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STUDENT FUNCTIONING, CONCERNS, AND
SOCIO-PERSONAL WELL-BEING

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ABSTRACT. The following study used the Student Quality of Life and Satisfaction (SQOLAS) instrument and 467 University of Rhode Island undergraduate and graduate students as participants in order to examine relationships among functioning and performance variables, student concern and importance areas, and measures of socio-personal satisfaction and well-being. Canonical correlational analysis revealed two statistically significant canonical correlations between a student functioning/performance variable set and a concern/importance area variable set. A set of variables related to increased concern and importance ratings of socio-sexual behavior, and decreased ratings of crime, violence, multicultural, and gender issues was significantly associated with a second set of variables: increased levels of alcohol use and associated negative consequences, younger age, increased mental health concerns, men more than women, decreased class year, and less positive ratings toward direction in life. Standard multiple regression analysis produced a statistically significant model where positive attitude towards direction in life can be predicted by higher levels of socio-personal satisfaction and deep metacognitive processing, and lower levels of alcohol use and associated negative consequences, and fewer mental health concerns. Implications of the results are discussed in relation to theories of cognitive behavior, phenomenological functioning, life meaning, and well-being.

Much of the growing body of research on college students has examined relationships among student performance and functioning variables in primarily an academic functioning sense, including a large array of personal, social, cognitive, and behavioral variables (e.g., Bartling, 1988; Britton and Tesser, 1991; Schmeck, Geissler-Brenstein and Cercy, 1991; Solomon and Rothblum, 1984). Many of these studies have had the common theme of attempting to best describe, establish relationships, and predict why students perform and function the way they do, and how optional functioning and performance can best be obtained, developed, and enhanced.



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For example, time management and prioritization of tasks (Britton and Tesser, 1991), the addressing of negative coping skills (Solomon and Rothblum; 1984), modification of learning styles (Bartling, 1988; Schmeck et al., 1991), and responsible use of alcohol and awareness of other high-risk behaviors (e.g., dealing with socio-personal issues related to negative consequences from high-risk behaviors) (Maney, 1990) are examples of the applications of tools which can enhance optimal student functioning and performance.

Unfortunately, almost none of the research has emphasized and directly addressed the personal goals and motivation of students in a larger context. According to Ryff (1989), the literature base is rich with studies related to optimal functioning and well-being, yet the operationalization of related constructs and the linking of these constructs has been weak.

Two contextual questions are specifically related to this study. First, are there links and relationships between student concern and importance areas (e.g., career and employment, financial security, physical and mental health, use of time, etc.), in a quality of life sense, with measures of current performance and functioning? Second, how much do student importance and concern areas influence current performance and functioning and vice-versa?

Links between student functioning/performance variables and concern/importance variables can be addressed within Maslow's (1968, 1971) theory of goal-directed functioning, and certain aspects of social learning theory (Mischel, 1973, 1984, 1986). These studies and works create a framework into which personal, social, cognitive, and behavioral variables interact to form an overall model of optimal person functioning.

Mischel (1984) emphasizes that there is considerable overlap between several of the phenomenological theories of human functioning and the theories espoused by the cognitive behaviorists. Moreover, a combination of performance/functioning and importance/concern variables can dictate, and thus predict, one's overall levels of well-being, quality of life, personal, and social satisfaction (e.g., Diener, 1984; Mischel, 1986; Myers, 1995; Ryff, 1989; Staats, Armstrong-Stassen and Partilo, 1995).

According to Mischel (1986), self-perception variables such as esteem and actualization can be predictors of behavioral outcome, not only in a delay of gratification sense (e.g., the relationship between esteem and being able to forego immediate gratification knowing the delayed rewards are potentially greater), but in a quality of life and well-being sense as well (e.g., not accepting a high-paying immediate job and instead, applying to graduate school with the goals of enhancing oneself in a career, long-term financial, educational, future-directed, and overall quality of life and well-being sense).

OPTIMAL STUDENT PERFORMANCE AND FUNCTIONING

Cognition and Affect

Solomon and Rothblum (1984) identified fear of failure, task aversiveness, depression, irrational cognitions, low self-esteem, delayed study behavior, anxiety, and lack of assertion as having cognitive-behavioral relationships to academic procrastination, thus impacting overall academic performance and success. Students who employed cognitive strategies in assessing and dealing with negative-related functioning variables showed better use of time and increased objectivity, and thus were more successful both academically and personally. A major point of the study was to show the complex interaction of behavioral, cognitive, and affective components that determine how individuals approach task management as it relates to use of time and the resulting academic performance.

Use of Time

Britton and Tesser (1991) found that better time management practices enhanced academic performance. They used semester and yearlong longitudinal studies and looked at several variables related to time management and student functioning. By assessing variables such as realistic goal setting, task evaluation, attitude, concentration and distraction factors, and a concrete focus on "time and place orientation to task," it was revealed that one of the underlying features of successful students was appropriate boundaries. Students who possessed a more solid and confident sense of self were able

to say “yes” and “no” more effectively in dealing with time-demand and time-management related situations. These students also had a better sense of self-empowerment related to goal setting and a higher percentage of goal accomplishment.

Academic Functioning and Task Mastery

The combination of behavioral and cognitive correlates related to learning style and the resulting academic consequences (GPA) have been linked to use of time, locus of control, and self-perception variables, and can thus be viewed as task mastery (Gage and Berliner, 1991). Task mastery involves the view that tasks can be mastered if several direct and indirect factors are taken into consideration.

Some examples of behaviors, cognitions, and concepts for student success (and person success) are: objectivity in viewing tasks relative to the particular situation, feelings of competence in order to attempt the task, asking for assistance when needed, managing time effectively, setting realistic goals, and using past successes and failures in order to guide oneself through future tasks (Gage and Berliner, 1991). The art of task mastery is a result of the complex interaction of the variables related to self-perception variables such as esteem and efficacy.

Metacognitive Processing

Based upon levels of cognitive processing theory (Craik and Lockhart, 1972; Craig and Tulving, 1975), it has been shown that as class year increases, levels of cognitive processing significantly increase (Bartling, 1988; Schmeck, 1983; Schmeck et al., 1991; Schmeck and Grove, 1979). For example, when the typical college student enters as a freshman, their critical thinking skills and deep and elaborative cognitive processing are not as advanced as seniors and graduate students.

On the lower end of the cognitive processing scale are methodical study and fact retention, where students simply follow direction, process basic information, and conform to the academic structure and requirements of a course. Elaborative and deep processing are on the higher end of the scale. These two levels involve greater use of metacognitive learning strategies and memory techniques, integration of new material with older material, and the personal

translation of information into a state that makes it easier to understand and integrate. Deep processing, the highest of the levels, involves extensive use of critical thinking, conceptual organization, and the comparing and contrasting of information.

Alcohol and Drug Use

Recent research relates the use of alcohol and drugs to student performance and functioning. Maney (1990) found that significant predictors of college student alcohol consumption were negative attitudes towards responsible alcohol consumption, gender (e.g., men drinking significantly more than women), GPA (e.g., heavy and moderate drinkers reporting lower GPA's), and self-esteem and well-being (e.g., students with lower levels of self-esteem and well-being consumed more alcohol).

Large-scale nationwide studies on college drinking and drug use show that perceptions of drinking norms in the student environment (Perkins and Wechsler, 1996), and risk behavior associated with drug and alcohol use (Douglas et al., 1997), are associated not only with the drinking patterns of college students (both negative and positive), but with many of the negative consequences as well (e.g., driving while intoxicated, injury to self and others, lower grades, unsafe sex, sexual assault, depression, poor social relationships, etc.).

STUDENT NEEDS AND CONCERNS

An extensive body of literature has shown that when major college student concern and need areas are studied collectively, the highest rated concerns by students are focused primarily upon career planning, finance management, and time management (Disch, 1998; Disch, Dougan and Campbell, 1997; Carney and Savitz, 1980; Gallagher, Golin and Kelleher, 1992). Additionally, concern areas involving high-risk behaviors (sexual-behavioral, drugs and alcohol, crime and violence-related) have been found to be less important overall to students than to faculty, staff, and administrators (Disch, 1998; Disch et al., 1997; Gallagher et al., 1992; Harris and Anttonen, 1986).

Sax, Astin, Korn and Mahoney (1997) found that even though student involvement in their studies has declined, especially over the past 12 years, they are more concerned with future career goals and how the earning of a college degree will enhance their future quality of life. Additionally, they found significant decreases in student political involvement and social activism, and more conservative social attitudes towards abortion, sexuality, gender, and ethnicity. Furthermore, student concerns about financial security and current financial situations are increasing at an alarming rate (Sax, Astin, Korn and Mahoney, 1996). They found that between 1976 and 1996, student's ratings of financial assistance for college being "very important" has more than doubled from 13%, to the current 33%. The trend also shows that the typical entering freshperson is financially most concerned with having to work while at school and not having adequate funds to complete college. Additionally, the rate that students are choosing which college to attend, based upon financial constraints, is at an all-time high.

Finally, in studies looking at student needs and concerns related to personal well-being, Staats et al. (1995) found, in two temporally separated samples of college students (1984, 1992), that even though self-esteem and social support remained as consistent predictors of well-being, several significant changes had occurred over the 8 year period. They found that students in the 1992 sample had lower expectations of what they should have materially, and where they should be in a career and educational sense, than those from the 1984 sample. They also found that expectations and optimism about the future were lower in the 1992 sample. Additionally, they found relationships between declining health and recreation oriented activities from the 1992 sample and concluded that more emphasis on use of time issues, combined with a general shift in economic resources (e.g., increased competition compounded by less available time in order to acquire resources), were two of the primary associated factors. Finally, they found lower overall levels of subjective well-being in the 1992 sample over the 1984 sample.

Targeting Importance and Concern Areas

The Student Quality of Life and Satisfaction instrument (SQOLAS), (Disch et al., 1997) used available literature, and the results from several meetings and discussions with experts (both individually and in groups) in order to assess 10 student concern and importance areas.

The 10 general high-concern student areas included: (1) drug and alcohol consumption, (2) social and sexual behavior, (3) use of time, (4) consumer and finance issues, (5) physical and mental health issues, (6) multicultural and gender issues, (7) learning style, (8) career and employment issues, (9) crime and violence issues, and (10) living issues.

Several of the 10 general concern and importance areas relate strongly to Maslow's (1968, 1971) idea that optimal human functioning is based upon goal-directed, purposeful, and behaviorally projected perceptions of the self, motivated by higher actualization needs. For example, if lower needs such as the basic physiological, safety, and security needs (e.g., a safe residence hall, adequate income to buy food, clothing, and books, etc.) are not met, higher order needs such as optimal feelings about the self and others, as well as positive attitudes concerning life direction and meaning, will be difficult to focus upon and obtain.

A graphic example of safety and security needs being thwarted is when a student feels threatened, preoccupied, and anxious as a result of drug and alcohol-fueled criminal and violent behavior of others on campus. The situation creates the possibility of less focus on academic, personal, and social success and more focus on coping with the fear, dealing with the anxiety, and tending to basic safety and security issues (e.g., basic survival needs) such as how to walk back to a residence hall at night from the library without bumping into an intoxicated person.

QUALITY OF LIFE AND WELL-BEING

Quality of life, life meaning, spirituality, happiness, and well-being have interested not only psychologists, but sociologists, anthropologists, those in the medical profession, and others as well. Almost all of the disciplines have made attempts at defining these constructs

but there has never been agreed upon definitions (Ross, 1995; Ryff, 1989). Definitions cross over several theoretical areas. For example, there is consistent overlap with spirituality, personal belief systems, personal well-being, meaning in life, existentialism, and religiousness and religiosity (e.g., Diener, 1984; Ellison, 1983; Frankl, 1959; Hasse, Britt, Coward and Leidy, 1992; Moberg, 1979; Ross, 1995; Ryff, 1989).

According to Ellison (1983), and Bufford, Paloutzian, and Ellison (1991), the social indicators and quality of life movement of the 1960's and 1970's failed to assess religious well-being and one's need for transcendence, namely, existential well-being. The Spiritual Well-Being Scale (Ellison, 1983) resulted in the filling of this void and reliably assessed religious well-being, as well as existential components, namely, physical and mental health, assertiveness, and psychological adjustment. Specifically, life satisfaction, direction, and purpose were assessed with an existentialism subscale and religious well-being was assessed with a religious subscale. It was shown that as overall and subscale scores increased, belief and commitment to one's view and conceptualization of meaning in life significantly increased.

Specifically related to young people and college students, several studies have shown various relationships between quality of life and well-being and a combination of personal, social, cognitive, and behavioral factors. Harlow and Newcomb (1990) showed that 7 positively influenced primary factors (purpose in life, perceived opportunity, health and work satisfaction, and peer, family, and intimate relationships), and two negatively influenced primary factors (powerlessness and meaninglessness) were all significant building blocks supporting a model of life meaning in young people.

It is crucial, in a quality of life and well-being sense, that student needs and concerns are identified, and that the relationships between those variables and variables related to student performance and functioning are examined using global and multivariate methods as opposed to coming to general quality of life and well-being conclusions based upon simple univariate and bivariate analytical models (Carney and Savitz, 1980; Gallagher et al., 1992; Staats et al., 1995). By looking at larger sets of related variables (e.g., Harlow

and Newcomb, 1990; Ryff, 1989; Staats et al., 1995), it is possible to link theoretical constructs related to college student quality of life and well-being to existing theories, thereby allowing for greater insight into the area of optimal functioning potential.

RESEARCH QUESTIONS

The goals of the current study are to answer the following questions: (1) Are there relationships between the set of student performance/functioning variables and the set of student importance/concern variables, how much do the sets of variables overlap, and to what extent are sets of variables related within themselves? (2) Which performance/functioning and need/concern variables are the best predictors of personal well-being? Finally, the results will be used to assess which direction to take in revising and maximizing the psychometric properties of the SQOLAS instrument.

It was predicted that at least two subsets of variables would emerge from the performance/functioning set (e.g., academic issues, personal satisfaction, risky behaviors and consequences, etc.). Additionally, variable subsets were expected to emerge from the 10 importance/concern area variable set. Furthermore, it was believed that the two sets would not only be interrelated, but intrarelated as well. Finally, it was predicted that variables such as social support, GPA, desire to seek counseling, etc., would enable prediction of well-being, life direction, and meaning in a population of college students.

METHOD

Participants

Participants were 467 undergraduate and graduate students from a medium-sized New England public university who responded to and returned the SQOLAS survey which included, in the following order, an instruction and consent cover page, a concern and importance areas section, a demographic section, a socio-behavioral and personality section, and a counseling and mental health section.

Participants were randomly selected from the entire university population, including graduate students and students from the satellite campus. This provided a broader age, class, ethnicity, and student status participant pool which greatly increases generalizability of the findings by using a more heterogeneous sample in the analysis (Berkowitz and Donnerstein, 1982; Graham, 1992; Tabachnick and Fidell 1996).

Design and Procedures

Approximately 3,000 student addresses were obtained from the admissions department at the university. Selection criteria consisted of the random generation of mailing addresses by on-campus and off-campus living status, gender, graduate and undergraduate status, and main and satellite campus status. For example, for undergraduates, the request consisted of 375 on-campus women, 375 off-campus women, 375 on-campus men, and 375 off-campus men, all from the main campus. Additionally, 200 female and 200 male satellite campus undergraduate mailing addresses were obtained.

Three-thousand surveys were mailed and the return rate was initially 16 percent ($N = 486$). Each survey contained a pair of raffle tickets and a phone number to call after a specified date. The incentives consisted of a first prize consisting of one semester of free textbooks. Second, third, and fourth prizes consisted of one \$100.00 prize and two \$50.00 prizes. Participants were asked to return one of the raffle tickets with the completed survey if they were interested in the prizes.

In addition to a cover sheet explaining the goals of the survey, which also included instructions and the informed consent, each page contained a statement of confidentiality and anonymity. Nineteen surveys were rejected after failing a multi-tiered screening procedure that detected random responding and other dubious issues. The final return rate was 15 percent ($N = 467$).

Methodological procedures were followed, and the ethical guidelines were met in accordance with recommendations by the American Psychological Association (1992). Finally, and of utmost importance, was the confidentiality and anonymity of participants. No names or identifying information were collected as it was not needed for the purposes of the study. Human subject

approval from the Institutional Review Board had been previously received.

Demographics

The SQOLAS survey obtained extensive demographic information. Demographic variables collected were: age, gender, did one have children and how many, ethnicity, work status, work hours, years of formal education, class year, graduate student status, re-entry student status and how many years between previous education and the time participant filled out the survey, previous semester GPA, overall GPA (all college), number of current credits, average number of credits taken, academic program status, college, and major.

Measurement Development

Student concern and importance areas. The 10 targeted high importance and concern areas were: (1) drug and alcohol consumption, (2) social and sexual behavior, (3) use of time, (4) consumer and finance issues, (5) physical and mental health issues, (6) multicultural and gender issues, (7) learning style, (8) career and employment issues, (9) crime and violence issues, and (10) living issues.

Target Area Scoring

The 10 major target areas, as well as the 50 sub-target items were each listed with a distinct blank line next to each item. Participants were asked to write the appropriate rating/rank number next to each item. For the 10 major target areas, the instructions were as follows:

Please rank the following items from 1 to 10 as to how IMPORTANT they are to you and how CONCERNED you are about them, with 1 being the MOST IMPORTANT and MOST CONCERNED and 10 being the LEAST IMPORTANT and LEAST CONCERNED. Please rank all items and do not use the same number more than once. Thank you!

Other Measures

Academic program status and standing. This single item was included in the demographic section. The item was phrased "I am . . . ahead in my academic program, behind in my academic program,

on-track in my academic program." Participants circled one of the three choices. The items were coded so that "behind" = 1, "on-track" = 2, and "ahead" = 3. Therefore, higher scores indicated that an individual was more likely to be on-track or ahead in their academic program.

Level of cognitive processing. The Learning Styles Inventory (Schmeck, 1983) is an instrument which assesses where an individual scores on 4 levels of the cognitive processing of information. Of the 4 subscales that measure incremental levels of cognitive processing, the current study used only the deep cognitive processing subscale. This subscale measures to what extent an individual processes information at a deep metacognitive level. Deep processing is the highest level, involving the most intensive use of metacognitive processing skills. The subscale consisted of 19 5-point Likert-scaled items (1 = always, 5 = never). Several items were reverse-scored. High scores indicated greater levels of deep processing. Test-retest reliability has been found to be 0.88 and Cronbach's alpha was 0.82 (Albaili, 1993; Schmeck and Ribich, 1977).

Alcohol consumption, average number of drinks consumed, negative consequences related to alcohol consumption. These were three separate single items included in the counseling/physical and mental health section. The alcohol consumption frequency item simply asked participants to indicate "On how many occasions have you had a drink of alcohol in the past 30 days." Response selections were 0-5, 6-10, 11-15, 16-25, and 26 or more. Participants were not specifically asked if they did not drink, only which category they fell into.

For the item assessing average number of drinks consumed per drinking occasion, participants filled in a blank asking them "How many drinks do you normally have at a time." Regarding negative consequences, participants responded to an item asking, "In the last year, how often has your drinking/using caused (you to) . . ." They then circled as many of 13 negative consequence choices that were applicable. The consequence choices were categorical, in that each response represented a different "set" of negative consequences. Thus, higher scores indicated higher levels of different negative con-

sequence categories, not the actual number of consequences per any particular category.

These negative consequence items included hangovers, miss class/work, get behind in school/work, regretful behavior, arguments, unplanned sex, unsafe sex, property damage, trouble with police, injury/hurt, driving under the influence, embarrassment/guilt/shame, and forgetting where one was/what one did.

Life satisfaction, direction, and well-being. The Spiritual Well-Being Scale (SWBS), according to the author (Ellison, 1983), avoids specific definitions of well-being in order to get at a much more broad and general overview of self-reported "well-beingness." The SWBS results in two subscales: existential well-being (EWB) and religious well-being (RWB) which combined yield an overall spiritual well being score. Test-retest reliability has been found to be 0.86, Cronbach's alpha was 0.78, and there is support for good divergent, construct, and convergent validity (Bufford et al., 1991; Paloutzian and Ellison, 1982).

The SQOLAS study used only the EWB subscale for two reasons. First, it was desired to avoid religious bias and also to avoid the ceiling effects found with highly religious participants on the RWB subscale (Bufford et al., 1991). Second, only measures of life satisfaction and life direction (measured by the EWB subscale) were desired and selected for use in the current study. High scores indicated greater well-being.

Personal satisfaction and social support. These were two separate and single 5-point Likert-scaled items included in the counseling/physical and mental health section of the study. Personal satisfaction asked "How satisfied are you with yourself as a person?" and the response choices required the participant to circle one of 5 response choices ranging from very satisfied to unsatisfied. Social support was phrased "My social support system from family and friends is . . ." Again, response choices required participants to circle one of 5 choices ranging from strong and helpful to non-existent. Both items were reverse-scored. High scores indicated higher levels of personal satisfaction and social support.

TABLE I
Overall Demographics (N = 467)

	n	percent
Gender		
Male	200	43
Female	267	57
Age		
Mean (28 yrs.)	464	99
Median (26 yrs.)	464	99
Mode (18 yrs.)	464	99
18-22 yrs.	159	34
23-27 yrs.	96	21
28-32 yrs.	87	19
33-37 yrs.	52	11
38-42 yrs.	42	9
43+ yrs.	28	6
missing	3	<1
Relationship Status		
Single	276	59
Married	139	30
Living with partner	26	6
Divorced/Separated	23	5
Other/Missing	3	<1
Do You Have Children?		
No	357	77
Yes	109	23
Ethnicity		
Caucasian	397	86
Asian	20	4
Black	17	4
Latino/Latina	15	3
Mixed	11	2
Other/Missing	7	<1

TABLE I
Continued

	n	percent
Class Year		
Freshmen	81	17
Sophomore	65	14
Junior	52	11
Senior	36	8
Undergraduate Total	234	49
Graduate Total	230	50
Missing	3	<1
Do You Work?		
Yes	385	82
No	79	17
Missing	3	<1

Counseling and mental health issues. One of the items on the counseling/physical and mental health section asked participants to circle up to three items that they had addressed in prior counseling. A second item had participants circle up to three items that they would like to address if future counseling were pursued. Both items used the same block of 17 response choices. Each item was followed by the list of the 17 response choices (Disch and Campbell, 1997).

The selection of items from both of the questions were: psychological testing, academic testing, loneliness, depression, sexuality, relationships, family issues, violence/assault, stress, grief/loss, alcohol/drugs, suicidal thoughts, gambling, eating issues, self-esteem, ethnic/cultural issues, anger/rage, and sleep. The total number of items circled were summed, with higher scores indicating higher levels of issues addressed in prior counseling and higher levels of which issues would like to be explored in future counseling.

TABLE II

Concern Area Rankings, Means, and Standard Deviations of the 10 Major Target Areas from Most (1) to Least (10) Importance/Concern Ratings (N = 467)

	Rank	Mean	Standard Deviation
Career & Employment Issues	1	3.5	2.4
Use of Time	2	4.4	2.8
Physical & Mental Health Issues	3	4.4	2.5
Consumer & Finance Issues	4	4.9	2.6
Living Issues	5	5.5	2.7
Socio-Sexual Behavior	6	5.7	2.7
Crime & Violence Issues	7	5.8	2.6
Learning Style	8	6.4	2.6
Multicultural & Gender Issues	9	7.0	2.7
Drug & Alcohol Consumption	10	7.0	2.9

RESULTS

The data were analyzed using the SPSS (Statistical Package for the Social Services – version 7.5 for Windows, 1997) computer software program. Assumptions of normality, linearity, and homoscedasticity were assessed, as well as issues of multicollinearity and singularity. No violations were found and no adjustments were necessary. Missing values for all variables used in this study were minimal and were handled using the mean replacement technique (Tabachnick and Fidell, 1996).

Demographic characteristics are presented in Table I. Results of the rankings of the 10 major target areas including means and standard deviations are presented in Table II. Results for the other measures are given in Tables III to V.

Exploratory Analysis

Because of the large number of performance/functioning and demographic variables available for a canonical correlational analysis, component analysis was conducted on several of the demographic

TABLE III

Counseling Center/Mental Health Survey Items Concerning Alcohol Consumption and Consequences Related to Alcohol and Drug Use (N = 467)

On how many occasions have you had a drink of alcohol in the last 30 days?

	Percent	Frequency
0-5	63.8	298
6-10	18.6	87
11-16	9.6	45
16-25	5.1	24
26 or more	1.9	9

How many drinks do you normally have at a time?

$M = 2.4, SD = 2.2$

In the last year, how often has your drinking/drug use caused (you to) ...?

Percentage and frequency of the total n of the specific group responding to item reporting one or more consequences

47%, $n = 218$

Mean and standard deviation of consequences from the n who stated having at least one consequence

$M = 2.7, SD = 2.1$

Note. On the alcohol consumption in the past 30 days item, only general groupings were assessed (0-5, 6-10, 11-16, 16-25, 26+). Participants were not specifically asked if they *did not* drink alcohol, although 13% overall, 14% male, 12% female, 14% age ≤ 22 , and 10% grad specifically noted that they do not drink.

Note. Consequences related to alcohol and drug use were actually the number of *different* categories of major consequences experienced in the past year and not the total number of overall consequences.

and mental health variables in order to combine the single correlated variables into a more parsimonious arrangement.

Principal component extraction using direct oblimin (oblique) rotation was performed on specific variables related to alcohol consumption and consequences, personal and social satisfaction, and academic issues (GPA and program standing) in order to maxim-

TABLE IV
Counseling Center/Mental Health Survey Items Concerning
Social Support System and Personal Satisfaction (N = 467)

<i>My social support from family and friends is ...</i>		
	Percent	Frequency
<i>strong & helpful</i>	44.8	209
<i>above average</i>	31.9	149
<i>average</i>	17.1	80
<i>below average</i>	4.9	23
<i>non-existent</i>	0.9	4
<i>How satisfied are you with yourself as a person?</i>		
	Percent	Frequency
<i>very satisfied</i>	28.3	132
<i>mostly satisfied</i>	50.3	235
<i>satisfied</i>	14.8	69
<i>not very satisfied</i>	6.0	28
<i>unsatisfied</i>	0.2	1

ize correlations between components, according to the guidelines suggested by Tabachnick and Fidell (1996). Three components emerged from the analysis and accounted for 65.9 percent of the total variance. See Table VI for the rotated component loadings (using the pattern loadings), communalities (h^2), coefficient alpha (α), percents of variance, and correlations between components.

The components that emerged were alcohol use and consequences, socio-personal satisfaction, and academic functioning. The minimum loading for any variable onto its relevant component was 0.40. Internal consistency analyses were performed on the three components for use in this study, and also for use in the revision process of the SQOLAS instrument. Internal consistency reliability coefficients were 0.73 for alcohol use and consequences, 0.70 for academic functioning, and 0.58 for socio-personal satisfaction.

TABLE V

Counseling Center/Mental Health Survey Items Concerning Prior Counseling Experience and Desire to Seek Future Counseling (N = 467)

<i>Participation in counseling at some point in the past</i>		
	Percent	Frequency
yes	43.7	204
no	55.5	259
<i>Participation in counseling in the past year</i>		
	Percent	Frequency
yes	18.4	86
no	70.0	327
<i>Number of primary areas addressed in previous counseling</i>		
$M = 1.2$		
<i>Number of participants indicating desire to seek counseling in the future</i>		
	Percent	Frequency
	79	368
<i>Number of primary areas to be addressed noted by participants who indicated interest in future counseling</i>		
$M = 2.0$		

Both past and future counseling means of areas addressed or to be addressed are based upon the overall n of the particular group. Participants were asked to circle up to three out of a possible 18 Counseling Center/mental health areas.

Canonical Correlation

Canonical correlational analyses were performed between the set of 10 concern and importance target area variables and a set of 10 functioning/performance variables. The 10 target area variables

TABLE VI

Component Loadings, Communalities (h^2), Alpha (α), Percents of Variance for Principal Components Extraction and Direct Oblimin (Oblique) Rotation, and Between-Component Correlations on 8 Variables Related to Academic Functioning, Alcohol Consumption and Consequences, and Socio-Personal Satisfaction

Item	C ₁	C ₂	C ₃	h^2	α
<i>Academic Functioning (C₁)</i>					0.70
Current Estimated GPA	0.89			0.81	
Overall GPA	0.91			0.81	
Academic Program Status (behind, on-track, ahead)	0.45			0.30	
<i>Alcohol Consumption & Consequences (C₂)</i>					0.73
Number of Drinking Occasions in Past 30-Day Period		0.78		0.60	
Average Number of Drinks Consumed Per Drinking Occasion		0.84		0.74	
Number of Negative Consequences Related to Alcohol Consumption		0.79		0.67	
<i>Socio-Personal Satisfaction (C₃)</i>					0.55
Self-Satisfaction			-0.81	0.68	
Social Support System			-0.81	0.67	
Percent of Variance		29.86	20.60	15.45	
Total Variance Accounted for (3 components): 65.91%					
Between-Component Correlations					
C ₁			-0.11*	-0.24**	
C ₂				0.004	
C ₃					

Note. Only loadings of variables onto specific components are shown. No other loadings onto the non-specific components exceeded 0.22.

* $p < 0.05$, two-tailed. ** $p < 0.01$, two-tailed.

were used because of their representation of the broad spectrum of general interest areas related to student importance and concern.

The functioning/performance variable set consisted of 5 composite variables: alcohol use and consequences, attitude concerning life direction and future, academic issues, level of deep cognitive processing, socio-personal satisfaction, and 5 single variables: age, gender, class year, number of issues addressed in prior counseling, and number of issues to be addressed if one were to seek counseling in the future. These variables were chosen for use in the analysis because they theoretically fit the primary goals of the current study. First, because they corresponded with the hypothesis and areas of interest reviewed in the literature, and second, because several of the variables were of great interest to the Counseling Center's needs and other research currently being conducted.

The first canonical correlation was 0.38, with 14 percent of overlapping variance, and the second was 0.26, with 7% of overlapping variance. See Table VII for canonical variate loadings, canonical correlations, percents of variance, and redundancies. Of the 10 canonical correlation that emerged from the analysis, only the first two were statistically significant. With all the canonical correlations included, $\chi^2(100) = 173.95, p < 0.001$, and with the first canonical correlation removed, $\chi^2(81) = 104.31, p = 0.042$. The remaining χ^2 tests were not statistically significant.

The total percent of variance and total redundancy indicate that the first pair of canonical variates were marginally related, and the second pair were only minimally related. Interpretation of the second canonical variate pair is questionable.

Using a cutoff correlation of 0.30 (Tabachnick and Fidell, 1996), the variables in the concern and importance areas set that were correlated with the first canonical variate were social and sexual behavior (-0.65), crime and violence issues (0.55), and multicultural and gender issues (0.43). Among the functioning/performance variables, alcohol use and consequences (0.65), age (-0.48), issues to be addressed if counseling were to be explored (0.48), gender (-0.43), class year (-0.37), and attitude concerning direction in life (-0.33) correlated with the first canonical variate.

Increased levels of concern and importance about socio-sexual behavior, and less concern about crime and violence, and multicult-

TABLE VII

Canonical Variate Loadings, Canonical Correlations, Percents of Variance, and Redundancies Between Concern/Importance Area Variables (Set 1) and Functioning/Performance Variables (Set 2)

	<i>First canonical variate</i> <i>Canonical loadings</i>	<i>Second canonical variate</i> <i>Canonical loadings</i>	
Concern and Importance Areas (Set 1)			
Drug/Alcohol Consumption	-0.25	-0.40	
Socio-Sexual Behavior	-0.65	0.48	
Use of Time	0.05	0.35	
Consumer/Finance Issues	-0.02	0.79	
Physical/Mental Health	0.26	-0.18	
Multicultural/Gender Issues	0.43	-0.46	
Learning Style	-0.01	0.21	
Career/Employment	0.01	0.58	
Crime/Violence	0.55	-0.21	
Living Issues	-0.20	0.13	
Percent of Variance	0.11	0.18	Total = 0.29
Redundancy	0.02	0.01	Total = 0.03
Canonical Correlations	0.38	0.26	
Functioning/Performance Variables (Set 2)			
Alcohol Use/Consequences	0.65	0.05	
Well-Being/Life Direction	-0.33	0.08	
Academic Functioning	-0.06	-0.23	
Deep Cognitive Processing	-0.21	0.01	
Socio-personal Satisfaction	-0.16	-0.15	
Age	-0.48	0.12	
Gender	-0.43	0.19	
Class Year	-0.37	-0.28	
Prior Counseling	-0.17	0.80	
Desire for Future Counseling	0.48	0.43	
Percent of Variance	0.14	0.10	Total = 0.24
Redundancy	0.02	0.01	Total = 0.03

Note. Canonical loadings > 0.30, and the two canonical correlations use bold-faced type.

tural and gender issues are associated with higher levels of alcohol use and consequences, issues to be addressed if counseling were to be explored, younger age, lower class year, and lower levels concerning attitude toward direction in life, and more so with men than with women.

The concern and important areas that were correlated with the second canonical variate were consumer and finance issues (0.79), career and employment issues (0.58), socio-sexual behavior (0.48), multicultural and gender issues (-0.46), drug and alcohol consumption (-0.40), and use of time (-0.35). The correlated functioning/performance variables were prior counseling issues addressed (0.80), and desire to explore future counseling issues (0.43). Increased concerns regarding multicultural and gender issues, drug and alcohol consumption, and use of time, and decreased concerns related to consumer and finance issues, career and employment, and socio-sexual behavior were associated with increased levels of issues addressed in prior counseling and desire to explore future counseling issues.

Multiple Regression

Standard multiple regression analyses were performed using the highest correlated variables in order to produce the best predictive model of attitude towards life direction (existential well-being). See Table VIII.

The regression analysis used attitude towards direction in life as the dependent variable and socio-personal satisfaction, level of deep cognitive processing, alcohol consumption and consequences, academic functioning, and desire to seek future counseling as the predictor variables. Unstandardized regression coefficients (B), the intercept, standardized regression coefficients (β), the semi-partial correlation (sr_i^2), R^2 , and adjusted R^2 are shown in Table VIII. A correlation matrix for all measures used in this study is shown in Table IX.

The R for the regression (0.68) was statistically significant, $F(5, 459) = 79.30$, $p < 0.001$. All of the predictor variables except for academic functioning contributed significantly to the level of ones attitude about life direction. As indexed by the semi-partial correlations (sr_i^2), socio-personal satisfaction contributed 23% of the

TABLE VIII

Standardized Multiple Regression of Socio-Personal Satisfaction, Level of Deep Cognitive Processing, Alcohol Use and Consequences, Desire to Seek Future Counseling, and Academic Functioning on Attitude towards Life Direction (Existential Well-Being)

	Unstandardized Coefficients		Standardized Coefficients	
	B	Std. Error	β	sr ² (unique)
(Constant)	17.927*	1.87		
Socio-Personal Satisfaction	1.935*	0.15	0.48	0.23
Deep Cognitive Processing	0.146*	0.02	0.22	0.06
Alcohol Use/Consequences	-0.250*	0.05	-0.18	0.04
Future Counseling Desire	-0.488*	0.15	-0.12	0.01
Academic Functioning	0.05	0.09	-0.02	
	$R^2 = 0.46^a$			
	Adjusted $R^2 = 0.46$			
	$R = 0.68^*$			

* $p < 0.01$.

^aUnique variability = 0.34, shared variability = 0.12.

unique variance accounted for between the dependent and predictor variables, level of deep cognitive processing contributed 6%, alcohol use and consequences contributed 4%, and desire to seek future counseling contributed 1%.

Together, all 5 variables, including academic functioning, contributed an additional 12% in shared variability. Additionally, 46% (46% adjusted) of the variability in attitudes concerning life direction was predicted by knowing the scores on the 5 independent variables as indexed by R^2 , and adjusted R^2 .

The results indicate that higher scores on the existential well-being scale (more positive attitudes towards direction in life) can be significantly predicted by increased levels of socio-personal satisfaction and ability to cognitively process information at a deeper level, decreased desire to seek future counseling, and lower levels of alcohol consumption and the resulting negative consequences.

TABLE IX

Pearson Correlations of the 10 Concern and Importance Areas and the Functioning/Performance Variable Sets

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Concern and Importance Areas (Set 1)																				
1) Drg/Alc Consumption	0.41*	0.38*	0.32*	0.10	0.01	0.34*	0.39*	0.23*	0.29	0.11	0.03	0.04	0.09	0.03	0.03	0.01	0.08	0.07	0.08	
2) Socio-Sexual Behavior		0.26*	0.25*	0.01	0.08	0.27*	0.31*	0.02	0.21*	0.20*	0.13*	0.08	0.09	0.07	0.09	0.05	0.10	0.07	0.20*	
3) Use of Time			0.11	0.02	0.29*	0.21*	0.07	0.39*	0.03	0.04	0.06	0.02	0.06	0.06	0.04	0.04	0.01	0.12*	0.06	
4) Consumer/Finance				0.09	0.18*	0.03	0.18*	0.21*	0.04	0.02	0.06	0.01	0.02	0.01	0.02	0.02	0.06	0.16*	0.07	
5) Phys/Mental Health					0.04	0.21*	0.11	0.17*	0.15*	0.01	0.01	0.04	0.04	0.01	0.01	0.09	0.06	0.10	0.02	
6) Culture/Gender						0.01	0.18*	0.17*	0.24*	0.11*	0.05	0.10	0.01	0.05	0.07	0.13*	0.03	0.11	0.01	
7) Learning							0.01	0.28*	0.03	0.06	0.14	0.02	0.01	0.03	0.01	0.08	0.03	0.09	0.09	
8) Career/Employment									0.11	0.06	0.03	0.04	0.01	0.03	0.01	0.08	0.01	0.07	0.10	0.04
9) Crime/Violence										0.11	0.12*	0.04	0.04	0.01	0.03	0.15*	0.11	0.07	0.08	0.08
10) Living Issues											0.01	0.03	0.07	0.02	0.04	0.05	0.06	0.03	0.04	0.03
Performance/Functioning Variables (Set 2)																				
11) Alcohol Use/Consequences												0.25*	0.11	0.12	0.07	0.23*	0.01	0.13*	0.02	0.10
12) Well-Being/Life Direction													0.18*	0.42*	0.61*	0.13*	0.04	0.19*	0.13*	0.33*
13) Academic Functioning														0.16*	0.26*	0.09	0.11	0.21*	0.09	0.12*
14) Deep Cognitive Processing															0.31*	0.13*	0.09	0.34*	0.01	0.18*
15) Socio-Personal Satisfaction																0.05	0.10	0.16*	0.23*	0.31*
16) Age																	0.05	0.47*	0.06	0.11
17) Gender																		0.08	0.10	0.15*
18) Class Year																				0.01
19) Prior Counseling																				0.01
20) Desire for Future Counseling																				0.13*

Note. Bold-face type indicates negative correlations. For variable #'s 1-10, the rating scale used was 1 = most importance/concern and 10 = least importance/concern. For all other variables except #17, lower scores indicate less alcohol use, fewer consequences, lower levels of cognitive processing, less satisfaction, etc. For variable #17, 1 = male, 2 = female.

* $p < 0.01$, two-tailed.

DISCUSSION

Consistent with theories related to cognitive behavioral and phenomenological functioning (e.g., Mischel, 1984, 1986), life meaning and well-being (e.g., Diener, 1984; Myers, 1995; Staats et al., 1995), and goal-directed functioning (e.g., Maslow, 1968, 1971), results showed links between student concerns, performance variables, and socio-personal well-being.

The results of the canonical correlational analysis revealed that two canonical correlations were statistically significant between the student functioning and performance variable set and the concern and importance area variable set. Increased concerns about socio-sexual behavior, and decreased importance ratings of crime and violence, and multicultural and gender issues from the first variable set were significantly associated with a second set of variables containing increased alcohol use and consequences and mental health concerns, younger age, men more than women, lower class year, and less positive attitudes toward direction in life.

This association can be explained by reasoning that younger students, especially males, are less concerned about the consequences of their risky sexual and alcohol consumption behaviors which may be fueled by immediate versus delayed gratification (e.g., Douglas et al., 1997; Maney, 1990; Mischel, 1986; Perkins and Wechsler, 1996). It is possible that socio-sexual behavioral issues, including esteem, acceptance, and relationships are a driving force for behavioral choice, especially for the younger students.

Furthermore, decreased positive attitudes about one's future relates to Maslow's (1971) ideas that goal-directed behavior which is unclear and unfocused, results in fewer behavioral choices leading to self-actualization and optimal person-functioning.

Additionally, the findings support previous research showing that individuals who possess decreased positive attitudes towards life, and less concern with consequences of their behavior, have, and will have, increased mental health concerns (Diener, 1984; Myers, 1995; Staats et al., 1995).

The results of the second significant canonical correlation are difficult to interpret, yet revealed a similar pattern to the first one. In this case, increased concern regarding drug and alcohol consump-

tion, and multicultural and gender issues, and decreased concern regarding use of time, socio-sexual behavior, consumer and finance issues, and career and employment issues were significantly associated with higher levels of issues being addressed in prior counseling, and increases in the number of issues to be explored in future counseling.

This finding can be interpreted to suggest that students who have fewer counseling needs and desires, and are more in tune with their career, financial, and socio-sexual goals and behaviors, are more likely interested in issues related to productive use of time. This can be loosely linked to goal-directed behavior and task mastery, supporting Gage and Berliner's (1991), and Maslow's (1971) ideas that individuals who use time management and other coping skills in order to attain their goals will tend to be less irresponsible socially, and function more responsibly in a decision-making sense. With more concern and effort put into the task mastery of their lives, the exercising of self-restraint is a likely outcome resulting in higher levels of safety, security, esteem, and self-worth, and the ability to delay gratification, and can thus be predictive of increased levels of quality of life (Maslow, 1968, 1971; Mischel, 1986).

The results of the standard multiple regression analysis produced a statistically significant model where positive attitude towards direction in life can be predicted by higher levels of socio-personal satisfaction and cognitive processing, and lower levels of alcohol use and consequences and mental health concerns. This straightforward result supports previous findings that individuals who are able to cope well with life and academic issues are more than likely to make better decisions, and have fewer negative consequences related to risky behavioral practices (Ellison, 1993; Staats et al., 1995).

Additionally, although model-building research is needed related to the SQOLAS instrument, the results appear to support Harlow and Newcomb's (1990) finding that one can use multivariate sets of predictor variables for developing models describing satisfaction, quality of life, and well-being.

The major goal of establishing specific links between the set of concern/importance area variables and the set of functioning/performance variables was accomplished, in that relationships be-

tween the concern/importance variable set and the performance/functioning variable set were moderate. Moreover, the results provided several glimpses related to trying to establish and describe these links. For example, it is clear that a subset of high-risk behaviors and concerns (e.g., socio-sexual behavior, alcohol consumption, time effects on academics, etc.) are associated with a set of variables related to past, present, and future mental health concerns, socio-personal satisfaction, and attitudes about direction in life.

Plans are under way to continue development of the SQOLAS instrument in order to improve construct measurement and to create models that can clearly identify the links between, and within, these two broad sets of variables (Ryff, 1989).

Limitations

The intent of the current study was to be exploratory in nature and descriptive. The results must be interpreted carefully and inferences and generalizations must be cautious. The SQOLAS survey was administered during the Spring 1997 semester and several significant events had recently occurred involving campus violence, alcohol and other drug use, ethnic and racial incidents, sexual assault, and tuition controversy. Collectively, these events had a high probability of impacting participant response bias and could very well have skewed the results, especially the rankings of several of the concern and importance area items.

Another limitation of the study was the participant sample size and the low return rate of the survey. Although slightly over 3 000 students from the entire student population was randomly selected to have a survey mailed to them, the final response rate was only 15%. Furthermore, although the sample percentages related to gender and ethnicity were reflective of the actual population, undergraduates were under-represented and graduate students were over-represented.

Several revisions to the SQOLAS instrument are suggested and are currently being planned. First, improvements in several measures are needed to more accurately assess the constructs (e.g., substance use and consumption, prior and future counseling issues, etc.).

Second, developmental and behavioral measures are needed in order to add to the overall student optimal functioning model. For example, Mischel (1973, 1984) found that decision-making in adolescence and adulthood is a consequence of decision-making patterns learned as a child. Moreover, immediate versus delayed behavioral choice patterns are related to goal-directed behavior and one's level of personal satisfaction and overall functioning (Maslow, 1968; Mischel, 1986). Therefore, the SQOLAS assessment is currently developing and testing a developmentally-based, behavioral choice oriented subscale. The goal of this subscale is to assess one's development of choice behavioral issues, and to assess which person or persons were (and are) most influential related to decision-making processes associated with quality of life, personal satisfaction, and well-being.

Third, a modified version of the SQOLAS instrument is currently being administered and several changes have been made: (a) the 10 major target areas have been expanded to 16; (b) a social desirability scale has been added; (c) an additional subjective well-being scale has been added and the new study is being administered only to undergraduates.

A major goal of the Revised Version, and forthcoming revisions, of the SQOLAS survey is to continue work on the psychometric properties of the instrument, beginning with the items and the item analysis, in order to be able to perform more robust and meaningful statistical analysis from the results and thus increase the possibility of valid and reliable generalizability in the future (Tabachnick and Fidell, 1996).

Summary

The multivariate approach attempted to broaden the research-base regarding associations between student concern and importance area variables and student functioning and performance variables. Results showed that when college student concerns are studied collectively, the highest rated importance areas are focused primarily upon career/employment, use of time, and consumer/finance issues. This supports previous findings by Carney and Savitz (1980) and Gallagher, Golin and Kelleher (1992), and has several pos-

sible implications related to resource allocation and other issues concerning departments involved in academic and student affairs.

Significant correlations between the concern and importance areas showed that high-risk behaviors and concerns (e.g., alcohol and other drug consumption, socio-sexual behavior, crime and violence issues, etc.) are positively related, that concerns for career-related, finance, and use of time areas are positively related, and that there is an inverse relationship between the high-risk related variables and the career/finance/time variables.

These findings support previous research showing that college students in the 90's are highly concerned with career and finance issues, acquiring funding for their education, using time appropriately, and are more apathetic about social issues and concerns, especially on the level of personal involvement (Astin et al., 1996; Sax et al., 1996, 1997).

In exploring the associations between the concern/importance area variable set and the functioning/performance variable set, the results showed that younger students, especially men, are less concerned about the consequences of their risky sexual and alcohol consumption behaviors. One explanation for these findings involved relationships among issues of delayed versus immediate gratification, and attitudes and behaviors related to life direction, socio-personal satisfaction, and variables related to one's goal-directed behavior in a quality and meaning in life sense (e.g., Diener, 1984; Douglas et al., 1997; Ellison, 1993; Maney, 1990; Myers, 1995; Mischel 1986; Perkins and Wechsler, 1996; Staats et al., 1995).

The major goal of establishing specific links between the set of concern/importance area variables and the set of functioning/performance variables was moderately accomplished and the results provided some glimpses into trying to establish these links. In relation to quality of life and well-being, the results support Ryff's (1989) ideas that in order to study quality of life and subjective well-being, one must establish relationships between, and define the various related constructs. For example, it is clear that a subset of high-risk behaviors and concerns (e.g., socio-sexual behavior, alcohol consumption, time effects on academics, etc.) are associated with a set of variables related to past, present, and future men-

tal health concerns, socio-personal satisfaction, and attitudes about direction in life.

One way to arrive closer to being able to establish links between the two sets of variables is to incorporate developmental and behavioral measures. Mischel's (1973, 1984) findings that decision-making in adolescence and adulthood is a consequence of decision-making patterns learned as a child, and his ideas concerning immediate versus delayed behavioral choice patterns that are linked to goal-directed behavior and one's level of personal satisfaction and overall functioning (Maslow, 1968; Mischel, 1986). These are crucial components of assessing the links between the importance/concern variables and the performance/functioning variables.

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