The Role of Second-year College Students' Mindset on Finances and its Impact on Wellness

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This study examined the differentiation among second-year college students from a small urban religious affiliated college in New York City and their four beliefs about household money on five constructs of wellness. Ninety-two participants completed the "TestWell$^{©}$: Wellness Inventory-College Edition" questionnaire. Discriminant analysis evaluated the differences among groups. It was found that students who believed they have plenty of money revealed higher scores for emotional awareness and physical fitness. Student services on college campuses may use this research to offer student financial planning to support and set short and long term budgeting goals that increase retention rates.

Keywords: students, wellness, academic, achievement, second-year, emotional, physical, nutrition

Understanding college student development from a holistic point of view has been a staple of student development theory in recent scholarship (Hermon & Davis, 2004). Many factors affect a student's ability to achieve a degree in higher education. These factors can range from self-care to emotional awareness (Hettler, 1980) to how much money a household contributes to a student's education. Students perceive higher education as an investment to future earnings, but abandon degree-seeking if they lack financial resources (Chen, 2012). Malcom and Dowd (2012) found that student financial management and planning support services may improve retention and increase student enrollment in STEM (science, technology, engineering, and mathematics) graduate programs.

Research underpinnings have shown that the aforementioned factors can play a role in all levels of college matriculation, including second-year college students. A closer look at second-year students is important because research has shown that during this period, second-year college students' academic achievement tends to drop due to the sophomore slump and a lack of attention from the college personnel (Vuong, Brown-Welty, & Tracz, 2010). Therefore, this article will focus on the second-year college students' beliefs about household money (if the money is enough , allows one to live day by day, allows one to have a small savings, or is plenty) and how they differentiate between the following variables: physical fitness, nutrition, self-care, emotional awareness, and spirituality and values. This research will be helpful to key stakeholders such as deans of students, faculty and other student affairs staff in creating programs to assist second-year college students who may have needs based on the money in their household.

This research was based on the following research question: can second-year college students be correctly classified into the four beliefs of household money (is not enough, allows us to live day by day, allows us to have a small savings, and is plenty) based on their scores on five constructs of wellness (physical fitness, nutrition, self-care, emotional awareness, and spirituality and values)?

Definitions of Variables and Terms

The following terms were used in this research study:

Physical fitness. Physical fitness focuses on the degree to which one maintains a level of cardiovascular ability and strength through regularly exercising and eating appropriately (Hettler, 1980).

Nutrition. As one of the key components of growth, nutrition can be defined as the process by which good food intake occurs to assist the body in receiving the proper nourishment that fosters good health and functionality (Ohlhorst et al., 2013).

Self-care. Self-care revolves around actions that promote safety and wellness behaviors. This can include abstaining from alcohol, drugs, smoking cigarettes and practicing healthy sleeping habits such as a full night's rest to restore and replenish the body (Hettler, 1980).

Emotional awareness. For the purpose of this study emotional awareness is defined as the measurement on a person's awareness and acceptance of one's feelings. This can include the amount of positive and enthusiastic feelings one may have about themselves and life in general (Hettler, 1980)

Spirituality and values. Spirituality and values describe a person's interest in exploring the meaning and purpose of human existence. It may include a deep understanding and exploration of how life and natural forces exist in the universe (Hettler, 1980).

Mindset of finances. Morote found no correlation between money earned in a household and participant's mindset about finances and in 2006 divided the group into four mindsets: money is not enough, money allows us to live day by day, money allows us to have a small savings, and money is plenty (Personal communication, March 18, 2014).

Sophomore slump. The sophomore slump is an ideology used to describe experiences such as depression, anxiety, frustration and dissatisfaction students face as they make the adjustment from their first year to their second year of college (Vuong et al., 2010).

Theoretical Framework

Many researchers have reviewed research exploring how students develop during their tenure at college. One noted theory is Arthur Chickering's work on identity development. Chickering asserted that seven vectors are the major tools in the identity development of college students (Evans, Forney, & DiBrito, 1998). These vectors are: developing competence, managing

emotions, moving through autonomy toward interdependence, developing mature interpersonal relationships, establishing identity, developing purpose, and developing integrity (Evans et al., 1998).

Astin (1984) focused on the role of student involvement in their development. He ascertained that involvement was the amount of physical and psychological energy a college student dedicates to his/her academic achievement experiences. Providing a further clarification, Astin (1984) identified involvement with five suggestions asserting that student's involvement defines the student's behavior and what the student may or may not do as opposed to the student's emotions or thoughts. These five suggestions are: a student's investment to physical and psychological energy, the continuum of which their involvement occurs, the seriousness and amount of time devoted to an activity, the learning and development connected with the student involved in a program, and the efficacy of an education policy or practice connected to student involvement (Austin, 1984).

In addition to the student's involvement and identity development, the wellness of a student is a contributing factor to the level of academic success a student may achieve. This is true because developing the whole person is one of the main objectives of the student development theory (Hermon & Davis, 2004). According Hettler (1980), wellness is an active process individuals use to make healthy choices that afford a person an understanding of who they are and to set boundaries around one's lived experiences. Hettler (1980) postulated that wellness is comprised of six components that reflects a positive approach on living. These components were titled intellectual, emotional, physical, social, occupational, and spiritual (Hettler, 1980).

Student affairs practitioners have discovered that spirituality and values play an important role in college student development (Bishop, Lacour, Nutt, Yamada, & Lee, 2004) and that college students believe spiritual values are essential in creating one's personal philosophy about life. It is important to note this philosophical thought process is not based on organized religious teachings, but rather a valued meaning of spirituality. This practice sways the researcher to believe that students developing spiritual values may consider the core tenets of other religious beliefs different from their own (Bishop et al., 2004).

Hettler (1980) connects one's physical fitness to appropriate nutrition. Studies have shown that the dietary choices of college students play a huge role in whether or not students maintain nutritious eating habits in their future health and even the health of their families. As such, unhealthy diets for college students can result in a disruption of one's physical growth, which can lead to long-lasting life illnesses (Ha & Caine-Bish, 2009). Therefore, the eating habits of college students should be on the radar of health educators, as well as those of student affairs professionals.

Many researchers have studied the college student mindset on finances. Some of this research found many college students enter college with the mindset to gain knowledge for a career that will provide them with a good income (Danes & Hira, 1987). However, due to the lack of emphasis on money management, many college students graduate with higher debt to income ratios (Danes & Hira, 1987). This lack of knowledge can ultimately affect their future families and financial stability. Furthermore, research from multiple disciplines including, education and sociology have shown that this mindset can vary based on culture and family affluence (Dowd, 2008).

Credit card debt is another mindset that causes college students to risk their financial stability after college. Studies show college students know how to use credit cards as a form of identification and for purchases, but lack the understanding of how to address billing errors and how billing differs from one company to another (Danes & Hira, 1987). Howell (2011) and Hooks (2010) used a variable created by Morote (Personal communication, March 18, 2014) called mindset of finances to evaluate the beliefs of household money. This study used that variable to differentiate it with student wellness.

Methodology

Research Question

Can second-year college students be correctly classified (grouped) into the four beliefs of household money, including: is not enough (Group 1); allows us to live day by day (Group 2); allows us to have a small savings (Group 3); and is plenty (Group 4), based on their scores on five constructs of wellness which include: physical fitness, nutrition, self-care, emotional awareness, and spirituality and values?

Data Collection and Participants

This study is a continuation of a larger study conducted by Howell (2010). Howell kept participant anonymity and granted consent to use of data for the purposes of this study. She surveyed full-time second year college students from a small, urban, religiously-affiliated college in New York City. In 2010, the college's enrollment approximated 2,200 students. Fifteen percent identified themselves as African-American/Black, 4% Asian, 15% Hispanic, 41% White, and 7% as non-citizens of the United States. Howell invited 404 full-time second year college students, of which 94 students completed the TestWell$^{©}$: Wellness Inventory-College Edition questionnaire (Hetter, 1993).

Instrument

The TestWell$^{©}$: Wellness Inventory-College Edition questionnaire included 100 items that measured 10 constructs of wellness and a self-reported demographic question about the student's belief regarding household money (Hetter, 1993). Each construct (nutrition, physical fitness, self-care and safety, emotional awareness, spirituality and values, social awareness, emotional awareness, intellectual wellness, occupational wellness, and environmental wellness) had 10 items on the questionnaire. A five-point Likert type-scale, including (1) never or almost never, (2) occasionally, (3) often, (4) very often, and (5) always or almost always reported the participants' responses. Howell (2010, p.83) provided validity and reliability results for the questionnaire and the current study examined the five constructs most related to a student's own mind and body, which were nutrition, physical fitness, self-care and safety, emotional awareness, and spirituality and values.

Results

To answer the research question a discriminant analysis was conducted to classify second-year college students into four categories (Groups 1-4) of beliefs about household money on the basis of five predictors, constructs of wellness (physical fitness, nutrition, self-care, emotional awareness, and spirituality and values). The most significant differentiators were emotional awareness and physical fitness. Group statistics (see Table 1) revealed lowest mean scores on emotional awareness (M=75.57) and physical fitness (M=51.71) for the not enough

money group (1) and highest mean scores on emotional awareness (M=90.67) and physical fitness (M=59.83) for the plenty of money group (4).

Table 1

Differences of Groups on the Five Constructs of Wellness

Group	Wellness Construct	M	SD
1	Physical Fitness	**51.71**	22.35
	Nutrition	58.00	25.44
	Self-Care	65.86	21.30
	Emotional Awareness	**75.57**	21.02
	Spirituality & Values	73.86	22.26
2	Physical Fitness	58.72	16.27
	Nutrition	57.36	15.80
	Self-Care	70.32	14.52
	Emotional Awareness	86.32	10.84
	Spirituality & Values	76.00	12.0
3	Physical Fitness	59.66	18.09
	Nutrition	62.24	16.84
	Self-Care	66.20	14.09
	Emotional Awareness	86.20	11.38
	Spirituality & Values	73.80	13.89
4	Physical Fitness	**59.83**	19.02
	Nutrition	55.50	16.91
	Self-Care	67.50	20.42
	Emotional Awareness	**90.67**	9.36
	Spirituality & Values	68.17	17.02
Total	Physical Fitness	58.22	18.35
	Nutrition	59.39	18.02
	Self-Care	67.43	16.17
	Emotional Awareness	85.20	13.44
	Spirituality & Values	73.67	15.30

Note. Group 1= not enough, Group 2= allows us to live day by day, Group 3= allows us to have small savings, Group 4= plenty

The test of equality of group means (Table 2) found significant differences, with a high F value of 3.446 and p =.02, between means on emotional awareness among the four beliefs of household money (not enough, day by day, small savings, and plenty). Significant differences were not found between the means of the other four predictors.

Table 2

Tests of Equality of Group Means

Constructs of Wellness	Wilks' lambda	F	df1	df2	p
Physical Fitness	.977	.701	3	88	.554
Nutrition	.978	.656	3	88	.582
Self-Care	.987	.382	3	88	.766
Emotional Awareness	.895	3.446	3	88	**.020**
Spirituality And Values	.977	.705	3	88	.551

The Box's M test reported no significant difference (p =. 075), similar log determinants (Table 3), and a lack of significant differences in the covariance matrices among the four groups even though the covariance between spirituality and values, and nutrition had the largest difference and varied from 52.17 to 483.08.

Table 3

Box's Test of Equality of Covariance Matrices
Log Determinants

Money in My Household	Rank	Log Determinant
Group 1: is not enough	5	24.765
Group 2: allows us to live day by day	5	24.978
Group 3: allows us to have a small savings	5	25.463
Group 4: plenty	5	22.465
Pooled within-groups	5	25.638

Note. The ranks and natural logarithms of determinants printed are those of the group covariance matrices.

Table 4

Pooled Within-Groups Matrices

Correlation	Physical Fitness	Nutrition	Self-Care	Emotional Awareness	Spirituality & Values
Physical Fitness	1.0				
Nutrition	**.70**	1.0			
Self-Care	.43	.57	1.0		
Emotional Awareness	**.39**	.48	.54	1.0	
Spirituality &Values	.44	.58	.58	.57	1.0

Note. The covariance matrix has 88 degrees of freedom.

The five independent variables revealed positive correlations (Table 4). Physical fitness and nutrition had the highest correlation ($r = 0.7$) and physical fitness and emotional awareness had the lowest correlation ($r =.39$).

Table 5 indicates a canonical correlation of .46 for the first discriminant function indicating 20.8% of the variability of the scores for the first discriminant function was accounted by differences among groups. A 74.6% cumulative percent also reported the first discriminant function as a strong predictor relative to the second and third discriminant functions.

Table 5

Eigen Values

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.263[a]	74.6	**74.6**	**.46**
2	.071[a]	20.3	94.9	.26
3	.018[a]	5.1	100.0	.13

Note. [a] First 3 canonical discriminant functions were used in the analysis.

The overall Wilks' lambda was significant (A=. 73, $\chi^2 = (15, N = 94) = 27.66$, p =.02) (Table 6), indicating that overall predictors differentiate among categories beliefs of household money. After removing the effects associated with the first discriminant function, the second discriminant function reported no significant difference (A=.92, χ^2 (8,N = 94) = 7.49, p =.48) among all groups across all predictor variables. The third discriminant function, after removing the effects associated with the second discriminant function, also reported no significant difference (A=.98, χ^2 (3,N = 94) =1.53, p =.68) among all groups across all predictor variables.

Table 6

Wilks' Lambda

Test of Function(s)	Wilks' lambda	Chi-square	df	p
1 through 3	.73	27.66	15	**.02**
2 through 3	.92	7.49	8	.48
3	.98	1.53	3	.68

The structure matrix (Table 7) found strong relationships between the third function and spirituality and values and the first function and emotional awareness, with coefficients of 0.94

and 0.65, respectively. The third function also had relationships between two predictors, nutrition and physical fitness with coefficients of 0.53. A predictor is considered important if the coefficient is at least 30%. Therefore, self-care had a relationship to the second function with a reported coefficient of 0.37. Also, 6.7% of the variability of the scores for the second discriminant function and 1.7% of the variability of the scores for the third discriminant function was accounted by differences among groups.

Table 7

Structure Matrix

Groups	Function		
	1 vs. 2 vs. 3 vs. 4	2 vs. 3 vs. 4	3 vs. 4
Physical Fitness	.26	-.13	**.53**[a]
Nutrition	-.04	-.49	**.53**[a]
Self-Care	.06	**.37**[a]	.36
Emotional Awareness	**.65**[a]	-.04	.60
Spirituality &Values	-.16	.13	**.94**[a]

Note. Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions. Variables ordered by absolute size of correlation within function.
[a] Largest absolute correlation between each variable and any discriminant function.

The discriminant coefficients (Table 8) provides an index of importance of each predictor with each discriminant function and the sign indicates the direction of the relationship. Physical fitness and emotional awareness were important predictors of the first function while emotional awareness was the strongest predictor. Nutrition and self-care were important predictors of the second function while nutrition was the stronger predictor with a negative relationship. Spirituality and values was an important predictor of the third function. Therefore, as shown in Table 8

Standardized Canonical Discriminant Function Coefficients

	Function		
	1	2	3
Physical Fitness	**.508**	.346	.242
Nutrition	-.484	**-1.352**	-.093
Self-Care	-.077	**.896**	-.382
Emotional Awareness	**1.133**	-.221	.185
Spirituality &Values	-.710	.372	**1.005**

Table 9, the money is not enough (Group 1) and the money allows us to live day by day (Group 2) groups had the highest, positive group mean score for self-care and nutrition (Function 2) dimension. On the other hand, money allows us to have a small savings (Group 3) group has the highest, positive group mean score for spirituality and values (Function 3) dimension and money is plenty (Group 4) had the highest, positive group mean for physical fitness and emotional awareness (Function 1) dimension. This classified money is not enough and money allows us to

Table 9

Functions at Group Centroids

		Function	
Money in My Household	1	2	3
Group 1- is not enough	-.986	**.064**	-.167
Group 2- allows us to live day by day	.046	**.356**	.118
Group 3- allows us to have a small savings	.051	-.268	**.056**
Group 4- plenty	**.882**	.098	-.242

Note. Unstandardized canonical discriminant functions evaluated at group means

live day by day with self-care and nutrition, money allows us to have a small savings with spirituality and values, and money is plenty with physical fitness and emotional awareness. The cross-validated classification shows that 37% of the 92 valid cases are correctly classified. There was correct classification for four of the 14 (28.6%) money is not enough group, three of the 25 (12%) money allows us to live day by day group, 26 of the 41 (63.4%) money allows us to have a small savings group, and one of the 12 (8.3%) money is plenty group. Since the cross-validation affects by chance agreement the kappa index tests the accuracy of the classification. As shown in Table 10, the differentiations between the beliefs about household money were not significant with a coefficient of 0.119. An index of 0.119 represents a low score for a better than chance-level prediction.

Table 10

Symmetric Measures

	Value	Asymp. Std. Error[a]	Approx. T[b]	p
Measure of Agreement Kappa	.119	.073	1.878	.060
N of Valid Cases	92			

Note. [a] Not assuming the null hypothesis.
[b] Using the asymptotic standard error assuming the null hypothesis.

Conclusion

Discriminant analysis gives insight into the relationships between a belief about household money (not enough, day by day, small savings, and plenty) and the predictor variables: physical fitness, nutrition, self-care, emotional awareness, and spirituality and values. There is a significant mean difference for the emotional awareness predictor among the four beliefs about household money. Log determinants are quite similar and the Box's M test proves the assumption of equality of covariance matrices. The first discriminant function reveals a significant relationship among the four beliefs of money groups and all five constructs of wellness and accounts for 20.8% of between group variability. The first discriminant function is the only significant test. The structure matrix finds relationships with the first discriminant function and the predictors, emotional awareness and physical fitness. The cross-validated classification shows that 37% overall are correctly classified. Although the kappa index result finds the differentiations among groups insignificant, group statistics reveals lowest mean scores on emotional awareness and physical fitness for the not enough money group and highest mean scores on emotional awareness and physical fitness for the plenty of money group. An increase in participants among all groups may increase the percentage among group variability and cross-validated classifications. It may also find more than significant differentiations between the beliefs about household money and the predictors, physical fitness and emotional awareness.

These results draw a parallel to research on physical fitness, emotional awareness, and spirituality and values. Each of these variables show the connection they have to college students in their second-year of maturation. As Astin (1984) pointed out, involvement of students on a college campus can be measured by the physical and psychological expressions a student dedicates to academic achievement. Therefore, these findings can support the overall vision and

mission of college administrators in assisting second-year college students in completely understanding how wellness can impact one's academic achievement based on their beliefs about money in the household. There are many ways to assist college students in redirecting their mindset about finances. Universities can set expectations for financial aid and academic departments to partner and address the gap in knowledge that many students have about money management in connection to wellness and educational success.

To sum up, the authors agree with Hettler (1980), who found significant relationships between wellness and student success, and Malcom and Dowd (2012) who found student support services in financial management may lower student drop out scores. This study conducted its research at a small, urban, religiously-affiliated institution; therefore further investigations should use the same variables and analysis, but at a public university.

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