First-year Students' Psychological and Behavior Adaptation to College: The Role of Coping Strategies and Social Support*

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Abstract: This study investigates 311 first-year students' psychological and behavior adaptation to college and the mediate role of coping strategies and social support. The investigates reveal that: (1) first-year students who are from countryside, live in poor families, speak in dialects or major in science and engineering have poorer adaptation to college than their counterparts; (2) first-year students' psychological and behavior adaptation to college was influenced by not only directly coping strategies, but also indirectly social supports. Positive coping strategies maybe make students' adaptation to college better.

Key words: first-year student; psychological and behavior adaptation to college; coping strategy; social support

1. Introduction

People must face a great number of changes throughout one's life, such as transition from elementary school to middle school, from middle school to the colleges, and stepping into the workforce in society. Entering a college is an important turning point for college freshmen in their early adulthood. The college life is both an opportunity and a challenge for them. If the freshmen cannot adapt to the new environment quickly, they may have difficulties in their studying and psychological developments.

Feenstra, etc. (2001)[1] examined freshmen's adaptation to college and the role of family environment and individual coping. They found that the lower level of family conflict and active family and individual coping strategies were correlated with positive self-adjustment of students in the first-year. Several researches (Zea, Maria Cecilia, etc., 1995)[2] found that social support positively affects college outcomes such as retention, quality of college life, ability to deal with academic stress, satisfaction with social and academic aspects of college life, and college adjustment. A successful adaptation to college has typically been defined by such criteria as remaining

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in college, enjoying psychological well-being, and performing well academically (Gerdes Mallinckrodt, 1994).[3]

Researches of Holmbek & Wandrei (1993)[4] suggested that some students adjust well to the college environment whereas others struggle with the transition, some leaving school entirely. Adaptation to college is a stressful and challenging process for students. However, the factors of influencing first-year students' adaptation to college are complex and not have a clear conclusion in past studies. The aim of this study is to investigate the role of individual coping strategy and social support in the first-year students' psychological and behavior adaptation to college, and whether they are affected by individual and family variables. We hypothesized that positive coping strategy and social support would be related to positive psychological and behavior adjustment to college during the first semester, and freshmen's psychological and behavior adaptation would be different between levels of individual and family variables. We hope that the study can provide some experimental evidence for counselors and the psychological intervention work for college students.

2. Methods

2.1 Participants

311 first-year students at Beijing Normal University completed the survey in their first semester of college, 80 students of them are in science major, 6 students in engineering, 133 students in liberal arts and 92 students in art major. The individual and family backgrounds of participants can be seen in Table 1.

Table 1 Demographic Variables

	Gender		The only child		Speaking		Hometown location		Family income		
Total	M	F	Yes	No	SCP	Dialect	City	Countryside	Good	Mid	Poor
311	83	228	193	118	137	172	247	61	83	168	58

SCP: Standard Chinese Pronunciation (Mandarin).

2.2 Materials and Procedure

311 first-year students completed a packet of surveys in the six-seven weeks of the fall semester. They were randomly selected at Beijing Normal University and preserved to be anonymous. The packet of the questionnaires includes Adaptation Behavior to College Questionnaire (ABCQ), Mental Health Scale (MHS), Simple Coping Style Questionnaire (SCSQ) and Social Support Subscale (SSS) (Wang, Wang, & Ma, 1999).[5]

The ABCQ was designed to measure freshmen's adaptation behavior to college in light of past researches and surveys for adaptation behavior to college (Chi, Duan, etc., 1996; Liu, 1997; Zhang, etc. 2003; Pan, 2004)[6,7,8,9] and Chinese college's conditions. The five kinds of school adaptation behavior dimensions comprise ABCQ by the procedure of exploratory factor analysis. The five kinds of adaptation behavior to college that contain 36 items are adaptation to college life (ACL), adaptation to speaking and communication (ASC), adaptation to college study

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(ACS), adaptation to college major (ACM) and adaptation to expenditure on college study and life (AECSL). Each item of SASQ uses 4-point Likter style choices ranging from 1 (strongly disagree) to 4 point (strongly agree). Higher score indicates less adaptive on college behavior. The MHS used in the study was consisted of 4 subscales (depression (D), anxiety (A), phobic anxiety (PA) and interpersonal sensitivity (IS)) selected in Symptom Checklist 90 (SCL-90, Derogatis, 1975)[10] for measuring freshmen's psychological health. Higher score indicates less adaptive on psychological aspect. The SCSQ that consists of revised ways of coping questionnaire (WCQ, Folkman & Lararus, 1978)[11] according to Chinese cultures and customs contains positive and negative coping strategy. It comprises 20 items used 4-point Likter style choices ranging from 0 (no adopt) to 3 point (often adopt). 12 items of them are positive ones. Others are negative items. Higher score of positive (or negative) items indicates to adopt more positive (or negative) coping strategy. The SSS that consists of revised Social Support Scale (Shuiyuan Xiao & Desen Yang, 1987)[12] is used to measure level of freshmen getting social support from parents, teachers, classmates, friends and others (government, school, mass organizations, etc.). Each item of the SSS uses 4-point Likter style choices ranging from 1 (no getting social support) to 4 point (getting all-out support). Higher score indicates more getting social supports. Table 2 shows Cronbach's α of the packet of the questionnaires, and Cronbach's α of the SSS full scale score is .76. The survey finished took around 40 minutes.

Table 2 Cronbach's α of the Three Subscales

	ABCQ						MHS					SCSQ		
	ACL	ASC	ACS	AC M	AECSL	Full score	D	A	PA	IS	Full score	P	N	Full score
Cronbach's α	.64	.75	.63	.78	.76	.82	.87	.85	.75	.77	.94	.76	.68	.76

3. Results

3.1 Descriptive and ANOVA of Demographic Variables for Adaptation Behavior to College

To investigate whether adaptation behavior to college would be affected by demographic variables, a group of descriptive statistics and ANOVA was used to test if significant differences existed in level of the demographic variables including the only child, speaking, hometown location, family income and major for ABC. The descriptive results were shown in Table 3.

The main effects of ABCQ full scale score are significant between the levels of the-only-child, speaking, hometown location, family income and major variable, $F(1,309)=28.983$, $P<.001$, $F(1,309)=22.137$, $P<.001$, $F(1, 306)=11.225$, $P<.001$, $F(2,306)=10.888$, $P<.001$ and $F(3,309)=5.912$, $P<.001$.

Especially, significant differences existed between levels of the only one child, speaking and family income variables for dimensions ASC, ACS, ACM and AECSL, $F(1,309)=34.759$, $P<.001$, $F(1,309)=4.811$, $P<.05$, $F(1,309)=12.672$, $P<.001$, $F(1,309)=69.117$, $P<.001$; $F(1,309)=18.453$, $P<.001$, $F(1,309)=6.129$, $P<.05$, $F(1,309)=6.103$, $P<.001$, $F(1,309)=18.603$, $P<.001$; $F(2,306)=6.794$, $P<.001$; $F(2,306)=4.262$, $P<.05$; $F(2,306)=2.999$, $P<.05$; $F(2,306)=79.672$, $P=.000$. These results show that students who are the non-only child speak in dialect or have worse family income got higher score of the ABC than those who are the only child, speak in standard Chinese pronunciation (SCP) or have more family income.

Significant differences also were found between levels of the hometown location in subscales ACL, ASC,

[10] Xiangdong Wang., Xilin Wang, &Hong, Ma. (1999). Rating Scales for Mental Health. *Journal of Chinese Mental Health.* (12): 31-34, 122-124, 127-131
[11] ibid
[12] ibid

ACM and AECSL, F(1, 306)=7.415, P<.001, F(1, 306)=30.287, P<.001, F(1, 306)=4.064, P<.05, F(1, 306)=55.481, P<.001. The subscale-scores of the participants from the countryside were higher than those from the cities.

For ACL, ACS and ACM, significant difference existed between different levels of major variable, F(3,307)=3.939, P<.01; F(3,307)=4.038, P<.01; F(3,307)=13.158, P<.001. The descriptive results showed that art major is better than the other three majors.

Table 3 The Description of Demographic Variables for Full Scale Scores of Adaptation Behavior to College

	The only child		Speaking		Hometown location		Family income			Major			
	Yes	No	SCP	Dialect	City	Countryside	High	Mid	Low	SC	EN	LA	Art
N	193	118	137	172	247	61	83	168	58	80	6	133	92
$\overline{X}$	59.39	65.22	58.78	63.84	60.68	65.25	57.82	62.34	64.91	63.74	69.67	62.01	58.64
s	9.40	9.03	9.46	9.33	9.92	7.80	9.39	9.32	9.55	8.88	6.68	9.94	9.32

Note: SC-Science, EN-Engineering, LA-Liberal arts

3.2 Descriptive and ANOVA of Demographic Variables for Psychological Health Status

To investigate whether psychological health status of freshmen (MHS) would be affected by demographic variables, a group of descriptive statistics and ANOVA was used to test if significant differences existed in level of the demographic variables for MHS as same as ABC. Table 4 shows the descriptive statistics of full scores of psychological health scale (MHS) on levels of demographic variables.

The full scale score of MHS remained significant difference between levels of the-only-child, hometown location, family income and major variable, F(1,308)=11.418, P<.01, F(1,305)=3.612, P<.05, F(2,305)=2.966, P<.05, and F(3,306)=4.853, P<.01. No significant difference was found in speaking variables for MHS.

Especially, significant differences existed between two levels of the only one child for forth subscales (D, A, PA, IS) of MHS, F(1,308)=10.155, P<.01, F(1,308)=11.778, P<.001, F(1,308)=6.171, P<.05, F(1,308)=8.606, P<.001. The result indicated that the MHS full scale and subscale mean score of the only-child participants significantly is lower than the non only-child ones.

Significant differences were found between city and countryside participants for PA and IS subscale, F(1, 304)=4.463, P<.05, F(1, 303)=8.732, P<.01. The full scale and subscale mean scores of students from cities significantly are lower than countryside ones.

The MHS full scale and PA and IS subscales mean score of students with good family income are significantly lower than students' with poor family income, F(2,305)=5.953, P<.01, F(2,305)=2.912, P<.05.

Significant differences existed between levels of major variable for D, A and IS subscales, F(3,306)=4.249, P<.01, F(3,306)=5.193, P<.01, F(3,306)=4.305, P<.01. Post Hoc shows that the full scale and subscale mean score of art major are significantly lower than the other three majors.

Table 4 The Description of Demographic Variables for Full Scale Scores of Psychological Health Scale

	The only child		Speaking		Hometown location		Family income			Major			
	Yes	No	SCP	Dialect	City	Countryside	High	Mid	Low	SC	EN	LA	Art
N	192	118	136	172	246	61	83	167	58	79	6	133	92
$\overline{X}$	29.64	37.61	30.65	34.38	31.65	37.21	28.47	33.28	36.72	33.84	47.83	35.48	26.62
s	18.05	23.24	17.86	22.29	20.66	19.71	19.19	21.48	19.06	19.59	16.29	21.00	19.52

Note: SC-Science, EN-Engineering, LA-Liberal arts

3.3 The Correlation of ABCQ, MHS with Demographic Variables, Coping Strategy and Social Support

To explore whether ABCQ and MHS were related to demographic variables, coping strategy and social support, ABCQ and MHS full scale and subscale were correlated with demographic variables, coping strategy and

social support, see Table 5a and Table 5b.

Table 5a showed that ABCQ significantly was correlated with forth demographic variables, two subscales of individual coping strategy and full score of social support. ABCQ also significantly was correlated with MHS, r=.544, p<.001. Positive coping strategy was correlated with positive social support, r=.206, p<.001.

Table 5a The Correlation of ABCQ with Demographic Variables and Coping Strategy

	Demographic variables				Coping		Social support
	Only child	Speaking	Hometown Location	Family income	Positive	Negative	Full score
ABCQ ***r***	.293	.259	.240	.254	- .265	.125	- .13
P	.000	.000	.000	.000	.000	.028	.022

Table 5b shows that MHS significantly was correlated with forth demographic variables and two subscales of coping strategy, and was not correlated with social support. In addition, social support was correlated with positive coping strategy, and not with negative coping strategy.

Table 5b The Correlation of MHS with Demographic Variables and Coping Strategy

	Demographic variables				Coping strategy	
	Only child	Hometown location	Family income	Major	Positive	Negative
MHS ***r***	.189	.143	.195	- .172	- .200	.228
P	.001	.012	.001	.002	.000	.000

3.4 Regression Analysis of Behavior Adaptation to College and Psychological Health

To explore whether adaptation behavior to college and psychological health of freshmen were affected by demographic variables, individual coping strategy and social support, a set of regression equations was computed (see Table 6). In first equation, independent variables (MHS full score, positive coping and a group of three demographic variables) significantly predict the dependent variable (ABCQ). For second equation, MHS was predicted by positive and negative coping strategies and the only child. In third equation, negative coping and social support significantly predicted positive coping.

Table 6 Regression Analysis of ABCQ, MHS and Individual Coping Strategy

Equation	Dependant	Predictor	R^2	β	t
1	ABCQ	MHS	.43	.447	9.047***
		Pos. coping		- .186	- 3.704***
		Speaking		.153	3.110**
		Family income		.145	2.720**
		Major		- .114	- 2.508**
2	MHS	Pos. coping	.159	- .253	- 4.545***
		Neg. coping		.269	4.916***
		The only child		.139	2.162*
3	Pos. coping	Neg. coping	.081	.192	3.429***
		Social support		.183	3.226***

4. Discussion

These results show that coping strategy and social support played the important role in first-year students' behavior adaptation to college and psychological health, and different individual and family backgrounds also affected their psychological and behavior adjustment during first semester of colleges. Two problems will be discussed in following.

4.1 Influence of Individual and Family Variables for First-year Students' Behavior Adaptation to

College

Freshmen with different individual and family backgrounds show different school adaptation behavior in the light of above results. The current study found that non-only child freshmen display poorer behavior adaptation than the only child ones, which is not of the same views with previous studies (Huang, 1994; Li, Wu, etc, 1998). One of the reasons is that most background of the non-only children's family selected in the study was different from the ones in previous studies. Table 7 shows that students from countryside only account for 19.81% of all participants, but 86.89% of them are the non-only child students, 83.61% of them speak in dialect, 54.10% of them grow up in poor families, and only 3.27% in wealth families. The living environments of the rural students have greater change than the city ones when they enter colleges, because the college is located in metropolis. So the environment of the student's family, play an important role on psychological and behavior adaptation to college.

Table 7 Frequency Distribution of Demographic Variables

Home Location	N	%	The only child				Speaking				Family income level					
			Yes		No		SCP		Dialect		High		Mid		Low	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
Large city	247	80.19	182	95.79	65	55.08	126	92.65	119	70.00	81	97.59	140	84.34	25	43.10
Countryside	61	19.81	8	4.21	53	44.92	10	7.35	51	30.00	2	2.41	26	15.66	33	56.90
Total	308	100.00	190	61.36	118	38.64	136	44.30	170	55.70	83	27.04	166	54.07	58	18.89

In China, many students have known little information about college majors before entering college, especially, science and engineering, and they often obey the suggestion or requirement of their parents or teachers as they selected majors. After the beginning of college life, they are aware that the majors they will study are different from what they thought. So, they cannot be adapted to new majors in short time, especially those in science and engineering. But, students in artistic majors can be adapted to their majors soon due to the majors known in middle school.

4.2 Effects of Coping Strategy and Social Support on Psychological and Behavior Adaptation to College

The first-year college students are just in the crucial stage from the adolescence to the adult. Their psychological developments have a tendency of mature, but not in a real mature stage. In individuals' self-adjustment to environment adaptation, their psychological status and behavior were affected by many factors. The current study shows that individual coping strategy and social support were important in his or her adjustment to the new college environment and propose a model linking behavior adaptation to college, psychological health, individual coping strategy, social support and demographic variables (see Figure 1).

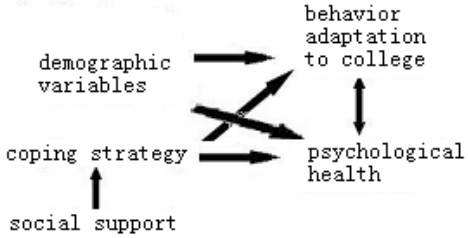

Figure 1 The Model Linking Psychological and Behavior Adaptation to College

The model presents the relationship between individual coping strategy, social support, demographic variables and psychological and behavior adaptation to college. If freshmen can use more positive coping strategy in times of difficulty, they will be adapted quickly to new college environment. It will be advantageous for

individuals use more positive coping strategy and to lighten their psychological stress if they would get high social support. In the model, social support is only indirectly not directly influences psychological and behavior adaptation to college through coping strategy. A previous study said (Huang, 1994; Li, Wu & Zhang, 1998; Tao Sha, 2002)[13,14,15], "The value of social support lies in impelling individuals adopt more positive coping strategy. It is helpful for them to get rid of adaptation difficulty". If freshmen could seek social support on their own initiative, and family and society could give them more support, it would be of benefit to their adopting more positive coping strategy to overcome difficulty; and do self-adjustment well in new environment. Besides, some demographic variables, such as only child, family income, family location, speaking and major also influence freshmen's psychological and behavior adaptation to college.

Solving the problems of college adaptation are not only the responsibility of college, but also related to students' growing environment. Many factors, such as individual, family, school and society, etc. will affect the first-year students' ability of adaptation to college. The parents, college and society should give the students more supports and help, in order to stimulate them to mediate their emotion positively, and spend the adaptation period as quickly as possible. The results of this study may be helpful in a number of ways to counselors working with college students.

References (omitted)

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(continued from Page 50)

Anyway, practice makes perfect. As long as we have done enough practices, we can improve our reading ability gradually.

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