

## Factor structures of perceived and actual social support for Chinese students in Japan

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This study compares the structure of perceived and actual support for Chinese students. One hundred and seventy-five Chinese students responded to a questionnaire that measured perceived and actual support using the "Social Support Scale for Chinese Students in Japan" developed by Jou (1993). The correlation between the two support scores was extremely high ( $r=.83$ ), perceived support being higher than actual support. Five factors for perceived support and four factors for actual support were obtained from the factor analysis. The meaning of the five factors of perceived support was ambiguous and difficult to interpret, but the meaning of the factors of actual support was clear, and those factors were labeled, "emotional factor", "academic factor", "interpersonal-cultural factor", and "daily living factor". Thus, the data suggests that the structural difference between perceived and actual support might lead to the different effects on one's health.

**Key words:** social support, perceived support, actual support, factor structure, Chinese students in Japan.

For measuring various types of social support, several dimensions have been employed. Barrera (1986) classified social support into social embeddedness, perceived support, and actual support. Jou (1994) classified them into social embeddedness, needed support, perceived support, and actual support, categorizing the latter three as functional support. The meaning of social embeddedness is the number of members in the social support network and their characteristics, needed support is support that an individual requires, perceived support is perceived availability of support, and actual support is support that an individual actually received in the past. In the present study, we attempted to examine the structural relationship between perceived and actual support to which both Barrera and Jou referred.

Barrera (1986), Wethington and Kessler (1986), Jou (1994), and Jou and Fukada (1994)

have investigated the correlation of perceived and actual support, or the effect of the two on mental-physical health. Using data from six previous studies that examined the relationship between perceived and actual support, Barrera (1986) suggested that the correlation between perceived and actual support was weaker ( $r = -.13 \sim .46$ ), and that the correlational pattern of perceived support and stress or distress was different from that of actual support and stress or distress. Wethington and Kessler (1986) also reported that the correlation between the two was weaker ( $r = .02 \sim .20$ ), and that perceived support had a positive effect on health, whereas actual support had no effect. However, Jou (1994) found that the correlation between the two support measures was extremely high ( $r = .84$ ), and Jou and Fukada (1994) examined the effect of the two in respect to adjustment, based on Jou's result, and found that actual support had a positive effect on adjustment, whereas perceived support had no effect.

Barrera (1986) and Wethington and Kessler (1986) used different scales to measure each kind of support. It is impossible to conclude whether the weaker correlation between perceived and actual support was caused by an original lack of relationship between the two, or by the use of different scales. Similarly, the cause of the different effects of the two kinds of support on distress could not be determined.

Jou (1994) and Jou and Fukada (1994) used the same scales to measure the support. However, the different effects of the two supports on adjustment (Jou & Fukada, 1995), despite the extremely high correlation between the two (Jou, 1994), are difficult to explain. It is possible that perceived and actual support differed structurally in those studies although they were similar in amount. Thus, the purpose of this study is to compare the structure between perceived and actual support, using the same scales.

## Method

### *Subjects*

The subjects were 175 Chinese students enrolled in 13 Japanese universities. Eighty-three (47.4%) came from the People's Republic of China, 91 (52.0%) came from Taiwan, and 1 did not respond. Ninety-five were male, and 80 were female; 34 were less than 25 years old, 75 were 26-30 years old, 45 were 31-35 years old, 15 were more than 35 years old, and 6 did not respond. With regard to length of stay in Japan, 34 had resided in Japan less than 1 year, 53 had resided 1-2 years, 38 had resided 2-3 years, 49 more than 3 years, and 1 did not respond.

### *Procedure*

Data for the present study were obtained via personally delivered and mailed questionnaires in 1993. Two sets of questionnaires were printed in Chinese taking into account

the differences in the writing systems of the People's Republic of China and Taiwan.

#### *Instruments for Social Support*

The "Social Support Scale for Chinese Students in Japan" developed by Jou (1993) was employed to assess perceived and actual support. The content of 29 support items are shown in Table 1. Items were measured by a five-point scale, ranging from not at all (1) to very much (5), with increasing numbers denoting greater support.

### **Results**

#### *The relationship between perceived and actual support*

A correlational analysis and an analysis of variance (ANOVA) were used to examine the relationship between the totals of the two support scales. The correlation between the two kinds of support was high ( $r=.83, p<.001$ ), and the analysis of variance revealed the score of perceived support,  $M=72.43, SD=19.45$ , was higher than the score of actual support,  $M=66.80, SD=20.95; F(1,174) =39.62, p<.001$ .

#### *Factor analyses*

To assess the structure of perceived and actual support, factor analyses using principal component analysis followed by varimax rotation (Statistical Analysis System), were calculated. Five factors for perceived support, and four factors for actual support were extracted according to the criteria of an eigenvalue above 1. Items with a loading of less than .40 or having an absolute loading discrepancy with any other factor of less than .05 were deleted. The results are presented in Table 1.

For perceived support, the first factor included emotional, interpersonal, and daily living support items such as No. 19, 17, 14, 15, 26, 25; the second factor included interpersonal and academic support items such as No. 12, 13, 3, 4; the third factor included academic support items such as No. 5, 6, 7; the fourth factor included daily living support items such as No. 24, 22, 28; and the fifth factor included academic support items such as No. 1, 2, 8.

For actual support, the first factor included emotional support items such as No. 19, 18, 17; the second factor included academic support items such as No. 2, 4, 7; the third factor included interpersonal and cultural support items such as No. 15, 14, 26, 25; the fourth factor included daily living support items such as No. 24, 28, 22.

### **Discussion**

The present study investigated the different structures of perceived and actual support. Our data agreed with Jou (1994), regarding a high correlation between the two, but in contrast indicated that the perceived support was higher than the actual.

Table 1 Varimax rotated factor structure of perceived and actual support for Chinese students in Japan

	Items of Social Support										
	actual support					perceived support					
	I	II	III	IV	$h^2$	I	II	III	IV	V	$h^2$
19 Comforts me when I feel frustrated or sad.	.81	.23	.23	.23	.81	.76	.28	.16	.31	.11	.79
18 Stays with me when I feel lonely.	.80	.10	.15	.25	.73	.67	.40	-.10	.30	.17	.74
17 Listens to me when I feel depressed, worried, or irritated.	.78	.21	.20	.19	.73	.73	.30	.13	.29	.04	.73
11 Listens to me when I feel dissatisfied about others' attitudes or behavior.	.74	.22	.33	.02	.70	.33	.64	.15	.25	.14	.62
16 When I feel depressed, worried, irritated, or lonely, takes me out somewhere (ex. for dinner).	.72	.21	.45	.18	.80	.73	.29	.14	.19	.26	.73
20 Gives me good advice about solving my worries.	.67	.20	.40	.36	.78	.70	.28	.24	.22	.10	.69
21 Gives me advice when I am worried.	.67	.39	.09	.24	.66	.47	.66	.15	.15	.18	.73
13 Listens to me and understands my situation and my worries when I have trouble or misunderstandings with others.	.65	.32	.40	.15	.71	.33	.73	.27	.09	.22	.76
23 Takes me shopping or helps me with shopping, etc., when I need it.	.51	.30	.15	.50	.62	.44	.36	.04	.45	.36	.66
2 Helps me to find materials for my research and studies.	.05	.75	.04	.28	.65	.14	.25	.44	-.02	.60	.64
4 Understands me and encourages me when I am worried about my research and studies or examinations.	.46	.66	.22	.14	.71	.35	.51	.43	.11	.23	.64
7 Clarifies difficult points from lectures.	.18	.65	.32	.14	.58	-.07	.36	.49	.39	.30	.62
3 Listens to me when I am under stress due to my research, presentations, or examinations.	.40	.64	.28	.04	.65	.17	.59	.49	.21	.13	.68
8 Gives me guidance about my research, writing reports or examinations, etc.... and shares experiences with me.	.24	.63	.26	.38	.66	.25	.25	.27	.31	.58	.62
12 Accepts me and shows interest in me as a fellow worker(a group or research worker).	.34	.58	.40	-.02	.61	.27	.74	.21	.11	.23	.74
6 Gives me guidance about my research and studies (research planning, paper writing, etc.) and future direction.	.17	.58	.49	.14	.62	.20	.17	.71	.19	.24	.68

Table 1 (Continued)

	Items of Social Support					actual support					perceived support					
	I	II	III	IV	$h^2$	I	II	III	IV	V	I	II	III	IV	V	$h^2$
1 Lends me things (books, notes, computer, word processor, etc.) for my research and studies.	.23	.57	.04	.49	.62	.13	.23	.03	.39	.72	.74					
9 Helps me review lessons and homework when I am absent.	.39	.51	.20	.35	.57	.09	.36	.44	.43	.24	.57					
15 Provides information about others' behavior, attitudes, interests, likes and dislikes, etc.	.25	.17	.70	.35	.71	.60	.15	.31	.10	.30	.57					
14 Gives me guidance and advice about my attitudes or behavior towards others.	.38	.13	.66	.33	.70	.68	.14	.43	.12	.22	.73					
26 Someone to talk to who understands me when I encounter problems regarding values.	.43	.27	.61	.29	.71	.57	.25	.30	.33	.31	.69					
25 Listens to me when I have difficulties with Japanese culture or customs.	.48	.21	.57	.28	.68	.48	.35	.22	.42	.19	.61					
5 Recognizes my capabilities and my efforts, and positively evaluates me.	.24	.37	.56	.04	.51	.30	.27	.75	.14	.01	.74					
27 Corrects my everyday Japanese conversation.	.10	.48	.55	.14	.56	-.41	-.03	.44	.07	.47	.59					
10 Provides chances for companionship and places to meet.	.35	.23	.54	.28	.55	.44	.31	.17	.01	.57	.64					
24 Lends me or shares with me the necessary appliances, tools, etc. for everyday living.	.04	.22	.13	.74	.61	.21	.12	.16	.80	.12	.73					
28 Provides information for foreign students about part-time work, scholarships, activities, etc.	.29	.12	.34	.67	.66	.32	.03	.37	.55	.19	.58					
22 Lends me money when I don't have any at hand.	.25	.13	.21	.52	.40	.39	.13	.14	.68	.02	.66					
29 Provides information about daily living (food, clothing, housing) and things about unfamiliar aspects of daily life.	.38	.31	.41	.52	.67	.42	.39	.02	.48	.32	.67					
Variance (%)	22.20	16.70	15.20	11.50	65.57	20.30	14.50	11.50	11.40	9.90	67.60					

The perceived support could be classified into five factors, but the content of items included in each factor shows that it was difficult to distinguish one factor from another, and that the meaning of some factors was ambiguous. For example, the first factor included three different kinds of support: emotional, interpersonal, and daily living; the second factor included two kinds of support: interpersonal and academic. Particularly, both the first and the second factor included interpersonal items, and all of the second, the third and the fifth factor included academic items. It was difficult to label and to explain each factor. On the other hand, the actual support could be classified into four factors, and the meaning of each factor was clear, and thus, we could label those four factors: "emotional support", "academic support", "interpersonal-cultural support", and "daily living support".

Perceived support referred to a perception of availability for support, meaning support at the precognitive level. In fact, the perception of availability for support was a mixture of the amount of already received support and the amount which one needed right then. We suggest that that was the reason why the factor structure of perceived support was ambiguous and difficult to interpret. In contrast to perceived support, actual support referred to experience of actually having received support, meaning support at the behavioral level. Actual support indicated the past experience and it was easy to judge, and thus, the factor structure of actual support was obvious and easy to interpret.

Thus, our data provided evidence that although the correlation between perceived and actual support was extremely high, the structure of the two kinds of support was fairly different. The results of the present study suggest a possibility that the structural difference between the two kinds of support (perceived and actual) causes the difference in their effects on one's health. Finally, it is necessary to point out that our data is based only on Chinese students in Japan. The results of this study might be generally applied to other foreign students in Japan who are also in similar Japanese cultural conditions. However, applying the results of the present study to Japanese or other foreign students studying in other countries such as England and the United States, etc., would be more difficult than applying the results to foreign students studying in Japan.

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