Stress Conditions and Mental Health Status of International Students Studying in Japan

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Abstract: In recent years, as international students studying at universities are increasing in Japan, so maintaining mental health of them living in unfamiliar countries is an important issue. The purpose of this research was to clarify the situation of stress and the condition of mental health among international students. We conducted a self-check question survey for 67 international students who came from 10 countries living in Japan, aged between 20 and 45 (average age was 26.4 years). The contents of the survey were personal attributes, life stress, revised UCLA loneliness scale (20-80 points), and depressed state self-rating scale (CES-D) (0-60 points). For statistical analysis, Pearson correlation analysis with IBM SPSS 22.0 was used. The average years of residence in Japan was 2.07 years. Stressor of daily life were "Japanese language skill shortage" and "various procedures are troublesome". Stressor of economic was "weight of economic burden". Stressor of study were "graduation thesis" and "the field of study and research is difficult". Hereafter, stressor of private expense students was having to do part-time jobs to maintain their lives. When the Japanese language ability was high, the stress on daily life and study was low, but the stress of part-time jobs was higher. It was conceivable that the international students with higher Japanese ability, the demand on work will be also higher. The CES-D score was 15.57 on average and 37.3% with depressed tendency (16 points or more). The positive correlation was found between CES-D and the stressor of daily life (r=0.311, p<0.05), stressor on study (r=0.246, p<0.05), loneliness (r=0.383, p<0.01). In addition, the average score of international students' loneliness scale was 42.72 points. The positive correlation was also found between loneliness and the stressor of daily life (r=0.311, p<0.05). Based on these results is necessary to pay attention to international students' stressors on daily life, study, loneliness, and mental health state. In this research, the actual situation of international student's daily life, economic aspect, and academic stress were clarified. Providing support to maintain their mental health is important to prevent the tendency of depression for international students who living with strong stress and loneliness.

Keywords: International Student, Stress, Mental Health, Loneliness

1. Introduction

According to the survey by the Japan Student Services Organization as of May 1, 2017, the total number of international students including Japanese graduate schools, undergraduates, junior colleges, technical colleges, vocational schools, preparatory courses, Japanese language education institutions were 267,042 people, increased by 27,755 people, 11.6% compared with the same time in 2016.

International students are easy to fall into negative emotions such as loneliness and stress because of the new living environments, circle of acquaintance, impacts of different cultures, etc. In this research, to clarify the actual condition of stress of international students and the present condition of mental health, we grasp the stressor, the feeling of loneliness and the depression tendency of daily life for international students living in Hiroshima City International Student Hall and investigated social support and stress coping method.

2. Subject and Method

2.1. Subject

With the cooperation of the International Student Hall in Hiroshima City, we conducted a self-check question survey

for 67 international students living in Japan (collection rate 67%) who came from 10 countries, aged between 20 and 45 (average age was 26.4 years). The survey period were November to December in 2017. In addition, since the survey covers international students of multiple nationalities, both Japanese and English were conducted.

2.2. Contents and Method

2.2.1. Contents

1) Personal attributes

As shown in Table 1, the data of international students on gender, nationality, age, marital status, living together with any other or not, duration of living in Japan, Student status, Status of study abroad, and Japanese language ability were clarified.

2) Stress on daily life

With reference to "measure items on cross-cultural adaptation" wrote by Tanaka and "Questionnaire on what international students are feeling trouble" wrote by Fujii et al. (2004), the survey contents in this research were daily life, cross-cultural adaptation (Japanese language, Japanese culture, environment, physical condition etc.), things about economics, things about part-time jobs, and things about study. Each item was evaluated by the four-item method of 1 "Not troubled" 2 "Slightly troubled" 3 "Troubled" 4 "Very troubled".

3) The Revised UCLA Loneliness Scale

For the situation of loneliness of international students, The Revised UCLA Loneliness Scale (Russell et al.) in Japanese translation version (Kudo, Nishikawa et al. 1983) was used. This scale is made up of 20 items and it is four-item method of "never" 1 point to "often" 4 points. The score ranges from maximum of 80 points to minimum of 20 points. The score was higher as the feeling of loneliness was stronger.

4) Depressed state self-rating scale (CES-D)

Stress response of international students was measured by using depression state self-rating scale CES-D (Island, 1998). It is a two-dimensional scale including four positive items. Question items as few as 20 questions can be used easily. Psychometrically high specificity and positive predictive value, high validity and clinical usefulness have been confirmed. It has a characteristic that it can be used as a mental health check and mental health survey for a wide range of subjects (15 years old and over) with less burden on subjects. Questions about the frequency of symptoms in the past week, four-item method of "less than one day" 0 point, "5 days or more" 3 points. The score ranges from a maximum of 60 points to a minimum of 0 points. The score was higher as the depressed tendency was stronger, and 16 points as the cutoff value. Score as 16 points or more lived with depressed tendency were evaluated.

5) Assistive interpersonal relationship composition

For regarding the situation of assistance interpersonal relationships (social support) for international students living in Japan, assistance interpersonal question paper "Studies on life stress and health of Asian students" reported by Asakura etc. (1993) was used. To grasp about social support when they fall into trouble.

6) Stress coping

The method of coped stress in daily life of international students was evaluated by using the questionnaire created by Asakura et al. (1993). The contents of the survey were how to deal with daily life stress and how to relieve stress.

2.2.2. Method

In order to clarify the contents mentioned above, this research conducted unsigned self-check question survey for international students living in Hiroshima City International Student Hall. For statistical analysis, descriptive statistics and Pearson correlation analysis with IBM SPSS 22.0 were used.

3. Results and Discussion

3.1. Personal Attribute

From the personal attributes of the subjects, percentage for male were 40.3%, for female were 59.7%. International students were from ten countries, without the subjects who did not respond. Among them, 67.2% from China, 10.4% from Indonesia, 3.0% from Philippines, 1.5% from Myanmar, Malawi and Mongolia, 4.5% from Bangladesh, 3.0% from Korea, Vietnam and 1.5% from Egypt. Missing value was 4.5% (Table 1). The average age of the subjects was 26.40 ± 4.81 years old, the minimum age was 20 years old, the maximum age was 45 years old. In the marital status, percentage of married people was 25.4%, unmarried people was 74.6%. Regarding the presence of living together with any other or not, 16.4% of them responded that they were living with others, 82.1% of them responded that they were living alone, and 1.5% was missing value. The mean value of duration of living in Japan was 2.07±1.60 years. On student status, 6.0% for language schools, 1.5% for vocational schools, 16.4% for undergraduates, 14.9% for research students, 41.8% for master's course, 14.9% for doctoral students, 4.5% for others (exchange students). On the status of study abroad, 11.9% with government-sponsored international students, 71.6% with private expense students and 16.4% with international students who received scholarship from Japan. Regarding Japanese language ability, the subjects who responded "low" accounted for 26.9%, the subjects who responded "ordinary" people accounted for 38.8%, the subjects who responded "high" accounted for 34.3%.

***Table 1.** Personal attribute.*

Personal attribute	Item	frequency	percent	mean
Gender	Male	27	40.3	
	Female	40	59.7	
Nationality	China	45	67.2	

Personal attribute	Item	frequency	percent	mean
	Indonesia	7	10.4	
	Philippines	2	3.0	
	Myanmar	1	1.5	
	Malawi	1	1.5	
	Mongolia	1	1.5	
	Bangladesh	3	4.5	
	Korea	2	3.0	
	Vietnam	2	3.0	
	Egypt	1	1.5	
	Missing	3	4.5	
Age				26.40±4.81
Marital status	Married	17	25.4	
	Unmarried	50	74.6	
	Yes	11	16.4	
Living with any other or not	No	55	82.1	
	Missing	1	1.5	
Duration of living in Japan				2.07±1.60
	Language school	4	6.0	
	Vocational school	1	1.5	
	Undergraduate	11	16.4	
Student status	Research student	10	14.9	
	Master's Course	28	41.8	
	Doctoral students	10	14.9	
	Others (exchange students)	3	4.5	
	Government-sponsored	8	11.9	
Status of study abroad	Private expense	48	71.6	
	Scholarship from Japan	11	16.4	
	Low	18	26.9	
Japanese language ability	Ordinary	26	38.8	
	High	23	34.3	

3.2. Stress on Daily Life

It was suggested top items with high score of stress are "things about go on the next stage of education or obtain a job", "lack of Japanese language skill", "economic burden is heavy", "cost of food is high", "about graduation theses", "research and study areas are difficult", "The progress of study and research is not good", "various procedures are annoying". These items were suggested to be basic and severe issues when living in Japan. On the other hand, the items with low score of stress were "cannot adapt the climate and environment of Japan", "cannot understand Japanese culture ", "a lot of homework". That might be because many of the international students came from Asia, the climate and environment in their home country is not too much difference from Japan. And there might be some similar parts in culture, so they are not difficult to overcome for them.

Things about part-time jobs were shown in table 2, 67.2% of the subjects had part-time job, and the other 32.8% of the subjects didn't have part-time job. To those who had a part time job, top items with high score of stress were "part-time job takes much time", "Frequent part-time job", "I feel very busy and must do a lot of work at part-time job". It is considered that private expense students didn't get any support of scholarship, school expenses and living expenses are lost by themselves, and with the high prices

in Japan, it is inevitable that they have to dedicated to their part - time jobs to support their lives without hold up their studies.

Table 2. Part-time job.

	Frequency	Percent
Yes	22	32.8
No	45	67.2
Total	67	100.0

3.3. The Revised UCLA Loneliness Scale

Regarding the situation of loneliness of international students, the maximum score were 71 points, the minimum score were 22 points, and the mean score was 42.72 ± 11.79 (Table 3), according to the survey results. In other studies, it was found that the third year of university students' loneliness was high as 36.92 points, 38.79 for adult men and 35.38 for adult women. It proofed that the loneliness of international students was high. Among 20 items, the four items with the highest score were "I do not have much in common with people around me", "I am not the indispensable one among close associates", "There were no people who really understood me." The item "I do not have much in common with people around me" and "I am not the indispensable one among close associates" reflected social loneliness (Russell, 1984). From that results, it considered

that more appropriate social support for international students is necessary.

Table 3. Loneliness.

Range	Minimum	Maximum	Mean
20-80	22	71	42.72±11.79

3.4. Depressed State Self-Rating Scale (CES-D)

The depression state self-assessment scale CES-D (Island, 1998) evaluates that there is a depression tendency with 16 points as a cut-off value and 16 points or more. According to the subject's response, the average score for depression is 15.57 ± 9.14, and 37.3% of them whose score were 16 points or more. One of them said that he recently planned to go to a psychiatric clinic. Therefore, it considered that the international students' mental health were not in good status.

As international students were shocked by different cultures, difficulties on study, economical burdens and had to frequently join their part-time jobs, they were not only the physical feeling of exhaustion, but also can't insure their free time. Further, with the impact of living with strong loneliness, it is considered that they were easy to fall into depression tendency.

3.5. Assistive Interpersonal Relationship Composition

Regarding the assistive interpersonal relationships, "family/relatives" accounted for 48.9%, "international students from their home countries living in Japan" accounted for 42.0%, these two items which seems to provide a relatively large amount of assistance, and it were considered as a support source for international students. On the other hand, the item "Japanese friends / acquaintances" and "school teachers" accounted for 22.2% and 19.4%, respectively. Takai (1989) found that the relationship between Japanese people is complicated and difficult to understand, the Japanese attitude towards foreigners is also closed and passive, and Japanese attitudes toward foreign students from Asian countries are unfriendly. There were indications that foreign students would give up on forming

intimate and effective human relations support relationship with Japanese (Zhou, 1995).

3.6. Stress Coping

Regarding the methods of cope with stress in daily life, the one which be most taken was "watching movies and listening to music", accounting for 47.8%. "Rest at home, sleep" and "Eat delicious food" account for 46.3% as well, always be taken. On the other hand, it is found that the number of subjects who cope with stress by "traveling" was as small as 9.0% (Table 4). When stress accumulated, coping by watching movies, listening music, having rest and enjoying delicious meal for refreshing were showed effective a lot. However, because of traveling is not only need enough time but also take a lot of money, that thought it is not a good choice for coping with stress for international students.

Table 4. Stress coping

Coping	Frequency	percent
Bear with	10	14.9
Rest at home, sleep	31	46.3
drink alcohol	7	10.4
Write diary	2	3.0
Do sports	11	16.4
Watch movies, listen music	32	47.8
Enjoy my interest, do thing what I love	21	31.3
Eat delicious food	31	46.3
Consult with close friends	17	25.4
Enjoy going out with friends	13	19.4
Shopping	7	10.4
Travel	6	9.0

3.7. Correlation

A negative correlation was found between Japanese ability and stress of daily life・cross-cultural adaptation (r= -0.317, p <0.01), stress of study (r=-0.267, p <0.05). On the other hand, a positive correlation was found between Japanese ability and stress of part - time job (r=0.389, p <0.01). Based on these results it was conceivable that the international students with higher Japanese ability, the demand on work will be also higher.

Table 5. Correlation between social support, life stress, UCLA and CES-D.

Item		Friends/Acquaintances in Japan	International students from other countries in Japan	International students from the same country with me	Teachers from school
Cross-cultural adaptation	Pearson Correlation	-.100	-.126	-.247*	-.409**
Economic	Pearson Correlation	-.114	.121	-.120	-.251*
part-time job	Pearson Correlation	-.045	.022	-.169	-.160
study	Pearson Correlation	-.300*	.169	-.143	-.328**
Loneliness	Pearson Correlation	-.159	-.031	-.180	-.361**
Depressive trend	Pearson Correlation	.003	-.096	-.121	-.268*

Table 5. Continued.

Item		Staff in the place where I live in	Friends, acquaintance in my home country	Family/relatives	No one
Cross-cultural adaptation	Pearson Correlation	-.356**	-.245*	-.060	-.057
Economic	Pearson Correlation	-.240	-.165	.156	-.154
part-time job	Pearson Correlation	-.354*	-.321*	.040	.046
study	Pearson Correlation	-.113	-.306*	.067	-.209
Loneliness	Pearson Correlation	-.281*	-.274*	.006	.309*
Depressive trend	Pearson Correlation	-.271*	-.253*	-.225	.315*

A positive correlation was found between loneliness and stress of daily life・cross-cultural adaptation (r=0.339, p <0.01) and part-time jobs (r=0.295, p <0.05). A positive correlation was also found between CES-D and stress of daily life・cross-cultural adaptation (r=0.311, p<0.05), stress of study (r=0.246, p <0.05), loneliness (r=0.383, p <0.01). Based on these results, it was necessary to pay attention to international students' stress on daily life, study, loneliness, and mental health state.

The correlation about assistance interpersonal relationships (social support), a positive correlation was found between the item "friends・acquaintances in home country" and "duration of living in Japan" (r=0.263, p <0.05). It is means that longer international students live in Japan, more they can adapt the life in Japan. On the other hand, it was thought that fewer help can be provided from their friends・acquaintances in their home countries. Also, negative correlations were found between the three items "Teachers from school" "Staff of the place where I live in" "Friends and acquaintances in home country" and stress of daily life・cross-cultural adaptation, loneliness and depression tendency (CES-D) (Table 5). Therefore, it is considered that international students are extremely necessary to get social support, especially support from the school teachers, the staff of the place where international students live in and the friends・acquaintances in their home country.

4. Conclusion

In this research, an investigator questionnaire survey was conducted for international students living in Hiroshima City's International Student Hall. The stress situation and the coping method of stress on daily life, cross-cultural adaptation, economics, part-time job and study were clarified. In addition, the mental health status of international students and the influencing factors were also clarified. Furthermore, it is considered that providing more appropriate support is very important for international students.

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