

FACTORS AFFECTING PSYCHOLOGICAL MALADJUSTMENT IN JAPANESE COLLEGE STUDENTS STUDYING IN ENGLISH ENVIRONMENTS

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Abstract

Background : There are some reports on psychological maladjustment of foreign students studying in a second-language environment. To clarify the factors affecting the maladjustment of Japanese students studying in an English environment at a Japanese university, we examined 91 Japanese first-grade students, who had no psychological distress and scored 480 points or more on the Test of English as a Foreign Language (TOEFL) at the time of entrance.

Methods : The presence/absence of psychological maladjustment was assessed using the Kessler Psychological Distresses Scale, conducted three months after entrance. As possible factors affecting the maladjustment, suitemate, tendencies towards shyness and perfectionism, TOEFL scores, attitudes toward taking classes in English and the location of the university were employed.

Results : Results of multiple logistic regression analysis showed that the psychological maladjustment was associated with greater perfectionism (Odds ratio 20.1 ; 95% confidence interval 2.06~197) and lower TOEFL scores (23.6, 2.09~307) of the above factors.

Conclusion : In Japanese students studying in English environments, greater perfectionism and lower TOEFL scores may affect psychological maladjustment. Some intervention for perfectionistic-prone students may be necessary, in order to foster their adjustments in such universities.

Key words : Studying in English environment, Psychological maladjustment, Perfectionism, English proficiency

Introduction

Full-time study in English environments has become an increasingly popular trend in higher education in Japan and Asia^{1,2)}. In general, studying in a second language is more stressful than that in one's mother tongue. If stu-

dents do not acclimate to the learning environment, they may withdraw from school if there is a subsequent decline in academic performance. Also, some students may experience mental illness such as depression. For this reason, appropriate support might be offered to aid in the psychological adjustments of such students.

Research on the psychological adjustment of students studying in a second-language environment has targeted international students studying in English-speaking host countries³⁾. Ward and Kennedy reported one of the most widely used concepts of intercultural adaptation⁴⁾, in which international adjustment had two dimensions : the

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psychological (emotional/affective) and the sociocultural (behavioral). The former dimension would be more important for students studying in English environments in their home country than the latter. Especially, personality involved in perfectionism^{5,6)} and shyness⁷⁾, interpersonal relationships, and social support, in addition to English proficiency, have been suggested to be the important contributors³⁾. Also, adjustment included dimensions related to academics and college life; perfectionism affected the former, and shyness affected the latter via relationships with classmates. However, there is little research on adjustments for students studying in English environments in their home country. Therefore, it is crucial to clarify factors affecting the maladjustments in this situation.

For the purpose of assessing psychological maladjustment, the Kessler 6-item Psychological Distress Scale (K6) for non-specific psychological distress can be useful⁸⁾. The K6 was developed for community screening of psychological distress based on severity rather than purely on diagnosis and has been widely used as a population-based epidemiological survey⁹⁾. In this study, we examined Japanese college students studying in an English environment in Japan to clarify whether English-language proficiency, tendencies toward shyness and perfectionism, and social support were strongly associated with the psychological maladjustment.

Materials and methods

Subjects

We conducted this study at a liberal arts university in northern Japan, which was home to about 800 students. All classes were offered in English, half of the faculty came from overseas, about a quarter of the student body was international exchange students, and all students were required to study abroad. They lived in a dormitory with international students during their first year, although about 20% were from the local prefecture.

Our subjects consisted of 169 Japanese students who entered the university in the spring of 2010. Of them, students who had psychological distress assessed by the K6 and who scored less than 480 points on the Test of English as a Foreign Language (TOEFL) at the time of

entrance were excluded according to our eligibility criteria. The latter was because they did not have sufficient English proficiency. In addition, students who did not complete the K6 conducted three months later were excluded. Finally, a total of 91 students were enrolled in this study with their written informed consent. All questionnaires were in Japanese language.

Methods

Psychological maladjustment was assessed using the Japanese version of the K6 mentioned earlier⁸⁾. Each item was rated on a five-point scale of 0 (none of the time) to 4 (all of the time). Scores on the six items were summed. High scores of nine points or above were regarded as the high level of distress¹⁰⁾, and we defined them as psychological maladjustment. The construct validity of K6 has been supported by the same level of screening efficiency as that achieved by the Center for Epidemiologist Studies Depression Scale¹¹⁾ with Japanese samples¹⁰⁾. As a consequence, our subjects underwent the K6 twice, i.e., at the time of entrance and three months later.

Possible factors affecting psychological maladjustment were sex, feelings about the relationship with the student's closest peer in the dormitory (known as a suitemate), tendencies toward shyness and perfectionism, placement scores on the TOEFL, and attitudes toward taking classes in English and attitudes toward university location. These seven variables were examined at the time of entrance.

Feelings about relationship with suitemates, attitudes toward classes in English, and attitudes toward university location were asked using a five-point Likert scale from 1 (not at all) to 5 (very much), i.e., how comfortable they were in talking with their suitemate when they had a problem, how difficult it was to take classes in English, whether they felt the location of the university was stressful, in that order. The third question was designed to examine the effect of the university location, which was far from the center of the city.

The tendency towards shyness was measured using the passivity subscale of the Waseda Shyness Scale (WSS)⁷⁾ consisting of five items rated on a five-point Likert scale from 1 to 5. The test-retest reliability coeffi-

cient of this subscale was 0.86 for Japanese college students (α coefficient, 0.85), and the construct validity of this measure was supported by the higher scores in patients with social phobia compared with those in a non-clinical sample⁷. The perfectionism tendency was assessed using the Desire for Perfection subscale of the Multidimensional Self-oriented Perfectionism Scale (MSPS)¹², i.e., a modified version of the Multidimensional Perfectionism Scale (MPS)^{13,14}. This subscale contained five questions (e.g., “My motto is to accomplish things perfectly”) rated on a six-point Likert scale of 1 to 6. The Cranach’s α coefficient was 0.85, and this measure was strongly correlated with the Japanese version of the MPS⁵. In either scale, the high score, obtained from the five-item summation, indicates strong tendencies toward shyness or perfectionism; especially, the person with higher scores in perfectionism is considered to engage in dichotomous thinking and cannot tolerate imperfection¹².

TOEFL placement scores were classified into three categories: 480–499, 500–549, and 550 and above. The students were required to obtain both a TOEFL score of 500 or more for qualifying for advancement in their studies, and a score of 550 or more for studying abroad.

Statistical analysis

Scores on the tendency towards shyness and perfectionism were divided into quartiles. Categories with fewer than 10 responses and fewer than 2 maladjusted subjects, which occurred for attitudes toward suitemate and university location, were combined. Multiple logistic regression analysis was used to identify factors affecting psychological maladjustment, and the significance was expressed as odds ratio (OR) and the 95% confidence interval (CI). All analyses, with two-sided p value, were performed using SPSS Ver. 17.0 (SPSS Japan, Tokyo) and the significance level was set at $p < 0.05$.

Results

The characteristics of participants are illustrated in Table 1. The students were 18.3 ± 0.6 (mean \pm standard deviation) years of age. Of 91 students, 25 (27.5%) were classified as psychologically maladjusted according

to the K6 conducted three months after the entrance. The proportions of psychological maladjustments tended to be significantly higher in the students both with poor relationship with suitemate and with higher perfectionism tendency.

Table 2 represents results of multiple logistic regression analysis using seven possible factors (i.e., explanatory variables). Psychological maladjustment was significantly related to perfectionism score (OR=20.1, 95% CI 2.06~197) and lower TOEFL placement score of less than 550 (OR=10.4, 95% CI 1.30~82.4 for the TOEFL score of 500–549; OR=23.6, 95% CI 2.09~267 for the TOEFL score of less than 500).

Discussion

As significant factors affecting psychological maladjustment of Japanese student studying in English environments in Japan, the TOEFL scores were selected in multiple logistic regression analysis (Table 2). This association is consistent with previous findings³. A dose-response relationship was also observed in the present study; i.e., as the TOEFL scores of the students became lower at the time of entrance, the OR for maladjustment increased. In contrast, this implies that students with TOEFL scores above 550 might be less likely to experience psychological distress because the scores were sufficient not only to advance to college-level coursework but also to study abroad. Thus, English proficiency is inevitable for students learning in English environments and its low proficiency may cause psychological maladjustment.

As shown in Table 2, higher perfectionism scores were associated with psychological maladjustment. This is in agreement with the literature on elevated perfectionism in patients with psychological disorders and problems¹⁵, although our subjects were students who had no psychological distress. Therefore, it is suggested that students with a strong perfectionistic tendency are at risk for psychological maladjustment at a later time. This may be explained by the diathesis-stress view of perfectionism¹⁶: Trying to be perfect in less demanding environments would contribute to good performance, but the perfectionist might readily evaluate difficulties as personal fail-

Table 1. Characteristics of participants and psychological maladjustment by level ($n=91$)

Characteristics	Subgroup	n	Psychological Maladjustment		Probability*
			Present ($K6 \geq 9$) ($n=25, 27.5\%$)	%	
Sex	Women	71	19	26.8	0.78
	Men	20	6	30.0	
Good relationship with suite mate	Not at all, A little bit	22	10	45.4	<0.01
	Somewhat	25	9	36.0	
	Mostly, Very much	44	6	13.6	
Shyness score (quartile)	5-10	19	4	21.1	0.98
	11-12	28	9	32.1	
	13-15	21	7	33.3	
	16-25	23	5	21.7	
Perfectionism score (quartile)	5-16	22	3	13.6	0.01
	17-20	25	5	20.0	
	21-25	25	8	32.0	
	26-30	19	9	47.4	
TOEFL score	480-499	22	7	31.8	0.24
	500-549	53	16	30.2	
	550-620	16	2	12.5	
Find taking classes in English difficult	Not at all	33	9	27.3	0.92
	A little bit	21	6	28.6	
	Somewhat	14	3	21.4	
	Mostly, Very much	23	7	30.4	
Find university location stressful	Not at all	16	4	25.0	0.12
	A little bit	17	3	17.6	
	Somewhat	16	2	12.5	
	Mostly	29	11	37.9	
	Very much	13	5	38.5	

*Pearson's χ^2 test and Spearman rank correlation coefficient were used for dichotomous variables and for ordinal variables with more than two categories, respectively.

ures in more demanding environments in which goals were not easily met¹⁷⁾. In any way, since use of a second language during higher education is highly demanding as compared to that of one's own mother tongue¹⁸⁾, some students with perfectionism may fall into maladjustment.

There may have been some demerit and merit in the current study. Our subjects totaled only 91 students in a university; nevertheless, we could find two significant factors affecting psychological maladjustment despite the small number of samples, but also our findings were concordant with those of other studies carried out in different situations. On the other hand, subjects with psycho-

logical distress at the time of entrance were excluded from our study, which would have strengthened the results of this study. Since many previous studies on the adjustments of second-language learners employed cross-sectional designs³⁾, baseline mental health problems might have confounded their results^{19,20)}. Thus, it is suggested that our data was not heavily influenced by selection or confounding bias.

In conclusion, low English proficiency and perfectionistic personality traits may lead to psychological maladjustment in Japanese students studying in English environments in Japan. This may also be applicable to other

Table 2. Results of Multiple Logistic Regression Analysis ($n=91$)

Characteristics (Explanatory variables)	Subgroup	Odds Ratio	95% Confidence Interval	
			Lower	Upper
Sex	Women	Reference		
	Men	1.63	0.35	7.47
Good relationship with suite mate	Not at all, A little bit	Reference		
	Somewhat	0.80	0.17	3.80
	Mostly, Very much	0.26	0.05	1.24
Shyness score (quartile)	5-10	Reference		
	11-12	4.46	0.59	34.0
	13-15	5.74	0.60	55.1
	16-25	3.35	0.38	29.5
Perfectionism score (quartile)	5-16	Reference		
	17-20	1.23	0.17	8.76
	21-25	4.97	0.70	35.5
	26-30	20.1	2.06	197
TOEFL score	480-499	23.6	2.09	267
	500-549	10.4	1.30	82.4
	550-620	Reference		
Find taking classes in English difficult	Not at all	Reference		
	A little bit	0.39	0.07	2.35
	Somewhat	0.13	0.01	1.19
	Mostly, Very much	0.81	0.14	4.73
Find university location stressful	Not at all	Reference		
	A little bit	0.19	0.02	1.94
	Somewhat	0.21	0.02	3.05
	Mostly	1.46	0.24	8.78
	Very much	2.62	0.34	20.1

Asian countries because there are few similarities between English and the Asian languages²¹⁾. On the other hand, attention should be directed to early psychological interventions of perfectionistic students, and encouragement to study English may be useful for those without enough English proficiency.

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References

- 1) Ministry of Education, Culture, Sports, Science and Technology, MEXT. (2002) Developing a strategic plan to cultivate "Japanese with English abilities." Retrieved September 29, 2011, from <http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN008142.htm>
- 2) Nagashima, M. (2011) A South Korean foreign student policy and changes thereto. *Studying-abroad exchange web magazine*. Retrieved October 4, 2011, from <http://www.jasso.go.jp/about/documents/>

- marikonagashima.pdf (in Japanese)
- 3) Zhang, J. and Goodson, P. (2010) Predictors of international students' psychological adjustment to life in the United States : A systematic review. *Int. J. Intercult. Rel.*, **35**(2), 139-162.
 - 4) Ward, C. and Kennedy, A. (1999) The measurement of sociocultural adaptation. *Int. J. Intercult. Rel.*, **23**(4), 659-677.
 - 5) Otani, Y. and Sakurai, S. (1995) Relationship of perfectionism to depression and hopelessness in college students. *Jpn. J. Psychol.*, **66**(1), 41-47. (in Japanese)
 - 6) Saito, M., Sawazaki, T. and Konno, H. (2008) The relationship of self-oriented perfectionism to internal-stable attribution style and depression, *Mejiro Journal of Psychology*, **4**, 101-109. (in Japanese).
 - 7) Suzuki, Y., Yamaguchi, H. and Nedate, K. (1997) Creating the Waseda Shyness Scale and assessing its reliability and validity. *Counseling Research*, **30**, 245-254. (in Japanese)
 - 8) Kessler, R.C., Andrews, G., Colpe, L.J., Hiripi, E., Mroczek, D.K., Normand, S.L., Walters, E.E. and Zaslavsky, A.M. (2002) Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychol. Med.*, **32**, 959-976.
 - 9) Kessler, R.C., Galea, S., Jones, R.T. and Parker, H.A. (2006) Mental illness and suicidality after Hurricane Katrina. *B World Health Organ*, **84**(12), 921-1000.
 - 10) Kawakami, N. (2002) Research on mental health issues and the basic countermeasures. Health, Labor and Welfare Grants-in-Aid for Scientific Research Report. (in Japanese)
 - 11) Radloff, L.S. (1997) The Center for Epidemiologic Studies Depression Scale (CES-D) for research in the general population. *Appl. Psych. Meas.*, **1**, 385-401.
 - 12) Sakurai, S. and Otani, Y. (1997) Relationship of "self-oriented perfectionism" to depression and hopelessness. *Jpn. J. Psychol.*, **68**(3), 179-186.
 - 13) Hewitt, P.L. and Flett, G.L. (1991) Perfectionism in the self and social contexts : Conceptualization, assessment, and association with psychopathology. *J. Pers. Soc. Psychol.*, **100**, 98-101.
 - 14) Hewitt, P.L. and Flett, G.L. (1990) Dimensions of perfectionism and depression : a multidimensional analysis. *J. Soc. Behav. Pers.*, **5**, 423-438.
 - 15) Egan, S.J., Wade, T.D. and Shafran, R. (2011) Perfectionism as a transdiagnostic process : a clinical review. *Clin. Psychol. Rev.*, **31**, 203-212.
 - 16) Rice, K.G., Leever, B.A., Christopher, J. and Porter, D. (2006) Perfectionism, stress, and social (dis) connection : a short-term study of hopelessness, depression, and academic adjustment among honor students. *J. Coun. Psychol.*, **53**(4), 524-534.
 - 17) Hewitt, P.L., Flett, G.L. and Ediger, E. (1996) Perfectionism and depression : longitudinal assessment of a specific vulnerability hypothesis. *J. Abnorm. Psychol.*, **105**, 276-280.
 - 18) Steptoe, A., Tsuda, A., Tanaka, Y. and Wardle, J. (2007) Depressive symptoms, socio-economic background, sense of control, and cultural factors in university students from 23 countries. *Int. J. Behav. Med.*, **14**(2), 97-107.
 - 19) Liu, R.T. and Alloy, L.B. (2010) Stress generation in depression : A systematic review of empirical literature and recommendations for future study. *Clinical Psychology Review*, **30**, 580-593.
 - 20) Gardner, R., Day, J. and MacIntyre, P. (1992) Induced anxiety and language learning in controlled environment. *Applied Psycholinguistics*, **13**, 197-215.
 - 21) Foreign Service Institute. (1973) Expected levels of absolute speaking proficiency in languages taught at the Foreign Service Institute. Retrieved September 28, 2011, from http://www.asdk12.org/depts/world_lang/advocacy/ForeignServiceInst.pdf