

RUNNING HEAD: THE VARIOUS ROLES OF COFFEE CONSUMPTION IN FEMALE  
CLEMSON STUDENTS

**\*NOT PUBLISHED\***

**The Various Roles of Coffee Consumption in Female Clemson Students**

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SOC 4060-001: Qualitative Research Methods

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December 14, 2022

### **Introduction**

The addiction to caffeine, beyond college campuses, have been normalized to a concerning degree. However, a student's relationships with coffee and caffeine intake can look different, as well as have a varying purpose for each individual. Coffee is well known for its energizing effect depending on the amount consumed. This can have both a beneficial or detrimental effect on a person. Coffee is a very popular choice of caffeine intake when it comes to college students. For our research, we decided to focus on the coffee consumption of Clemson University students, specifically the female demographic. As a group, we hoped to gain a better understanding of a college students' relationship with coffee as well as how the university's environment fosters the students' behaviors. From our findings, it was common that most participants drank coffee as it was a part of their daily routine and they were used to having a cup a day. With the outcome of our research, we could help coffee companies gain a better understanding of their college-aged-customers' habits as well as give the university insight into students' potential coping strategies in a stressful academic environment. Our research question mainly focuses on the internal factors that go into an individual's coffee consumption. Our goal was to investigate coffee's effect on social interactions, academic performance, coffee's placement within student's daily routine, and mental processes that occur when coffee is not consumed.

### **Background and Literature Review**

In order to gain a better and more in depth understanding of our chosen topic, we looked at past research that could be applied to our study. There have been a lot of studies conducted and data collected on the effects and patterns of coffee consumption behavior. The literature review helped us develop a starting point for what direction we wanted to take our own project.

One study we examined was about caffeine intake and its effect on mental health, specifically in college students. The data found that there were increased depression and anxiety rates among college students who had an increased amount of caffeine consumption, with coffee being the main source (Bertasi, 2021). However, the study did not address the potential underlying reasons that could have led to these results. This is a gap in the literature that we hoped to fill with our study. Although it was a quantitative study about the correlation between mental health and caffeine intake, the data could be extrapolated and applied to our own qualitative study. This study also focused primarily on college students, which is the demographic we were hoping to reach in our own study.

Another source we reviewed addressed the contribution of coffee consumption to purchasing behavior. Some of the factors they found included the reason for buying coffee, the preferences people have, and the contribution of buying coffee to overall consumption rates (Samoggia, 2018). Their results showed that coffee consumption behavior is dependent on multiple different factors, such as personal preferences, economic and product attributes, contextual information, socio-demographics, and coffee sustainability (Samoggia, 2018). This study was able to provide us with a little insight on different reasons people have for buying coffee, and why their purchasing behavior varies. We wanted our study to focus specifically on female Clemson students, which places the respondents within the same contextual location. But, their coffee consumption behaviors and purchasing behavior still varied. This in part depended on access to coffee around campus, such as using the Starbucks or POD markets that Clemson has available.

Another article we were able to apply to our own study was on the risks and benefits of coffee consumption. This was a qualitative study that had results showing the benefits of

drinking coffee outweigh the risks (Pourshahidi, 2016). If coffee consumption is at a normal level by healthy individuals, then the effects are actually mildly beneficial (Pourshahidi, 2016). But, this outcome is also dependent on numerous factors, including age, gender, and health (Pourshahidi, 2016). This source was also unable to identify the cause behind these potential benefits, but it was a useful risk-benefit assessment of overall coffee consumption (Pourshahidi, 2016). Our study looked at individuals from the same gender and age group who were all healthy individuals. We found that they experienced the benefits of drinking coffee, but also the drawbacks of having too much or not enough coffee.

One particularly interesting article we found studied the effects of energy drink consumption on the academic performance and stress levels of college students. While it focused primarily on energy drinks, we were able to apply the caffeine intake levels to our own study on coffee consumption specifically. The study found that college students have a reliance on caffeine, and that there are both pros and cons they experience from consistent consumption (Pettit & DeBarr, 2011). They actually found that a decrease in caffeine consumption can have a positive effect on academic performance (Pettit & DeBarr, 2011). Our own results contradicted this data and found that caffeine consumption, specifically coffee, helped improve academic performance by increasing alertness and focus.

These sources, along with additional sources we looked at, all connect to our study and contribute to our understanding of our own research. We wanted to focus on finding out how college students feel when they do or don't drink coffee, why they drink coffee, and the effects of caffeine intake on other areas of their lives. While the past literature shows there has been a lot of research done on this topic, there are still gaps that can be filled and competing views that need to be reconciled. For instance, the Bertasi article found that caffeine consumption had negative

effects, while the Pourshahidi article discussed that the positive effects outweigh the negative. We wanted to get to the root of the issue and find out why college students drink coffee, whether it be for social, academic, or physical reasons. We also wanted to determine what positive or negative responses college students experience when they drink or don't drink coffee. These are things that we were able to clarify in our own research.

### **Methods and Sample Description**

#### Observation

This study was conducted through in-depth interviews. We decided on using in-depth interviews in order to gain an understanding of each participant's experience. We had a total of six interviews, with everyone in our group responsible for conducting one. The participants were friends of ours (female) and were asked a series of questions regarding the topic of coffee consumption. This project was focused on finding out what each participant's relationship to coffee was. The aim was to know how coffee consumption affected Clemson University students' academic performance, their physical responses to drinking and not drinking coffee, as well as the social responses they had when around coffee.

The nature of this design was to ask participants a series of questions and gather their verbal responses. There were a total of 19 questions which focused on why the participants drink coffee, how they feel when drinking coffee, how coffee helps their academic performance, and the negative side effects of coffee consumption. The interviews were recorded via voice memos and transcribed by hand or a website online.

#### Interviews

Interviews were conducted in-person and in a quiet place to record the conversation. We conducted these interviews with friends of ours that we knew drank coffee regularly. We wanted

to be able to gain an understanding from people we knew had a slight dependency on coffee so we could get the most out of our questions. The questions of the interviews were aimed towards a daily consumption of coffee. If we were to interview people who did not drink coffee, the study would make no sense. The interviews were guided by using probes and we then coded for themes. We have listed below our core questions that participants were asked:

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Q1: How do you feel when you don't drink coffee? \*Probe: How about when you *do* drink coffee?

Q2: Why do you drink coffee? \*Probe: Are there certain contributing factors (stress, emotional, social, energizing, etc.)?

Q3: When do you drink coffee during the day?

Q4: Does coffee affect your academic performance or other areas of your life when you don't have coffee?

Q5: How does coffee consumption affect your social interactions? \*Probe: Is this a positive or negative effect?

Q6: What are some physical responses you experience when drinking or not drinking coffee?

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### Content Analysis

A content analysis was conducted to look for similar themes throughout the answers so that we could code them. The three main themes we found were then turned into codes, which include: Physical responses (headaches, shakiness, rapid heart rate, anxiety, drowsiness, wakefulness), Academic performance (productivity and focus), Social effects (antisocial behavior or increased sociability). We found that most participants noted having negative side

effects when not drinking coffee. These are typically known as withdrawal symptoms: headaches and rapid heart rate. But most participants also noted feeling more “awake” and “energized” when they drink coffee, however some participants still experienced negative side effects while drinking coffee. These include heightened anxiety and feeling over caffeinated. Participants also noted that drinking coffee helped improve their academic performance because they were able to focus and be more productive when drinking coffee while doing school work. The last common theme was social effects. Most participants stated that when they did drink coffee they were more social and able to hang out with friends in a group setting. Participants also described that when they did not drink coffee they felt anti-social and did not want to interact with anyone.

### Results

Throughout the process of our research, we found that our observations produced many different trends. These trends were separated into different coded themes. The coded themes observed were the participant’s physical responses to coffee consumption, their academic performance as a result of their coffee consumption, the social effects that resulted from their coffee consumption, the mental effects from their coffee consumption, participant’s opinions on the accessibility of coffee on Clemson University’s campus, and the role that taste and habit plays in the reason that they drink coffee. These coded themes were identified as the strongest themes due to their prevalence across the board within the interviews that were conducted.

Each participant stated that they had experienced some type of physical response as a result of their coffee consumption or lack of coffee consumption. These responses ranged from shakiness, to headaches, to a rapid heart rate. While most individual physical responses were different, in some way, each participant indicated a presence of physical responses due to their coffee consumption. Similarly, each participant indicated that their coffee consumption impacted

their academic performance. For example, most participants noted a change in their ability to focus and their ability to stay attentive while consuming coffee. Additionally, most participants felt that their social interactions were affected by their coffee consumption. Participants noted both positive and negative ways that coffee interacted with their sociability. The mental effects of coffee consumption were also seen within the participant responses. Many cited coffee consumption as being tied to their mental state either in a positive fashion or negative. Lastly, many participants indicated reasons behind their coffee consumption, the two most common being that coffee is consumed out of habit, or for the taste.

When looking at these coded themes within our research, we found parallels between our findings and the findings of certain pieces of literature that were already published out in the world. In an article by Mahoney et al. titled “Intake of caffeine from all sources and reasons for use by college students”, the findings were consistent with the coded themes of our research, these being that students drank caffeine to feel awake, to enjoy the taste, and for social reasons (2019). Each of these findings are consistent with themes found among our participants pertaining to the reasons behind their coffee consumption. An additional finding of our research that is consistent with what is already published in literature is that our participants indicated that drinking coffee would cause wakefulness. This idea is also seen in an article titled “Caffeine Consumption Patterns and Beliefs of College Freshman” where authors McIlvain et al. find that 76% of their respondents believed that coffee would wake them up in the morning (2011). This parallels our participants' responses that they often drink coffee to feel more awake.

### ***Academic Performance***

For most of our participants, coffee did have an effect on their ability to perform and keep up in academic settings. One word that continued to come up in our in-depth interviews was



focus. For the students who mentioned needing coffee for improved academic performance, they said that the caffeine made it possible for them to focus more. Increased focus allowed for them to pay closer attention in class and complete schoolwork. One of our participants brought up the concept of pulling an all-nighter. She reported that she would drink coffee if she knew that she needed to stay up extremely late to catch up on schoolwork, whether that be assignments or studying for upcoming exams. Attentiveness was another word that was brought up in relation to coffee consumption, but this term could apply to situations even beyond an academic setting. For example, attentiveness could be used to describe listening skills when in a group of friends or even participating in a leisure activity like watching a movie. Therefore, it appears that the most accurate way to describe coffee's effect on students' academic performance would be that it increases focus.

### *Accessibility*

Another area where we were able to detect some differences in opinion was in regards to on-campus coffee accessibility. A couple participants even had some dissonance within their own answers, explaining that Clemson had some accessible options to a degree, but that there is certainly room for improvement. According to the students we interviewed, there are plenty of places to buy coffee on campus. The interviewees said that most buildings either have an in-house Starbucks or are within reasonable walking distance to a Starbucks. Another option for coffee consumption would be the POD Markets scattered throughout campus. POD stands for Provisions On Demand and they offer Starbucks coffee, but only in the form of hot, drip coffee. The main issue that arose in terms of accessibility was about the financial toll that buying coffee on-campus can bring. One participant explained that Starbucks coffee can be very expensive, especially if it is purchased as often as college students seem to need it. The POD Markets are a

less expensive option, but there are fewer of them situated around campus. It may not be as easy to walk to the nearest POD Market as it would be to walk to a Starbucks. This presents an issue for students who may need or want coffee, but cannot afford it as often as they would need.

### ***Social Effect***

Another trend that we noticed among our interviewees was reported feelings of increased socialization and, with that, more positive social interactions overall when socializing throughout the day when they had had their coffee in the morning. On the other hand, when interviewees hadn't had coffee they often reported feelings of irritability and other antisocial feelings. For example, one participant reported that on some mornings she feels she needs a cup of coffee in order to be agreeable that day and another participant reported that she drinks coffee due to her unpleasant nature when she hasn't had coffee that morning. Both of these responses show both the negative and positive toll that coffee takes on our participants day to day social interactions. When our interviewees had coffee they reported that they not only had more positive social interactions, but they were also more willing to have more social interactions in general after having had coffee in the morning. One participant in particular reported that if they had their coffee that morning that they were more likely to be focused in their interactions with fellow classmates and teachers throughout the day. Overall coffee has a positive effect on most of our interviewee's social patterns and a negative effect when coffee hasn't been consumed in the morning or that day.

### ***Mental Effect***

Most of the participants in our study expressed that they felt groggy, unproductive, tired, and anti-social when they did not drink coffee. One participant stated that without coffee, they felt as though they had "lost their sparkle." These are all common physical and emotional

reactions to not drinking coffee that can weigh heavy on a person's mental health. By feeling anti-social and unproductive, this can cause major changes in one's mental health such as lowering their self-esteem. It is interesting to note that all of this derives from coffee dependency, but it is important to understand the effects that coffee has on one's health. It is also important to note that after completing the in-depth interviews, all participants were asked if they learned anything about their coffee consumption and many expressed that they realized how much of a dependency they have on coffee. Having a healthy mind is important for college students to maintain a good work ethic and keep up with their academic performance.

### ***Physical Effect***

Our study found that individuals experience many physical responses when drinking or not drinking coffee. Without coffee, many of our respondents reported feeling tired or groggy. A few also mentioned that they would get intense headaches, which indicated to them that they did not have enough coffee consumption that day. One participant even stated that "some people I know have coffee all day and can't function without it." This revealed the reliance many people have on coffee to maintain physical response, such as increased energy levels. On the other hand, students explained that with coffee, some of the positive effects were that they felt more awake and energized. But, the negative effects on physical responses included feeling jitters, anxiousness, and a rapid heartbeat. One participant mentioned that "sometimes I realize while I'm drinking it, I don't need it because I start getting really shaky and my heart will start racing." Overall, our study shows that there are common physical responses to having or not having coffee.

### ***Taste/Habit***

After conducting our interviews, we found some patterns between the participants. One pattern involved the taste of coffee. We found that most participants drank coffee due to liking the taste/ flavor of coffee. From looking at the coffee orders, most of the ingredients in the coffee makes the drink very sweet. Some participants expressed that the reason they drink coffee is “it's a part of breakfast” and “it has a great taste.” Another pattern we noticed that was connected to taste was habit. Most participants stated that they drank coffee mostly because it was part of their daily routine. After getting up in the morning and getting ready for the day they would make a cup to “wake them up.” This can also be connected to the physical responses we noticed throughout participants since they expressed that drinking coffee gave them energy.

### **Discussion and Conclusion**

Our study contributed greatly to my understanding of coffee consumption among college students. Using in-depth interviews, we were able to interpret our findings in a meaningful way that can be applied to the larger questions at hand. The data we collected revealed patterns and trends that I would not have been made aware of if it were not for this qualitative research. It seems to be common knowledge that coffee consumption is a large part of college life. But, we wanted to learn the reasons and effects behind coffee consumption among college students. Our research aimed to answer how students feel when they do or don't drink coffee, why they drink coffee, what their coffee consumption patterns are, and how it affects them. Coffee consumption behavior varies among individuals, but there are similarities in the dependency on it for other areas of their lives.

The research we collected found that drinking coffee can have an impact on a wide variety of factors, including academic performance, physical responses, social interactions, and mental effects. The consumption behavior was also dependent on taste, habit, and accessibility. A

lot of our findings were consistent with other literature that we looked at when researching past studies. One trend we noticed was the impact of coffee consumption on academic performance. Our respondents noted that drinking coffee led them to being more productive, focused, and attentive. Many of them mentioned that they rely on coffee to stay alert in class and get their work done. Articles by Pettit & DeBarr (2011) and Bindbeutel (2016) also found a meaningful, positive impact of caffeine on academic performance in college students. Our research findings also revealed an impact on physical responses to coffee consumption. Students reported that without coffee, they felt more tired and experienced headaches. But, when they did drink coffee, they felt more awake and energized. On the downside, they also experienced feelings of anxiousness, jitters, and increased heart rate when they drank too much coffee. These physical effects have also been reported in past literature, such as the Pourshahidi (2016) article that analyzed the risks and benefits of coffee consumption. Their findings were consistent with ours that a moderate intake of coffee among healthy individuals can have benefits that seem to outweigh the physical risks (Pourshahidi, 2016). Drinking the right amount of coffee can benefit students in many ways, but drinking too much or not enough will cause negative physical responses. Coffee also has an impact on the sociability of college students, as our respondents mentioned feeling more irritable and antisocial without having coffee. Not only this, but coffee also has mental effects among college students. When they don't drink coffee, they often experience feeling unproductive, unmotivated, and antisocial. Many of the physical responses to not drinking coffee may be manifestations of the mental side effects as well. These impacts on mental health were examined more in depth by the Bertasi (2021) article, but their study failed to mention the potential causes behind the results. We found that coffee could affect mental health due to the other areas that respond to coffee consumption, such as increased sociability and

improved academic performance. These factors may improve the mental health among college students if they are performing well in school and getting along better with their peers. The positive effects that coffee consumption has on an individual explains many of the reasons why college students drink coffee. This is also seen in the Mahoney et al. (2019) article, which reported that most college students drink coffee to feel more awake or be more social.

As we have seen, coffee consumption does create certain responses among college students regarding multiple areas of their lives. We also wanted to find out why and how students drink coffee in the first place. Many of our respondents discussed how they drink coffee either because they like the taste or because it is a habit for them. A lot of them even mentioned that they did not realize how dependent they were on coffee until we asked them to reflect on their consumption behavior after the interview's core questions. A main factor to consider in their patterned behavior is accessibility to coffee on campus. All of the informants we interviewed had a preference for where they usually get their coffee. It seemed that the leading sources of coffee were Starbucks, Dunkin Donuts, or the on campus POD markets. A key component that is considered when discussing accessibility to coffee is the price. Students who rely on coffee to get through the day will often see the expenses adding up when they purchase it from their typical coffee shop of choice. This same topic is addressed in the Samoggia (2018) article on coffee consumption in relation to purchasing behavior. The purchasing behavior of college students is dependent on personal preference, economic and product attributes, and contextual information, which are the same factors seen in the article. For instance, one of our informants preferred Dunkin Donuts over Starbucks because it was more affordable, easier access, and a better taste. This finding may contradict with our other respondents, who continue to get their coffee from Starbucks.

The results of our study have the potential to make a significant contribution to the overall understanding of coffee consumption behavior among college students. It revealed the reasons students have for buying coffee and the effects it has on them as a whole. This allows us to gain a stronger insight into why college students rely on coffee in the first place and why it is such a prevalent part of their daily lives. We wanted to determine the wide range of consumption because there is a difference between someone who buys a coffee once a week versus someone who cannot go a day without it. When we asked all of our informants to compare what they thought their coffee consumption behavior was like in relation to other college students, they all felt that they fell somewhere in the middle. They did not feel that they drank more or less than other college students, or that they had an outlying consumption rate higher or lower than others. Our study focused primarily on female, upperclassmen Clemson students, but it can be applied to larger college life in general. It would be interesting to compare how results vary depending on different factors, such as gender, age, and region. For instance, we could study what differences we may find in consumption patterns by replicating and comparing our study to other demographics. We could test if our results are consistent with students at other universities in different regions of the US. It would also be possible to expand our research into other types of caffeinated beverages, such as energy drinks. There are so many variables that we could adjust when selecting who to interview and where, and these are the implications of our study that could be possible in the future.

As with any study, there were a few limitations we faced while conducting our research. My leading concern would be the use of non-random sampling. We all chose to interview people that we knew personally, which could have potentially influenced the results. This study was an attempt to integrate the emic perspectives with the etic strategy. We are outside researchers trying

to gain an insider understanding of the coffee consumption patterns and behavior among college students. The in-depth interviews allowed us to gather a high volume of information from the emic perspective of our informants, while our analytical approach as outsiders allowed us to apply the etic strategy when making sense of our data results. This is how we were able to collect and determine the recurring themes that appeared throughout our study. Overall, this study helped me understand not only the coffee consumption behavior of college students, but the importance of qualitative research studies as a whole. The information we gathered and the interpretations we made would not have been possible without following the structure of an interpretive framework and using qualitative research method strategies.



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