College Student Stress:

Investigating Personality and Coping Strategy

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Abstract

The present study focused on the personality types, stress, and coping abilities of undergraduate students at Angelo State University (ASU). Based on previous research, I predicted that participants high in Openness, Conscientiousness, Agreeableness, and Extraversion would be more likely to use problem-focused coping strategies, whereas participants high in Neuroticism would be more likely to use emotion-focused coping strategies. Participants were asked to complete the Big Five Inventory (BFI; John & Srivastava, 1999), the Perceived Stress Scale (PSS; Cohen, 1988), the University Stress Scale (USS; Stallman & Cameron, 2008), and the COPE inventory (Carver, Scheier, & Weintraub, 1989). Consistent with my hypothesis, those high in Extraversion and Conscientiousness were more likely to use problem-focused coping strategies. However, inconsistent with my hypothesis, those high in Agreeableness were more likely to use emotion-focused coping strategies. Additionally, results revealed no significant correlation between Neuroticism, Openness, and coping strategies. Future research concerning personality types, stress, and coping strategies should be expanded to include different participants, include additional coping strategies, and focus on more specific stressors. Participants should be expanded as the current study only includes undergraduate students enrolled in psychology courses. It is important to expand on this study because information gathered could help college students of all classifications cope with their stress.

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The study of personality itself and personality in relation to other areas has always been a very popular topic amongst researchers. One specific area that researchers have been interested in is how personality plays a role in stress and coping strategies. Many studies have used the Big Five Inventory (BFI; John & Srivastava, 1999) to measure personality. The Big Five personality variables comprise Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism, and people can vary on each one. For example, individuals high in Openness are open to new experiences; those high in Conscientiousness tend to be very careful and cautious; individuals high in Extraversion tend to be an outgoing; those high in Agreeableness are more likely to go with the flow of things; and those high in Neuroticism are more likely to experience anxiety and/or depression symptoms. The present study examines the relationship between the Big Five personalities and stress in undergraduate college students, specifically, at Angelo State University (ASU), and how different personalities cope with different stressors. This is important is because the results of this research can allow for a better understanding of what causes stress for ASU undergraduate students, which would allow administrators and educators at ASU to better help students by creating programs and directing students to resources that will help the students cope with their stress, find solutions, and overall be successful.

When considering what all causes stress in a college student's life, several things come to mind. For example, the most obvious stressor would be the actual classes and course work that college students have to participate in. Other stress factors include finding a balance between academics and just living life, procrastinating, and keeping up with finances (Stallman & Cameron, 2008),

Past research has studied personality traits in reference to daily stress and coping strategies (David & Suls, 1999), coping with interpersonal stress (Lee-Baggley, Preece, and Delongis, 2005), occupational stressor-strain (Grant & Fox, 2007), and different coping strategies (O'Brien & DeLongis, 1996). The two coping strategies that past research studied are problem-focused coping and emotion-focused coping strategies. Examples of problem-focused coping strategies include facing stressful situations head-on, actively forming plans to deal with the stress, remaining calm and organized in stressful situations, and engaging in compromise (O'Brien & DeLongis, 1996). Examples of emotion-focused coping strategies include self-blame, escape-avoidance, and catharsis (David & Suls, 1996; O'Brien & DeLongis, 1996).

David and Suls (1999) studied the relationship between personality traits and people's assessment of their problems. Participants in their study were asked to fill out daily diary entries. Results suggested that personality and appraisals are related to daily coping efforts. Those high in Neuroticism tended to rely more on emotion-focused coping strategies, such as catharsis, or releasing emotion, and relaxation. The researchers also found that those high in Extraversion and Openness were likely to use emotion-focused coping strategies such as redefinition, religion, and catharsis, while no specific results were found for Agreeableness. Lastly, those high in Conscientiousness were found to use problem-focused coping strategies.

Another study that researched Big Five personalities was conducted by Lee-Baggley et al. (2005) in relation to interpersonal stress and coping within stepfamilies, with a focus on marital relationships and parent-child relationships. Results of the study indicated that those high in Neuroticism were more likely to use emotion-focused coping strategies, such as escape avoidance, interpersonal withdrawal, and self-blame. These strategies, however, often contributed to negative outcomes. Those high in Extraversion displayed different coping

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strategies depending on the context of the stressful situation. For example, when handling situations with their children, those high in Extraversion tended to use more positive strategies to help maintain a positive relationship with the child; however, when handling a situation with their spouse, those high in Extraversion used coping strategies that had more negative effects on the relationship, such as withdrawing from the situation or confronting their spouse. The researchers found that those high in Openness were more likely to face their own emotions and the emotions of their loved ones, which suggested that those high in Openness tended to use strategies related to emotion-focused coping strategies. Those high in Agreeableness tended to be more confrontational when dealing with their children versus their spouse, which lead the researchers to conclude that this may be because those high in Agreeableness are not comfortable in an authoritative role, like that of a parent, leading to less ideal coping mechanisms. Lastly, those high in Conscientiousness were more likely to blame themselves or take responsibility in marital conflict but less likely to do so when dealing with child misbehavior.

Grant and Fox (2007), studied the Big Five in relation to the stressor-strain relationship.

The stressor-strain relationship is the amount of strain caused by the stress that people experience. Participants in their study consisted of male and female managers who were asked to fill out several different inventories. Results indicated that Extraversion, Neuroticism, and Conscientiousness were more important than Agreeableness and Openness to physical and mental health in relation to their occupational setting. In other words, Extraversion, Neuroticism, and Conscientiousness were stronger predictors of the managers' occupational health.

Furthermore, the researchers found that Neuroticism was a strong indicator of poor physical health and low job satisfaction, and that Extraversion was a strong indicator of higher job satisfaction and better physical health. Lastly, those high in Conscientiousness were more likely

to have poor job performances due to stress or strain. This is important as researchers gathered data on each personality's stressor-strain relationship as well as how that stress impacted the health of participants.

O'Brien and DeLongis (1996) conducted a study using the Big Five personality traits with a focus on coping strategies in relation to stress. Participants in their study were undergraduate students who were asked to complete several questionnaires regarding personality, stressful situations, coping strategies, and social desirability. Results indicated that those high in Neuroticism used more emotion-focused coping strategies, such as fleeing and avoiding the situation altogether or angrily venting and confronting the situation/person at hand, for various situations. However, the researchers found that those high in Extraversion and Openness were more likely to use problem-focused coping strategies, and that participants high in Openness especially tended to view stressful situations as an opportunity to learn and grow. Those high in Agreeableness, however, were more likely to use emotion-focused coping, and those high in Conscientiousness were less likely to use escape-avoidance and self-blame in coping with their stress, and instead face their problems head on. So, the researchers concluded that those high in Neuroticism, and Agreeableness were more likely to use emotion-focused coping strategies while those high in Extraversion, Openness, and Conscientiousness were more likely to use problem-focused coping strategies.

To summarize, past research includes the exploration of many avenues of personality traits and coping strategies, with various outcomes. Researchers found that those high in Neuroticism used more emotion-focused coping strategies (David & Suls, 1999; Lee Baggley et al. 2005; O'Brien & DeLongis, 1996). Extraversion, Agreeableness, and Conscientiousness were mostly found to use problem-focused coping strategies (David & Suls, 1999; Lee Baggley et al.

2005; O'Brien & DeLongis, 1996). Lastly, Openness was found to use both emotion-focused and problem-focused coping strategies (David & Suls, 1999; Lee Baggley et al. 2005; O'Brien & DeLongis, 1996).

Upon reviewing past research and literature, it is clear there is still more to be explored in the realm of personalities, stress, and coping strategies. According to past research, emotion-focused and problem-focused are the two most likely coping strategies that people tend to use. Based on previous studies, I predicted that ASU students high in Openness, Conscientiousness, Agreeableness, and Extraversion would be more likely to use problem-focused coping strategies, and that students high in Neuroticism would be more likely to used emotion-focused coping strategies.

Method

Participants

Participants for this study were undergraduate college students attending Angelo State University. The participants were recruited via an online recruitment program, Sona-Systems, that is available to students enrolled in psychology courses. There were 155 total participants; 21.3% men, 78.1% women, and .6% transgender. The age of the participants ranged from 18 to 55 with an average age of 19 (M = 19.40 SD = 3.30); 43.2% of the participants self-reported as White or European American, 36.1% as Hispanic or Latino, 8.4% as Black or African American, 5.2% as Asian, 4.55% as Bi-racial, 1.3% as Other, .6% as Native Hawaiian or other Pacific Islander, and .6% as American Indian or Alaskan Native.

Design and Procedure

This study used a correlational design. The study focused on finding correlations between personality types, stressors, and coping strategies. The study was a within-subject design as all participants received the same surveys.

Measures: This study had four separate questionnaires, the BFI, USS, PSS, and COPE. The BFI was used to help determine participants' personality type, Openness, Conscientiousness, Extraversion, Agreeableness, or Neuroticism. The BFI is a 44-item survey, and each question was answered on a scale of 1 to 5 (disagree strongly to agree strongly). Each personality type scale was found to be reliable. The Openness scale comprised 10 items ($\alpha = .75$); the Conscientiousness scale comprised 9 items ($\alpha = .73$); the Extraversion scale comprised 8 items ($\alpha = .85$); the Agreeableness scale comprised 9 items ($\alpha = .77$); and the Neuroticism scale comprised 8 items ($\alpha = .80$). Examples of items on the BFI include, "I see myself as someone who is full of energy," see myself as someone who does things efficiently," and "I see myself as someone who gets nervous easily."

The USS and PSS are scales used to determine what causes stress to the participants. The USS consisted of 21 items and was found to be reliable (α = .79). Participants answered each item on a Likert scale from 1 to 4 (not at all to constantly). Answers were based on how the participant felt in the past month. Examples of items on the USS include: *academic/coursework demands*, *procrastination*, *finances and money problems*, and *studylife balance*. The PSS consisted of 10 items and was found to be reliable (α = .86). Each item was answered on a Likert scale of 0 to 4 (never to very often) based on how participants felt in the past month. Examples of items on the PSS are: "In the last month, how often have you felt that things were going your way?" and "In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?"

To determine the coping strategies participants used during time of stress, the COPE Inventory was used. The items on the COPE inventory are separated into two major categories: problem-focused strategies and emotion-focused strategies. Both categories were found to be reliable. The problem-focused scale consisted of 6 items ($\alpha = .73$). Examples of problem-focused coping strategies on the COPE inventory are, "I've been concentrating my efforts on doing something about the situation I'm in," "I've been getting help and advice from other people," and "I've been thinking hard about what steps to take." The emotion-focused scale consisted of 12 items ($\alpha = .58$). Examples of emotion-focused coping strategies on the COPE inventory are, "I've been refusing to believe that it has happened," "I've been getting emotional support from others," and "I've been looking for something good in what is happening."

Participants were also asked to complete a section of demographics, which was used to describe the sample. The demographics section included a place for participants to select which race and sex they identify as and a place to indicate their age.

Procedure: After participants arrived, the researcher followed a written script that provided instructions for the participants. The researcher explained the basis of the study to the participants, and mentioned that the study researched personality types, stress, and coping strategies. The researcher explained that participants would be asked to answer questions on several surveys, and assured the participants that all information would be kept confidential. After consenting to participate in the study, the researcher directed the participants to turn on their computers and begin the study. The study was completed on individual computers in the research lab equipped with the MediaLab Software, which is software used to create questionnaires and record responses to said questionnaires. The surveys were completed in the order of BFI, USS, PSS, and the COPE, followed by the demographic section. After completion

of the surveys, participants were presented with a debriefing that included sources used for the study along with who to contact if they had any questions. The researcher then thanked participants for their participation, and they were dismissed.

Results

For my hypothesis, I predicted that ASU students high in Openness, Conscientiousness, Agreeableness, and Extraversion would be more likely to use problem-focused coping strategies, whereas students high in Neuroticism would be more likely to use emotion-focused coping strategies. The study comprised four different surveys, the BFI, the PSS, the USS, and the COPE. The BFI contained 15 reverse coded questions, and the PSS contained four reverse coded questions. One participant's data were removed because the person did not meet the age requirement.

First, I created a variable for each personality type by averaging together the questions pertaining to the appropriate personality type. I then created variables for problem-focused coping strategies and emotion-focused coping strategies by averaging together the questions that pertained to each coping strategy. I then ran Bivariate correlations between the personality types and coping strategies. Consistent with my hypothesis, Extraversion and problem-focused coping strategies were positively correlated, r = .17, p < .05, and Conscientiousness and problem-focused coping strategies were also positively correlated, r = .25, p < .05. This suggests that those higher in Extraversion and Conscientiousness are more likely to use problem-focused coping strategies. However, results for Agreeableness were inconsistent with my hypothesis as Agreeableness and emotion-focused coping strategies were positively correlated, r = .18, p < .05. This suggests that those high in Agreeableness are more likely to use emotion-focused coping strategies. Results for Neuroticism and were also inconsistent with my hypothesis. Those high in

Neuroticism and Openness did not have a significant correlation with emotion-focused or problem-focused coping strategies.

Overall, the results were mixed. While those high in Extraversion and Conscientiousness did use more problem-focused coping strategies as predicted, those high in Agreeableness used more emotion-focused coping strategies than the problem-focused strategies I predicted. Also, those high in Neuroticism and Openness did not rely on either emotion-focused coping or problem-focused coping strategies, which did not support my hypothesis.

Additional Analysis

Additionally, I ran the descriptive statistics for the University Stress Scale in an effort to search for what stressors caused the most stress in ASU students. I created variables for each of the factors found on the USS; academic, equity, parenting, relationships, practical, health, and other stressors. After conducting the descriptive statistics for each of the factors, it was clear that academics and other stressors were the two factors reported to cause the most stress for students. Relationships, practical, health, equity, and parenting followed in that order. Table 1 shows the descriptive statistics. I then conducted the descriptive statistics for each individual question on the USS (see Table 2). Results were consistent with academics as the top stressor for students. Questions comprising the academic factor included academic/coursework demands, study/life balance, and procrastination, which were found to be the top three stressors. Questions included in the other stressor factor included university environment, parental expectations, work, and other demands. The lowest reported stressors comprised the parenting and equity factors; parenting issues, discrimination, language/cultural issues, sexual orientation issues, and childcare.

Table 1. Descriptive Statistics for USS Factors

Factor	Mean	Standard Deviation
Academic	6.28	1.86
Other Stressors	5.1	2.52
Relationships	4.63	2.67
Practical	3.22	2.14
Health	1.86	1.8
Equity	1.25	1.66
Parenting	0.63	0.99

Table 2. Descriptive Statistics for Individual Questions on USS

Factor	Mean	Standard Deviation
Academic/coursework		
demands	2.17	0.83
Study/life balance	2.17	0.81
Procrastination	1.94	0.92
Finances and money problems	1.69	1.06
University environment	1.42	1.04
Parental expectations	1.33	1.12
Family relationships	1.3	1.05
Other demands	1.26	0.97
Romantic relationships	1.22	1.02
Friendships	1.15	0.91
Work	1.1	1.04
Mental health problems	1.02	1.14
Relationship breakdown	0.95	0.93
Physical health problems	0.85	1
Housing accommodation	0.77	0.94
Transport	0.76	1.03
Parenting issues	0.51	0.87
Discrimination	0.48	0.78
Language/cultural issues	0.41	0.75
Sexual orientation issues	0.36	0.76
Childcare	0.12	0.38

Discussion

The hypothesis for this study predicted that those high in Extraversion, Agreeableness, Conscientiousness, and Openness would be more likely to use problem-focused coping

strategies, whereas those high in Neuroticism would be more likely to use emotion-focused coping strategies. Results indicated that those high in Extraversion and Conscientiousness were more likely to use problem-focused coping strategies; however, contrary to my hypothesis, those high in Agreeableness were more likely to use emotion-focused coping strategies. There were no significant correlations between those high in Openness and Neuroticism and either of the coping strategies. Additionally, results indicated that the top stressor for Angelo State University (ASU) students who participated in this study was the academic factor. The *academic* factor consisted of academic/coursework demands, study/life balance, and procrastination. The lowest stressors for participants comprised the *equity* and *parenting* factors, which consisted of language/cultural issues, sexual orientation issues, and childcare.

This information could be helpful to ASU. If university officials and educators are able to understand what is causing the most stress to their students, they will be able to better help the students cope with their stress. Furthermore, understanding how different personality types on campus cope with stress could help the university to create events or programs to provide help to the students during their stressful times. Even the information that did not support the hypothesis could be helpful. As high scores in Neuroticism and Openness did not have significant correlations with either problem-focused or emotion-focused copings strategies, it could be a sign that those personality types use coping strategies that were not relevant to this particular study, such as relationship-focused coping strategies. Knowing this could help universities to explore different ways to help students with those personality types to cope with their stress.

Consistent with my findings, previous research indicates that those high in Extraversion tend to engage in more compromise and flexible coping strategies (Lee Baggley et al., 2005).

David and Suls (1999) also found that those high in Extraversion view stressful situations as

challenges. Viewing stressful situations as challenges, along with being flexible in their ways of coping allows those high in Extraversion to engage in more problem-focused coping strategies and handle their stressful situations in an appropriate manner related to the situation.

Conscientiousness tend to use more problem-focused coping strategies. Previous research supports that finding. For example, Lee Baggley et al. (2005) found that those high in Conscientiousness were more likely to engage in compromise and problem-solving strategies, which supported the results of O'Brien and DeLongis (1996) who also found that those high in Conscientiousness used more planful problem solving. The researchers also found that those high in Conscientiousness tend to face their stress head on and carry their plan to deal with the stress through to completion. All of these findings point back to problem-focused coping strategies.

The results for Agreeableness contradicted my hypothesis that those high in Agreeableness would be more likely to use emotion-focused coping strategies rather than problem-focused coping strategies. I predicted that those high in Agreeableness would be more likely to use problem-focused coping strategies based on David and Suls (1999) research that found those high in Agreeableness had positive correlations with active coping and planning. However, there is support for the finding of those high in Agreeableness using emotion-focused coping strategies. For example, O'Brien and DeLongis (1996) found that those high in Agreeableness were more likely to seek support and not use confrontation when dealing with their stress. Not engaging in confrontational tactics allows those high in Agreeableness to maintain a balance on their emotions.

The results for Openness were inconsistent with the predictions stated in my hypothesis. I predicted that those high in Openness would be more likely to use problem-focused coping strategies because those high in Openness solve their problems through their abilities to reframe their stress to their advantage. However, this reasoning could also be used to explain why there were not any significant correlations between Openness and either of the coping strategies.

Those high in Openness are more comfortable with their emotions (Lee Baggley et al., 2005) and are able to reframe stressful situations to their advantage (O'Brien & DeLongis, 1996), allowing them to use various coping strategies that are deemed helpful to their stressful situations. Also, Lee Baggley et al. (2005) found that those high in Openness had a tendency to use more relationship-focused coping strategies, which was not a factor for this study.

Lastly, the results for Neuroticism were also inconsistent with my hypothesis as there were no significant correlations between those high in Neuroticism and either of the coping strategies. I had predicted that those high in Neuroticism would be more likely to engage in emotion-focused coping strategies due to the erratic emotions these individuals experience. For example, O'Brien and DeLongis (1996) indicate that those high in Neuroticism would be likely to angrily vent or confront the person or situation as a way of expressing their emotions and handling the stress. However, Lee Baggley et al. (2005), found a lack of significant correlations between Neuroticism and coping strategies. The researchers indicated this was because those high in Neuroticism were not flexible in their coping strategies. This, along with their tendency to engage in coping strategies that add to their stressful situation, and failure to find ways to cope that help with their problems (O'Brien & DeLongis, 1996), contributes to the lack of significant correlations between coping strategies and those high in Neuroticism. Those high in Neuroticism would rather remain stubborn in their coping strategies, rather than seeking new ways of coping

that may actually help with their stress. Perhaps there was no significant correlation because those high in Neuroticism did not use any of the coping strategies suggested and were unwilling to think about trying the coping strategies that were provided, instead choosing to remain in their stressful state of mind.

Although there was some useful information found from this study, there were also some limitations to the study. One such limitation was the restrained focus on problem- and emotion-focused coping strategies. Previous research indicated that a few of the personality types may be more likely to engage in strategies that were more relationship focused. For example, Lee Baggley et al. (2005) found that those high in Openness relied more on relationship-focused coping strategies, and those high in Agreeableness use more relationship-focused coping strategies when engaging in stressors related to marriage.

Another limitation to the study could be that both the PSS and USS focused on stress experienced in the last month. Depending on the date of participation, participants may not have been experiencing as much stress as they would have at a different time. Also concerning the PSS and USS, a limitation is that the scales were not specific in their questions. The USS focused on broad dimensions and did not ask specific questions regarding university stress.

Instead, the USS listed broad categories such as, *university environment, academic/coursework demands, finances and money problems*, and *friendships*. How does one determine what specifically makes up the university environment or stress caused from friendship? Likewise, the PSS did not specify events or terms in the questions. For example, there were no specifications as to what "important things," "personal problems," or "irritations" meant. Each of those terms could mean different things to different participants, and there is no way of truly finding out what was considered important, personal, or an irritant to each individual participant.

The last limitation is, of course, the participation sample. Participants comprised only students enrolled in undergraduate psychology courses at ASU. Therefore, the results only reflect what undergraduate students at ASU experience; however, ASU also has graduate students enrolled at the university who may experience different levels or types of stress. Also, because the undergraduate students who participated were enrolled in a psychology course at the university results might be exlusive to psychology majors and minors.

In the future, this study could be expanded to include relationship-focused coping strategies as well as emotion- and problem-focused coping strategies. Future researchers could also attempt to include a more specific stress scale in an attempt to narrow down the stressors to university students even further. Also, a more time-sensitive stress scale could be used, such as stress experienced in the last week rather than in the last month. Moreover, future researchers should extend the participation sample to include graduate students. It could be just as beneficial to study what causes stress to graduate students as it is to study what causes stress to undergraduate students because programs and events could be created to help both populations. Finally, it would also be interesting to explore the differences between stressors for undergraduate students versus stressors for graduate students. What changes, if any, in stressors are there during the pursuit of the different degrees?

In conclusion, the results of this study showed that those high in Extraversion and Conscientiousness were more likely to use problem-focused coping strategies, whereas those high in Agreeableness were more likely to use emotion-focused coping strategies. Also, there were no significant correlations between those high in Openness and Neuroticism and either problem- or emotion-focused coping strategies. The results of this study could be useful, particularly to the students of Angelo State University. Faculty and educators might use this

information to provide more or better help to the students of ASU to cope with their stress. The lack of significant correlations between those high in Openness and Neuroticism and coping strategies could lead to future research that includes a wider variety of coping strategies, such as relationship-focused coping strategies. While the results of this study provide information on stressor and copings strategies of ASU students, there is still much to be done on the topic of personalities, stress, and coping strategies.

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