Self-perception, level of accultural and psychological adjustment in Chinese college students

Mandy Hoi

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SELF-PERCEPTION, LEVEL OF ACCULTURATION AND PSYCHOLOGICAL ADJUSTMENT IN CHINESE COLLEGE STUDENTS

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
in
Psychology

by
Mandy Hoi
May 1992
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Approved by:

Dr. Faith McClure, Chair, Psychology

Dr. Yu-Chin Chien

Dr. Lynda Warren
ABSTRACT

The purpose of the present study was to examine: (1) how an individual's sense of competence influences psychological adjustment, and (2) the impact of an individual's level of acculturation on psychological adjustment among Chinese college students in particular. It was expected that since Chinese students in the U.S. were experiencing cultural conflicts, they would have significantly higher HSCL (Hopkins Symptom Checklist) scores than Chinese students in Taiwan. In addition, it was anticipated that within the group of Chinese students in the U.S., their level of acculturation would correlate negatively with their scores on the HSCL, and that this correlation would be the highest with scores on the somatization sub-scale. Because intellectual ability, scholastic competence, morality, and parent-child relationships are highly valued within the Chinese culture, it was expected that these factors would contribute significantly to the global self-worth of Chinese students. Meanwhile, factors such as appearance, athletic ability and creativity are less emphasized within the American culture, it was expected that these factors would contribute to little or none of the variance in global self-worth of Chinese students. However, since Chinese students in the U.S. were more directly exposed to the American culture than Chinese students in Taiwan, it was expected
that these factors would account for a larger proportion of variance in global self-worth for Chinese students in the U. S. than for Chinese students in Taiwan. Moreover, it was anticipated that the level of global self-worth would correlate negatively with scores on the HSCL for both groups of students. Gender differences in the manifestation of psychological symptoms were also examined. A total of 145 Chinese students were included in the study. Sixty Chinese students were studying in the U. S., and 85 Chinese students were studying in Taiwan. They completed the Self-Perception Profile for College Students, the Multicultural Acculturation Scale, and the Hopkins Symptom Checklist. The questionnaires were both in English and in Chinese. Contrary to expectation, a one-way MANOVA comparing the two groups of students indicated that Chinese students in Taiwan exhibited higher levels of psychological distress than Chinese students in the U. S. In addition, data obtained showed that female students in Taiwan exhibited significantly higher level of psychological distress than their male peers. However, no such differences were found among Chinese students in the U. S. As expected, the results also indicated that Chinese students' levels of acculturation correlated negatively with psychological distress. Moreover, it was found that global self-worth correlated negatively with psychological distress for both groups of students. As
expected, scholastic competence, intellectual ability, parent-child relationships and morality contributed significantly to the global self-worth of Chinese students. However, contrary to expectations, appearance and athletic ability also contributed significantly to the global self-worth of Chinese students. The results were interpreted in terms of the developmental and cultural issues each group of students was facing. Implications for interventions with these students were also discussed.
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INTRODUCTION

The purpose of the present study was to examine: (1) how an individual's sense of competence influences psychological adjustment, and (2) the impact of an individual's level of acculturation on psychological adjustment among Chinese college students. The relevant literature will be reviewed and then a study focusing on these issues will be described.

The Concept of Competence

Competence has been defined in various ways. White (1959) defined competence as effective interaction with the environment and linked it to what he called "competence motivation" — an urge to find out about the environment and to gain control over it. Grasha and Kirschenbaum (1980) defined competence as "the things we do to enhance the quality of our lives and otherwise go beyond just meeting the demands of our environment" (p. 61). These researchers also include in their definitions characteristics such as becoming less dependent upon external sources of rewards and feedback on performance; focusing on gaining measurable accomplishments on skills; maintaining flexibility in responding to tasks; and trying to achieve self-actualization.

Waters and Sroufe (1983) incorporated a developmental
perspective to their definition and suggested that a competent person as one who is "able to make use of environmental and personal resources to achieve a good developmental outcome" (p. 81). In this definition, the emphasis is on enlisting and coordinating personal resources with the goal of adapting to the environment, thus gaining from such experience. According to Waters and Sroufe, personal resources range from specific skills and abilities to general constructs such as self-esteem and self-worth.

Similar to Waters and Sroufe, Jones (1989) viewed competence as "an attribute closely linked to self-esteem" (p. 477). In addition, he related competence to other factors such as social status, feelings of control, personal security, and mental health. Jones also postulated that the framing of our competence is an essential part of our self-definition or identity.

Some researchers have defined competence as one determinant of global self-worth while others have emphasized the social nature of competence. For example, it has been postulated by James (1892) that the origins of one's overall sense of worth lies in how one weighs one's competencies. According to James, an individual places different values on success within the various domains of his/her life, a factor which leads to different evaluations
for each individual. It is one's achievements in those areas which are deemed important that are critical to one's overall sense of worth. Global self-esteem is therefore conceptualized as the ratio of one's competencies or successes to one's pretensions, meaning the domains in which it is important to succeed. Self-esteem is thus the result when individuals compare their level of competence to the importance of success across different domains.

Bandura (1989) also stressed the importance of the relationship between competence and global self-worth. He postulated that in addition to skills which are fixed capacities, a strong self-belief in one's own efficacy is essential to put those skills to good use. Perceived efficacy thus plays a critical role in whether those skills are well or poorly demonstrated. Bandura identified three different ways in which self-belief in efficacy affects psychological functioning: (1) choice — people choose to engage in activities that they believe they can master; (2) motivation — a high sense of efficacy leads people to mobilize a high level of effort to achieve goals in the face of obstacles and difficulties; (3) thinking processes — people's thinking processes can be self-aiding or self-hindering depending on their level of self-efficacy. He further proposed four different ways of building self-efficacy: mastery experiences, modeling, social
persuasion and judgements of personal capabilities and vulnerabilities. In short, self-perception of efficacy enables people to exercise control over events and to translate self-belief into "accomplishments, motivation, and personal well-being" (p. 53).

Cooley (1964 [1902]), in contrast, postulated that the origins of self are social in nature and that they reside in the attitudes of significant others. He used the term the "looking-glass self" to described how one looks to significant others as social mirrors for information that define the self. An individual is motivated to appraise others' attitudes toward the self and incorporate this information which becomes one's sense of self. Therefore, if significant others hold us in high regard, we will have positive judgement about our overall worth. If significant others hold negative opinions about us, we will have negative judgement toward ourselves.

The model proposed by Harter (1988) is somewhat a synthesis of the view that competence is a determinant of global self-worth, and that competence is based on social relationships. Similar to James, she views the significance of how one weighs one's sense of competence as contributing to the origins of one's overall sense of self-worth. Similar to Cooley, she also acknowledges the major impact of significant others on one's evolving self-image. Harter
(1989) suggested that one's worth as a person can be assessed by asking an independent set of questions that tap the construct of self-worth directly. Such items assess the extent to which one likes oneself as a person, likes the way one is leading one's life, and is happy with the way one is. She further acknowledged socializing influences as operating in conjunction with the cognitive-developmental changes within the individual.

In Harter's model, there are three stages in the development self-awareness. At the first stage, the child can observe others, but does not realize that others can evaluate the self. At the second stage, the child comes to appreciate the fact that others are observing and evaluating the self. Yet, he/she cannot observe the self directly. At the third stage, the child begins to incorporate the opinions of others into his/her own self-perception and can directly evaluate the self. At this stage, children are interested in evaluating their performance based on the standard significant others have set for them. They internalize these expectations into self-standards which provide the basis for self-evaluation or self-criticism if they fail to meet these standards. Therefore, according to Harter, one's self concept is an integration of one's evaluation of one's performance and adequacy, as well as overall sense of self-worth.
Socialization Processes

Implied in both Cooley's definition and Harter's definition of competence is an environmental component which plays a significant role in shaping an individual's self-perception. It has been postulated that if the environment is an important component to self-perceptions, then people from different cultures or families should view competence and adequacy in different ways. There have been a considerable number of models proposed which include the role culture and family play in the socialization process. For example, Valsiner (1989) argued that there were two perspectives, namely the unidirectional and the bidirectional perspectives, which can be taken on how culture is transmitted from generation to generation through the process of socialization. In the unidirectional perspective, socialization is seen as the one-sided effort of parents to transmit culture to their children. According to this view, children are perceived as passive recipients of cultural messages. They are active only in the sense of selecting which messages to accept and which to reject. Whatever is encoded by the child is taken into his/her psychological system without further reconstruction. Cultural transmission of socialization is thus characterized as a process in which the child passively encodes messages given by the parents without reorganization.
The bidirectional perspective, in contrast, views the socialization process as involving "an active reconstruction of the parents' culture by the offspring under the guidance of more experienced social others" (p.46). This perspective differs from the unidirectional in that children are seen as active agents who reconstruct cultural messages transmitted by their parents. Parents provide the building blocks from which children actively reconstruct their own personalities in socially or culturally accepted ways. This constructivist view of socialization maintains that the culture that the children's generation shares goes beyond that of their parents. Children integrate the knowledge of their parents' generation with new inventions. The new knowledge is then actively assimilated into the children's internalized knowledge structures in novel ways. As a result, each person carries with him or her the collective culture as well as an idiosyncratic one.

The bidirectional perspective of cultural transmission implies that western and eastern culture may view competence in different lights. In the following section, a review of some studies which examine the different views of competence in the American and Chinese culture is presented.

In a study conducted by Bond and Cheung (1983),
students from Hong Kong, Japan and the United States were asked to describe themselves using a free-response format. It was found that Chinese students emphasized more familism, the desire to identify with one's family, than the American or Japanese students, which is consistent with the family-orientation of the Chinese culture.

In another study by Stigler, Smith, and Mao (1985), it was found that compared to American children, Chinese children emphasized academic successes which are considered important sources of pride for the family. Closely related to this is the comparatively stronger interest of Chinese children to rise above their current level of competence. This strong motivation to reach higher levels of achievement is considered another indicator of competence in Chinese culture. In general, Chinese children scored higher than American children on the social domain. This again reflects the group orientation of the Chinese culture. Social participation is thus considered another indicator of competence in Chinese culture.

Stigler and his coauthors further indicated that Chinese children scored lower than American children on a social subscale which measured individual popularity and social importance. Chinese children also had a tendency to downrate their cognitive ability in spite of their academic performance. This sense of self-effacement has been
interpreted as a means to enhance harmony in social relations within Chinese culture.

Since parents are the significant socializing agents of their children, it is also appropriate to look at how child-rearing practices instill the view of competence as valued by one's culture. Caudill (1969) found that compared to Japanese and Chinese mothers, American mothers valued and encouraged independence at an early age. American parents also put less emphasis on academic achievement (Lin & Fu, 1990). They viewed competence in terms of autonomy and self-reliance; and encouraged their children to explore the environment from an early age.

In another related study concerning the relationship between child-rearing practices and competence, O'Reilly, Tokuno and Ebata (1986) asked American and Japanese parents to rank-order eight selected competency categories. They found that American mothers ranked "Behaves Well" lower than Japanese mothers. This again is consistent with the earlier notion that Americans emphasize individualism and independence. Overall, American mothers ranked "Self-Directed" first whereas Japanese ranked it second. This is in line with the emphasis placed on American children to explore the environment and be open to new experiences.

In a study of American college students using the
Self-perception Profile for College Students, Neemann and Harter (1986) found that global self-worth correlated highly with appearance, job competence, social acceptance, intellectual ability, parent relationships and scholastic competence. Since the American and Chinese cultures emphasize different competence areas, it is reasonable to hypothesize that Chinese college students' sense of global self-worth, as measured by the Self-Perception Profile for College Students, will correlate with competence domains different from the domains found in the aforementioned study of American college students. Based on the research just described, it is expected that the global self-worth of Chinese college students will correlate significantly with scholastic competence, intellectual ability, parent relationships and morality, qualities stressed in Chinese culture.

In the previous section, it was noted that American and Chinese culture put their emphasis on different competence areas. It has also been noted that culture and family play significant roles in socializing children. The question which follows is "How do these factors impact people who are not living in their own countries?" For example, what would happen to those children who encounter American culture daily, who receive American education daily, but who were raised under Chinese values and tradition? These
questions are important because the inconsistency between social expectations and family expectations may lead to conflicts in terms of adjustment. There are an increasing number of people from different ethnic groups currently residing in the United States. Many come to this country at different times and for different reasons. Clearly, the manner in which these people adapt themselves to the new environment, new customs and new values will differ and an understanding of this process would be valuable.

The Concept of Acculturation

An important concept related to an understanding of cultural adaptation is "acculturation". As with competence, acculturation has been defined in various ways. An early definition was provided by Redfield, Linton and Herskovits (1936) who defined acculturation as a process which results when "groups of individuals having different cultures come into continuous first-hand contact with subsequent changes in the original culture patterns of either or both groups". In the 1954 formulation by the Social Science Research Council, acculturation was defined as "culture change that is initiated by the conjunction of two or more autonomous cultural systems. Its dynamics can be seen as the selective adaptation of value systems, the processes of integration and differentiation, the generation of developmental sequences, and the operation of role determinants and
personality factors" (p. 974).

Clearly implied in these definitions is the view that acculturation is a process which is significant at both the group level and the individual level (Berry, Kim, Minde, & Mok, 1987). On the group level, at least two autonomous cultural groups come into contact, which results in some kind of change in one or the other of the two groups or in both. In addition, one group dominates the other and is more responsible for the flow of cultural elements than does the "weaker" group. On the individual level, acculturation refers to "psychological changes in an individual whose cultural group is collectively experiencing acculturation" (p. 492).

One model, proposed by Padilla (1980) focused on the individual level of acculturation, which involves two essential elements: (1) cultural awareness, and (2) ethnic loyalty. Cultural awareness refers to an individual's knowledge of specific cultural material such as language and values of the culture of origin and of the mainstream culture. Notice that in the United States, the European culture is considered as the mainstream culture whereas cultures of other ethnic groups are termed subcultures. The second element of acculturation, namely, ethnic loyalty, refers to an individual's preference of one cultural orientation over another. According to Padilla's model, the
process of acculturation is multidimensional. There are at least five dimensions important in determining acculturative change for the individual: (1) language familiarity and usage, (2) cultural heritage, (3) maintenance of ethnic pride and identity, (4) inter-ethnic interaction, and (5) inter-ethnic distance.

With regard to language familiarity and usage, it is assumed that there is a positive relationship between familiarity of the language of the mainstream culture and ease of acculturation. The model further takes into account preference to use the language of the mainstream culture versus the language of the culture of origin. Considering cultural heritage, it refers to knowledge of a wide variety of cultural artifacts and materials specific to both cultures. The loyalty component refers to an individual's preference for one culture's artifacts or materials over the other. The third dimension, namely, maintenance of ethnic pride and identity, has to be assessed along with language familiarity and cultural heritage. The fourth dimension, inter-ethnic interaction refers to the assumption that contacts between members of different ethnic groups facilitate the acculturation process. The fifth dimension, inter-ethnic distance refers to the assumption that the greater the distance between the mainstream culture and the subculture in terms of religion, values and so forth, the
more difficult the acculturation process. Such distance can be either self-imposed or imposed by the mainstream culture.

With regard to the individual level of acculturation, Berry (1980) identified four different levels: (1) assimilation, (2) integration, (3) rejection, and (4) deculturation. Assimilation means relinquishing one's cultural identity and moving into the mainstream culture. Integration refers to maintenance of cultural integrity as well as the movement to become an integral part of the mainstream culture. Rejection has to do with self-imposed withdrawal from the mainstream culture. For example, if rejection is imposed by the mainstream culture, it becomes a form of segregation. Deculturation means out of cultural or psychological contact with either the traditional culture or the mainstream culture. It is characterized by feelings of alienation, loss of identity, and acculturative stress.

In the study conducted by Berry et al. (1987), it was found that attempts to adapt to a new environment can result in psychological and behavioral changes, which could alter one's mental health status. For example, the level of stress experienced by a person is related to his/her level of acculturation. Berry and his coauthors defined acculturative stress as "one kind of stress, that in which the stressors are identified as having their source in the
process of acculturation" (p. 492). Other symptoms of stress which can occur during acculturation include cognitive confusion, anxiety, depression, feelings of marginality and alienation, psychosomatic symptoms, and identity confusion. It is believed by Berry and his coauthors that mental health problems often arise during the process of acculturation even though it is not inevitable. As a result, it seems reasonable to assume that to a certain degree, individuals coming to the United States from different cultures would experience adjustment problems and acculturative stress as part of the acculturation process. For example, Chinese students who are more acculturated are expected to demonstrate less adjustment problems than those who are less acculturated.

To summarize, the term "competence" has been defined in different ways. Some researchers have defined competence in terms of effective interaction with the environment while others have defined it in terms of global self-worth. Implied in the definition of competence is an environmental component in shaping an individual's self-perception. An example of the environmental component is culture and family. It has been demonstrated that culture and family play significant roles in children's socialization process. Since western culture differs from eastern culture, it is assumed that people from these two cultures would view
competence in different ways and that this would influence the level of psychological adjustment for individuals exposed to both cultures. Various studies have shown that people are indeed influenced by the values of their culture. It is thus likely that those who are not living within their own culture might experience a conflict in values. With regard to the concept of acculturation, it has been demonstrated that acculturation could serve as a moderator of the psychological adjustment and acculturative stress faced by people who are not living within their own culture. It is assumed that people who are more acculturated to the mainstream culture would experience less psychological adjustment than those who are less acculturated.

Literature on Chinese College Students in the United States

In the present study, the focus is on self-perception, level of acculturation and psychological adjustment in Chinese college students. There are several reasons why it is important to study this unique group of students. According to Sue and Kirk (1972), Chinese students constitute a major minority in higher education on the West Coast. However, despite their size and significance, this group has been ignored in the literature (Bourne, 1975). In a survey by Evangelauf (1985), it was found that the number of international students coming from Southeast-Asia accounted for almost half of the
international student population. Because of the previous assumption that people moving to a new culture would experience different levels of adjustment difficulties and acculturative stress, it is important to study this large student body in order to provide the appropriate services for them.

Moreover, it has been consistently pointed out in the literature that Asian students have different views of mental health from American students, and that they have quite different expectations of counseling. In a study conducted by Arkoff, Thaver, Elkind (1966), it was found that Asian students expressed beliefs that mental health could be enhanced by exercising will power and avoiding unpleasant thoughts. They also viewed counseling as a directive, paternalistic and authoritarian process. Similar findings were obtained by Sue, Wagner, Ja, Margullis, and Lew (1976). In another study (Yuen, R. K. W., & Tinsley, H. E. A., 1981), international Asian students expected the counselor to be an authority figure who prescribed more definite and clear-cut solutions to their problems. They also expected to play a more passive and dependent role in the counseling process. In sum, because of the different expectations toward counseling among Asian students, it is essential for educators and mental health practitioners to understand the needs of Asian students in the United States
in order to provide appropriate services to them.

As has been pointed out in the literature, Chinese college students, despite being viewed as "model" students in America, are not without psychological problems. According to Sue and Kirk (1972), Chinese students were found to be more socially introverted and experienced greater emotional distress than other students. They felt less at ease with themselves and others, and were more apt to be uncomfortable and anxious. In a later study, Sue and Kirk (1973) indicated that Chinese students expressed greater feelings of loneliness, isolation and anxiety than the general student population. Moreover, Sue and Sue (1974) have reported that when comparing the MMPI (Minnesota Multiphasic Personality Inventory) scores of Chinese and non-Asian students, Chinese students showed greater disturbance in their MMPI profiles. They exhibited problems involving somatic complaints, family discord, and social introversion. In addition, Chinese students tended to underutilize mental health services. This underutilization rate may be construed in light of the cultural factors inhibiting self-referral, and Asians' different expectations toward counseling. It is thus important to provide educators and mental health practitioners some information relevant to providing appropriate services for Chinese college students.

Research has shown that Asian students in the United
States underutilize mental health services, and that they seem to have different ideas and expectations toward counseling. Yet, what seems to be missing in the literature is how an individual's level of acculturation to the American culture could mediate the conflicts in values as well as psychological adjustment. The present paper is thus an effort to look at this missing piece of information.

Based on the literature, it seems clear that an individual's sense of competence as well as his/her level of acculturation would influence psychological adjustment. The purpose of the study is thus to examine: (1) how an individual's sense of competence influences psychological adjustment, and (2) the impact of an individual's level of acculturation on psychological adjustment. A number of hypotheses were proposed in the present study:

1. Since Chinese students in the U. S. are living in a culture other than their own, it is expected that these students will experience a greater degree of cultural conflict than those who are living in their own country. Moreover, it is expected that the greater the cultural conflict one is encountering, the higher the psychological distress one would experience. Accordingly, it is hypothesized that Chinese students in the U. S. will, in general, show higher scores on the HSCL than Chinese students in Taiwan.
2. It is expected that people who are less acculturated will exhibit a greater amount of psychological distress. Accordingly, it is hypothesized that, within the group of Chinese students in the U. S., the level of acculturation will correlate negatively with scores on the HSCL.

3. Since Chinese students may find it more acceptable to acknowledge physical or somatic rather than psychological symptoms, it is hypothesized that the negative correlation will be stronger between acculturation and the HSCL somatic sub-scale than between acculturation and other HSCL sub-scales.

4. Since Chinese families place a great value on scholastic competence, parent-child relationships, and morality (Stigler, Smith, & Mao, 1985; O'Reilly, Tokuno, & Ebata, 1986), it is hypothesized that the global self-worth of Chinese college students will be significantly accounted for by these factors rather than other factors, such as appearance, creativity and athletic competence.

5. Chinese students in the U. S. are exposed to the American culture more directly than Chinese students in Taiwan, they are more likely to adopt U. S. cultural characteristics. Since appearance, creativity, and athletic competence are more valued in the U. S. than in Taiwan, it is hypothesized that these factors will account for a larger proportion of the global self-worth for Chinese students in
the U. S. than for Chinese students in Taiwan.

6. Since high levels of global self-worth imply less adjustment problems, it is hypothesized that global self-worth will correlate negatively with scores on the HSCL for both groups of students.

Since male and female students are subjected to different influences of socialization, exploratory analysis of gender differences in the manifestation of psychological symptoms will be conducted.

METHOD

Subjects

A total of 145 Chinese students were included in this study. Sixty of them were Chinese students currently enrolled in 3 major universities in Southern California: California State University, San Bernardino, University of California, Riverside, and University of California, Irvine. Among this group of students, there were 39 female and 21 male students. Their age ranged from 18 to 32 with a mean age of 24 years and 3 months. A majority of this group of students (73.3%) were studying in business and related fields. The remaining students were distributed among other fields such as natural sciences (11.7%), interdisciplinary studies (5%), humanities (5%) and social sciences (5%). The majority of this group of students were international
students (78.3%) who came to the United States to further their studies, while the rest of the group were residents of the United States. This group of students had been in the United States for a mean length of 4 years and one month and had been studying English for a mean length of 11 years and 1 month. They were recruited by the author and were given the English version (original version) of the questionnaires.

The second group consisted of 85 Chinese students who were enrolled in the National Chengchi University in Taiwan. Among this group of students, there were 43 female and 42 male students. Their age ranged from 18 to 26 with a mean age of 20 years. A majority of the students were studying in the humanities (60%). The remaining students were distributed among other fields such as interdisciplinary studies (31.8%) and natural sciences (8.2%). They were recruited by the research coordinator in Taiwan and were given the Chinese translation of the questionnaires.

Materials

Three different questionnaires and a demographic data sheet were used in this study: (1) Self-Perception Profile for College Students, (2) Multicultural Acculturation Scale, and (3) Hopkins Symptom Checklist. There were two versions of the three questionnaires and the demographic data sheet: the original English version, and a Chinese translation.
The Self-perception Profile for College Students (Neumann & Harter, 1986) consists of 13 subscales with a total of 54 items. The 13 subscales measure: (a) abilities and competencies, (b) social relationships, and (3) global self-worth.

(a) Abilities and Competencies

i. Creativity - it taps the student's perception of his or her ability to be creative and inventive.

ii. Intellectual ability - it taps general intellectual competence. It differs from scholastic competence in that it assesses more global intelligence.

iii. Scholastic competence - it taps actual schoolwork and classwork, and asks the student to see if he or she feels competent about mastering the coursework.

iv. Job competence - it focuses on whether the student feels proud of the work he or she does, and feels confident that he or she can do a new job.

v. Athletic ability - it assesses whether the student feels he or she is good at physical activities and sports.

(b) Social Relationships

i. Appearance - it assesses whether the student thinks he or she is physically attractive and whether he or she likes the way he or she looks.

ii. Romantic relationships - it taps the ability to
develop new romantic relationships.

iii. Social acceptance - it taps the ability to make friends and whether one is satisfied with one's social skills.

iv. Close friendships - it taps the ability to form close friendships.

v. Parent-child relationships - it taps the ability to get along well with parents and whether one feels comfortable around them.

vi. Humor - it taps the ability to laugh at oneself and take kidding by friends.

vii. Morality - it assesses whether the student thinks his or her behavior is moral.

(c) Global Self-worth - it taps the student's general feeling about the self.

Across subscales, coefficient alpha ranged from .76 to .92 for a pilot group which was composed of 300 subjects from Colorado State University and University of Denver. This scale had been slightly modified so that respondents were asked to indicate how they viewed themselves in the college environment, and that they were asked to rate the items on a scale from 1 (really untrue for me) which represents the least competent or adequate self-judgement, to 4 (really true for me) which represents the most competent or adequate self-judgement. Each of the 13 content
domains has four items, except for the self-worth subscale which has six items. The overall score is an indicator of the degree of competence students perceive in themselves.

The Multicultural Acculturation Scale (Wong-Rieger, 1987) consists of 24 items, 12 of which measure respondents' identification with the American culture, and the remaining 12 items measure respondents' identification with their own ethnic group. Subjects were asked to circle the response which was closest to the way they acted or felt at the time they filled out the questionnaire.

This scale was originally developed for the Chinese culture, but can be adapted to different ethnic groups. Neither reliability nor validity has been established for this measure.

For this scale, each ethnic identification is scored separately. The 12 items for the "American" identification are averaged together to yield a "Majority Culture Identification Score". The 12 items for the "Ethnic" identification are averaged to yield an "Own Ethnic Identification Score". The difference between the two scores is the "Overall Acculturation Index" or OAI. The Majority Culture Score is used to subtract the Own Ethnic Score, with a positive difference indicating tendencies toward assimilation. If the score is negative, then the tendency is towards separation or maintenance. If the score
is close to zero, this would indicate a bicultural orientation or a marginal orientation. To discriminate, if both scores are high, then the person is bicultural. If both scores are low, then the person tends to be marginal.

The Chinese version of this scale had been slightly modified so that respondents were asked to rate the situations on a scale from 1 (never occurs to me) to 5 (always occurs to me).

The Hopkins Symptom Checklist (HSCL) (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974) is a self-report inventory consisting of 58 items. Five underlying symptom dimensions are assessed: (a) somatization (psychological distress expressed in physical symptoms), (b) obsessive-compulsive (recurrent thoughts and ritualistic behaviors), (c) interpersonal sensitivity (as expressed in areas such as feelings easily hurt by others, feeling easily annoyed or irritated etc.), (d) anxiety (feeling anxious and fearful), and (e) depression (feeling blue and uninterested in daily activities). For the HSCL, respondents were instructed to rate themselves on each symptom using a four-point Likert scale of 1 = "not-at-all" to 4 = "very often". Thus, an overall high score indicates that the respondent is experiencing extreme distress and a lot of adjustment problems. An overall low score indicates that the respondent is experiencing minimal distress and
adjustment problems.

Coefficient alpha (based on N=1435) was uniformly high, ranging between .84 and .87. Test-retest reliability (based on N=425) ranges between .75 and .84. Inter-rater coefficient ranges between .64 and .80. Criterion-related validity and construct validity has also been established (e.g. Balter & Levine, 1971; Prusoff & Klerman, 1973).

The demographic data sheet was used to collect demographic data including age, sex, academic major, country of origin, number of years in the United States, and number of generations the subjects' families have been in the United States. The Chinese version was used to collect similar demographic data, excluding questions about the number of years in the United States and the number of generations the subjects' families have been in the United States.

Procedures

The three questionnaires and the demographic data sheet (either the English or the Chinese version) were put in a package together with a cover letter, and an informed consent form (see appendices for the complete package of test materials). Three different means were used to recruit subjects in the United States:

(1) Volunteers from CSUSB picked up the materials from the office of the international students advisor, which is
located UH-174. They were instructed to read the informed consent form, sign it and return it to the international student advisor before they left the office. They were instructed to return the completed questionnaires to the same office within three weeks.

(2) Chinese students from CSUSB were also recruited from a gathering, organized by the Chinese Students Association. They were approached personally by the author, who explained to them the purpose of the study and the importance of their participation. Those who were willing to participate read the informed consent form, signed it, and returned it to the researcher. They were instructed to return the completed questionnaires to the office of the international students advisor within three weeks.

(3) When recruiting Chinese students from the other two universities, the chairpersons of the Chinese Students Association were contacted. These individuals agreed to distribute the packages during their weekly or bi-weekly Chinese Student Association meeting. Students from these two universities were provided with self-addressed envelopes and were instructed to return the completed questionnaire by mail within three weeks. They were asked to initial the informed consent form to protect their confidentiality.

Students in Taiwan were recruited by a research coordinator at the university who distributed and collected
the questionnaires. They were given the Chinese translation of the questionnaires.

RESULTS

Three one-way Multivariate Analyses of Variance, with five dependent measures, were conducted to assess between-group differences and within group gender differences related to the presentation of psychological symptoms. The five dependent measures were: somatization, obsessive-compulsiveness, interpersonal sensitivity, depression and anxiety. Three correlations were conducted to assess: (1) the relationship between level of acculturation and scores on the HSCL, (2) the relationship between level of global self-worth and scores on the HSCL among Chinese students in the U. S., (3) the relationship between level of global self-worth and scores on the HSCL among Chinese students in Taiwan. Two stepwise regression analyses were conducted to assess: (1) the relationship between self-perception and level of global self-worth among Chinese students in the U. S., and (2) the relationship between self-perception and level of global self-worth among Chinese students in Taiwan. The results of the study are summarized as follows:
A. Between-Group Differences on the HSCL

The results of a one-way MANOVA indicated significant between-group main effects for somatization, $F(1, 131) = 9.64$, $p < .002$; obsessive-compulsive, $F(1, 131) = 17.10$, $p < .0001$; interpersonal sensitivity, $F(1, 131) = 24.53$, $p < .0001$; depression, $F(1, 131) = 14.39$, $p < .0001$; and anxiety, $F(1, 131) = 33.01$, $p < .0001$. As can be seen in Table 1, Chinese students in Taiwan had higher mean scores on the five HSCL dimensions than Chinese students in the U. S.

Table 1

<table>
<thead>
<tr>
<th></th>
<th>Chinese students in the U. S.</th>
<th>Chinese students in Taiwan</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somatization</td>
<td>$M=18.67$ SD=5.216</td>
<td>$M=21.556$ SD=5.23</td>
<td>9.41*</td>
</tr>
<tr>
<td>Obsessive-Compulsive</td>
<td>$M=14.92$ SD=4.009</td>
<td>$M=17.926$ SD=4.135</td>
<td>17.10**</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>$M=12.42$ SD=3.26</td>
<td>$M=15.457$ SD=3.56</td>
<td>24.53**</td>
</tr>
<tr>
<td>Depression</td>
<td>$M=17.308$ SD=5.24</td>
<td>$M=20.74$ SD=4.99</td>
<td>14.39**</td>
</tr>
<tr>
<td>Anxiety</td>
<td>$M=11.365$ SD=3.396</td>
<td>$M=15.00$ SD=3.66</td>
<td>33.01**</td>
</tr>
</tbody>
</table>

* $p < .01$
** $p < .0001$
B. Within-Group Gender Differences on the HSCL
i. Chinese Students in Taiwan

A one-way MANOVA was conducted to assess gender differences in the manifestation of psychological symptoms among Chinese students in Taiwan. The results indicated that, in general, female students scored higher on all of the five HSCL dimensions than male students. However, only the dimensions of somatization, and anxiety are significant ($F(1, 79) = 7.30, p < .008$, and anxiety, $F(1, 79) = 5.036, p < .05$). These results are illustrated in Table 2.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somatization</td>
<td>M=19.947</td>
<td>M=22.977</td>
</tr>
<tr>
<td></td>
<td>SD=5.37</td>
<td>SD=4.718</td>
</tr>
</tbody>
</table>
| Obsessive-
  Compulsive   | M=16.97    | M=18.767   |
|                | SD=4.716   | SD=3.379   |
| Interper-
  personal    | M=14.71    | M=16.116   |
|                | SD=3.57    | SD=3.459   |
| Depression     | M=20.42    | M=21.02    |
|                | SD=5.688   | SD=4.34    |
| Anxiety        | M=14.05    | M=15.837   |
|                | SD=3.806   | SD=3.35    |
ii. Chinese Students in the U. S.

A one-way MANOVA was conducted to assess gender differences among Chinese students in the U. S. in the manifestations of psychological symptoms. The MANOVA failed to yield any significant between-gender differences among male and female students. As can be seen in Table 3, male and female students in the U. S. demonstrated similar levels of psychological symptomatology.

Table 3

<table>
<thead>
<tr>
<th>Manifestations of Psychological Symptoms Among Male and Female Students in the U. S.</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somatization</td>
<td>M=18.10</td>
<td>M=19.03</td>
</tr>
<tr>
<td></td>
<td>SD=5.82</td>
<td>SD=4.86</td>
</tr>
<tr>
<td>Obsessive-Compulsive</td>
<td>M=14.60</td>
<td>M=15.125</td>
</tr>
<tr>
<td></td>
<td>SD=3.20</td>
<td>SD=4.478</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>M=12.10</td>
<td>M=12.625</td>
</tr>
<tr>
<td></td>
<td>SD=2.918</td>
<td>SD=3.49</td>
</tr>
<tr>
<td>Depression</td>
<td>M=16.55</td>
<td>M=17.78</td>
</tr>
<tr>
<td></td>
<td>SD=4.968</td>
<td>SD=5.428</td>
</tr>
<tr>
<td>Anxiety</td>
<td>M=10.70</td>
<td>M=11.78</td>
</tr>
<tr>
<td></td>
<td>SD=2.638</td>
<td>SD=3.77</td>
</tr>
</tbody>
</table>

C. Level of Acculturation and HSCL Scores

A correlation was conducted to assess the relationship between level of acculturation and scores on the five HSCL dimensions. As can be seen in Table 4, the association between level of acculturation and scores on the five HSCL
dimensions were in the expected (negative) direction but were not statistically significant at the .05 level.

Table 4

Level of Acculturation and HSCL Scores Among Chinese Students in the U. S.

<table>
<thead>
<tr>
<th>Level of Acculturation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Somatization</td>
<td>-.175</td>
</tr>
<tr>
<td>Obsessive-Compulsive</td>
<td>-.232</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>-.177</td>
</tr>
<tr>
<td>Depression</td>
<td>-.012</td>
</tr>
<tr>
<td>Anxiety</td>
<td>-.168</td>
</tr>
</tbody>
</table>

D. Global Self-Worth

i. Chinese Students in the U. S.

A stepwise regression was conducted to assess the relationship between the self-perception sub-scales and the measure of global self-worth for Chinese students in the U. S. For this group of students, global self-worth was significantly accounted for by scholastic competence, appearance and morality (p < .00001). Scholastic competence accounted for approximately 38% of the variance in global self-worth while appearance accounted for an additional 13%
and morality accounted for an additional 7% of the variance in global self-worth. These results are summarized in Table 5.

Table 5
Variables Accounting for Global Self-Worth of Chinese Students in the U. S.

<table>
<thead>
<tr>
<th>Step Variables</th>
<th>Overall R</th>
<th>²R</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Step 1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scholastic Competence</td>
<td>.616</td>
<td>.379</td>
<td>33.63*</td>
</tr>
<tr>
<td>(Step 2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>.715</td>
<td>.512</td>
<td>28.18*</td>
</tr>
<tr>
<td>(Step 3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morality</td>
<td>.761</td>
<td>.579</td>
<td>24.348*</td>
</tr>
</tbody>
</table>

*p < .00001

A correlation between global self-worth and self-perception among Chinese students in the U. S. was also conducted. The results indicated that global self-worth was most positively correlated with scholastic ability (r = .616, p < .0001), appearance (r = .606, p < .0001), intellectual ability (r = .597, p < .0001), athletic ability (r = .561, p < .0001), morality (r = .505, p < .0001), parent-child relationship (r = .302, p < .01) and creativity (r = .302, p < .01). These results are summarized in Table 34.
6.

Table 6

Correlation Between Global Self-Worth and Self-Perception Among Chinese Students in the U. S.

<table>
<thead>
<tr>
<th></th>
<th>Global self-worth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scholastic Competence</td>
<td>.616**</td>
</tr>
<tr>
<td>Parent-Child Relationship</td>
<td>.302*</td>
</tr>
<tr>
<td>Intellectual Ability</td>
<td>.597**</td>
</tr>
<tr>
<td>Morality</td>
<td>.505**</td>
</tr>
<tr>
<td>Creativity</td>
<td>.302*</td>
</tr>
<tr>
<td>Appearance</td>
<td>.606**</td>
</tr>
<tr>
<td>Athletic Competence</td>
<td>.561**</td>
</tr>
</tbody>
</table>

*p < .01

**p < .0001

ii. Chinese students in Taiwan

A stepwise regression was conducted to assess the relationship between the self-perception sub-scales and the measure of global self-worth for Chinese students in Taiwan. For this group of students, global self-worth was significantly accounted for by appearance, intellectual ability, athletic ability and parent relationships (p <
Appearance accounted for approximately 40% of the variance in global self-worth, while intellectual ability accounted for an additional 15%, athletic ability accounted for an additional 5%, and parent-child relationships accounted for an additional 3% of the variance in global self-worth. These results are summarized in Table 7.

Table 7
Variables Accounting for Global Self-Worth of Chinese Students in Taiwan

<table>
<thead>
<tr>
<th>Step Variables</th>
<th>Overall R</th>
<th>R^2</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Step 1) Appearance</td>
<td>.634</td>
<td>.402</td>
<td>53.827*</td>
</tr>
<tr>
<td>(Step 2) Intellectual Ability</td>
<td>.744</td>
<td>.55</td>
<td>48.98*</td>
</tr>
<tr>
<td>(Step 3) Athletic Ability</td>
<td>.773</td>
<td>.598</td>
<td>38.606*</td>
</tr>
<tr>
<td>(Step 4) Parent-Child Relationship</td>
<td>.793</td>
<td>.629</td>
<td>32.71*</td>
</tr>
</tbody>
</table>

*p < .00001

A correlation between global self-worth and self-perception among Chinese students in Taiwan was also conducted. The results indicated that global self-worth was
most positively correlated with appearance \((r = .634, p < .0001)\), followed by athletic ability \((r = .544, p < .0001)\), intellectual ability \((r = .526, p < .0001)\), parent-child relationships \((r = .476, p < .0001)\), scholastic ability \((r = .456, p < .0001)\), creativity \((r = .411, p < .0001)\) and morality \((r = .241, p < .05)\). These results are summarized in Table 8.

Table 8

**Correlation Between Global Self-Worth and Self-Perception Among Chinese Students in Taiwan**

<table>
<thead>
<tr>
<th>Global Self-Worth</th>
<th>Scholastic Competence</th>
<th>Parent-Child Relationship</th>
<th>Intellectual Ability</th>
<th>Morality</th>
<th>Creativity</th>
<th>Appearance</th>
<th>Athletic Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.456**</td>
<td>.476**</td>
<td>.526**</td>
<td>.241*</td>
<td>.411**</td>
<td>.634**</td>
<td>.544**</td>
</tr>
</tbody>
</table>

*\(p < .05\)

**\(p < .0001\)
E. Global Self-Worth and HSCL Scores
i. Chinese Students in the U. S.

A correlation was conducted to assess the relationship between global self-worth and each of the five HSCL dimensions among Chinese students in the U. S. The findings indicated that global self-worth was significantly negatively correlated with interpersonal sensitivity ($r = -.38, p < .01$). No significant relationship was found between global self-worth and the remaining 4 dimensions. These results are summarized in Table 9.

<table>
<thead>
<tr>
<th></th>
<th>Chinese Students in the U. S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somatization</td>
<td>.0073</td>
</tr>
<tr>
<td>Obsessive-Compulsive</td>
<td>-.185</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>-.384*</td>
</tr>
<tr>
<td>Depression</td>
<td>-.185</td>
</tr>
<tr>
<td>Anxiety</td>
<td>-.26</td>
</tr>
</tbody>
</table>

*p < .01
ii. Chinese students in Taiwan

A correlation was conducted to assess the relationship between level of global self-worth and scores on the five HSCL dimensions among Chinese students in Taiwan. Global self-worth was found to correlate significantly with obsessive-compulsiveness ($r = -0.289, p < .01$), interpersonal sensitivity ($r = -0.26, p < .01$), and depression ($r = -0.345, p < .001$). No significant relationship was found between global self-worth and the remaining 2 dimensions. These results are summarized in Table 10.

Table 10

Correlation Between Global Self-Worth and HSCL Scores Among Chinese Students in Taiwan

<table>
<thead>
<tr>
<th>Chinese Students in Taiwan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somatization</td>
</tr>
<tr>
<td>Obsessive-Compulsive</td>
</tr>
<tr>
<td>Interpersonal</td>
</tr>
<tr>
<td>Depression</td>
</tr>
<tr>
<td>Anxiety</td>
</tr>
</tbody>
</table>

*p < .01  
**p < .001
DISCUSSION

The purpose of the present study was to examine: (1) how an individual's sense of competence influences psychological adjustment, and (2) the impact of an individual's level of acculturation on psychological adjustment among Chinese college students.

Contrary to the expectation that Chinese students in the U.S. would experience a greater degree of psychological distress than Chinese students in Taiwan, the results indicated that Chinese students in Taiwan exhibited higher levels of psychological distress. One possible explanation for this difference has to do with the education system in Taiwan, which is based on the philosophy of "elite education" (Lam, 1986, p.131). Because of rigorous screening examinations, spaces are scarce at the senior high level and in post-secondary education. Once they are in college, college students have to contend with high demands and expectations, many from themselves, their families, and from the society about their college achievement. These students may thus be facing greater levels of distress compared to Chinese students in the U.S. This view is consistent with the findings reported by Stigler and his coauthors (1985) who noted that Chinese children value and emphasize academic success and are highly motivated to reach higher levels of achievement. Since Chinese students in Taiwan were more
directly exposed to parental and societal expectations than their peers in the U. S., the pressure they experience might be more salient. This may explain why they tended to exhibit higher levels of psychological distress than Chinese students in the U. S.

In addition, the priority of most students in Taiwan and their families before they enter college would be to get into a good university or college. Once they are in college, students may be exposed to an environment which requires them to define their values and interests. Since they may not have time to do so before they enter college, this new challenge may create psychological distress as they are faced with defining who they are. Although the group of Chinese students in the U. S. had to go through the same transition, these students were generally older and may have dealt with these issues. Further research is clearly needed to further address and elucidate these apparent differences.

As mentioned in the result section, the relationship between Chinese students' level of acculturation and their presentation of psychological symptoms was negative. In other words, Chinese students who were less acculturated tended to experience more psychological distress than those who were more acculturated. This is consistent with Berry and his coauthors' (1987) notion that the level of stress experienced by a person is related to his/her level of
acculturation. Chinese students in the U. S. were exposed to the American culture on a daily basis and might have accommodated some of the American values and customs into their own cultural system, thus minimizing cultural conflicts.

Further exploration of the data indicated that obsessive-compulsiveness was most highly associated with global self-worth, followed by interpersonal sensitivity and somatization. Since the majority of this group of Chinese students in the U. S. were international students, they not only had to face the academic challenges, but also had to master the English language. It is thus not surprising that they endorsed obsessive-compulsive characteristics which might be indicative of their attempts to master the challenges and provide some sense of reassurance. Interpersonal sensitivity was also associated with global self-worth. This makes sense given the group nature of the Chinese culture. Since no cause and effect relationships could be indicated due to the nature of the study, the data have to be interpreted with caution.

The data of the present study partially supported the hypothesis that the global self-worth of Chinese students will be significantly accounted for by scholastic competence, intellectual ability, parent-child relationships and morality, and that appearance, creativity and athletic
competence will account for little or none of the variance in global self-worth.

When evaluating the Chinese students in the U. S., their sense of global self-worth was significantly accounted for by scholastic competence, appearance and morality. For this group of students, coming to the United States to further their studies was a major investment in terms of time, money and energy. Academic performance is the immediate outcome of this investment. Therefore, it makes sense that scholastic competence would play a major role in the way in which they define themselves.

Contrary to expectations, the results indicated that appearance contributed significantly to these students' sense of global self-worth. As noted earlier, these students had been in the U. S. for an average of four years and two months, it is possible that they have adopted some of the American values such as an emphasis on appearance while maintaining some of the Chinese values such as morality. Indeed, they may be in the process of integrating values of both cultures.

In evaluating the data for Chinese students in Taiwan, the results indicated that their sense of global self-worth was significantly accounted for by appearance, intellectual ability, athletic ability and parent-child relationships. The strong association between appearance and sense of
global self-worth was not expected, but is in fact not surprising when one takes into account the developmental stage of this group of students. The mean age of this group of students was 20 years (young adulthood), which would correspond with a developmental stage at which intimacy and developing close relationships would likely be of major concern (Lefrancois, 1990).

It is also possible that previous literature may have downplayed the role appearance plays in explaining global self-worth in Chinese students. While Chinese students in general have been stereotyped as overly academically-oriented, the importance of appearance and attire may indeed be significant for them too. The "westernization" of Taiwan, including the importation of American television, may also have played a role.

Intellectual ability was also significant in explaining sense of global self-worth in this group of students. This result was expected because intelligence was an essential element in succeeding in college and is different from scholastic competence in that it taps more general intelligence. This finding could be explained by the fact that this group of students were at a developmental stage at which people are more self-focused. Therefore, their focus on themselves (ability) rather than on external evidence such as academic performance may be developmentally
appropriate.

The group of students in Taiwan was younger than the group of students in the U. S. and had just finished the entrance examination prior to starting college. Academic performance at this point might not be as important as it used to be.

Athletic competence and parent-child relationships also played a significant role in explaining how Chinese students in Taiwan viewed themselves. Athletic performances brings immediate rewards such as trophies which could be very gratifying for this group of young students. It could also be a means of tension reduction from the pressures of college work. Parent-child relationship may have been viewed as important since most of them were still living at home and relationships with parents is highly valued within Chinese culture. This finding is consistent with Bond and Cheung (1983) who reported that Chinese students put more emphasis on familism and have a tendency to identify with their families.

As expected, the results indicated that for both groups of students, there was a significant negative relationship between global self-worth and certain HSCL dimensions (interpersonal sensitivity for Chinese students in the U. S.; obsessiveness-compulsiveness, interpersonal sensitivity, and depression for Chinese students in
Taiwan), but not on other dimensions. Bandura's (1989) concept of self-efficacy can be used to explain this finding. He believes that individuals' sense of efficacy is an important determinant of whether they would put their skills into good use. Therefore, the better the Chinese students feel about themselves (higher level of global self-worth), the more likely they are going to put their skills into solving problems and are less likely to experience psychological distress.

Exploration of gender differences indicated that female students in Taiwan differed from their male counterparts in terms of manifestation of psychological symptoms. However, such differences were not found among Chinese students in the U. S. In general, female students in Taiwan exhibited greater levels of psychological distress than male students. The difference was significant for the dimensions of somatization, obsessive-compulsiveness, and anxiety. These differences may be reflective of the different socialization experiences of the males and females in this group.

Similar to most cultures, Chinese males are expected to be assertive, independent, dominant and competitive, while Chinese females are expected to be more passive, loving, sensitive, and supportive in their social life (Hetherington & Parke, 1975). According to Fong and Peskin (1969), higher education in the Chinese culture has
traditionally been dominated by male students. Though this phenomenon had changed since the turn of the century, female students may still be receiving subtle messages regarding their roles in the society. In addition to the stress received from school demands, they may also have to deal with the stress derived from role conflict. Indeed, this group of female students may still be experiencing fear of success as having been documented in other studies (Wang & Creedon, 1989). Meanwhile, female students in the U. S. may be more "liberated" by the less rigorous sex-roles in the American culture. This may explain why they exhibited similar levels of psychological distress as their male peers.

Limitations of the Study

One of the major drawbacks of the present study was the sample size. The return rate of the survey for the group in the U. S. was approximately 30%. This may be due to the length of the survey, language used in the questionnaires or the reluctance of most Chinese students to reveal information about themselves. Furthermore, the sample in this study may be a biased one since those 30% of the students who returned the questionnaires may be more psychologically minded, or may have a higher level of English proficiency. The results may not be representative of the students in the U. S. and thus limit the
Another major drawback had to do with the language used in the two versions of the survey. Chinese students in the U.S. were asked to fill out the English version (the original version) of the questionnaires. Since a majority of them were international students whose native language was not English, their comprehension might not have been as good as if the questionnaires were in Chinese. In contrast, Chinese students in Taiwan were given a translated version of the questionnaires. Since no back translation between these two versions of questionnaires was conducted, some of the original meanings of the questionnaire items may have been lost.

In addition, the two groups of students could be fundamentally different in that those who came to the United States to study may be more independent, more willing to take risks and more androgynous than those who chose to stay home. The fundamental differences between the two group of students may influence the results.

**Implications for Future Research**

Based on the findings of the present study, it seems that level of acculturation may moderate the level of psychological distress experienced by those in the process of acculturating. The literature has consistently shown that Chinese students underutilize mental health services
(Sue & Kirk, 1972; 1973; Sue & Sue, 1974). However, nobody has looked at the importance of "preventive" measures/services, such as programs orienting foreign students to the American culture, or orienting American students, staff, and faculty to the special needs of this group of students. By the time these students realize that they need help, they may have already experienced high levels of frustration within the school system or the society at large. Professional help at this point may not be feasible. The results of this study suggest that Chinese (foreign) students are likely to derive the most assistance from programs such as study-skills groups which enhance their sense of academic competence.

Despite the common perception that Chinese students are "model" students who excel in academic performance, the findings of the present study also suggest that they too have emotional needs, such as the need to feel attractive and be accepted by others. Recognition of such needs and normalizing them could help to alleviate the pressure they feel from self, peers, families or teachers to perform. Their developmental needs should also be taken into account when designing intervention programs and services. School counseling centers would probably be most useful if they provided such services as social groups to enhance interpersonal skills, or English conversation groups. Future
studies are needed to further elucidate the role of culture and developmental factors in psychological adjustments among students, especially those faced with conflicting values.
APPENDICES

QUESTIONNAIRE 1:

SELF-PERCEPTION PROFILE FOR COLLEGE STUDENTS

The following are statements which allow college students to describe themselves. There are no right or wrong answers since students differ markedly. Please read the following sentences carefully and circle the number on the scale which best indicates how you view yourself. Think about what you are like in the college environment as you read.

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<td>Really</td>
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<td></td>
<td>Untrue</td>
<td>Of True</td>
<td>Of True</td>
<td>True For</td>
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<td></td>
<td>For Me</td>
<td>For Me</td>
<td>For Me</td>
<td>Me</td>
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</tbody>
</table>

1. ____ I like the kind of person I am
2. ____ I am very proud of the work I do on my job
3. ____ I feel confident that I am mastering my coursework
4. ____ I am satisfied with my social skills
5. ____ I am happy with the way I look
6. ____ I like the way I act when I am around my parents
7. ____ I don't usually get too lonely because I have a close friend to share things with
8. ____ I feel like I am just as smart or smarter than other students
9. ____ I feel my behavior is usually moral
10. ____ I feel that people I like romantically will be attracted to me
11. ____ When I do something sort of stupid that later appears very funny, I can easily laugh at myself
12. ____ I feel I am just as creative or even more so than other students
13. ____ I feel I could do well at just about any new athletic activity I haven't tried before
14. ____ I am usually quite pleased with myself
15. ____ I feel I am very good at my job
16. ____ I do well at my studies
17. ____ I am able to make new friends easily
18. ____ I am happy with my height and weight
19. ____ I find it easy to act naturally around my parents
20. ____ I am able to make close friends I can really trust
21. ____ I feel that I am very mentally able
22. ___ I usually do what is morally right
23. ___ I don't have difficulty establishing romantic relationships
24. ___ I don't mind being kidded by my friends
25. ___ I feel I am very creative and inventive
26. ___ I do feel I am athletic
27. ___ I usually like myself as a person
28. ___ I feel confident about my ability to do a new job
29. ___ I rarely have trouble with my homework assignments
30. ___ I like the way I interact with other people
31. ___ I like my body the way it is
32. ___ I feel comfortable being myself around my parents
33. ___ I do have a friend who is close enough for me to share thoughts that are really personal
34. ___ I feel I am just as bright or brighter than most people
35. ___ I think I am quite moral
36. ___ I have the ability to develop romantic relationships
37. ___ I find it easy to laugh at the ridiculous or silly things I do
38. ___ I feel that I am very inventive
39. ___ I feel I am better than others at sports
40. ___ I like the way I am leading my life
41. ___ I am quite satisfied with the way I do my job
42. ___ I usually feel intellectually competent at my studies
43. ___ I feel that I am socially accepted by many people
44. ___ I like my physical appearance the way it is
45. ___ I get along with my parents quite well
46. ___ I am able to make really close friends
47. ___ I am very happy being the way I am
48. ___ I feel I am intelligent
49. ___ I live up to my own moral standards
50. ___ I feel that when I am romantically interested in someone, that person will like me back
51. ___ I can really laugh at certain things I do
52. ___ I feel I have a lot of original ideas
53. ___ I am good at activities requiring physical skill
54. ___ I am usually satisfied with myself
QUESTIONNAIRE 2:
MULTICULTURAL ACCULTURATION SCALE

Instructions: Please circle the one response (a, b, c, d, or e) which is closest to the way you act or feel right now. Remember, there are no right or wrong answers. We are interested in your personal feelings and opinions. Please do not skip any of the questions. If you are unsure of an answer, please circle your best guess.

1. Which best describes your current use of English?
   a. Do not use English at all.
   b. Use English only when need to, to greet neighbors, buy groceries.
   c. Use English with people who speak both Chinese and English.
   d. Use English most of the time, except with elders, children, or those who speak only Chinese.
   e. Use English almost all the time, even at home with family and friends who speak Chinese.

2. Which best describes your current use of Chinese?
   a. Do not use Chinese at all.
   b. Use Chinese only when need to, to greet acquaintances, shop in Chinese stores.
   c. Use Chinese with people who speak both Chinese and English.
   d. Use Chinese except at work or with those who speak only English.
   e. Use Chinese almost all the time, at home, at work, and with friends.

3. How much are your everyday activities similar to what most Anglo-Americans do?

A. Do you usually cook and eat Anglo-American foods in your home?
   a. Not at all; do not eat Anglo-American foods.
   b. Once a month; only on special occasions.
   c. Eat Anglo-American foods about half the time; for breakfast and lunch but not usually for dinner.
   d. Usually eat Anglo-American foods except for special occasions or entertaining.
   e. Eat Anglo-American foods for almost every meal and for most special occasions.
B. Do you follow Anglo-American rules of behavior and discipline for your children?
   a. Do not use Anglo-American ways of raising children. Children have many rules and duties and are closely supervised.
   b. Children have more rules and less freedom than most Anglo-American children.
   c. Children are allowed some independence but are taught more respect than Americans.
   d. Children have most of the same privileges and responsibility as their American friends.
   e. Children have all the same privileges and rules as their American friends.

C. Do not take part in Anglo-American recreational and social activities?
   a. Do not take part in Anglo-American sports, social events, or holidays.
   b. Take part in a few activities like American holidays or special events.
   c. Take part in some Anglo-American activities on a regular basis.
   d. Take part in many forms of Anglo-American entertainment and recreation.
   e. Take part in all forms of Anglo-American activities at home and in the community.

4. How much are your everyday activities similar to what most Chinese do?

A. Do you usually cook and eat Chinese foods in your home?
   a. Not at all; do not eat Chinese foods.
   b. Once a month; only on special occasions.
   c. Eat Chinese foods about half the time, usually for dinner or have the time to prepare.
   d. Usually eat Chinese foods except for American holidays or special occasions.
   e. Eat Chinese foods for almost every meal and even holidays most special occasions.

B. Do you follow Chinese rules of behavior and discipline for your children?
   a. Do not use Chinese ways of raising children. Children are encouraged to be independent.
   b. Do not follow most of the Chinese rules since they are very difficult to enforce.
   c. Children follow some traditional rules but not others; choose only those which work.
d. Children are taught traditional rules and effort is made to enforce these.

e. Children are raised with traditional rules and are taught to obey and respect their elders.

C. Do you take part in Chinese recreational and social activities?
   a. Do not take part in Chinese events, celebrations, or games.
   b. Take part in a few activities, like Chinese holidays or special events.
   c. Take part in some Chinese activities on a regular basis, like shows, martial arts, parties.
   d. Take part in many forms of Chinese entertainment and recreation.
   e. Take part in all types of Chinese entertainment and recreation at home and in the community.

5. What is your present job or occupation?

A. How many of the workers in the same type of jobs are Anglo-Americans?
   a. None are Anglo-Americans.
   b. A few are Anglo-Americans.
   c. Half are Anglo-Americans.
   d. Most are Anglo-Americans.
   e. Almost all are Anglo-Americans.

B. How many of the bosses or supervisors in your workplace are Anglo-Americans?
   a. None are Anglo-Americans.
   b. A few are Anglo-Americans.
   c. Half are Anglo-Americans.
   d. Most are Anglo-Americans.
   e. Almost all are Anglo-Americans.

6. In terms of your present job or occupation...

A. How many of the workers in the same type of jobs are of Chinese origin?
   a. None are of Chinese origin.
   b. A few are of Chinese origin.
   c. Half are of Chinese origin.
   d. Most are of Chinese origin.
   e. Almost all are of Chinese origin.

B. How many of the bosses or supervisors in your workplace are of Chinese origin?
   a. None are of Chinese origin.
b. A few are of Chinese origin.
c. Half are of Chinese origin.
d. Most are of Chinese origin.
e. Almost all are of Chinese origin.

7. How well do you know the history of the United States?
   a. Not at all; have never studied.
   b. A little; have never studied formally but am aware of a few historical events.
   c. Somewhat; know names of past presidents and major historical events.
   d. Well; have studied history in classes.
   e. Very well; have read and studied a lot.

8. How familiar are you with the history of your country of origin?
   a. Not at all; have never studied.
   b. A little; have never studied formally but am aware of a few historical events.
   c. Somewhat; know names of past leaders and major historical events.
   d. Well; have studied history in classes.
   e. Very well; have read and studied a lot.

9. How many of the families in the neighborhood where you live are Anglo-Americans?
   a. None
   b. A few
   c. Half
   d. Most
   e. Almost all

10. How many of the families in the neighborhood where you live are also of Chinese origin?
   a. None
   b. A few
   c. Half
   d. Most
   e. Almost all

11. Which of the following best describes your friendships with Anglo-Americans?
   a. Have no close friends who are Anglo-Americans.
   b. Have a few Anglo-American friends whom I see a few times a year.
   c. Have several close Anglo-American friends.
   d. Have many close Anglo-American friends whom I see regularly for special events.
e. Almost all of my friends are Anglo-Americans.

12. How many of your closest friends whom you see on a regular basis are also of Chinese origin?
   a. Have no close friends who are of Chinese origin.
   b. Have a few Chinese friends whom I see a few times a year.
   c. Have several close Chinese friends.
   d. Have many close Chinese friends whom I see regularly for social events.
   e. Almost all of my friends are of Chinese origin.

13. Think of your home when you were growing up as a child. How much did your parents do each of the following?

A. Did you usually cook and eat Anglo-American foods in your home?
   a. Not at all; did not eat Anglo-American foods.
   b. Once a month; only on special occasions.
   c. Ate Anglo-American foods about half the time; for breakfast and lunch but not usually for dinner.
   d. Usually ate Anglo-American foods except for special occasions or entertaining.
   e. Ate Anglo-American foods for almost every meal and for most special occasions.

B. Did your parents follow Anglo-American rules of behavior and discipline?
   a. Did not use Anglo-American ways of raising children. As a child, I had many rules and duties and was closely supervised.
   b. As a child, I had more rules and less freedom than most Anglo-American children.
   c. As a child, I was allowed some independence but was taught more respect than Americans.
   d. As a child I had most of the same privileges and responsibility as American children.
   e. As a child, I had all the same privileges and rules as American children.

C. As a child, did your family take part in Anglo-American recreational and social activities?
   a. Our family did not take part in Anglo-American sports, social events, or holidays.
   b. Our family took part in a few activities like American holidays or special events.
   c. Our family took part in some Anglo-American activities on a regular basis.
d. Our family took part in many forms of Anglo-American entertainment and recreation.

e. Our family took part in all forms of Anglo-American activities at home and in the community.

14. Think of your home when you were growing up as a child. How much did your parents do each of the following?

A. Did you usually cook and eat Chinese foods in your home?
   a. Not at all; did not eat Chinese foods.
   b. Once a month; only on special occasions.
   c. Ate Chinese foods about half the time, usually for dinner or have the time to prepare.
   d. Usually ate Chinese foods except for non-Chinese holidays or special occasions.
   e. Ate Chinese foods for almost every meal and even holidays most special occasions.

B. Did your parents follow Chinese rules of behavior and discipline?
   a. Did not use Chinese ways of raising children. As a child, I was encouraged to be independent and outspoken.
   b. Did not follow most of the Chinese rules since they were very difficult to enforce.
   c. As a child, I followed some traditional rules but not others; parents used only those which work.
   d. As a child, I was taught traditional rules and effort was made to enforce these.
   e. As a child, I was raised with traditional rules and was taught to obey and respect their elders.

C. As a child, did your family take part in Chinese recreational and social activities?
   a. Our family did not take part in Chinese events, celebrations, or games.
   b. Our family took part in a few activities, like Chinese holidays or special events.
   c. Our family took part in some Chinese activities on a regular basis, like shows, martial arts, parties.
   d. Our family took part in many forms of Chinese entertainment and recreation.
   e. Our family took part in all types of Chinese entertainment and recreation at home and in the community.
15.
A. How much do you listen to Anglo-American style music?
   a. Not at all.
   b. A little, only with American friends.
   c. Sometimes but do not buy American records or tapes.
   d. Frequently listen to American music.
   e. Listen to and buy American music most of the time.

B. How much do you watch Anglo-American shows (T.V., videos, movies)?
   a. Not at all.
   b. A little, only with American friends.
   c. Sometimes on T.V. but usually do not go to American movies or rent videos.
   d. Frequently watch American movies and videos.
   e. Watch American movies and videos most of the time.

C. How much do you take part in Anglo-American cultural activities, such as local concerts, fireworks, parades, museum shows, art galleries, and local sports events?
   a. Not at all.
   b. Once or twice a year, usually when invited by American friends.
   c. Occasionally, with both American and Chinese friends.
   d. Regularly; make an effort to be informed about American cultural events.
   e. Often; will go alone or will invite friends or help organize events.

16.
A. How much do you listen to Chinese style music?
   a. Not at all.
   b. A little; only with Chinese friends.
   c. Sometimes but do not buy Chinese records or tapes.
   d. Frequently listen to Chinese music.
   e. Listen to and purchase Chinese music most of the time.

B. How much do you watch Chinese shows (T.V., videos, movies)?
   a. Not at all.
   b. A little, only with Chinese friends.
   c. Sometimes on T.V. but usually do not go to Chinese movies or rent videos.
   d. Frequently watch Chinese movies and videos.
   e. Watch Chinese movies and videos most of the time.
C. How much do you take part in Chinese cultural activities, such as New Year's and other holiday celebrations, banquets, film showings, association meetings, and informal dinners?
   a. Not at all.
   b. Once or twice a year, usually when invited by relatives and friends.
   c. Occasionally, with both American and Chinese friends.
   d. Regularly; make an effort to be informed about Chinese cultural events.
   e. Often; will go alone or will invite friends or help organize events.

17. In terms of your own knowledge about the customs and rules, how much difficulty do you feel you (would) have in living in a community in which all the other people were Anglo-Americans?
   a. No difficulty.
   b. A little difficulty.
   c. Some difficulty.
   d. Much difficulty.
   e. Very much difficulty.

18. In terms of your own knowledge about the customs and rules, how much difficulty do you feel you (would) have in living in a community in which all the other members were of Chinese origin?
   a. No difficulty.
   b. A little difficulty.
   c. Some difficulty.
   d. Much difficulty.
   e. Very much difficulty.

19. In terms of where you are living right now, how much do you feel like you are living in an Anglo-American neighborhood?
   a. Not at all.
   b. A little.
   c. Somewhat.
   d. Much.
   e. Very much.

20. In terms of where you are living right now, how much do you feel like you are living in a Chinese neighborhood?
   a. Not at all.
   b. A little.
   c. Somewhat.
   d. Much.
e. Very much.

21. What is your current religion?

A. How much do you take part in activities sponsored by a religious organization which is mostly Anglo-American?
   a. Not at all.
   b. Once or twice a year, usually with American friends for special events.
   c. Occasionally, with both Americans and other Chinese.
   d. Regularly, more than twice a month with friends or family.
   e. Often; will go alone or will invite friends or help organize events.

B. How similar are your personal religious beliefs to those of most Anglo-Americans?
   a. Religious beliefs are very different from those of most Anglo-Americans.
   b. Religious beliefs are somewhat different.
   c. Some religious beliefs are similar but some are also very different.
   d. Religious beliefs are somewhat similar.
   e. Religious beliefs are very similar to those of most Anglo-Americans.

22.

A. How much do you take part in activities sponsored by a religious organization which is mostly Chinese?
   a. Not at all.
   b. Once or twice a year, usually with Chinese friends for special events.
   c. Occasionally, with both Americans and other Chinese.
   d. Regularly, more than twice a month with friends or family.
   e. Often; will go alone or will invite friends or help organize events.

B. How similar are your personal religious beliefs to those of most traditional Chinese?
   a. Religious beliefs are very different from those of most traditional Chinese.
   b. Religious beliefs are somewhat different.
   c. Some religious beliefs are similar but some are also very different.
   d. Religious beliefs are somewhat similar.
e. Religious beliefs are very similar to those of most traditional Chinese.

23. If asked, what would you call yourself ethnically?

When you think of your ethnic identity, how much of the time do you identify yourself as an "American"?

a. Not at all.
b. A little.
c. Somewhat.
d. Much.
e. Very much.

24. What "label" would you give to a person of your ethnic background who is living in American?

How much of the time do you identify yourself using that label?

a. Not at all.
b. A little.
c. Somewhat.
d. Much.
e. Very much.
QUESTIONNAIRE 3:

HOPKINS SYMPTOM CHECKLIST (HSCL)

Here is a list of things people report experiencing. Please circle how often you have experienced each of the following in the past year.

HOW OFTEN DID YOU:

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<td></td>
<td>NOT AT ALL</td>
<td>OCCASIONALLY</td>
<td>FREQUENTLY</td>
<td>VERY OFTEN</td>
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<tr>
<td>1</td>
<td>Have headaches</td>
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<tr>
<td>2</td>
<td>Feel nervous or shaky inside</td>
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<td>3</td>
<td>Feel unable to get rid of bad thoughts or ideas</td>
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<td>4</td>
<td>Suffer from fainting or dizziness</td>
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<td>5</td>
<td>Feel critical of others</td>
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<td>6</td>
<td>Have bad dreams</td>
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<td>7</td>
<td>Experience difficulty speaking when you are excited</td>
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<td>8</td>
<td>Have trouble remembering things</td>
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<td>9</td>
<td>Worry about sloppiness or carelessness</td>
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<td>10</td>
<td>Feel easily annoyed or irritable</td>
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<td>11</td>
<td>Suffer from pains in the heart or chest</td>
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<td>12</td>
<td>Suffer from itching</td>
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<td>13</td>
<td>Feel slowed down or low in energy</td>
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<td>14</td>
<td>Have thoughts of ending your life</td>
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<td>15</td>
<td>Sweat</td>
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<td>16</td>
<td>Tremble</td>
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<tr>
<td>17</td>
<td>Feel confused</td>
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<td>18</td>
<td>Have poor appetite</td>
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<td>19</td>
<td>Cry easily</td>
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<td>20</td>
<td>Feel shy or uneasy with the opposite sex</td>
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<td>21</td>
<td>Have feelings of being trapped or caught</td>
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<td>22</td>
<td>Feel suddenly scared for no reason</td>
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<td>23</td>
<td>Have temper outbursts you could not control</td>
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<td>24</td>
<td>Suffer from constipation</td>
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<td>25</td>
<td>Blame yourself for things</td>
<td></td>
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<td>26</td>
<td>Feel blocked or stymied in getting things done</td>
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<td>27</td>
<td>Feel lonely</td>
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<td>28</td>
<td>Feel blue</td>
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<td>29</td>
<td>Worry or stew about things</td>
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<td>30</td>
<td>Have no interest in things</td>
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<tr>
<td>31</td>
<td>Feel fearful</td>
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<td>32</td>
<td>Get your feelings easily hurt</td>
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<tr>
<td>33</td>
<td>Have to ask others what you should do</td>
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34. ____ Feel that others do not understand you or are unsympathetic
35. ____ Feel that people are unfriendly or dislike you
36. ____ Have to do things very slowly to be sure that you are doing them right
37. ____ Feel your heart pounding or racing
38. ____ Experience nausea or upset stomach
39. ____ Feel inferior to others
40. ____ Suffer from sore muscles
41. ____ Suffer from loose bowels
42. ____ Have difficulty falling asleep or staying asleep
43. ____ Have to check and double check what you do
44. ____ Have difficulty making decisions
45. ____ Want to be alone
46. ____ Have trouble getting your breath
47. ____ Hot or cold spells
48. ____ Have to avoid certain places or activities because they frighten you
49. ____ Experience your mind going blank
50. ____ Feel numbness or tingling in parts of your body
51. ____ Have a lump in your throat
52. ____ Feel hopeless about the future
53. ____ Have trouble concentrating
54. ____ Feel weakness in parts of your body
55. ____ Feel tense or keyed up
56. ____ Have heavy feelings in your arms or legs
REFERENCES


