Gender Differences in Stress and Coping in First-Year College Students

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This study investigates the types of stressors experienced by first-year college students and compares the stressors, stress levels, and coping strategies of males and females. Three research questions were addressed: (a) Which types of stressors do first-year college males and females face? (b) Are there differences in the levels of stress experienced by males and females? (c) Do males and females use different types of coping strategies? Results suggest that first-year college students experience a number of stressors, mainly ones related to academics, finances, and personal relationships. A differential relationship was found such that females experienced higher levels of stress than males. Female students also reported experiencing significantly more stressors related to academic demands and relationships, whereas males reported experiencing more stressors related to finances. Although females used many of the same coping strategies as males, they differed in the amounts of certain strategies used, mainly emotion-focused ones. Implications are provided for personnel working with first-year college men and women.

The transition to college can be viewed as a life event stressor in late adolescent development. Research has demonstrated that this period is stressful for both male and female students (Lu, 1994). Numerous negative psychological symptoms such as loneliness, depression, and anxiety are common in the college population. Students also experience changes in eating and sleeping habits (Ross, Niebling, & Heckert, 1999). Kadison (2005) found that between one-fourth to one-half of all U.S. college students who are seen in college health and counseling centers take antidepressant drugs as a result of stressors that are distinctive to the college population. Stress-related problems including depression may result in difficulties with interpersonal relationships and academic difficulties such as dropping out of college (Deckro et al., 2002). Misra and McKean (2000) reported that students in their freshman year had the highest ratings of stress compared with students in later college years. This finding is consistent with other research that suggests that the first year of college is the most stressful due to changing and new demands and responsibilities (Rawson, Bloomer, & Kendall, 1994). Clearly, college students, particularly first-year students, are a population vulnerable to stress.

Empirical research suggests that the coping strategies that adolescents and

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young adults use may moderate the negative symptoms of stress. Coping strategies can actually change the stressful situation, control the meaning of the experience, or can control the stress itself (Lazarus & Folkman, 1984). There are numerous ways of categorizing coping strategies. The most frequently cited theory of coping was developed by Folkman and Lazarus (1980) in which coping strategies were categorized as problem-focused vs. emotion-focused. According to this theory, problem-focused strategies are action-oriented and try to solve the problem or change the nature of the stressor itself. Emotion-focused strategies help the individual cope with the negative emotions that may arise when faced with a stressful situation. Both strategies help the individual maintain psychosocial adaptation.

Further expansion of this theory takes into account avoidance as another coping strategy in which the individual avoids the source of stress or avoids dealing with the stress itself (Higgins & Endler, 1995). Other categories of coping styles include engagement coping and disengagement coping (Compas, Conner-Smith, Saltzman, Thomsen, & Wadsworth, 2001); approach, avoidance, and behavioral coping (Ebata & Moos, 1991); and task-oriented, emotion-oriented, and avoidance coping (Higgins & Endler, 1995). While the terminology varies, there is much overlap in the conceptualization of coping. Table 1 describes various coping scales used to measure coping in adolescents and young adults. The YA-COPE measure (Patterson, McCubbin & Grochowski, 1983) was selected for this study because it incorporates the three most common coping styles cited in the literature (emotion-focused, problem-focused and avoidance), and normative data were obtained from traditional college-age students.

There is much evidence indicating that a differential relationship exists for males versus females with regard to stress and coping. Several researchers have found that females are more likely than males to experience higher levels of depression and adjustment difficulties during their first year of college (e.g., Alfred-Liro & Sigelman, 1998). Some investigations have noted that when faced with identical stressors, females perceive their stress as being higher than do males (Day & Livingstone, 2003). Other studies suggested that males and females report different levels of stress based on the kind of stressor experienced. In one study, academic demands and interpersonal issues led to higher stress in female college students but not male college students (Misra, McKean, West, & Russo, 2000). In another study, finances were related to higher levels of stress in males but not females (McDonald & Walters, 2001).

Prior research revealed that males and females differ in the ways that they cope with stress. Most studies have reported that compared to men, women are more likely to use coping strategies that are emotion-focused (Billings & Moos, 1981). Recent studies also found that women use more crying and help-seeking behaviors when compared to men (e.g., Anshel, Sutarso, & Jubenville, 2009). In a longitudinal study conducted by Ptacek, Smith, and Zanas (1992), avoidant coping strategies were used more by females than males. In another study (Asberg, Bowers, Renk, & McKinney, 2008), social support was found to be related to adjustment only in females but not in males.

TABLE 1

Common Measures of Adolescent and Young Adult Coping

Author(s) and Measure	Participants	Stressor	Subtypes of coping
Ebata & Moos (1991): Coping Responses Inventory- Youth Form (CRI-Y)	12-18 years old	Most important problem in previous year	Approach Avoidance Behavioral
Endler & Parker (1990): Coping Inventory for Stressful Situations (CISS)	13-18 years old	General	Task-oriented Emotion-oriented Avoidant
Folkman & Lazarus (1980): Ways of Coping Questionnaire (WCQ)	Adults	Participant selected	Problem-focused Emotion-focused
Patterson, McCubbin, & Grochowski, (1983): Young Adult Coping Orientation for	M age = 15.6	General	*Ventilation (EF) Emotional Connections (EF) Spiritual Support (EF)
Problem Experiences (YA-COP	E)		Low activity level (AV) Humor (AV) Avoidance (AV) High Activity Level (AV)
			Self-reliance/positive appraisal (PF) Family problem solving (PF)

**Note*. EF = emotion-focused; AV= avoidance; PF = problem-focused. The 9 subtypes have been clustered to parallel the three most common subtypes of coping.

In contrast, coping in males involved risk taking and problem-solving, whereas females coped by using emotion-focused strategies such as distancing themselves from the stressful situation. A recent study (Daughtry & Paulk, 2006) assessed gender differences in coping using qualitative measures rather than quantitative measures that have traditionally been used. Findings suggested that both men and women use many coping strategies; however, women tend to employ a greater variety of coping strategies and may be more likely to seek help for their problems compared to men.

In terms of gender differences in stress and coping, some researchers emphasize that such studies yield mixed results and that men and women do not differ in the usage of their coping techniques (Felsten, 1998). Coping strategies have certainly been the focus of much research related to college adjustment; however, most studies have not focused on first-year students in particular who are newly adjusting to the demands of college. There is a need to study the nature of stressors experienced by first-year college students in particular, with specific emphasis on the ways that stressors, stress levels, and coping strategies may differ for women compared to men.

In sum, the transition to college is a period of transformation that is stressful for many students. It is a time when coping mechanisms should be optimized to reduce the negative effects of stressors and levels of stress which may vary based on gender. The present study investigates the kinds of stressors experienced by firstyear college students and the relationship between stressors and levels of perceived stress. This study also examines the differences between males and females with regard to stress levels and coping strategies. It was hypothesized that females would experience higher levels of stress and would use more emotion-focused coping strategies when compared to males.

Measures

Participants completed an online survey that was composed of a demographic information sheet, The Undergraduate Stress Questionnaire (USQ; Crandall, Preisler, & Aussprung, 1992), The Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983) and The Young Adult Coping Orientation for Problem Experiences (YA-COPE; Patterson, McCubbin, & Grochowski, 1983).

The Undergraduate Stress Questionnaire (USQ; Crandall, Preisler, & Aussprung, 1992)

This questionnaire measured life event stress in college students. Participants were asked to endorse which items (from the checklist of 82 items) pertained to an experience that they had in the past semester. Scores ranged from 0 to 82, and a total score on the USQ was obtained by tallying the endorsed check marks. Examples of events in the checklist included the "death of a family member" and "lack of money." The USQ has been found to negatively correlate with mood and positively correlate with measures of physical health symptoms (Crandall et al., 1992). It has also shown good internal consistency (.80) and split-half reliability (.83). Test-retest reliability was found to be moderate (.50).

The Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983)

Students were given this scale to measure self-appraised levels of stress experienced in the last month. This measure called for participants to take into account their individual assessments of environmental demands, consistent with the Lazarus and Folkman (1984) model of stress and coping. Participants were asked to indicate how often the items applied to them using a 4-point Likert scale that ranged from almost never to usually. Examples of questions include, "In the last month, how often have you been upset because of something that happened unexpectedly?" and "In the last month, how often have you felt that you were unable to control the important things in your life?" Higher scores on the PSS indicated higher levels of perceived stress. The PSS has strong psychometric properties with coefficient alpha reliabilities ranging between .84 and .86. The measure correlates with physical health symptoms (.52 - .70) and measures of depressive symptomology (.65- .76).

Young Adult Coping Orientation for Problem Experiences (YA-COPE; Patterson et al., 1983)

Coping strategies of students were assessed using this 56-item questionnaire which yields nine subscales of coping. The scale expands on the work of Folkman and Lazarus (1980), and it includes a broader range of coping strategies and categories rather than the traditional two or three. Ventilation includes eight coping behaviors, such as yelling, that express emotion (Cronbach's alpha = .71). Low activity level consists of eight behaviors that involve escaping the source of the stress. Examples include watching television and sleeping (Cronbach's alpha = .58). Self-reliance and positive appraisal include five items that relate to efforts to be in charge of the situation and think about it in a positive way (Cronbach's alpha = .72). Emotional connections include six items that involve staying emotionally connected and sharing in problem solving with others (Cronbach's alpha = .61). Family problem solving consists of six items that deal with sorting out problems with family members (Cronbach's alpha = .58). Avoidance includes three items that involve using substances to escape from the problem (Cronbach's alpha = .61). Spiritual support consists of five items that relate to using religious behaviors such as praying and talking to clergy to cope (Cronbach's alpha = .61). High activity level includes six items that relate to engaging in a challenging goal or activity such as strenuous physical activity or working hard at a project (Cronbach's alpha = .69). Humor consists of three coping behaviors that involve making light of the situation (Cronbach's alpha = .77). Using this scale, participants rated how often they engaged in each coping behavior when faced with difficulties, or when feeling tense from 1 (never) to 5 (most of the time). A score was obtained by summing the respondents' scores for each of the items. The YA-COPE has been shown to have an internal consistency reliability of .82 and a test-retest reliability of .83.

Procedure

One hundred sixty-seven first-year college students, including males (n = 57) and females (n = 110) ages 18–23, were recruited from the departments of psychology at two large urban commuter colleges in the Northeast. The departments require students in Introduction to Psychology to become more familiar with psychological research either by serving as participants in research studies or by writing brief reports on articles in psychological journals. First-year

students enrolled in this course had the option of participating in this study in order to earn one research credit.

All questionnaire results obtained online were anonymous in that there was no identifying information anywhere in the questionnaire. Data remained confidential, and questionnaire results were anonymous. A list of mental health resources was provided at the end of the questionnaire so that students could seek help if they felt distressed by any of the items. Table 2 reports descriptive statistics of participants.

TABLE 2

Descriptor	%	Descriptor	%	
Gender				
Male	34.1%			
Female	65.9%			
Age		Ethnicity		
18	52.1%	Asian American	27.5%	
19	38.3%	African American	6.6%	
20	4.2%	Hawaiian or Pac. Islander	1.2%	
21	3.6%	Hispanic/Latina	19.2%	
22	0.6%	Mixed Race	10.8%	
23	1.2%	White/Caucasian	34.7%	
Living Situation		Household Income		
Alone	1.2%	Less than \$20,000	19.2%	
With parents only	22.8%	Between \$20,000-\$40,000	24.0%	
With parents and siblings	69.5%	Between \$40,000-\$60,000	20.4%	
With partner	0.6%	Between \$60,000-\$80,000	15.6%	
With others	5.4%	Between \$80,000- \$100,000	5.2%	
With partner and children	0.6%	Over \$100,000	15.6%	

Participant Descriptive Statistics for Age, Ethnicity, Gender, Living Situation, and Household Income

Note. N = 167

Results

The first research question addressed in this study was exploratory and asked what types of stressors female and male first-year college students experienced. The 82 types of stressors, as measured by the Undergraduate Stress Questionnaire, were categorized into six main categories of stressors: academic, relationship, organization, finance, health, and other. Items were assigned a value of "1" if they were endorsed as stressors or a "0" if they were not endorsed. Data were split based on gender, frequency counts were then created within each category, and the counts were summed. The total score within each category was divided by the total score possible within each category in order to get a percentage score. Academic, finance/ work, relationships, and other variables emerged as the stressors were measured by the USQ that were significantly correlated with perceived stress as measured by the PSS for both male and female students (see Table 3).

TABLE 3

Correlations between Undergraduate Stress Questionnaire Subscale Scores and Perceived Stress Scale Scores for Students

Variable	1	2	3	4	5
1. Perceived stress	_				
2. Academic	.16*	_			
3. Relationship	.26**	.43**	_		
4. Finance	.26**	.36**	.55**	_	
5. Other	.27**	.61**	.75*	.58**	—
Note. *p < .05. **p < .0)1.				

Almost all students (96.41%) reported experiencing stressors related to school and assignments. Most students also reported experiencing relationship stressors (77.25%), time management/organization stressors (89.82%), financial stressors (75.45%), and other life stressors such as the being the victim of a crime or the death of a loved one (88.62%). Over half of the students surveyed reported experiencing health-related stressors (66.46%) (see Table 4).

TABLE 4

Percentage of All Students Who Experienced Various Stressors

Type of stressor	Percentage of Students		
Academic	96.41%		
Finance/Work	75.45%		
Relationships	77.25%		
Other	88.62%		
Time Management/Organization	89.82%		
Health	66.46%		

Note. N = 167

Data were analyzed based on gender. Academic stressors emerged as the most frequently endorsed items by female students (36.24%), followed by relationship stressors (24.34%). Stressors related to organization accounted for 16.17% of the items, and financial stressors accounted for 11.05% of the items that females endorsed. Of the items endorsed, 10.06% pertained to other stressors such as the death of someone close or stolen property, and 2.14% of the items endorsed pertained to health issues. Males presented a similar pattern with academic stressors endorsed most frequently (30.71%). Of the other items endorsed by males, 20.29% pertained to financial issues followed by relationship stressors (17.12%), organizational issues (16.36%), other stressors (12.41%), and health-related stressors (3.11%).

Chi square analyses were conducted to determine if there were significant differences in the number of distinctive stressors experienced by males and females. Significantly more academic stressors were reported by female students than male students ($\chi 2 = 3.24$, 1, df = 1, p < 0.05) as well as relationship stressors ($\chi 2 = 3.67$, df = 1, p < 0.05). Significantly more financial stressors were endorsed by males than females ($\chi 2 = 5.01$, df = 1, p < 0.05). Table 5 shows the percentage of specific stressors reported by male and female students.

TABLE 5

No. of items	Exemplar	Percentage	
		Females	Males
26	Had a lot of tests	36.24%	30.71%
13	Lack of money	11.05%	20.29%
16	Break-up	24.34%	17.12%
19	Victim of a crime	10.06%	12.41%
8	Erratic schedule	16.17%	16.36%
5	Sickness/injury	2.14%	3.11%
	13 16 19 8	 13 Lack of money 16 Break-up 19 Victim of a crime 8 Erratic schedule 	26 Had a lot of tests 36.24% 13 Lack of money 11.05% 16 Break-up 24.34% 19 Victim of a crime 10.06% 8 Erratic schedule 16.17%

Percentage of Stressors Reported by Students

Note. N = 167

An independent *t*-test was conducted to compare the perceived stress scores for males and females. Results revealed that there was a significant difference in scores for males (M = 19.56; SD = 6.24) and females (M = 26.24; SD = 5.77); t(165) = 1.73, p < .05), with greater perceived stress scores for women. Analyses were then performed to assess the effect of gender across coping strategies. Hotelling's T-square was used for a multivariate test of differences between the mean values of

the two groups. Female participants were found to have significantly higher scores on coping strategies overall than males, indicating that females used them more than males (Hotelling's T², F = 16.13 (9, 167), df, p < .001). Follow-up univariate F-tests on the nine subscales of the YA-COPE also revealed significant gender differences on three of the coping subscales, with females scoring significantly higher on all three. The three subscales were ventilation, establishing emotional connections, and family problem solving (see Table 6).

TABLE 6

Test Name	Approximate F		Significa				
Hotelling's T-squarec		2.801			p<.001		
	Mal	es	Fema	ales			
Variable	М	SD	М	SD	Diff	CI (95%)	Bonferoni's
1. FamPrb	14.46	3.14	17.78	4.36	*3.33	(2.04; 4.61)	0.13
2. SelfRep	13.36	2.50	13.77	2.45	0.41	(-0.38; 1.21)	0.00
3. SprtSup	8.87	3.69	10.15	3.59	1.28	(0.11; 2.45)	0.02
4. Humor	7.28	3.17	6.97	2.98	0.31	(-1.09; 0.43)	-0.02
5. Ventln	22.53	2.47	26.39	2.43	*3.86	(3.07; 4.64)	0.36
6. EmotCon	18.29	3.44	20.67	3.64	*2.38	(1.23; 3.53)	0.09
7. HigAct	16.52	3.57	16.66	3.70	0.14	(-1.04; 1.32)	-0.06
8. LowAct	22.0	3.64	22.90	3.79	0.84	(-0.37; 2.04)	0.01
9. Avoid	12.33	3.21	13.87	1.63	1.53	(0.63; 2.44)	0.09

Gender Differences in Coping Strategies

Note. * indicates significance at the p < .05 level

1. Family problem-solving 2. Self-reliance/positive appraisal 3. Spiritual support 4. Humor 5.Ventilation 6. Emotional connections 7.High activity level 8.Low activity level 9. Avoidance

Discussion

The present study revealed several stressors that are common to male and female first-year students. The most frequent stressors for both males and females were related to academic issues. Financial stressors, interpersonal relationship stressors, and life event stressors such as the death of a close one or stolen property, were also frequently endorsed by both males and females. These categories of stressors were significantly positively related to the levels of perceived stress that students experienced. Other stressors, such as organization and health, were also experienced by students, but these stressors were not significantly correlated with perceived stress. This suggests that the majority of stress experienced by first-year students in this study stems from academic obligations, personal relationships, and financial issues.

A closer look at the data divided across gender lines revealed that males and females differ with regard to the specific types of stressors they experience most. Females seem to experience more academic stressors and relationship stressors than males. This finding is consistent with prior research. For example, in a study conducted by Hicks and Miller (2006), a larger percentage of female college students than male college students indicated that they were stressed due to trouble coping academically and with family problems. Examples of academic stressors frequently endorsed by females were going into a test unprepared, thinking about unfinished work, cramming for a test, and talking to professors. Female students seem to be more concerned than males with meeting academic expectations and demands. In light of this finding, college advising centers should be accessible to female students in particular, and should encourage goal setting for studying, time management techniques for turning in assignments on time, and being proactive about talking to instructors about class concerns. Workshops on building effective communication patterns with professors can be hosted as well.

A finding in this study consistent with prior research was that females experienced more relationship stressors than males. For example, they endorsed items related to fighting or breaking up with a girlfriend/boyfriend and conflicts with friends more frequently than males. To address these stressors, counseling centers can host workshops on effective communication and building healthy relationships with family, friends, and significant others. Providing social support and a warm and comfortable setting where women can share and express these concerns may also be important for stress reduction since females gravitate toward seeking social support more so than males (Tamres, Janicki, & Helgeson, 2002).

In this study, males experienced more financial stressors than females. This supports prior research which found that males experience high levels of stress related to finances, and that females do not exhibit this pattern (McDonald & Walters, 2001). For males, items such as working while in school and having to ask for money were frequently endorsed. Considering this finding, financial workshops could be offered to help male freshmen manage their budgets and brainstorm strategies for increasing financial wealth and savings. Workshops can also address where money can be found to pay for college should they need to pay for it themselves. Examples of sources for financial aid that can be addressed are grants, scholarships, student loans, and work-study opportunities.

Results showed that females and males differed in the levels of stress they experienced which is consistent with prior research. For example, in a study conducted by Hudd et al. (2000), researchers found that more females than males

expressed feeling stressed often. This suggests that it may be useful to develop gender-specific stress management programs targeted at reducing levels of stress among college females in particular. An example of an effective component in stress management may be an optional first-year academic course for women in which the aim is to teach stress management and relaxation skills. Similar workshops can be conducted by student wellness centers to improve these skills in women. An integral part of a stress management program could also include women coming together to share their experiences, thoughts, and feelings since findings of this study and others place an important value on emotion-focused coping and social support in dealing with the negative effects of stress, specifically for women (Asberg et al., 2008).

In the present study, gender played a significant role in specific coping strategies that male and female students used. Females scored significantly higher on ventilation, establishing emotional connections (an emotion-focused strategy), and family problem solving (a problem-focused strategy). Prior studies have reported that females engage in more ventilation which includes expressing emotions and establishing more emotional connections. These emotion-focused coping strategies reflect the research and the more "social" aspects of women's coping reported in the literature. Females also use more family problem-solving (a problem-focused strategy) than men. Perhaps this can be explained as the family serving as a support or "social" group for females. This might be particularly relevant since participants in this study were students attending commuter colleges, and most lived at home. It's possible that they relied on their families as a main support system. There seems to be inconclusive evidence with regard to gender differences in problem-solving coping strategies, particularly when they have emotional connective aspects. This is an area where further research is needed.

Limitations of the Study

Although the findings of this study make important contributions to the field of college stress and coping, there are several limitations. Participants were recruited from one psychology course, and students who chose to participate in this research study based on the course requirement might present unique personal characteristics and life conditions that were not studied. Also, the results reflect stressors associated with commuter colleges that may not be representative of residential settings. Although the sample used in this study had more cultural diversity than most of the other studies reviewed, the majority of participants were Caucasian. Therefore, findings among students of different ethnic groups may be limited. Finally, this study provided a cross-sectional view of stress and coping in first-year college students. The nature of stress is dynamic, and the process of coping which affects adjustment is complex and fluid. A longitudinal study might better capture the relationships among the variables under investigation.

Direction for Future Research

Future research might examine if coping strategies have a causal effect on adjustment to college using an experimental study design. It could examine if an intervention that emphasizes enhancing specific coping strategies reduces the impact of perceived stress and consequently increases student adjustment to college. Such a study may also determine if there is an interaction effect with gender such that females demonstrate better adjustment than males when they use emotion-focused coping strategies. Future research could also include qualitative measures such as student interviews and focus groups.

The transition to college, although stressful, may also be liberating and exciting for many students. There may be certain variables, such as motivation and optimism, that may determine if the transition will be a positive experience for students. Despite its limitations, this study demonstrated the importance of assessing student stressors, levels of stress, and coping strategies in first-year college students. Lower levels of stress and effective gender-specific coping strategies may help males and females successfully navigate through a stressful period in their lives. Findings of this study provide important implications for increasing the adjustment of students to their first year of college and perhaps increasing their overall sense of well-being.

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