low as 22% and as high as 39% (Sills & Song, 2002; Wei et al., 2007). Another methodological concern relates to the number of individuals who participated in all three phases of data collection in this study (55%). However, researchers have acknowledged that questionnaire research often loses approximately half of its respondents in each subsequent phase of testing (Rogers & Ward, 1993). Furthermore, profiles at each phase of data collection did not show significant changes in demographic data; the sample did not change much in terms of country of origin, degree, gender, or English language ability. Finally, it should be noted that the comparison sample of Irish participants was recruited using snowball sampling, which possibly affected the outcome of the study findings in that the initial contacts made by the researcher were students known to her. Caution must therefore be exercised when generalizing the results of this study.

This research has important implications for international student programs. Although some of the results are positive in showing that short-term international students in Ireland have high levels of social support and low levels of loneliness and stress, international students in this study were experiencing high levels of sociocultural adjustment difficulties. It would thus be beneficial for study abroad advisors in the home country, perhaps in cooperation with the host university, to outline the nature of sociocultural difficulties that students might

experience studying abroad in a prearrival orientation program and offer postarrival support to students. As noted, the high level of social support experienced by international students may be attributed to the fact that the majority of short-term international students in the university described here shared on-campus accommodations with other international students. Study abroad advisors should thus consider advising their students to live in on-campus accommodation in the host university, while receiving universities should also consider allocating a certain amount of student accommodations for international students. Although some researchers have criticized universities for creating special interest housing for minority groups, it may be that fellow international students are a rich source of social support for individuals (Afshar-Mohajer & Sung, 2002). Indeed, several researchers have discovered that international students often prefer conational friendships (Bochner, McLeod, & Lin, 1977; Trice, 2007).

Further research is required to ascertain whether similar findings will emerge with international students who are studying abroad for the duration of their degree, that is, fulltime international students. The next phase of this research project will concentrate on comparing the experiences of fulltime students with a sample of host national students. The current study shows that, although short-term international students in Ireland tend to adjust reasonably well, there are indications that they could be offered further supports from study abroad advisors that might help them to extract even greater benefit from their period as sojourners in Irish society.

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