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Regularity in daily life in college freshman of Asian and Caucasian ethnic groups

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REGULARITY IN DAILY LIFE IN COLLEGE FRESHMAN

OF ASIAN AND CAUCASIAN ETHNIC GROUPS

A Thesis

Presented to

the Faculty of the Department of Psychology

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

Gina M. Liebig

August. 1996

UMI Number: 1381430

UMI
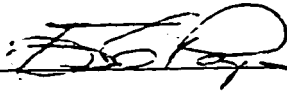
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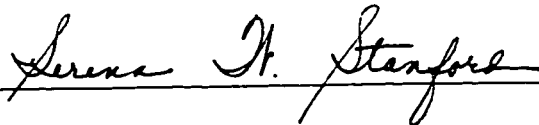
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ABSTRACT

REGULARITY IN DAILY LIFE IN COLLEGE FRESHMAN
OF ASIAN AND CAUCASIAN ETHNIC GROUPS

by Gina M. Liebig

Little is known about the daily routines of college freshmen and their effect on

college adjustment and/or academic performance. For the present study, college freshmen

of two different ethnic groups (Caucasian and Asian) completed the Social Rhythm Metric

(SRM), which is a diary-like form designed to quantify daily routines. The SRM requires

the participant to give details on 17 specified activities each day for 14 consecutive days.

At the end of each day subjects indicated the time at which each activity began (if

completed that day) and with whom it was done (if not done alone).

Students also completed a subjective well-being measure, a depression symptom

checklist, and a sleep quality measure. Results indicated a significant inverse relationship

between greater stability in daily routines and lower subjective well-being. In addition,

significant differences between ethnic groups in terms of daily routines and subjective

well-being are discussed.

ACKNOWLEDGMENTS

I would like to thank my very special husband. family. and friends for supporting

me throughout this process. At times when I felt discouraged. they are the ones who built

me up. and gave me the love and confidence I needed to succeed. I would also like to

thank the members of my committee. each of whom have guided me through this journey.

and have taught me invaluable lessons for which I am forever grateful. and will always

remember.

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Gina M. Liebig

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Abstract

Little is known about the daily routines of college freshmen and their effect on college

adjustment and/or academic performance. For the present study, college freshmen of two

different ethnic groups (Caucasian and Asian) completed the Social Rhythm Metric

(SRM), which is a diary-like form designed to quantify daily routines. The SRM requires

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Regularity of Daily Life in College Freshmen

of Asian and Caucasian Ethnic Groups

For many students. the freshman year of college can be a very stressful period as they adjust to the multiple and varied demands of a new social and academic environment. Researchers have found that freshmen experience more adjustment problems than other academic classes. including more appetite disturbance. feelings of worthlessness. concentration problems. depression. and suicidal thoughts (Kashani & Priesmeyer. 1983). Freshmen also report higher frequencies of life changes. more loneliness. and lower self-esteem than seniors (Marron & Kayson. 1984).

It is likely that the life changes experienced by freshmen produce significant disruptions in their established daily routines. Research involving physically healthy individuals has demonstrated that major life events can lead to significant psychological distress. such as depression (Billings & Moos. 1984; Clark & Watson. 1988). Furthermore. there is evidence that daily stressors also lead to distress. particularly in those undergoing emotional challenges. such as freshmen coping with the complications in college life.

<u>Daily Routines</u>

Little is known about the daily routines of college freshmen and their effect on college adjustment and/or academic performance. Until recently. there have been no formal measures of daily routines and social contacts. The Social Rhythm Metric (SRM) (Monk et al.. 1990) is an instrument designed to quantify daily routines. and is being utilized in a number of studies. including diverse populations of eating disorder patients

(Marcus. 1994), HIV patients and their care givers (Folkman & Heiden. 1994). unipolar and bipolar psychiatric patients (Ehlers, Frank. & Kupfer. 1988: Monk, Kupfer. Frank. & Ritenour. 1991: Szuba. Yager. Guze. Allen. & Baxter. 1992), parents of newborn infants (Klein. Essex. & Hyde. 1994), and bereaved elderly (Prigerson. Monk. Reynolds. & Kupfer. 1994).

Monk. et al. (1995) investigated the impact of the birth of a baby on daily routines in couples and its consequences for well-being. It was hypothesized the birth of a child would change the habitual times with which parents performed various activities. In addition. the daily lives of mothers and fathers would be differentially affected by the birth. The birth would result in fewer activities being done completely alone. as well as being done by the couple together. The birth would have a greater impact on mothers than on fathers and on first-time parents that on experienced parents. Furthermore. these hypotheses were investigated in terms of well-being, including the quality of the marriage (or partner). depressive symptoms. and feelings of anger.

Thirty-seven couples participated at four different time periods (pre-birth. one. four. and 12 months post-partum). The SRM was administered for 2 weeks at each time period to determine habitual times. proportion of events done alone and as a couple only. Well-being was assessed separately for each individual subject at each time period by completing a series of questionnaires.

Results indicated a disruptive effect of the birth especially for mothers. There were also dramatic differences in the proportion of events done alone and as a couple only. The entire post partum period was marred by reductions in marital quality and also. by

reductions of depressive symptoms and feelings of anger. For mothers. reduced time spent alone as a couple was associated with decreased depressive symptoms. For fathers. the negative impact of changes in activity patterns of depressive symptoms and anger was more apparent than for mothers. and the impact was felt most actively in relation to the time spent together as a couple.

In essence. the changes in well-being were related to changes in SRM indices. though differentially for mothers and fathers. The authors concluded the SRM was a productive research paradigm for studying the psychosocial impact of major life events. The SRM allowed for an accurate quantification of the temporal and social disruptions that were occurring in the couples' daily lives.

The consistency of daily routines and social contacts has been determined to be emotionally and/or physically protective for the individual during transitional and/or stressful periods in their lives. Heiden. Monk. and Kupfer (1996) have examined the role of daily routines in college students to determine their relevance to physical health and academic performance. Evaluating daily routines and social contacts in college students is important given that students experience a number of transitions each year which may put them at risk for social routine disruption (i.e.. living apart from their families. entering an entirely new social environment). Preliminary results suggest that students who reported more illness symptoms had less stable social routines. However. thus far only symptoms of depression and anxiety have been tested in healthy volunteers in relationship to daily routines. while the inverse of this relationship (i.e.. subjective well-being) has not been investigated. More specifically. it is not presently understood whether the stability of daily

routines affects an individual's subjective well-being.

<u>Subjective Well-Being</u>

Many researchers have explored the related, yet distinct, components of subjective well-being (SWB), using such diverse terms as happiness, satisfaction, morale, and positive affect (Diener, 1984). Subjective well-being is concerned with how and why people experience their lives in positive ways, including both cognitive decisions and affective responses. The inverse of SWB could be depression and may be worth including as an additional measure. The general consensus is that SWB consists of three dimensions: (1) positive affect, (2) negative affect, and (3) life satisfaction (cognitive evaluation) (Feist, Bodner, Jacobs, Miles, &Tan, 1995). A number of different theories have been introduced and the different classifications of theory have been summarized in Diener's (1984) methodological review of the SWB literature.

Few consistent findings have emerged from the SWB literature. In a recent meta-analytic review of 93 studies on gender differences in positive well-being, Wood, Rhodes, and Whelan (1989) found that women reported higher levels of happiness and satisfaction than men. They suggested that women experience greater emotionality (both positive and negative) than men. There also have been consistent findings that overall life satisfaction is related to job satisfaction (Diener, 1984). More specifically, if a person reported to be satisfied with his or her job, he or she was more likely to report higher overall life satisfaction. Clearly, more research is needed to identify consistent variables in relationship to SWB.

While a student is in college, psychosocial factors in their lives may change and

influence SWB. For example. one study of college students found that academic pressures accounted for only 7% of suicide attempts. while social and personal problems accounted for more than 75% of the attempts (McDermott. Hawkins. Littlefield. & Murray. 1989). In order to illustrate a relationship between well-being and social factors. Fagan (1994) investigated the general well-being in university students. the majority of whom were white females. He found high well-being was associated with subjects who viewed themselves as healthy and were integrated with. and concerned about others. Low well-being was associated with subjects who were in college for primarily financial reasons. were forced by parents to attend. and/or who lacked social integration.

As we consider SWB in relationship to college adjustment and academic performance. SWB may be complicated by ethnic or cultural background. Drawing from a predominately white campus. D'Augelli and Hershberger (1993) compared African-American undergraduates and Whites in terms of academic performance. social networking. and campus climate. The African-American students reported less energy. less life satisfaction. and lower total well-being than did their White counterparts. Their general well-being scores were unrelated to their family or personal income. The two groups did not differ in GPAs for the semester following the study. It was proposed African-American students who reported less energy did so due to a greater preoccupation with the threat of a parent's job loss. The experience of racial discrimination was the only discernible difference noted between the groups of students that may help explain the differences in overall life satisfactions.

In a study of cultural differences in SWB. a sample of U.S. adults was compared to

a demographically similar sample of South Korean adults (Triandis. 1989). Comparisons

between groups revealed that Caucasians were more likely to attribute positive qualities to

themselves than South Koreans. Analyses within cultures revealed that Koreans showed

highest self-ratings on the measure of positive relations with others. and lowest ratings for

self-acceptance and personal growth. whereas personal growth was rated highest among

Caucasians. especially for women. while autonomy was rated lowest. Gender differences

were consistent across both cultures: women rated themselves significantly higher than

men on positive relations with others and personal growth. This study highlights the need

to study SWB across different cultures to find consistencies and/or lack thereof.

Ethnic or Cultural Background

All of the above may be exacerbated by differences in ethnic and cultural

background or values. For example. differential adjustment has been observed in college

students of different ethnic groups. Asian-Americans have been described as a "model

minority" (D.W. Sue & S. Sue. 1972) because of their high levels of educational and

economic accomplishments (S.Sue & Abe. 1988); however. it is unclear whether their

psychosocial adjustment is as exemplary. More specifically. some studies have suggested

that Asian-Americans have low rates of psychopathology (Chin. 1983); others have

suggested high rates of psychopathology (Abe & Zane. 1990; Gong-Guy. Cravens. &

Patterson. 1991; D.W. Sue & S. Sue. 1987). The inconsistencies in the literature are

difficult to resolve given the paucity of research. the lack of understanding and

consideration of cultural influences and values. as well as methodological problems in the

study of Asian-Americans.

Asian-American college students have been known to internalize stress and avoid

conflict in order to avoid offending others or shame their families (Abe & Zane, 1990). In

fact, the degree of dishonor or humiliation affiliated with problems in psychological

adjustment has been reported to be much greater among Asian-Americans than among

Caucasians: mental illness in a family member is considered a failure of the family system

itself (D.W. Sue & S. Sue, 1987). There is also research indicating cultural differences in

the way people perceive mental illness. More specifically, Asian-Americans often perceive

mental illness as an organic problem and consult medical doctors rather than counselors or

psychologists.

Moreover, Chinese- and Japanese-American students have reported more anxiety,

isolation, nervousness, loneliness, and less autonomy than Caucasian students (D.W. Sue

& Frank, 1973). Similarly, Chinese-American graduate students have reported lower

self-concept scores than their Caucasian cohorts (White & Chan, 1983). Asian immigrants

face language barriers, ambiguous role expectations, contentions due to clashing value

systems, intergenerational struggles, and numerous other pressures intrinsic in attempting

to appease two different cultural systems (Cheung, 1980). These pressures may lead to

problems in college adjustment and/or academic achievement.

In order to investigate psychosocial differences in adjustment between

foreign-born Chinese and Caucasian college students, Stevens, Kwan, and Graybill (1993)

compared the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) scores of 15

female and 10 male foreign-born Chinese university students with those of a matched

sample of 11 female and 10 male American born Caucasian university students. Although

responses for all groups were within normal limits. Chinese men appeared more socially

introverted and reserved than Caucasian men as evidenced by higher scores on the Social

Introversion scales. Elevated scores indicated that the Chinese women were more

defensive (L and K scale), depressed (D scale), unaware of somatic and psychosocial

problems (scale Hy), and exhibited greater gender astereotypic interests (from a Caucasian

point of view) (scale Mf) when compared to the Caucasian women. Generalizations of

these findings are limited by the small and possibly unrepresentative samples of Chinese

and Caucasian students and the possible confound of uncontrolled cultural variables such

as the administration of measures to Chinese students in English despite their proficiency

in the language.

The authors addressed difficulties in separating personality from culture. It is

possible that Chinese men may be more introverted than Caucasian men, or they may be

more modest and self-effacing. Chinese women may be more conforming, depressed, and

unaware of problems than Caucasian women, or they may be more polite and

conscientious, socialized to somatize and deny problems and interested in obtaining a

pragmatic education.

When evaluating ethnic differences in psychological adjustment, it is arduous to

assess the extent of such differences because they often are confounded with other

variables that covary with ethnicity. Regarding non-Caucasian groups, it has been

proposed that elevated levels of self-reported maladjustment are due more to cultural

differences in demographics (such as age, gender, and socioeconomic status), response or

personality style (D.W. Sue & S.Sue, 1987) than to actual levels of psychopathology.

Addressing these possible confounds. Abe and Zane (1990) conducted a study to

assess differences in levels of psychological adjustment among foreign-born Asian-

(n = 46) and U.S.-born Asian-American (n = 29) and Caucasian (n = 61) college students.

while controlling for the influences of cultural differences in demographics (i.e.. age. sex.

English proficiency and socioeconomic indicators). response set and personality style.

Data were collected from self-report questionnaires. On most measures the U.S.-born

Asian-American sample did not differ from the Caucasian sample. However. U.S.-born

Asian-American students scored lower than Caucasian students on levels of social

desirability. Foreign-born Asian-Americans were significantly more other-directed and less

extroverted than were Caucasians who were the least other-directed and most extroverted.

U.S.-born Asian-Americans fell between both groups on levels of other-directedness and

extroversion. Foreign-born Asian-Americans reported greater levels of intrapersonal and

interpersonal distress than U.S.-born Asian- and Caucasian students. despite the fact that

the foreign-born Asian-Americans had been in the U.S. for an average of 10 years. Thus.

the various stressors that many Asian-Americans face when immigrating to the U.S. may

have a long-term effect.

Possible drawbacks of the study included problems with relying solely on

self-report measures of psychological adjustment and small sample size. In addition. all

measures were administered in English. and it is possible that some of the recently

immigrated foreign-born Asian-Americans had difficulty comprehending the survey

questions. However. the authors suggested the results indicated Asian-American

immigrants are at greater risk for mental health problems than are U.S.-born

Asian-Americans or Caucasians. Interpersonal distress may be exacerbated by language barriers, unfamiliar social norms, cultural differences in values and expectations, and/or lack of close contact with previous social support networks. The first year of college life could also be a factor which intensifies interpersonal distress as well as any other existing adjustment problem.

Hypotheses of the Present Study

All of the above factors lead to the following hypotheses:

1. Students with greater stability in daily routines will report higher levels of subjective well-being, as well as fewer numbers of depressive symptoms than students with less stability in daily routines.

2. Self-rated sleep disturbance is expected to be greater in those with lower subjective well-being, lower stability in daily routines, and those who report greater numbers of depressive symptoms.

3. Academic performance (GPAs) is expected to be higher in the students with greater stability in daily routines, higher subjective well-being, fewer symptoms of depression, and less sleep disturbance.

4. Differences among Asian and Caucasian ethnic groups will be evaluated in terms of daily routines, subjective well-being, depression, sleep disturbance, and academic performance.

Method

Participants

Fifty-three college freshmen ranging in age from 18 to 22 ($\underline{M}$ = 18.96. $\underline{SD}$ = .81) were recruited from undergraduate courses at San Jose State University (SJSU) and DeAnza College all of whom provided written consent. Twenty-five of the participants were female and 28 were male. Twenty-eight percent of the sample reported a family income of $50.000 or more. 3.8% reported a family income of $40-44.999. 9.4% reported a family income of $35-39.999. 7.5% reported a family income of $30-34.999. 3.8% reported a family income of $25-29.999. 9.4% reported a family income of $20-24.999. 1.9% reported a family income of $15-19.999. 3.8% reported a family income of $10-14.999. 3.8% reported a family income of $5-9.999. Twenty-six percent of participants declined to state.

The SJSU participants included 38 freshmen. 15 female and 23 male. Eighteen were Caucasian (9 female and 9 male). 20 were Asian-Americans (6 female and 14 male). SJSU Asian-American students lived in the United States for an average of 12.35 years (SD = 5.76). all of whom spoke English as a second language. Primary languages spoken included Vietnamese (n= 10). Chinese (n = 3). and one student each who spoke either Mandarin. Cantonese. Illocano. or Filipino. Twenty-four percent of the sample reported a family income of $50.000 or more. 13.2% reported a family income of $35-39.999. 7.9% reported a family income of $30-34.999. 5.3% reported a family income of $25-29.999. 5.3% reported a family income of $20-24.999. 2.6% reported a family income of $15-19.999. 2.6% reported a family income of $10-14.999. 5.3% reported a family income of

$5-9.999. while 34.2% declined to state.

The DeAnza College participants included 15 freshmen. 10 female and 5 male. Ten of the participants were Caucasian (8 female and 2 male). 5 were Asian-Americans (2 female and 3 male). DeAnza College Asian-American students lived in the United States for an average of 5 years (SD = 5.24), all of whom spoke English as a second language. Primary languages spoken included Vietnamese (n =2). Mandarin (n = 2). and Tagalog (n = 1). Thirty percent of the sample reported a family income of $50.000 or more. 13.3% reported a family income of $40-44.999. 23.3% reported a family income of $30-34.999. 20% reported a family income of $20-24.999. 6.7% reported a family income of $10-14.999. while 6.7% declined to state.

The students from the two schools are treated as one group in all subsequent analyses. As a whole. twenty-eight of the participants were Caucasian students (17 female. 11 male). Twenty-five were Asian-American students (8 female and 17 male) who were all foreign-born and spoke English as a second language. As their first language. Asian-American students spoke Vietnamese (n = 12). Chinese (n = 3). Mandarin (n = 2). while one student each spoke Cantonese. Illocano. Filipino. and Tagalog (four declined to state). Asian-American students lived in the United States for an average of 10.88 years (SD = 6.31).

Materials

Daily Routines. The Social Rhythm Metric (SRM) was used to quantify the subjects' daily routines. The SRM is a diary-like form that requires the subject to give details on 17 specified activities each day for 14 consecutive days. Fifteen of the specified

activities are those that commonly occur for an individual on a daily basis (e.g., getting out of bed in the morning, eating lunch, and starting work activities), and two activities (studying and attending classes) were identified uniquely for this college sample. At the end of each day the subject indicates the time at which each activity began (if completed that day) and with whom it was done (if not done alone). Following established procedures (Monk et al., 1991) the SRM was scored for each week and then averaged across the two-week period. Possible scores range from 1-7 with a higher SRM score indicative of greater regularity in routines (see Appendix A)

The SRM was developed to quantify inter- and intra-subject variability in the regularity of daily life. Since the human circadian system does not naturally run at a period of exactly 24 hours (Monk et al., 1991), time cues are needed to keep the circadian system properly entrained. For example, daylight exposure is timed by the rhythms of leaving and returning home, while social contacts are timed by starting work or school, having meals, etc. The basic concept of the SRM is that there are a number of events and activities that together make up the "social rhythms" of the individual.

In a normative study of the SRM (Monk et al., 1990) using 50 healthy control subjects (mean age 36 years) a test-retest reliability coefficient of .44 (p < .001) between SRM scores in weeks 1 and 2 was found. Similar test-retest coefficients were generated in studies of other age groups (Monk, 1992; Prigerson, 1995).

Subjective Well-Being. Subjective well-being of the participants was measured using The Scales of Psychological Well-Being (SPWB: Ryff, 1989), which consists of 84 items with summated response scales ranging from 1 (strongly disagree) to 6 (strongly

agree). A copy of the SPWB can be found in Appendix B. The SPWB consists of six

subscales. each with 20 items in the original scales or 14 items in the shortened version (as

explained below): Self-Acceptance. Positive Relations. Autonomy. Environmental

Mastery. Purpose in Life. and Personal Growth. Each of the six dimensions yield a

possible subscale maximum of 84. with a possible total scale maximum of 504. Negatively

scored items are reversed in the final scoring procedure so that high scores indicate high

self-ratings on the total scale score or the dimension assessed.

Each dimension of the original SPWB (Ryff. 1989) was operationalized with a

20-item scale divided between positively and negatively phrased items. Internal

consistency (alpha) coefficients for the scales ranged from .86 to .93. Test-retest reliability

over a 6-week period ranged from .86 to .93. The scales correlated positively with prior

measures of positive functioning (Rosenburg's Self-Esteem Scale) and negatively with

measures of depression (Zung Depression Scale) and external control (Levenson's Locus

of Control Scales).

In 1992. Ryff and Essex used shortened versions of the 20-item scales (14-item

scales). This was justified by item selection based on item-to-scale coefficients and

coverage of the guiding theoretical definition. Internal consistency for the reduced scales

ranged from .83 to .91. and correlations of the shortened scales with the original scales

ranged from .97 to .98. The 14-item scales will be used in the present research.

Internal consistencies (coefficient alphas) for the 14-item scales are as follows:

Self-Acceptance. .91: Positive Relations with others. .88: Autonomy. .83: Environmental

Mastery. .86: Purpose in Life. .88: and Personal Growth. .85. Correlations with the

original 20-item scales are as follows: Self-Acceptance, .99: Positive Relations with

others, .98: Autonomy, .97: Environmental Mastery, .98: Purpose in Life, .98: and

Personal Growth, .97.

According to the definitions provided by Ryff (1989), the six subscales are

delineated as follows: the Self-Acceptance subscale measures the degree to which people

feel positively or negatively about themselves and previous life events. People with high

self-acceptance scores possess a positive opinion toward themselves, recognize and

concede multiple aspects of self including considerate and selfish qualities, and feel

optimistic about previous life experiences. A low scorer feels displeased with self,

disillusioned with what has occurred in the past, troubled about certain personal qualities,

and wishes they could be different from who they really are.

The Positive Relations subscale measures the extent to which people have

sensitive, caring relationships with others and the degree to which people have developed

compassion and compromise in their interpersonal associations. A high score signifies

strong empathy, affection, and intimacy. A low score indicates few close, trusting

relationships with others, difficulty in being warm, open, and concerned about others:

isolation and frustration in interpersonal relationships: and unwillingness to make

compromises to sustain important ties with others.

The high scorer in Autonomy is self-reliant, individualistic, and assesses self by

personal criteria. They are able to resist social constraints to think and act in certain ways

by regulating behavior from within. The low scorer is concerned about the expectations

and appraisal by others, relies on opinions of others to make important decisions, and

conforms to social pressures to think and act in certain ways.

The Environmental Mastery subscale measures whether one makes use of opportunities and situations that maximize one's potential for success. A high scorer exhibits the ability to manage multiple activities. making constructive use of surrounding opportunities. and being able to choose or create contexts appropriate to their needs and values. A low score indicates difficulty managing everyday responsibilities. feelings of being unable to change or improve surrounding situations. and lacking a sense of control over the external world.

The Purpose in Life subscale measures whether one has ambition and a sense of direction in life. High scores indicate there is meaning to present and previous life events. and belief that their life has meaning. Low scores indicate few ambitions and a lack of focus and significance in life. A low scorer does not see purpose in previous life events and has no philosophy or beliefs that give life meaning.

Finally. the Personal Growth subscale measures the extent to which the individual is open to new endeavors. and is expanding in self-awareness. High scorers are likely to feel a rejuvenated sense of development and comprehension of their potential. They see improvement in themselves and their actions over time and possess self knowledge and competence. A low scorer has a sense of going nowhere. and lacks enrichment or development over time. They feel bored and apathetic with life and unable to develop new perspectives or activities.

Depression. Symptoms of depression were measured using the Center for Epidemiological Studies of Depression (CES-D) Scale (Appendix C). The CES-D is a

20-item scale which yields a score between 0 and 60, indicating the amount and degree of

depressive symptoms an individual experiences during a given week (Radloff, 1977).

Taking the previous 7 days into consideration, subjects respond to each statement by

checking a box from 0 to 3 (0=rarely or none of the time; 3=most or all of the time). A

score greater than 16 indicates a risk of clinical depression in the general adult population.

Alphas of .85 and .90 are reported for community and patient samples, respectively

(Radloff, 1977).

Sleep Variables. There were three sleep variables (sleep quality, mood upon

awakening, alertness upon awakening), each rated daily on a Likert-type scale with lower

ratings suggestive of greater sleep disturbance. Sleep quality ranged from very bad to very

good, mood upon awakening was rated from very tense to very calm, while alertness was

rated from very sleepy to very alert (see Appendix D).

Procedure

All subjects were recruited from undergraduate psychology classes. The study was

described to the students and they were offered extra course credit according to their

instructor. Participants were trained in completing the SRM during a one-hour small

group or individual training session. A copy of the training script can be found in

Appendix E. The participants completed the SPWB and the CES-D during the training

session (initial assessment measures) and then at the end of each week. Overall and

semester GPAs for each subject were obtained through University records with the

consent of each subject. Data entry and analyses were conducted on an IBM PC using

dBASE IV and SPSS for Windows.

Results

Data Reduction

Two weekly scores were obtained for each psychosocial measure (SRM. SPWB.

CES-D) and for each sleep variable (Sleep Quality. Mood Upon Awakening. Alertness

Upon Awakening). The SRM was completed daily for 14 days. Two 1-week scores were

produced using the algorithm described previously. The SPWB and the CES-D

questionnaires were completed on the last day of each week of the study period. Two

weekly scores for each psychosocial variable were then averaged to obtain mean values

for the study period.

Similar to the SRM. participants rated the three sleep variables each day and a

7-day average was computed to yield the weekly score. The two weekly scores for each

variable were then averaged to produce a mean for the study period. Measures of

academic performance included semester GPA and cumulative GPA. and were obtained at

the end of the semester.

Full-Sample Analyses (N = 53)

Descriptive Statistics

Psychosocial Variables. Descriptive statistics for Week 1. Week 2. and the

two-week averages for the SRM. SPWB. and CES-D are presented in Table 1. SRM

scores ($\underline{M}$ = 2.96. $\underline{SD}$ = .81) were similar to those found previously in college populations

($\underline{M}$ = 2.97. $\underline{SD}$ = .88: Heiden. Monk & Kupfer. 1996) and were substantially lower than

those found in middle-aged ($\underline{M}$ = 4.4. $\underline{SD}$ =.80: Monk et al.. 1992) and later-year

Table 1
Full Sample Descriptive Statistics for SRM, SPWB, CES-D, Sleep Variables, and GPA (N = 53)

Variable	Group Mean	Group SD
SRM Week 1	2.93	.96
SRM Week 2	2.99	.96
SRM Average	2.96	.81
Overall SPWB Week 1	364.89	54.80
Overall SPWB Week 2	352.94	51.35
Overall SPWB Average	358.92	52.01
SPWB Subscales:		
Environmental Mastery Week 1	57.51	9.38
Environmental Mastery Week 2	57.74	10.63
Environmental Mastery Average	57.62	9.59
Autonomy Week 1	57.58	10.14
Autonomy Week 2	57.40	11.03
Autonomy Average	57.49	10.34
Self Acceptance Week 1	58.55	11.41
Self Acceptance Week 2	60.04	11.82
Self Acceptance Average	59.29	11.32
Purpose in Life Week 1	61.83	11.84
Purpose in Life Week 2	61.62	12.83
Purpose in Life Average	61.73	12.07
Positive Relations Week 1	62.96	12.82
Positive Relations Week 2	62.66	13.34
Positive Relations Average	62.81	12.85
Personal Growth Week 1	66.45	9.80
Personal Growth Week 2	53.49	5.55
Personal Growth Average	59.97	6.06
CES-D Week 1	14.60	8.37
CES-D Week 2	13.74	7.81
CES-D Average	14.17	7.27
Sleep Quality Week 1	6.79	1.55
Sleep Quality Week 2	6.91	1.47
Sleep Quality Average	6.85	1.38
Sleep Alertness Week 1	5.91	1.75
Sleep Alertness Week 2	6.09	1.85
Sleep Alertness Average	6.00	1.69
Sleep Mood Week 1	6.86	1.45
Sleep Mood Week 2	6.72	1.42
Sleep Mood Average	6.79	1.35
Semester GPA	2.66	.76
Cumulative GPA	2.72	.67

individuals ($\underline{M}$ = 4.00. $\underline{SD}$ = .75; Prigerson et al., 1994). Given that lower scores are

indicative of less regularity in daily routines, it is apparent that college students experience

less consistency in their daily life schedules than do those in the general adult population.

Out of a possible score of 84. SPWB subscale score averages across the

two-week period were highest on the Positive Relations with Others subscale

($\underline{M}$ = 62.81. $\underline{SD}$ = 12.85; Table 1), suggesting that many students experienced moderately

high levels of warm, satisfying, and trusting relations with others, strong empathy, and

intimacy. Although not substantially lower than the Positive Relations with Others

subscale, the lowest SPWB subscale score was Autonomy ($\underline{M}$ = 57.49. $\underline{SD}$ = 10.34), a

subscale concerned with expectations and evaluations of others, and conformation to

social pressure to think and act in certain ways. No normative data on the overall SPWB

could be found; however, similar ranges of SPWB subscale scores have been reported in

other studies of college students (Feist et al., 1995).

CES-D scores greater than 16 indicate a risk of clinical depression in the general

adult population (Radloff, 1977). The two-week average CES-D score

($\underline{M}$ = 14.17. $\underline{SD}$ = 7.27) for this group of college students fell below the clinical range.

Sleep Variables. Sleep was evaluated on three parameters: Sleep Quality. Mood

Upon Awakening, and Alertness Upon Awakening. Each parameter was rated daily on a

Likert-type scale (with lower ratings suggestive of lesser quality/greater disturbance in

sleep). Sleep Quality ranged from "very bad" to "very good." Mood Upon Awakening

was rated from "very tense" to "very calm." while Alertness Upon Awakening was rated

from "very sleepy" to "very alert" (see Appendix D).

For the two-week period, subjects scored lowest on Alertness Upon Awakening

($\underline{M}$ = 6.00, $\underline{SD}$ = 1.69), whereas Mood (calm/tense) Upon Awakening ($\underline{M}$ = 6.79,

$\underline{SD}$ = 1.35) and Sleep Quality ($\underline{M}$ = 6.85, $\underline{SD}$ = 1.38) were rated higher than Alertness

(see Table 1). Sleep quality ratings for this sample were considerably higher than that

found in a study of sleep in elderly individuals ($\underline{M}$ = 3.91, $\underline{SD}$ = .35: Monk et al., 1992).

Unfortunately, comparative data for alertness and mood upon awakening was not

available.

Academic Performance. The usual grading scale of 4 = A (superior) to

0 = F (failing) was utilized. The mean GPA for the spring 1995 semester was 2.66

($\underline{SD}$ = .76), and the cumulative GPA mean was 2.72 ($\underline{SD}$ = .67: see Table 1): thus student

grades averaged in the high C range.

Correlational Analyses

A series of Pearson Product-Moment Correlation Coefficients were computed to

evaluate interrelationships among the psychosocial, sleep, and academic variables (see

Table 2). The two-week averages of the SRM, SPWB, and CES-D score were utilized in

all analyses.

Psychosocial Variables. It was hypothesized that greater stability in daily routines

would be associated with higher subjective well-being and fewer symptoms of depression.

Contrary to expectations, daily routines were inversely correlated with overall subjective

well-being ($\underline{r}$ = -.27, $\underline{p}$ < .05: Table 2), and were not related significantly with symptoms of

depression (r = .16, p > .05). Thus, it appears that when daily routines are too well-

structured, the personal well-being of college students may be somewhat compromised.

Table 2
Correlations Between SRM, SPWB, CES-D, Sleep Variables and GPA (N = 53)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. SRM	—													
2. SPWB	-.27*	—												
3. Environ.Mastery	-.22	.86**	—											
4. Autonomy	-.16	.76**	.55***	—										
5. Self Acceptance	-.25	.95***	.76**	.70**	—									
6. Purpose in Life	-.27*	.90**	.78**	.65**	.86**	—								
7. Positive relations with others	-.24	.79**	.65***	.41**	.72**	.57**	—							
8. Personal Growth	-.22	.68**	.50**	.48**	.48**	.55***	.47**	—						
9. CES-D	.16	-.71**	-.78**	-.44**	-.66**	-.67**	-.58**	-.36**	—					
10. Sleep Quality	-.14	.17	.30*	-.03	.15	.17	.18	.02	-.24	—				
11. Sleep Alertness Upon Awakening	-.02	-.03	.10	-.14	-.06	-.03	.02	-.02	-.09	.63**	—			
12. Sleep Mood Upon Awakening	.08	.14	.28*	-.03	.16	.14	.16	-.14	-.29*	.72**	.55***	—		
13. Semester GPA	.03	.22	.22	-.18	.18	.27*	.02	.02	.16	.00	.09	.14	—	
14. Cumulative GPA	-.02	.19	.29*	.24	.21	.31*	-.00	-.00	-.02	.09	.09	.00	.91**	—

*p < .05
**p<.01

rather than enhanced.

Additional analyses were conducted to evaluate the relationship between the SRM and each of the SPWB subscales (i.e.. Self-Acceptance. Positive Relations. Autonomy. Environmental Mastery, Purpose in Life. and Personal Growth). Daily routines were significantly inversely related to the Purpose in Life subscale (r = -.27 p < .05). indicating that those experiencing less routine in their daily lives also reported a higher sense of life purpose. No other relationships between SRM and SPWB subscales were found to have statistical significance.

As expected. a highly significant inverse relationship emerged between CES-D scores and overall SPWB (r = -.71. p < .001). with fewer numbers of depressive symptoms associated with a greater personal sense of well-being. Additionally. CES-D scores were significantly related to each of the SPWB subscales (Table 2). producing correlation coefficients ranging from -.78 (Environmental Mastery: p < .001). to -.36 (Personal Growth: p < .01). The relationship between CES-D and SRM was not statistically significant.

Sleep Variables. Self-rated sleep disturbance was expected to be greater in those with lower subjective well-being. lower stability in daily routines. and greater numbers of depressive symptoms. Three statistically significant relationships emerged among sleep variables (Quality. Mood. Alertness) and psychosocial variables (SRM. SPWB. CES-D). A moderate positive correlation was found between two measures of sleep (Sleep Quality (r = .30. p < .05) and Mood (calm feeling) Upon Awakening (r = .28. p <.05)) and scores from the Environmental Mastery subscale of the SPWB. Thus. the hypothesis that those

reporting fewer disturbances in sleep would report higher subjective well-being was

partially supported, in that participants who reported lower levels of sleep disturbance in

respect to sleep quality and mood upon awakening reported higher levels of environmental

mastery.

An inverse relationship was evident between Mood (calm feeling) Upon

Awakening and CES-D scores ($r = -.29$, $p < .05$), demonstrating that as disturbance in

mood upon awakening worsened, numbers of reported depressive symptoms increased.

These findings support the hypothesis that sleep disturbance would be associated with

higher numbers of depressive symptoms. No other significant relationships were found

between sleep disturbance and depressive symptoms.

Academic Performance. Correlation coefficients were computed to examine the

relationship between GPA and each of the following: (1) SRM, (2) SPWB overall and

each subscale score, (3) CES-D, and (4) sleep-related ratings. It was expected that

positive relationships would be demonstrated between GPA and SRM scores, as well as

between GPA and SPWB overall and subscale scores. Furthermore, higher GPAs were

expected to relate to fewer depressive symptoms, as well as fewer disturbances in sleep.

As shown in Table 2, semester GPA and scores from the Purpose in Life subscale

of the SPWB ($r = .27$, $p = .05$) were significantly related, revealing that better semester

academic performance is associated with higher purpose in life. In addition, significant

positive relationships were evident between cumulative GPA and the Environmental

Mastery ($r = .29$, $p < .05$) and the Purpose in Life ($r = .31$, $p < .05$) subscales of the

SPWB. Thus, long-long-term academic performance is associated with a sense of

environmental mastery and purpose in life. Relationships between semester or cumulative GPA and SRM. overall SPWB. CES-D. or sleep disturbance (quality. alertness. or mood upon awakening) were not statistically significant.

Ethnic Differences

Means and standard deviations for each of the dependent variables are presented by ethnic group (Caucasian and Asian) in Table 3. Caucasian and Asian students were compared on each of the psychosocial. sleep. and academic performance variables. using a series of univariate t-tests. The two-week averages for each of the variables were used in all analyses.

Asian students demonstrated greater regularity in daily routines when compared to Caucasian students (t (51) = 2.39. p <.05: Table 3). Caucasians reported higher levels of overall subjective well-being than did their Asian peers (t(51) = 3.85. p <.001). As would be expected given the differences in overall SPWB. Caucasians scored higher than Asians on most of the SPWB subscales. including those measuring Autonomy (t(51) = 2.96. p <.001), Environmental Mastery (t(51) = 2.57. p <.05). Positive Relations with Others (t(51) = 3.90. p <.001). Purpose in Life (t(51) = 3.15. p <.01). and Self Acceptance (t(51) = 3.94. p <.001). The Personal Growth subscale was the only exception (t(51) = 1.15. p >.05). There were no evident differences between the Caucasians and Asians on measures of depressive symptoms (CES-D). sleep disturbance (Quality. Mood or Alertness). or academic performance (semester GPA. cumulative GPA: Table 3).

Table 3
Descriptive Statistics by Ethnic Group for SRM, SPWB, CES-D, Sleep Variables, and GPA

	Group				
	Caucasians(n=28)		Asians(n=25)		
Variable	Mean	SD	Mean	SD	t
SRM Week 1	2.62	.73	3.28	1.08	
SRM Week 2	2.82	.99	3.18	.90	
SRM Average	2.72	.74	3.23	.82	2.39*
Overall SPWB Week 1	389.36	49.87	337.48	47.2	
Overall SPWB Week 2	374.64	46.40	328.64	46.12	
Overall SPWB Average	382.00	46.41	333.06	46.04	3.85***
SPWB Subscales:					
Environ. Mastery Week 1	60.46	9.32	54.20	8.45	
Environ. Mastery Week 2	60.86	10.37	54.24	9.99	
Environ. Mastery Average	60.66	9.23	54.22	8.98	2.57*
Autonomy Week 1	61.00	11.18	53.76	7.32	
Autonomy Week 2	61.39	11.87	52.92	8.10	
Autonomy Average	61.20	11.22	53.34	7.50	2.96***
Self Acceptance Week 1	63.64	9.67	52.84	10.62	
Self Acceptance Week 2	65.18	10.07	54.28	11.11	
Self Acceptance Average	64.41	9.46	53.56	10.59	3.94***
Purpose in Life Week 1	66.43	11.84	56.68	9.68	
Purpose in Life Week 2	66.14	12.83	56.56	10.99	
Purpose in Life Average	66.29	12.15	56.62	9.93	3.15**
Positive Relations Week 1	68.54	11.30	56.72	11.66	
Positive Relations Week 2	68.61	11.44	56.00	12.29	
Positive Relations Average	68.57	11.10	56.36	11.72	3.90***
Personal Growth Week 1	69.29	9.62	63.28	9.17	
Personal Growth Week 2	52.46	5.16	54.64	5.85	
Personal Growth Average	60.88	5.64	58.96	6.46	1.15*
CES-D Week 1	13.07	7.02	16.32	9.52	
CES-D Week 2	11.93	6.63	15.76	8.65	
CES-D Average	12.50	5.94	16.04	8.23	1.81
Sleep Quality Week 1	6.91	1.50	6.65	1.62	
Sleep Quality Week 2	6.95	1.64	6.87	1.29	
Sleep Quality Average	6.93	1.44	6.76	1.32	45
Sleep Alertness Week 1	5.74	1.81	6.10	1.69	
Sleep Alertness Week 2	5.89	2.00	6.31	1.66	
Sleep Alertness Average	5.82	1.77	6.20	1.60	83
Sleep Mood Week 1	7.01	1.24	6.71	1.67	
Sleep Mood Week 2	6.70	1.52	6.74	1.33	
Sleep Mood Average	6.85	1.33	6.72	1.39	35
Semester GPA	2.64	.68	2.68	.85	18
Cumulative GPA	2.73	.64	2.71	.70	10

*** p < .001. ** p < .01. * p < .05

Discussion

The purpose of this study was fourfold: (1) to examine the interrelationships among daily routines, subjective well-being, and depressive symptoms in college freshmen; (2) to determine whether greater disturbance in sleep was related to less stability in daily routines, poor subjective well-being, and increased numbers of depressive symptoms; (3) to determine if better academic performance was evident in students with greater stability in daily routines, greater subjective well-being, fewer symptoms of depression, and less sleep disturbance; and (4) to determine if Caucasian and foreign-born Asian students differed in their daily routines, subjective well-being, depression, sleep disturbance, and academic performance.

Psychosocial Variables. An inverse relationship between stability of daily routines and subjective well-being was found, suggesting that the more structured a college freshman's daily routine, the lower their subjective well-being. This finding contradicts previous work (Dew et al., 1994; Monk et al., 1995) in which stability in daily routines had been associated with greater emotional well-being.

One explanation that may account for this discrepancy with previous work may relate to the age or life stage of the sample used in this study. There is evidence suggesting that stability in daily routines is more important to older individuals than to their younger counterparts. For example, Monk et al. (1992) found that consistency in daily life schedules increased with age, possibly because this older population had always been regular in their lifestyle, or because daily routinization developed as an adaptive response to age-related changes in their lives (e.g., birth of a baby, various family activities and

responsibilities).

If the latter is true, it could explain why the sample used in the present study demonstrated considerably less stability in daily routines ($\underline{M}$ = 2.96, $\underline{SD}$ = .81) than older populations ($\underline{M}$ = 4.4, $\underline{SD}$ = .80). In other words, college freshmen may lack regularity in daily life because they have not yet experienced the age-related life events common to older individuals. Students are much less likely to carry the daily responsibilities inherent to marital relationships, having children, and full-time careers, responsibilities that often regulate our daily schedules. In fact, it is credible to assert that many younger individuals are happiest or more fulfilled when engaged in a wide variety of activities each day, and that this "lack of routine" actually reflects more substantial social involvement. Conversely, greater stability in daily routines may reflect more obligations around family and work, which could lead to less involvement in elective activities.

This hypothesis is supported in part by Clark and Watson (1988), who explored the relationship between daily life events and self-reported mood. Studying a sample of 18 young adults over a 3-month period, Clark and Watson found that those students engaged in a wide range of daily activities reported more positive affect than those less engaged in variety of daily activities. Perhaps this sample of college freshmen, and possibly college freshmen in general, may revel in a diversified schedule with freedom to be flexible each day.

When examining the relationship between SRM and specific components of subjective well-being, less stability in daily routines was related to a greater sense of life purpose, a dimension of well-being concerned with more specific goals, aims, and

objectives for living. Examination of a sample item of the Purpose in Life subscale, "my daily activities often seem trivial and unimportant to me," may be one way to illustrate how daily routines and personal well-being influence one another (this item was reverse scored). It is reasonable to hypothesize that an individual experiencing minimal life purpose is more likely to endorse a SPWB subscale item of this type than is an individual experiencing a greater sense of life purpose. Believing that they are unable to make significant contributions to others, or possibly even to themselves, those with a constricted sense of purpose may not pursue activities beyond those required in usual daily living (e.g., meals, attending classes, studying). Conversely, those wanting to make a life contribution may engage in a variety of activities and be more intensely involved with other people or special projects. Obviously, those "juggling" a variety of activities are going to demonstrate less consistency, or regularity, in daily routines.

As expected, higher numbers of depressive symptoms were associated with lower overall subjective well-being, as well as lower scores on each of the SPWB subscales. Although correlational analyses do not allow us to answer the "chicken and egg" question relevant to these relationships, it is likely that a reduced sense of environmental mastery, life purpose, or autonomy would contribute to the development of depressed mood. Future research using a longitudinal experimental design would be needed to address how specific aspects of depressed mood may contribute to a sense of diminished well-being.

The relationship between depressive symptoms and daily routines was not significant. Given that previous research has shown that as daily routines become more stable, subjects report fewer symptoms of depression (Frank et al., 1995;

Prigerson et al., 1995), a significant relationship was expected. However, past studies in this area have focused on very different populations, such as those suffering from clinical depression, the elderly, and the recently bereaved. The CES-D scores of the present sample were not in the clinical range of depression, it is unlikely that many students had suffered a recent loss, and all were young adults; thus the relationship between depressive symptoms and daily routines may not have significance for emotionally healthy, non-bereaved college freshmen.

Sleep Variables. Contrary to expectation, a relationship between sleep disturbance and less stability in daily routines was not significant. Monk et al. (1992) found that consistency in daily routines increased with age, and was associated with improved sleep quality in the elderly. This relationship may therefore be a function of age, rather than a generalizable finding to all age groups. Further research is recommended to establish an age-related trend between less sleep disturbance and greater stability in daily routines.

Although a relationship between sleep disturbance and overall subjective well-being was not supported, positive relationships were evident between Sleep Quality, and Mood Upon Awakening, and the Environmental Mastery subscale of the SPWB. Thus, those who reported a higher quality of sleep and better mood upon awakening also reported a greater sense of control over their everyday affairs. No other dimension of subjective well-being related to sleep disturbance in the present study.

A better mood upon awakening was associated with fewer reported numbers of depressive symptoms. This is consistent with the reported literature (Szuba et al., 1992; Prigerson et al., 1994). However, since the present study measured sleep disturbance for a

brief two-week time period. these relationships seem of little clinical utility. A longitudinal study could better our understanding of the relationship between sleep disturbance and well-being, as well as sleep disturbance and depressed mood.

Academic Performance. Results indicated that academic performance was not higher in students with greater stability in daily routines. greater overall subjective well-being, fewer symptoms of depression. and less sleep disturbance; therefore this hypothesis was not supported. However. the hypothesis was supported in part. in that cumulative GPAs were positively related to two dimensions of subjective well-being (Purpose in Life and Environmental Mastery). Students with higher cumulative GPAs scored higher on each dimension than students with lower GPAs. In addition. semester GPAs related to the Purpose in Life subscale. Thus. when a student performs better in academic endeavors. it may be due to a sense of directedness and control over external activities.

Although previous research investigating academic performance and overall subjective well-being is quite limited. D'Augelli and Hershberger (1993) found no relationship between academic performance and general well-being. which is similar to findings of the present study. However. since the present study found that academic performance related to certain aspects of well-being (life purpose. environmental mastery). this extends D'Augelli and Hershberger's (1993) findings. An explanation could be the difference in measuring well-being. Perhaps the SPWB is more sensitive in evaluating the different components of well-being than the instrument used by D'Augelli and Hershberger. who used the General Well-Being Schedule (Fazio. 1977).

Ethnic Differences. Differences were apparent between Caucasian and Asian students on measures of stability in daily routines. in that foreign-born Asians displayed higher regularity in daily life than Caucasians. However. given the small sample size. and the size of the correlation coefficient. this finding suggests limited clinical utility. No previous published studies could be found either to confirm or deny this relationship. since SRM studies have primarily utilized Caucasian samples. As a potential strength. the SRM seems free of any ethnic response set or bias. This may be because the SRM is not a traditional measure of personality. but rather a recording of the time at which daily activities begin. In the future. studies of daily routines should extend to a range of ethnic groups to allow for generalizable findings across populations.

Differences between ethnic groups in terms of overall subjective well-being were evident with Caucasians reporting higher levels of subjective well-being than Asians. These ethnic differences were apparent for all subscale scores of the SPWB. with the exception of Personal Growth. Previous research in this area (D. Sue & S. Sue. 1987) has proved inconclusive and future research is needed to study SWB across different cultures to find consistencies or lack thereof.

No differences were evident between the two ethnic groups on measures of depression. sleep disturbance. or GPA. This is surprising given previous research that suggests foreign-born Asians experience more depressive symptoms. higher GPAs. and fatigue when compared with Caucasian students (D. Sue & S. Sue. 1987). Methodological problems with the present study may explain the lack of significant findings. The relative small sample (n =28 Caucasian: n = 25 foreign-born Asian) may have made it impossible

to detect any differences between the groups. Also, the differences that were evident may not be valid for the Asian group due to influences of ethnic response sets on some measures (SPWB, CES-D). The scores on the measures used here may indicate positive cultural values when viewed from an Asian perspective, which may be viewed negatively in American society.

Implications and Future Research

An important question arises from the present finding that stability in daily routines is associated with lower subjective well-being. As discussed, perhaps daily routine stability is not only unimportant to younger populations, but inhibiting, confining, and limiting, so much so that it becomes associated with a lower sense of well-being. Future research investigating daily routine stability and subjective well-being utilizing younger populations in comparison to elderly populations may clarify this relationship.

Although relationships were not established among greater sleep disturbance, less daily routine stability, and lower subjective well-being, a relationship was established between greater sleep disturbance and increased numbers of depressive symptoms. This validates previous research, and may lend support to the hypothesis that greater sleep disturbance may be associated with greater numbers of depressive symptoms. However, future research is recommended to study the specific dimensions of sleep disturbance and types of depressive symptoms further that may be involved in this relationship.

The students with higher scores on the Purpose in Life and Environmental Mastery subscales of the SPWB performed better academically than those with lower scores on these subscales. There may be a relationship between certain aspects of subjective

well-being and greater academic performance. Additional research using a larger sample size so multiple regression analysis could be conducted would help to identify the individual components of subjective well-being that contribute to academic performance. In addition, multiple regression analyses would prove useful in conjunction with other pertinent psychosocial variables and how they may influence academic performance.

Ethnic differences were evident on measures of daily routines and subjective well-being, in that Asian students reported higher levels of daily routine stability as well as lower levels of subjective well-being. However, as mentioned previously, caution should be used in interpreting any differences found in the current study between Caucasian and foreign-born Asian ethnic groups due to the small sample size and possible ethnic response bias. Future studies would do well to use a larger sample size and perhaps a more cohesive foreign-born Asian group (i.e., a group from the same Asian country). This would decrease within-group differences and make for a better study design.

The present study supports the conclusion that daily routine stability may be more important in older populations than in younger populations. In fact, diversity in daily life may be more important than consistency in daily schedules for younger individuals, and could contribute to a higher sense of well-being. In summary, these findings support continued investigation of the interrelationships among daily routines, subjective well-being, depressive symptoms, sleep disturbance, and academic performance, as well as how these relationships may vary between Caucasian and foreign-born Asian ethnic groups.

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DAILY ACTIVITIES CHECKLIST
PLEASE FILL THIS OUT AT THE END OF THE DAY

Day of Week:_____   Date:_____

| | | **TIME** | | |
ACTIVITY	CHECK IF DID NOT DO	CLOCK TIME	A.M.	P.M.
OUT OF BED	_____	_____	____	____
FIRST CONTACT (IN PERSON OR BY PHONE WITH ANOTHER PERSON	_____	_____	____	____
HAVE MORNING BEVERAGE	_____	_____	____	____
HAVE BREAKFAST	_____	_____	____	____
GO OUTSIDE FOR THE FIRST TIME	_____	_____	____	____
START WORK, VOLUNTEER ACTIVITIES, CHILD OR FAMILY CARE	_____	_____	____	____
HAVE LUNCH	_____	_____	____	____
TAKE AN AFTERNOON NAP	_____	_____	____	____
HAVE DINNER	_____	_____	____	____
PHYSICAL EXERCISE	_____	_____	____	____
HAVE AN EVENING SNACK/DRINK	_____	_____	____	____
WATCH EVENING TV NEWS PROGRAM	_____	_____	____	____
WATCH ANOTHER TV PROGRAM	_____	_____	____	____
ATTEND CLASS FOR THE FIRST TIME TODAY	_____	_____	____	____
STUDYING	_____	_____	____	____
RETURN HOME (LAST TIME)	_____	_____	____	____
GO TO BED	_____	_____	____	____

84-ITEM MOOD QUESTIONNAIRE

ID#_____   Week#_____   Date:_____

Using the following six-point scale. please respond to each of the following statements as they apply to you.

1	2	3	4	5	6
strongly disagree					strongly agree

____1. Sometimes I change the way I act or think to be more like those around me.

____2. In general. I feel I am in charge of the situation in which I live.

____3. I am not interested in activities that will expand my horizons.

____4. Most people see me as loving and affectionate.

____5. I feel good when I think of what I have done in the past and what I hope to do in the future.

____6. When I look at the story of my life. I am pleased with how things have turned out.

____7. I am not afraid to voice my opinions. even when they are in opposition to the opinions of most people.

____8. The demands of everyday life often get me down.

____9. In general. I feel that I continue to learn more about myself as time goes by.

____10. Maintaining close relationships has been difficult and frustrating for me.

____11. I live life one day at a time and don't really think about the future.

____12. In general. I feel confident and positive about myself.

____13. My decisions are not usually influenced by what everyone else is doing.

____14. I do not fit very well with the people and the community around me.

____15. I am the kind of person who likes to give new things a try.

____16. I often feel lonely because I have few close friends with whom to share my concern.

____17. I tend to focus on the present. because the future nearly always brings me problems.

____18. I feel like many of the people I know have gotten more out of life than I have.

____19. I tend to worry about what other people think of me.

____20. I am quite good at managing the many responsibilities of my daily life.

____21. I don't want to try new ways of doing things--my life is fine the way it is.

____22. I enjoy personal and mutual conversations with family members or friends.

____23. I have a sense of direction and purpose in life.

____24. Given the opportunity. there are many things about myself that I would change.

____25. Being happy with myself is more important to me than having others approve of me.

____26. I often feel overwhelmed by my responsibilities.

____27. I think it is important to have new experiences that challenge how you think about yourself and the world.

____28. It is important to me to be a good listener when close friends talk to me about their problems.

____29. My daily activities often seem trivial and unimportant to me.

____30. I like most aspects of my personality.

____31. I tend to be influenced by people with strong opinions.

____32. If I were unhappy with my living situations. I would take effective steps to change it.

____33. When I think about it. I haven't really improved much as a person over the years.

____34. I don't have many people who want to listen when I need to talk.

____35. I don't have a good sense of what it is I'm trying to accomplish in life.

____36. I made some mistakes in the past. but I feel that all in all everything has worked out for the best.

____37. People rarely talk me into things I don't want to do.

____38. I generally do a good job of taking care of my personal finances and affairs.

____40. I feel like I get a lot out of my friendships.

CONTINUED ON NEXT PAGE

Using the following six-point scale. please respond to each of the following statements as they apply to you.

1	2	3	4	5	6
strongly disagree					strongly agree

_____41. I used to set goals for myself. but that now seems like a waste of time.

_____42. In many ways. I feel disappointed about my achievements in life.

_____43. It is more important for me to "fit in" with others than to stand alone on my principles.

_____44. I find it stressful that I can't keep up with all of the things I have to do each day.

_____45. With time. I have gained a lot of insight about life that has made me a stronger. more capable person.

_____46. It seems to me that most other people have more friends than I do.

_____47. I enjoy making plans for the future and working to make them a reality.

_____48. For the most part. I am proud of who I am and the life I lead.

_____49. I have confidence in my own opinions. even if they are contrary to the general consensus.

_____50. I am good at juggling my time so that I can fit everything in that needs to be done.

_____51. I have the sense that I have developed a lot as a person over time.

_____52. People would describe me as a giving person. willing to share my time with others.

_____53. I am an active person in carrying out the plans I set for myself.

_____54. I envy many people for the lives they lead.

_____55. It's difficult for me to voice my own opinions on controversial matters.

_____56. My daily life is busy. but I derive a sense of satisfaction from keeping up with everything.

_____57. I do not enjoy being in new situations that require me to change my old familiar ways of doing things.

_____58. I have not experienced many warm and trusting relationships with others.

_____59. Some people wander aimlessly through life. but I am not one of them.

_____60. My attitude about myself is probably not as positive as most people feel about themselves.

_____61. I often change my mind about decisions if my friends or family disagree.

_____62. I get frustrated when trying to plan my daily activities because I never accomplish the things I set out to do.

_____63. For me. life have been a continuous process of learning. changing. and growth.

_____64. I often fell like I am on the outside looking in when it comes to friendships.

_____65. I sometimes feel as if I've done all there is to do in life.

_____66. Many days I wake up feeling discouraged about how I have lived my life.

_____67. I am not the kind of person who gives in to social pressures to think or act in certain ways.

_____68. My efforts to find the kinds of activities and relationships that I need have been quite successful.

_____69. I enjoy seeing how my views have changed and matured over the years.

_____70. I know that I can trust my friends. and they know they can trust me.

_____71. My aims in life have been more a source of satisfactions than frustration to me.

_____72. The past had it's ups and downs. but in general. I wouldn't want to change it.

_____73. I am concerned about how other people evaluate the choices I have made in my life.

_____74. I have difficulty arranging my life in a way that is satisfying to me.

_____75. I gave up trying to make big improvements or changes in my life a long time ago.

_____76. I find it difficult to really open up when I talk to others.

_____77. I find it satisfying to think about what I have accomplished in life.

_____78. When I compare myself to friends and acquaintances. it makes me feel good about who I am.

_____79. I judge myself by what I think is important. not by the values of what others think is important.

_____80. I have been able to build a home and a lifestyle for myself that is much to my liking.

_____81. There is truth to the saying you can't teach an old dog new tricks.

_____82. My friends and I sympathize with each other's problems.

_____83. In the final analysis. I'm not so sure that my life adds up to much.

_____84. Everyone has their weaknesses. but I seem to have more than my share.

Below is a list of ways you might have felt or behaved. How often have you felt this way during the **past week?** (Please check the box that best applies for each item).

During the past week:	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
1. I was bothered by things that usually don't bother me.	☐	☐	☐	☐
2. I did not feel like eating; my appetite was poor.	☐	☐	☐	☐
3. I felt that I could not shake off the blues even with help from my family and friends.	☐	☐	☐	☐
4. I felt that I was just as good as other people.	☐	☐	☐	☐
5. I had trouble keeping my mind on what I was doing.	☐	☐	☐	☐
6. I felt depressed.	☐	☐	☐	☐
7. I felt that everything I did was an effort.	☐	☐	☐	☐
8. I felt hopeful about the future.	☐	☐	☐	☐
9. I thought my life had been a failure.	☐	☐	☐	☐
10. I felt fearful.	☐	☐	☐	☐
11. My sleep was restless.	☐	☐	☐	☐
12. I was happy.	☐	☐	☐	☐
13. I talked less than usual.	☐	☐	☐	☐
14. I felt lonely.	☐	☐	☐	☐
15. People were unfriendly.	☐	☐	☐	☐
16. I enjoyed life.	☐	☐	☐	☐
17. I had crying spells.	☐	☐	☐	☐
18. I felt sad.	☐	☐	☐	☐
19. I felt that people disliked me.	☐	☐	☐	☐
20. I could not get "going."	☐	☐	☐	☐

SLEEP QUESTIONNAIRE

Sleep Record   Keep by Bed

Please fill out this part of the record FIRST THING IN THE MORNING

WENT TO BED LAST NIGHT AT.........._____

ATTEMPTED TO FALL ASLEEP AT...._____

MINUTES UNTIL FELL ASLEEP.........._____

FINALLY WOKE AT..........................._____

        AWAKENED BY: Please check one:
             Alarm Clock/Radio...____
             Someone whom I asked to wake me..............................____
             Noises..____
             Just woke..____

Ratings (Place a mark somewhere along the line)

SLEEP QUALITY:

very
bad
      _____
                                                     very
                                                     good

MOOD ON FINAL WAKENING:

very
tense
      _____
                                                     very
                                                     calm

ALERTNESS ON FINAL WAKENING:

very
sleepy
      _____
                                                     very
                                                     alert