Increasing understanding of professor’s ADHD knowledge and perception of ADHD and how this informs their behavior towards students with ADHD

Rebecca Rosen

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Increasing Understanding of Professor’s ADHD Knowledge and Perception of ADHD and How This Informs Their Behavior Towards Students With ADHD

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A thesis submitted to the Graduate Faculty of

JAMES MADISON UNIVERSITY

In
Partial Fulfillment of the Requirements
for the degree of
Master of Arts

School of Communication Studies

May 2019

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Dedication

This thesis is dedicated to my students in Texas who I got to spend one year growing and learning with. They opened my eyes to new problems and students being ignored and inspired me to use my opportunities to find ways to better support students in similar realities.
Acknowledgments

Starting off, I would like to thank my thesis committee, Dr. Sharlene Richards, Dr. Alison Bodkin, and Dr. Kathryn Hobson for all of the effort they have put into supporting me and this project all year. Without these three amazing women I would not have even considered myself capable of attempting a thesis. Thank you to my committee head and mentor, Dr. Richards. From the very first day of second year when I had my first breakdown over this thesis, Dr. Richards has gotten me through this year and this project with her kindness, intelligence, support, efforts, and ability to have me leave her office feeling better than I did going in. I am excited to discover what comes next and I know that she has given me the tools and skills I need to succeed.

To Dr. Bodkin, thank you for providing me with that first spark of interest to study communication and advocacy back in undergrad. To Dr. Hobson, thank you for challenging me in graduate school and for being a wonderful support both in school and service. I wouldn’t be where I was without you all. Thank you all so very much.

Additionally, I want to thank my friends and family for their tireless support and love. I could not have made it through this ear without the support of my friends and fellow graduate students who understood everything I was experiencing and didn’t let me wallow too long during the difficult times. Thank you to my parents, Melissa and Erik Rosen for never failing to encourage me to meet any challenges put in my path and for providing both the opportunity to take on this journey and the emotional support provided along the way. Thank you to my sister, Emma Rosen, living across the country but always willing to lend an ear when needed. I love you all.
Finally, I want to thank my research participants who provided me with such wonderful stories and insight, without which this thesis would not be possible. Thank you for your openness to share your stories and experiences.
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Abstract

Attention deficit hyperactivity disorder (ADHD) is a prevalent learning disability experience by 5.3% of students. The behaviors associated with ADHD (hyperactivity, impulsivity, and inattention) can impact a students’ ability to learn and their behavior and relationships in the classroom. Teachers can help to create a supportive or unsupportive learning environment for students with learning disabilities, specifically ADHD. Unfortunately, these needs are not always met for students in college. Previous research has uncovered primary and secondary teacher’s knowledge, perception, and behavior regarding children with ADHD, but little work has focused on college professors. College professors are likely to have significantly less training regarding ADHD, and students who have this diagnosis, are likely to need additional support in college. A non-random purpose, snow-ball sample of college professors (N=17) was gathered for this study. Semi-structured qualitative in-depth interviews were conducted with faculty to better understand faculty’s knowledge and perception of ADHD and students with this diagnosis, as well as their experience(s) working with students who have ADHD and/or ADHD accommodations from the office of disability services. The interview guide contained 11 primary questions as well as follow up questions for many of those. Interviews were transcribed verbatim and analyzed using Tracy (2013), including data immersion, primary cycle coding, and secondary-cycle coding. NVivo was used to store data and to assist with coding the data.
CHAPTER 1: INTRODUCTION AND LITERATURE REVIEW

Attention deficit hyperactivity disorder (ADHD) has become a common occurrence across the world with a global meta-analysis finding that 5.3% of students have a diagnosis of the disorder (Polancz, deLima, Horta, Biederman, & Rohde, 2007). Many of the behaviors associated with ADHD such as hyperactivity, impulsivity, and inattention are present in secondary education level classrooms and can be known to cause relational or behavioral problems within a class (Kos, Richdale & Hay, 2006). This is where teachers come in. Teachers have the ability to identify symptoms, recommend treatments, and most importantly to this project, create a learning environment that supports the use of interventions for students with ADHD (Vereb & DiPerna, 2004).

A problem then, is when teachers are unable to meet the needs of these students. This can occur for a variety of reasons. Some teachers have a lack of knowledge about ADHD. Anderson, Watt, and Noble (2012) found that primary and secondary school teachers who had been teaching for years had higher levels of knowledge than teachers who were about to begin their careers. Others carry common perceptions or attitudes about students with ADHD that can then interfere with teacher behaviors towards the students. Ohan, Cormier, Hepp, Visser, and Strain (2008) found that some teachers with higher knowledge behaved in ways that supported their students while other teachers with knowledge maintained the perception that these students would be disruptive in class, showing that the perception dictated the behavior more so than the knowledge.

These three categories of inquiry, knowledge, perceptions or attitudes, and behaviors have been studied in teachers at the elementary and secondary level of
education (Kos, Richdale & Hay, 2006; Ohan, Cormier, Hepp, Visser, & Strain, 2008; Vereb & DiPerna, 2004). However, there is little research about the impact these categories can have on students at a college level. Yet as of Fall 2017, a survey found that in a pool of over 30,000 students, 2,202 of them had been diagnosed with ADHD (American College Health Association, 2018). Additionally, many past studies focus on quantitative methods of inquiry. While this had provided an understanding of the levels of knowledge, the perceptions, and the behaviors that exist, conducting a qualitative study with interviews will provide the opportunity for more contextualized stories of instructors coming into contact and working with students with ADHD.

Beyond the scholarly and novel interest, the other reason I am passionate about students who struggle with gaining accommodations and having access to a supportive learning environment is because of my experiences with the AmeriCorps program, City Year. Many of the students I worked with had so many personal struggles that were so poorly handled by the school that it was sometimes really hard to remain calm. In my experiences, I interacted with students who fell somewhere between two different camps of reactions. One side was that the school ignored the conditions or struggles they faced until it began to look bad that they couldn’t move on to the next grade level and would then ask volunteers to teach 10th graders (who wrote at a 1st grade reading level) to work with them so they could pass the 10th grade exams. The other side was that students were tossed into a special education class with a teacher with little to no experience working with students with special needs and the class ended up feeling more like a place to just separate the students, keep them occupied, but never really teach them. There are definitely more shades of grey to this and not every student fit into one of those two
sides, and not every student on one of those sides had an affective disorder however, many of them did.

Much more recently, I have been given the opportunity to be a graduate teaching assistant and have been responsible for running my own class and creating an environment in which students of all backgrounds can succeed. In my short experience performing this role I have interacted with students who have expressed a variety of frustrations about functioning as a student in college with an affective disorder like ADHD and obtaining support from professors. Early on in the semester one of my new students asked to speak with me so she could explain how her ADHD impacts the way she learns and that she may look unfocused at times but that she is truly trying to learn. What stuck with me was the sadness and apprehension with which she addressed me, and I could not help but wonder how many teachers have misjudged this student or assumed they lacked motivation, instead of helping the student.

Upon reflection, I believe that I was too quick to believe that all previous teachers were unsupportive. I think that what these experiences and my research has shown me is that there are significant gaps in the knowledge instructors at a college level have concerning affective disorders. In addition to knowledge gaps, the perceptions that exist surrounding students with these disorders can further influence the behaviors teachers practice. All of these personal experiences have led me to a place where I want to dedicate my time and efforts to learning more about the knowledge, perceptions, and behaviors professors have towards students with ADD or ADHD.

This study will look at the attitude’s society has towards individuals with disabilities based upon media portrayals before examining what is known about teacher
knowledge, perceptions, and behaviors of and towards students with ADHD. Using the knowledge gained from studies mostly of elementary, middle, or secondary education teachers, an interview study is proposed to interview college professors at a southern university to discover their knowledge, perceptions, and behaviors of and towards students with ADHD.

**Literature Review**

**Societal Attitudes Towards Disability**

Broadly speaking, media carries power over the creation of attitudes and impressions of individuals with disabilities (Karimova, Sauer, & Dakka, 2015; Zhang & Haller, 2013). Much of the literature has focused on the portrayals of ADHD and learning disabilities and the negative consequences this can have on representations, stereotypes, and understanding of what ADHD is (Clarke, 2011; Olstead, 2002; Ponnou & Gonon, 2017; Ray & Hinnant, 2009). These portrayals can create confusion about the disorder due to contradicting or inaccurate representations and create stereotypes or limited characterization of individuals with ADD or ADHD (Clarke, 2011; England-Kennedy, 2008; Horton-Salway, 2012; Ponnou & Gonon, 2017; Ray & Hinnant, 2009; Slopen, Watson, Gracia, and Corrigan, 2007).

Clarke (2011) studied the portrayal of ADD and ADHD in popular magazine from 1988-2008 in order to determine the way risks associated with ADD and ADHD are communicated and understood. Clarke (2011) qualitatively analyzed articles for answers to the questions, what is it, what is said to cause it, and what can be done about it, in relation to ADD/ADHD. Overall, the findings indicated heavily polarizing and contradictory portrayals (Clarke, 2011). Portrayals of ‘what it is’ spanned from
ambivalence about whether or not it is a real disorder, a simple misunderstanding of childhood behaviors, associated with ideal characteristics of an ambitious, hard-working American, humorous in children, or dangerous if left untreated (Clarke, 2011).

While contradictory views are expressed about what ADD/ADHD is, most articles agreed that causes were either genetic or biological (Clarke, 2011). Findings about what can be done about the disorders heavily focus on the use of medication that makes children more “normal” (Clarke, 2011). Overall, Clarke (2011) found that the confusing and varied portrayals lead to uncertainty about ADD/ADHD and underemphasizes the perceptions of risk.

Similarly, Ponnou and Gonon (2017) studied portrayals of ADHD across both print and television media from 1995 through 2015 to discover the different views the public and social workers have towards ADHD. The authors initially found a separation in the way media talked about ADHD, either within the biomedical model, or the psychosocial model (Ponnou & Gonon, 2017). Results of the study showed that overwhelmingly, most television media support the biomedical model and supports the use of medication to increase educational opportunities (Ponnou & Gonon, 2017). Adding more nuance to the conversation, Ponnou and Gonon (2017) found that the print medium combines elements of both models in their portrayal of what individuals with ADHD should do in order to manage their circumstances--this involved using medication but also adding educative and therapeutic approaches to maintenance of the disorder. The differences in the amount of emphasis placed on the two different models creates similar confusion to what Clarke discovered due to the lack of continuity in the portrayal of the disorder (Clarke, 2011; Ponnou & Gonon, 2017).
Within the portrayals of individuals with ADHD, a dynamic of contradiction and confusion exists over what the disorder can look like (Olstead, 2002). Olstead (2002) studied Canadian newspapers and their depictions of individuals with mental illness and found three portrayals that contributed to simultaneously rational and irrational characterizations of the individuals. The first portrayal is one of the mentally ill criminal who is dangerous, unpredictable, and violent and are overcrowding jails (Olstead, 2002). The second portrayal is of the passive patient who is the nonviolent alternative to the criminal depiction and characterizes how a mentally ill person ‘should’ and ‘can’ be (Olstead, 2002). This creates an additional criticism of individuals viewed as criminals as the passive patient implies that violent individuals are actually able to control their behaviors, and this can lead to consequences (Olstead, 2002). The third portrayal concerns class-based illness and the heavy attention poor individuals with mental illness receive in the print media that also coincides with discussions of criminality, violence, and homelessness (Olstead, 2002).

England-Kennedy (2008) studied media portrayals in film and television to determine societies views of individuals with attention deficit disorders. One of the first portrayals studied was the character Little Chrissy, from the 1998 John Waters film *Pecker* (England-Kennedy, 2008). The young girl is originally portrayed as a highly energetic and willful child prior to a doctor diagnosing her with attention deficit disorder and present her parents with the drug Ritalin and framing it as “Mommy and Daddy’s little helper” (England-Kennedy, 2008). Following this interaction, Little Chrissy is no longer portrayed and seen as she once was but instead is treated by her parents like a burden--someone incapable of living a successful life (England-Kennedy, 2008).
England-Kennedy (2008) also included portrayals of ADD from the shows “South Park” and “King of the Hill.” In both examples, the character in question is a child whose behavior aligns with behaviors associated with attention deficit disorders, but the conclusion is not that they have the disorder, but that they need to stop drinking coffee or consuming too much sugar (England-Kennedy, 2008). England-Kennedy (2008) connects this portrayal to the misconception of what causes ADD and questions the legitimacy of the diagnostic process. The researcher concluded that negative stereotypes created cultural skepticism about the legitimacy of attention deficit disorders as true disabilities, implying that the disorder is over diagnosed and overmedicated (England-Kennedy, 2008).

Studies looking at the media portrayal of ADHD found that oftentimes, rigid characterizations about who can have the disorder can impact public perception. Slopen, Watson, Gracia, and Corrigan’s (2007) study found that portrayals of ADHD overwhelmingly showcase it as a childhood disorder. In support of this, England-Kennedy (2008) found minimal media representations of attention deficit disorders and those found are mostly inaccurate and only support a depiction of it being a disorder of childhood. In addition to age characterization, Horton-Salway (2012) also studied the gendered nature of ADHD portrayals. By looking at UK national newspapers from the year 2009-2011, the researcher found that ADHD was portrayed as a mostly male phenomenon and that stories either represented men as victims, villains, or heroes who are respectively, either marginalized, dangerous, or exceptional (Horton-Salway, 2012). The most prominent portrayal of women in connection to ADHD was in the role of a spokesperson, or caretaker of the family and individual with ADHD, creating the
perception that ADHD is a male favored disorder (Horton-Salway, 2012). Another study that found evidence of portraying individuals with the disorder as victims was Ray and Hinnant (2009).

Ray and Hinnant (2009) analyzed magazine articles about ADD/ADHD in order to determine how the media stigmatizes and normalizes the disorders. The researchers found first, that the focus of the articles changed over time, starting off with more scientific articles, the more recent ones took more of a human-interest approach (Ray & Hinnant, 2009). The tone of these articles has a bit more nuance to it over time. For the most part, the trend followed that as more articles were human-interest stories, the tone became more sympathetic rather than strictly educational (Ray & Hinnant, 2009). However, there were articles who were contemptuous towards individuals with ADD/ADHD and called them “victims” (Ray & Hinnant, 2009). While more of the negative articles originate from earlier in the timeframe, one exception is in regard to danger terminology. Not much of the danger speak was found however the occurrence of it is actually later in the article timeline, when articles were becoming more sympathetic (Ray & Hinnant, 2009).

Beyond studying attitudes towards individuals with disabilities in day-to-day life, the literature also highlighted instances where the portrayal of disability can create stereotypes, stigmatization, and barriers to justice. Karimova, Sauer, and Dakka (2015) found that negative stereotypes of people with disabilities in Moroccan popular culture mimic Western popular culture. These portrayals cast people with impairments in jokes as “pitiable or pathetic,” “sinister or evil,” “laughable,” as a “burden,” and “unable to participate in daily life” (Karimova, Sauer, & Dakka, 2015). Some of the jokes go as far
as comparing the impairments of individuals to sin and negative moral qualities (Karimova, Sauer, & Dakka, 2015).

Not all portrayals of disability were found to be negative. Zhang and Haller’s (2013) study, which focused on discovering what individuals with disabilities think about the media’s representation of their identity and their community, found that occasionally the messages led to affirmation that their identity of disability exists. Unfortunately, this study also found that individuals with disabilities do see negative portrayals that can also lead to a denial of their identity through either unrealistic or simply negative representations (Zhang & Haller, 2013). The examples included portrayals that they were simply sick, they relied on social or economic support too much, or were ‘supercrips’—all either negative or an expectation they could never live up to (Zhang & Haller, 2013).

Knowledge

Across the board, knowledge about ADHD is often varied and unique to the location of the participants (teachers) studied. While studies often differentiated their inquiries about knowledge into the categories of general knowledge, knowledge of symptoms/diagnosis, and knowledge of treatments, many studies looked at these three areas in a wide array of ways. Guerra and Brown (2012) compared the three knowledge areas in middle school teachers in Texas and found that there was a high level of knowledge regarding the symptoms of ADHD in students. Similarly, Shroff, Hardikar-Sawant, and Prabhudesai (2017) found that while knowledge was overall low, the highest area of knowledge was about symptoms and diagnosis. Contradicting these findings, Topkin, Roman, and Mwaba (2015) found that the highest levels of knowledge was about general knowledge of ADHD.
Some studies did not look for the knowledge levels across the three specific areas but rather looked at knowledge overall. Alfageer, Aldawodi, Al Queflie, Masud, Al Harthy, Alogayyel, and Qureshi (2018) found that when looking at male, primary school teacher, participant knowledge was 72% either ‘good’ or ‘very good.’ Liang, and Gao (2016) found that teachers who had been in the role for a time had more knowledge about the causation of ADHD than the teachers who were finishing school and about to begin teaching. Some researchers wanted to understand the relationships of different areas of knowledge on each other. Vereb and DiPerna (2004) found that participation in training led to higher acceptability of treatment strategies and that knowledge of ADHD and knowledge of ADHD treatments were positively correlated.

A secondary focus of literature looking to understand teacher knowledge of ADHD was to isolate what the gaps in the knowledge are. Al-Omari, Al-Motlaq, and Al-Modallal (2015) found that there was a gap in knowledge that spanned across all aspects of ADHD causes and management. The researchers discovered that more than 25% of their participants had no knowledge about the condition and that even though three-quarters of the respondents say the causes are related to biologic and genetic factors, that same number of participants also believe that ADHD can be caused by poor parenting (Al-Omari, Al-Motlaq, & Al-Modallal, 2015). In Liang and Gao’s (2016) study, they wanted to know the differences between pre-service and in-service teachers’ knowledge. What they found was that while there were no large gaps between the two groups of participants, there were gaps in knowledge overall (Liang & Gao, 2016). These gaps included the belief that students with ADHD could do better if they would try harder, and similarly to Al-Omari, Al-Motlaq, and Al-Modallal (2015), that the condition could be
caused by poor parenting (Liang & Gao, 2016). Kikas and Timoššuk (2016) looked into the relation of negative emotions and lack of knowledge and found that when teachers lacked knowledge, they experienced anxiety, anger, and shame which then led to blaming others.

The last common focus was for articles to inquire from the participants as to what they believed the causes of the education gaps were. In Al-Omari, Al-Motlaq, and Al-Modallal’s (2015) findings, it became clear that most teachers who indicated some level of knowledge also indicated that they gained this knowledge from television or radio shows and that there were not enough teachers obtaining knowledge from more credible sources like journals, educational workshops or trainings. The researchers concluded that this contributed to the overwhelming lack of knowledge about ADHD causes and management. Guerra and Brown’s (2012) study found that the knowledge gaps in middle school teachers stemmed from a feeling that higher education institutions had not been successful in preparing teachers for special education needs and that there was an overwhelming lack of literature regarding ADHD that was specifically tailored to improve teacher knowledge.

Studies looking to discover the knowledge levels of teachers concerning ADHD have taken many shapes. Alfageer, Aldawodi, Al Queflie, Masud, Al Harthy, Alogayyel, and Qureshi (2018) highlighted general knowledge among primary level educators. Some focus more on different types of knowledge such as awareness of symptoms and treatments in secondary education teachers (Guerra & Brown, 2012; Shroff, Hardikar-Sawant, & Prabhudesai, 2017; Topkin, Roman, & Mwaba, 2015). In contrast to studies discovering the knowledge teachers have, others focused on what knowledge gaps exist
and where they may originate from (Al-Omari, Al-Motlaq, & Al-Modallal, 2015; Guerra & Brown, 2012; Kikas & Timoštšuk, 2016; Liang & Gao, 2016).

While many of the studies focusing on knowledge took different approaches and had different goals in discovering the knowledge and the gaps regarding ADHD, the overwhelming result is that there is a lack of knowledge in one way or another is concerning for the students in classes who have specific needs that teachers may or may not be aware of.

**RQ1: What knowledge do college professors have about students with attention deficit hyperactivity disorder (ADHD)?**

**Perception**

The existing literature about teacher perceptions and attitudes of students with ADHD focuses on a variety of biases, myths, stigmas, and misperceptions that exist in primary, secondary, and college level instructors.

Al-Omari, Al-Motlaq, and Al-Modallal, (2015) found many attitudes in primary school teachers that were low regarding students with ADHD and perpetuated myths about the disability. A majority of teachers had a negative attitude based on their agreement with negative statements like, “ADHD children are at a higher risk of truancy and escaping” and disagreeing with positive statements that indicated children with ADHD could have higher IQ than children without ADHD (Al-Omari, Al-Motlaq, & Al-Modallal, 2015). Additionally, many believed that students with ADHD have lower IQs and less ability for educational achievement (Al-Omari, Al-Motlaq, & Al-Modallal, 2015). Spangler and Slate (2012) took a more qualitative approach and studied the perceptions of elementary school teachers towards students with ADHD through
interviews. They found that overall, the teachers expressed a great deal of empathy for the difficulties students with ADHD have to deal with and a more positive perception as a whole (Spangler & Slate, 2012). However, one acknowledged negative perception found was the association of students with ADHD as difficult students to have in their classroom due to their lack of focus (Spangler & Slate, 2012). Teacher explained their hesitancy towards consistently addressing the difficulties was a concern that the empathy could lead to an overdiagnosis of ADHD (Spangler & Slate, 2012).

Focusing more on secondary level instructors, Batzle, Weyandt, Janusis, and DeVietti (2009) aimed to discover the bias teachers had towards students with ADHD by having teachers rate behavior, IQ, and personality of students, some who had the label of ADHD, ADHD with treatment label, or no ADHD label. The results showed that teachers rated students with the label of ADHD or the label of ADHD with treatment significantly less favorable than the child with the no ADHD label (Batzle, Weyandt, Janusis, & DeVietti, 2009). While these results highlighted only negative perceptions, Liang and Gao’s (2016) study of pre-service and in-service teachers adds a bit more nuance to the negative perceptions teachers hold. Liang and Gao (2016) found that pre-service teachers had more negative thoughts about working with students with ADHD. The researchers attributed this to having limited experiences working with students with ADHD in the classroom (Liang & Gao, 2016). Once respondent indicated that in their practicum, students with ADHD were a burden to the class (Liang & Gao, 2016). However, on the other side, Liang and Gao (2016) found that in-service teachers were more confident about managing and working with students with ADHD due to their training and extended experience in the classroom. Fuermaier, Tucha, Mueller, Koerts, Hauser,
Lange, and Tucha (2014) support the finding that extended exposure can lead to more positive perceptions. In their study they chose to survey teachers due to their extended exposure to students (Fuermaier, Tucha, Mueller, Koerts, Hauser, Lange, and Tucha, 2014). Despite the researcher’s hypothesis that teachers would display higher levels of stigmatization behaviors, they found that teachers had lower levels of stigmatization behavior due to their education level. Specifically, teachers did not ascribe much or students with ADHD. (Fuermaier, Tucha, Mueller, Koerts, Hauser, Lange, and Tucha, 2014).

At a college level, Murray, Wren, and Keys (2008) examined faculty attitudes, beliefs, and practices about students with learning disabilities. While the study does not focus on any on particular learning disability, the researchers found that overall the findings showed a positive perception of students with learning disabilities so far as instructor willingness to invest in students and provide accommodations (Murray, Wren, & Keys. 2008). Quicksey (2014) also studied the perceptions professors have about students with ADHD. Many of the attitudes expressed were positive however, there were a few attitudes towards students with ADHD that correlate with other studies (Quicksey, 2014). One attitude that can be seen negatively represented is the belief that a student with ADHD is more difficult to teach and that they should not be allowed to submit alternative assignments (Quicksey, 2014). Additionally, Quicksey’s (2014) study revealed that some professors believe that ADHD is not equivalent to a disability, supporting a thought that ADHD is an unjustified disability due to its lack of visual identifiers.
Vance and Weyandt (2008) wanted to know if professor perceptions of students with ADHD varied by institution taught at, education level of the professor, or length of time spent teaching. While they found no significant difference between these characteristics and their perceptions of students with ADHD, they did discover overall perceptions that many of their participants share (Vance & Weyandt, 2008). These perceptions included the belief that students with ADHD have lower grade point averages, are more stressful students to teach to in class, and that professors should not offer alternative assignments or provide copies of lecture notes to students with ADHD (Vance & Weyandt, 2008).

Phillippe (2012) also studied college professors perceptions of students with ADHD but looked more specifically at whether faculty gender, education level, or position within the school influenced their perceptions. The researcher found that female faculty members had more positive perceptions of students with ADHD (Phillippe, 2012). The finding that there was not a statistically significant difference between education levels and perceptions of ADHD supports Vance and Weyandt’s findings that years of education was not related to professor perception (Phillippe, 2012). Phillippe differs from Vance and Weyandt slightly however, when it comes to perceptions based off of the program the faculty member works in. Phillippe found that members of the College of Education had the most positive perceptions of students with ADHD while Vance and Weyandt (2008) actually found that faculty in education programs actually had some of the more negative views of students with ADHD and their need for accommodations (Phillippe, 2012; Vance and Weyandt, 2008).
Across all education levels, there is evidence of positive teacher perceptions of students with ADHD and a sense of empathy towards impacted students (Fuermaier, Tucha, Mueller, Koerts, Hauser, Lange, and Tucha, 2014; Liang & Gao, 2016; Spangler & Slate, 2012). However, the presence of negative perceptions that continue to stigmatize students with ADHD, view their presence in classrooms as difficult, and remain hesitant to provide accommodations to students means that there are still differences that are not understood about college professor perception (Phillipe, 2012; Quicksey, 2014; Vance and Weyandt, 2008).

**RQ2: What perceptions do college professors have about students with attention deficit hyperactivity disorder (ADHD)?**

**Behavior**

When it comes to teacher’s actions impacting the classroom, Vereb and DiPerna (2004) found that teachers can help student with ADHD by identifying symptoms, recommending treatments, and creating a learning environment that supports any interventions. Corkum, Eilk, Pamela, Blotnicky-Gallant, McGonnell, and McGrath (2015) studied elementary classroom teachers learning through a trial that provided them strategies for identifying ADHD symptoms, reducing ADHD symptoms, and access to online discussion boards and online ADHD coaches. After providing access to these materials, researchers found that teachers had improved in both their ability to identify symptoms, their satisfaction with an online intervention, and that they were more likely to continue using the treatment with students (Corkum, Eilk, Pamela, Blotnicky-Gallant, McGonnell, & McGrath, 2015).
Zentall and Javorsky (2007) also found that teacher trainings can improve teacher’s skills. Their study highlighted how teachers who sought out the training and were open to new ideas were able to increase their knowledge, understanding, and functional assessment of their ability to identify ADHD symptoms, provide accommodations, and teach the students (Zentall & Javorsky, 2007). While identifying symptoms is an important behavior to observe in teachers, other factors can influence a teachers’ decision about the influence of ADHD, no matter how much training a teacher has. Groenewald, Emond, and Sayal (2009) wanted to understand why girls are more frequently overlooked when considering a diagnosis of ADHD. In their study, the researchers had teachers evaluate a case study of a girl who displayed symptoms of ADHD. The results that emerged showed that while the teachers identified the symptoms correctly, in the end they conceptualized the girls struggles as reflecting either attentional or emotional challenge, rather than diagnosing the girl with ADHD and recommending treatment or clinic referral (Groenewald, Emond, & Sayal, 2009).

One way to study behaviors of teachers is by observing what accommodations—and possibly changes—the teacher is willing to make in their classroom. Cleveland and Crowe (2013) studied strategies discovered in quantitative research that are used for helping students with attention deficit disorder transition to higher education to determine which are most effective for instructors to use. The researchers found that interventions such as coaching, color coding, lecture outlines, class assignment calendars, preferential seating, breaking up test information into smaller blocks, and peer support all are more effective when implemented by instructors (Cleveland & Crowe, 2013). Rush (2011) also looked at college professor willingness to provide accommodations to students with
ADHD. Overall, findings showed a willingness to provide simple accommodations such as extra credit assignments and extended time on exams (Rush, 2011). However, findings showed that professors were more resistant to providing major accommodations such as reducing the reading load or grading on a different curve (Rush, 2011). Additionally, Murray, Wren, and Keys (2008) found that instructors were only open and willing to make minor changes and avoided major changes that faculty felt altered academic requirements.

A different strategy for instructors to utilize is coaching. Cleveland and Crowe (2013) found that personal coaching strategies differed from therapy and they utilized the method of questioning to help students develop skills like reflective thinking, goal setting, empathy, and structure. Swartz, Prevatt, and Proctor (2005) researched the impact of coaching on students with ADHD in college to determine if sustainable and generalizable change could be made. When looking at a representative student example, the researchers found that after eight weeks of coaching intervention, the student felt improved in personal areas targeted for intervention, showed improvements on a standardized self-report measure of personal study skills and learning strategies, improved study times, and achieved the grade goal set (Swartz, Prevatt, & Proctor, 2005). Parker and Boutelle (2009) furthered this knowledge and studied coaching as a method of working with and improving the skills of students with ADHD. They found that coaching was seen as an equal partnership and encouraged students to think in fundamentally new ways (Parker & Boutelle, 2009). The study also found that students believed it was through working with a coach that they developed important skills needed to work towards their goals (Parker & Boutelle, 2009). Finally, the study found that students view
the coaching process as transformational and allowed the students to improve their well-being and general outlook on their expectations of themselves (Parker & Boutelle, 2009).

Research has shown that teacher behavior can take on a variety of appearances. Some teachers show willingness to work with students with ADHD by educating and training themselves on how to identify symptoms of ADHD (Corkum, Eilk, Pamela, Blotnicky-Gallant, McGonnell, & McGrath, 2015; Vereb & DiPerna, 2004; Zentall & Javorsky, 2007); others still focus on providing accommodations to students or supporting a more equal method of coaching (Cleveland & Crowe, 2013; Parker & Boutelle, 2009; Rush, 2011; Swartz, Prevatt, & Proctor, 2005). Overall, research points to teachers being willing to be flexible however, the degree of flexibility and ability to identify need is still relatively low and should be further studied.

RQ3: What behaviors do college professors enact when working with students with attention deficit hyperactivity disorder (ADHD)?
CHAPTER 2: METHODOLOGY

Methodology

This thesis focused on discovering the knowledge, perceptions, and behaviors college professors have towards students with ADHD. In order to identify these ideas, open-ended and semi-structured interviews were utilized to gather a full scope of professor’s experiences. Data was analyzed using constant comparative analysis and data collection began after institutional review board approval.

Participants

For this study, in-depth, semi-structured interviews were conducted with 17 university professors who teach at a southern university. These instructors had experience working with students with disabilities, whether through accommodations from the Office of Disability Services, or through one-on-one collaboration with the student.

Participants were recruited using non-random purposive sampling and snowball sampling. This was because the study reached out to a specific group of people, college professors who teach at the southern university and used the first participants acquired to gain access to additional participants within the university. To qualify for the study, participants must have worked at the university for at least 1 year, so as to gather data from participants who have experience working with students at the university who may have ADHD or have needed accommodations.

Participants ranged in age from 28 through 68, with teaching experience at the southern university ranging from 1-22 years, and included 8 female participants, 8 male participant, and 1 participant identified as gender fluid. The majority of participants identified as white with others identifying their race as Latina or Hispanic (two), Native
American (one), Ashkenazi (one), Cuban (one), and Swedish (one). Out of the 17 participants, twelve had Ph.D.’s and five had completed their master’s degree. Positions of participants included professors, associate professors, assistance professors, adjunct professors, lecturers, instructors, visiting professors, directors of programs, and high-ranking administrative executives. Lastly, a varied number of undergraduate degree programs were represented. These included Education, Educational Technology, Religion and Philosophy, Communication, Writing, Rhetorical and Technical Communication, Computer Science, Communication Science and Disorders, Foreign Language, Theater and Dance, Nursing, Voice, Chemistry, and Biology.

After the interview concluded, participants were asked to help recruit future participants by sharing information about the study with their colleagues they felt were eligible for participation in order to locate additional participants.

**Procedures**

All procedures and actions were completed following institutional review board approval (#19-0250). Face to face interviews were conducted with participants. The interviews were open-ended and semi-structured so as to encourage story-telling and broad answers while also remaining flexible enough to follow the participants answers if they prove to be about the studied concepts. Questioning were asked to determine the knowledge, perceptions, and behaviors college professors have towards students with ADHD by asking questions about how experiences, training, policies, conversations, and resources do or do not educate and equip them to work effectively with students with ADHD (Appendix A). Questions concluded with demographic information and a brief section of questions about their position at the university (Appendix B). The length of the
interviews was between 30 and 70 minutes. All of the interviews were recorded and then further transcribed by the researcher.

**Interview Protocol**

The interview guide was semi-structured to encourage storytelling but also to provide a list of important topics and points to hit. It began with opening questions to build rapport by first inquiring into their general understandings of invisible disabilities. The guide then used tour questions (prompts descriptive knowledge or memories about a topic or an event) and hypothetical questions to gain a better understanding of the participants experiences with the Office of Disability Services and talking with students about their learning disabilities (Tracy, 2013).

The fourth question asked the participant to reflect on their peer’s views towards working with students with learning disabilities as well as their own views. The fifth question asked for stories and examples the participant has from working with students who need accommodations and/or have ADHD. The sixth question aimed to discover participant knowledge about ADHD, what gaps they perceive in their knowledge, and where their current knowledge came from.

The seventh question and its follow-ups used typology questions to learn about the training experience the participant had on a variety of different topics (Tracy, 2013). The eighth question was a behavior and action question that aimed to learn what changes have been made to the classroom as a result of collaboration with ODS and students (Tracy, 2013). The ninth and tenth questions both were aimed at discovering the participants knowledge of resources for themselves and students with disabilities.
The last question provided closure and an opportunity for the participant to share any additional stories or knowledge about working with students with ADHD or providing concluded conclude with basic demographic questions to determine age, gender, race, and education level. This was done to inform the researcher on the distribution of the sample and the characteristics of the interviewees. Additionally, interviewees were asked what their position is within the university, how many years they have worked at the university, and what undergraduate degree program they teach within in order to get a basic understanding of the participants pool’s experience and status within the school.

**Data Analysis**

After data collection and transcribing, the interviews were reviewed. At this point, all of the data collected was entered into NVIVO, which is a computer software program that aids in the organization of qualitative data. Then, using constant comparative analysis, a technique for analyzing qualitative data (Glaser & Strauss, 1967), the information was once again reviewed and open coding was used to discover initial coding categories (Strauss & Corbin, 1990). This initial round of coding was used to discover the basic patterns within the data concerning knowledge, perceptions, and behaviors college professors have towards students with ADHD. Lastly, an additional round of coding called axial coding was used to discover the themes and similarities between all of the categories (Tracy, 2013). This process continued for each interview dataset until theoretical saturation was met and analysis of knowledge, perceptions, and behaviors college professors have towards students with ADHD was concluded. It should be noted that there was room for error within the coding as the data was qualitative in nature.
CHAPTER 3: FINDINGS

The analysis of the interviews uncovered multiple themes within the focus area of each research question: knowledge, perceptions, and behavior. Participants' knowledge was influenced significantly by whether it came from a personal or professional source. These sources influenced the type of knowledge gained as well as any gaps that existed. Themes within participants' perceptions highlighted a tension between what is considered fair or unfair, the need for skill development, and what the role of the professor is. Behaviors discovered centered around student meetings, accommodations, and a tension between open or closed actions. All participants are referred to with pseudonyms. Finally, connections and patterns between knowledge, perceptions, and behaviors were discovered.

Knowledge

When looking at the knowledge of participants about students with ADHD, two separate kinds of sources emerged, personal or professional. In looking deeper into the personal source of knowledge, participants described their experiences and knowledge gained from either having ADHD themselves, or experiencing a loved one such as a child, partner, or sibling have ADHD. The professional source of knowledge expanded to show differences based on learning from students, colleagues, and across their disciplines.

Personal Sources. In the course of completing the interviews, a few participants disclosed that they themselves have ADHD and that this is where their knowledge of student experiences with ADHD began. Erik shared his past with ADHD,
My background with this and my curiosity with what you're doing is, I have ADHD. I was diagnosed as hyperactive before we even had labels for it in the '70s. I struggled through the education system and somehow managed to get to this point with a PhD.

Erik spoke of his experiences as a student as challenging because, at the time, there were no classifications for the different ways in which his brain processed the world. Due to this, his parents had to “educate educators about what hyperactivity was because there wasn’t an understanding, there wasn’t a knowledge of it.” His experiences of being misunderstood and unaided informed his personal views about students today who struggle through the education system with ADHD. Another participant, Barry, adds to the personal nature of knowledge by sharing his experiences as a student with ADHD in the classroom,

I was diagnosed with ADHD in 1980. I was five years old, and I was put on Ritalin...I can remember feeling that needing to have something moving. That bouncing feeling in the chair and losing concentration. If I was taking a test and somebody coughed and sniffled, it would take me a good minute, minute and a half to get, "Okay, where was I? I was back on this thing." I didn't want to draw attention to it because it was something that was not normal.

Barry elaborates that he had to advocate for himself to be in the classroom he needed but also brings forth an understanding of what an individual with ADHD could be experiencing in the classroom. His inability to remained focused led to teachers treating
him differently and making assumptions about his intelligence. He described a time when a choice was made for him based on his perceived intelligence,

Finally, in middle school, they put me in just for math class, with the special-ed kids. I went into that class and there was a room full of children who were drooling down the front of their shirts and were messing themselves, they had diapers. They were people who truly had severe mental and physical handicaps. "Okay, this isn't me. I don't need to have this." I actually had to fight to get put back in class.

Despite setbacks and an education system that was still learning how to aid students with ADHD, Erik and Barry “struggled through the system” to be able to reach their goals. Barry went on to reflect about how this experience led to him changing the way he engaged with school materials so that he would never get sent to the class again. The challenges Barry faced helped him better understand the experiences that his students may be arriving with.

An additional source of personal knowledge comes not from the immediate experience of having ADHD themselves, but from watching a family member struggle through life with ADHD. The secondhand knowledge gained from observing the experiences of family members covered a variety of subjects from schools that did not recognize ADHD, to the daily habits a person with ADHD may experience. Seth, a father, talks about the experiences of his child,

My son has ADHD. He's been diagnosed with it, to put it that way. We were overseas, I was teaching English in a public school in a country called Djibouti. It was a French-speaking country. He was in the French
school system there, in a French school. We found out the French don’t recognize ADHD.

Seth’s son struggled so much in the schools that eventually, the family decided to relocate back to the United States in order for his ADHD to be acknowledged and addressed in schools. While Seth explained that he couldn’t completely understand his son’s personal experiences, he was able to see that an institution ignored the differences in his son and that it wasn’t doing him any favors. Seth reflected on the challenge he was able to witness his son struggle through. He shared that his son “was just being yelled at for being a lazy kid who looked out the windows too much and stuff.” The word “lazy” is often a word that is used in connection with students with ADHD, whether diagnosed or not. In the case of his son, Seth felt that one of the biggest challenges his son faced was to remain attentive in class. When he was unable to, his struggles were further compounded upon by teachers labeling him as lazy. Similarly, Christi, a young woman, shared the difficulties her sister has had within the education system,

Then also my baby sister has everything. She's one of those people that just got everything. She has fibromyalgia. She's mildly autistic. She has ADHD and she actually ended up dropping out of the first college that she was in because the accommodations just weren't successful for her.

The experiences of Christi’s sister directly inform ways in which Christi interacts with her students and she grew up watching her sister face different obstacles due to her many diagnoses.

While Seth and Christi focused on the difficulties their loved ones had within schools, Peter shared that his wife has ADHD and that watching her over the years has
shown him that there are multiple things she struggled with, such as different medications and different habits that would frequently impact her choices and abilities. Additionally, Claire shared that,

I have a daughter that was diagnosed with ADD when she was in fourth grade. She was not hyperactive, but she couldn't attend as far as her focus was concerned. She wasn't that child that was labeled as a misbehaved child, but she couldn't remember things.

Claire went on to talk about how watching her daughter struggle throughout the years led her to at times doubt that her daughter would be able to get a job and become successful on her own terms.

**Professional Sources.** The most common source of knowledge about ADHD in students came from the participants professional experiences as instructors and faculty, working at secondary schools as well as college institutions. Claire’s professional knowledge began early in her career,

Personally, I worked in the [secondary school] system for 13 years. Seven of those years I worked as a teaching assistant in an intellectually disabled classroom, and six of those years, I worked as a school nurse. I feel like I had a lot of first-hand experience with children that had ADHD or also ADD.

When teaching at a university level, Claire explains that the experiences she had in a secondary school helped her better understand college students’ behaviors and needs. Sometimes this was officially diagnosed ADHD, other times, Claire shares that her previous experiences help her simply create an inclusive learning environment for all.
One of the most common professional experiences that man shared, was simply when students come up and disclose to them about their abilities. Seth described a common conversation that usually stated when,

Students sometimes will come up and say, "I have a learning disability." A fairly common one that I've seen is people get distracted when they're in a big room. Again, well, I know how that impacts my son, sometimes they're very embarrassed and, and shy about bringing that up like, "Don't worry about it, we'll figure it out." I've had those, I've had a couple kids with ADHD and most of the time, some of them I think just own it and they say, "Hey, here's my letter. Can you give me accommodations?"

"Yep, no problem."

Here, an overlap is seen between the familial and the professional. The experience of students sharing their diagnoses, abilities, or needs for accommodations occurred in every interview conducted. One of the unique elements here is that Seth's experiences with his son further impacted the understanding he had for his students. In a similar overlap, Erik, who shared his own personal experiences with ADHD shared that he’s had students in his class who told him they were diagnosed with ADHD, something that he was able to surmise from “behavioral things.” The overlap between the personal and the professional increases the knowledge that these instructors have.

Varied knowledge also stemmed from different disciplines. Represented throughout the participants were special education instructors, instructors from the humanities, and science instructors. Anna described her four-decade long experience working with individuals with invisible disabilities such as ADHD,
I started teaching in 1978 which was early special-ed. EHA had just been passed, and we had just come up with the category called a specific learning disability. Specific learning disabilities, average or above average intelligence, but in one area of learning, there's a significant difference between your intelligence and your learning. That is an invisible disability.

Through her many years of working at the secondary education level, the knowledge she gained carried over into her experiences as a college professor. Similarly, Ruby described her experiences at an elementary level which informed her current knowledge,

I was a psychological services undergraduate major, which is basically applied psychology and a minor in education. I got three endorsements in K through three, third grade four through seven in K12 special education. I immediately then went to work at [rehabilitation center], where I was interested and surprised by how the majority of my students were young adults with what you think of as invisible disabilities. Mostly effective disabilities and self-regulation kinds of disabilities. My experience in public school was in a self-contained classroom for kids who were seriously emotionally disturbed. They didn't look any different than anybody else. I worked as a director in public services for people with developmental disabilities in the area, and then in the central office in Richmond during program evaluation. All of these kinds of services. Then 13 years teaching in the psychology department where I taught, among other things, emotional behavior disorders, so a lot of experience with that.
Both Anna and Ruby’s academic disciplines in special education led to their knowledge of disabilities expanding and changing over time, with the times. Anna explained throughout her interview how she was teaching and learning in the years that disability services were being further expanded and defined. Anna spent time explaining her views on classifying ADHD and other learning disabilities as invisible disabilities,

I grew up professionally working with kids with invisible learning disabilities. You just start watching kids, and you start thinking. What I also found out really early is that there was a lot of resistance among educators and even parents sometimes about accepting that it's a disability because they couldn't see it. Up to that date, you have been able to see either behaviorally or physically a disability. My entire career has been spent working with kids’ invisible disabilities and emotional behavior disorders. It's what I do.

Anna’s understanding of ADHD as an invisible disability came from her professional education experiences and led her to work with students of all sorts, some with ADHD, some without, and some with ADHD and other challenges. In her work, she experienced over the years, push back when it came to getting people to accept ADHD as a real disability. In contrast with Anna’s view of ADHD and other learning disabilities as invisible, Erik reflected again on his own personal experiences with ADHD,

Because I've lived with it my whole life, I don't think of it as something that's invisible and especially with the conversations both in the conversations I have in the workplace, but also the just the media aspects
of medicating people and how commonplace that is. I don't even think of
this as invisible.

While Anna’s understanding of ADHD as invisible comes from witnessing parents of
students decide to not acknowledge it as a disability, Erik’s understanding comes from a
more personal place. In his experiences, ADHD is visible due to his personal discussions
in the workplace and the presence of ADHD medication debates in the media.

Other disciplines impacted the professional knowledge instructors had or didn’t
have. For example, and instructor in the humanities, Lucy, explained that her knowledge
expanded over time and with exposure to other colleagues and their knowledge,

I didn’t have a really good understanding of it. I think within the last - I’m
going to say five to seven years and that’s thanks in part to, I think, a
growing advocacy and raising of awareness of these kinds of disorders but
also with the help of good colleagues, both here, in WRTC, and also in
SCOM, who really focus a lot of pedagogy and even course material on
these things. I feel like I’ve gotten to know a lot more, not only about the
disorders themselves but how that they are stigmatized and perceived.

Lucy’s self-reported lack of initial knowledge was filled in as she gained more
experiences with students and also through relying on the knowledge her colleagues
shared with her. In contrast to the humanities and special education, participants also
represented more traditionally scientific backgrounds and Rachel, one of those
participants, explained her level of knowledge about ADHD,

I am familiar with what they are and that they exist and that kind of stuff. I
would be honest in that I don't want to know any more about it. I want
there to be institution like ODS. It's their responsibility to decide whether
or not a student gets accommodations and tell me what I need to do to
accommodate that student, and that's it. I honestly don't want to know
anymore because I'm afraid that would either help me to label students or
to start thinking, "Oh. Maybe I should give them more accommodation
than before… more or less--""

She explained that while she learned from her students over the years, she relied on the
Office of Disability Services to provide her with the knowledge she needed. Peter,
another instructor with a scientific background reflected on the perceived gaps he had in
his knowledge,

I guess where I am with that is that, I feel like I really haven't received any
formal training about how to handle the things that come up in classrooms
that are different than students who don't experience those sorts of things.
I would like to see more research in this and more education for people
like me, who are trying to deal with these things as best they can, and keep
things professional, and have everyone participate fully in the classroom
regardless of where they're coming from. Yes, I want to help with that.

Perception

When looking at the perceptions that instructors have of students with ADHD, the
overarching themes that emerged include a tension between how fair or unfair providing
accommodations for students is, believing there is a greater need for skill development
for life in general, and reflection on what individual instructors believe the role of the
professor is in providing accommodations.
**Fair v. Unfair.** The idea of fairness is a hallmark of education and something teachers deal with all of the time. When it comes to accommodations, teachers especially worry about how to be fair to all students in their classes. In the conversations with instructors, the idea of equality versus equity came into play when instructors considered if they were being fair in their classes. The ideal of fairness grounded in equality was seen in an example provided by Abby when talking about past students experiences with other instructors on campus,

This is the same professor that, apparently, in the final, there's a problem that he gives the students where the students have to conceptualize some kind of-- Whether it's a cylinder, whatever it is, and do some things. Office of Disabilities called the professor and said, "Could you have a model for her to be able to hold?" The professor said, "No, that would be unfair to the others."

In this example, the professor was unwilling to provide a model for a student of different ability because other students are not allowed to have a model. In the professor’s mind fairness was seen in all students having the same tools or lack thereof.

The other view, fairness as equity, comes from an example Ruby shared that she uses to explain her take on fairness to other professors,

Also, I have to remind my colleagues and other students that fairness doesn't mean everybody gets the same thing, and that if I have a student who is less developed mentally for whatever reason, gives me a response, let's say, a paper or whatever it is, is way below the mark, I'm not going to grade that. I'm going to feedback the hell out of it and say, "Here's my
answer here. Here's some suggestions for improvement. Why don't you revise this and resubmit it?" That can sometimes be problematic with students who go, "Why didn't you let me revise and resubmit it?" and I say, "Because you didn't need that support."

Here, Ruby highlights that she adapts how she responds to students of different abilities to provide each student with what they specifically need to be successful. Abby echoes this idea when reflecting on fairness in her mind,

This is the part that I don't understand. Do professors that are concerned about this issue of fairness did not recognize that what is happening is that if there's a starting line, students that have disabilities are starting from over here. My question is if they were educated within the context of that cognitive metaphor, would they go, "Oh, yes," or they would still say, "It's not fair because the law can't legislate kindness and compassion"?

Abby is of the belief that students who begin from different places or need different things, should have those things provided. Abby continued on to reflect on reasons why other professors are hyper aware of being fair and what concerns exist about being perceived as unfair, what other students could say while and also explained one of the ways she works through the dilemma of fairness herself.

Hypothetically, I know that for me, starting out teaching, I'm always hyper-vigilant. I'm always trying to be like, "How would I explain blah, blah, blah if somebody came up to me." I always want to make sure that I'm doing my actions, my intentions, justice and explaining it well. I feel like it's also probably a potential fear some instructors have that it's going
to come back and be on their evaluations, or students are going to become really dissatisfied with them and check out. I can't speak to everybody's fears, but even just in thinking about it and reading some things as well and listening to other people, I feel like the perception of the teacher and those evaluations that are tied to a lot of things is definitely a fear that some teachers might have if they don't have previous experience, the knowledge, the intention already to provide accommodations.

In Abby’s mind, she practices fairness based off of the idea of equity and a fear blocking other instructors from doing the same is that students will either stop paying attention and working or, the instructor could get negative course evaluations which could have lasting consequences. She explained that she tries to make sure she can explain her reasoning to questioning individuals.

Both views of fairness, one based around equality and the other based around equity, highlight perceptions that directly impact individuals with ADHD or other learning disabilities. Professors perceptions of what students deserve can influence what they receive.

**Need for Skill Development.** Separate from providing accommodations for ADHD and other disabilities in the classroom, professors shared that believe all students, if not especially students with ADHD and other learning disabilities, need to develop skills in areas that are not unique to education or academia. Professors encouraged the improvement of long-term skills, utilized coaching rather than teaching, and taught students to advocate for themselves.
When looking at helping students with ADHD and other learning disabilities succeed, many professors highlighted that they want to make sure these students have more than academic skills, but also have skills that will help them outside of school. Christi shared an example of a conversation she would potentially have with a student struggling to keep up in class or succeed,

"Do you have a plan for a long-term coping skill?" Which they spend time talking about. "Okay, if you want to go into this type of profession, if you wanted to be a stage manager, organization is the issue because deadlines are the issue. Then what are some longer-term skills? How can we work on making these things more accessible to you because if this is the career you want to pursue, I can control this class, but I can't control the profession. How do we learn to work with that and try to take it as the longer term?

Christi explained that she wants to make sure her students can leave her class, leave school, and be successful in the field and job they have chosen. She reflected that there won’t necessarily be accommodations, or due dates, or second chances so she wants her students to be able to function effectively. That is why she chose to also focus on long-term coping skills when she collaborates with students, so they can begin thinking about those skills. Erik explains that his intention behind long-term skill development is getting students to be comfortable in what they are capable of,

If I could design a system for students with ADHD, ADD, it would be early on teaching people how to function in their own skin. Teaching coping mechanisms. Teaching--getting students to take responsibility.
Erik reflected on how his own experiences as an individual with ADHD impact his view about long-term skill development. He acknowledges that he sometimes feels that if he could get through school without accommodations then can’t students today do the same? He admits that his view is a bit harsher but that he highly values students with ADHD learning their own capabilities since that is something he attributes to his success. Lastly, Abby builds on Erik’s idea of not being limited by ADHD or another disability,

Someone would say you need to teach to my learning style and I would say no, I need to teach you to be a competent learner no matter what the modality is. Just because you have a disability, I'm not going to not work with you on strengthening your skills. I'm not going to ignore your disability, I'm going to strengthen those skills around it, but I'm still going to work on trying to strengthen or give you skills to better manage that disability.

Her take on teaching long-term skills is that with them, her students should be able to adapt to different situations and contexts and not be as limited by their disability.

Having established that professors wanted long-term coping skills to be developed in their classes, other participants shared examples of how they believe students should prepare. Rachel described her experiences,

I found myself doing a lot of other types of study management stuff. I would have these blank schedules blocked out and have them blackout their time. Then students who had been diagnosed with various things would share with me what resources were helpful or not helpful to them in the past.
Rachel’s method involved the idea of practice opportunities and space for a student to work their way through new or less used skills that would help them in the long run. She explained that she wants to help them along the way but would also pull back in order for them to teach themselves at times. Her belief is that the tools she can provide would help them become successful in any field. Frank’s beliefs were connected to the idea that students need a coach and support rather than instruction as times,

Typically, what I would do is I would encourage a student before the meeting, bring in notes, bring study materials, bring the book so that we have every, bring as much as you can to the meeting because I want to look at each piece of that. I want to look at your notes, how you take notes. I want to look at the book, how you read it, you know, do you market it, do you tag it. What are you doing with that? If the student's already taken a test, I'll pull up the test or pull out the test and go over item by item and then if I see patterns, discernible patterns to my eye, I'll talk about, "Okay, it looks like you're having challenges with these kinds of questions or." I'll give strategy techniques for dealing with those kinds of questions. Or if I look at the notes I'll say it looks like you're having--

Instead of doing this, I would encourage you, I would give other options.

Frank explained that he felt that students arrive at college without some of these skills and that all are at a distinct disadvantage moving forward. He believed that if he could help students shift and pivot through different skills, they would develop strategies that they could carry with them through life. One key lesson Erik shared he learned for himself, living with ADHD, was he had to be able to advocate for himself,
To advocate just as a human, for them self without necessarily-- not to say without help because you can find help from lots of people, but I guess without that like here's a piece of paper saying you have to do something for this person rather than advocating for yourself of what you need.

Erik explained that a concern he has for his students with ADHD and accommodations is that they become a crutch they won’t have once they leave school. He believed that learning to advocate for oneself without a “piece of paper” is more valuable in the long run.

**Role of the Professor.** The third perception theme is about how professors view their role and the perceived responsibilities that accompany the role. Interviews showed a tension between viewing the role as about teaching versus student learning, differences in the belief of providing accommodations as a burden, and the ways in which professors view students with ADHD and other learning differences as their responsibility to help.

Some professors who participated in this study believe that some instructors perceive that their only role is to teach students, not to connect with students, understand what they are going through, or what they may be experiencing. Abby reflects on her experiences talking with other colleagues about their roles as teachers,

…and then they don't get to know the students, I just wonder how you learn about students. For some professors, that's not their job. Their job is to teach calculus. It's not of interest to them for all sorts of reasons. Maybe that person is a wonderful person, but in this professional space, that's not their job… I had a professor once in my doctorate program, he said, "I
don't teach. I'm a professor. I profess." I'm like, "Oh, good Lord." I'm like,
"Whatever, dude."
Abby believed that the colleague in question never got to know their students, so they
never learned of the needs of their students which led to less work put forth to
accommodating students with ADHD and different needs. Ruby experienced a similar
disagreement with colleagues over the perception of the professor’s role,
I have heard other faculty complain. Again, I think it's because,
philosophically, they don't see student learning as their job, which I find
so ironic. They see teaching as their job and, to me, you're not teaching if
they're not learning. I think it's just a philosophical difference, but it's a
pretty profound philosophical difference. I've worked with colleagues now
in higher ed for a long, long time where they really truly do believe that
learning is not their responsibility, teaching is their responsibility, and that
the student's learning is up to the student.
Ruby went on to elaborate the ways in which she believes that learning is a collaborative
process and that she can do many things to aid in student learning. She characterized her
philosophy of teaching as transactional and that she works hard to build a connection that
will support students discovering how to be competent learners. She explained how her
saw her role,
To me, and I say this to my class all the time, the role of a teacher is like
the role of a therapist. It's to work your way out of a job, where you make
people, you give them the tools to be independent learners so that they can
impel their own learning. The same way for a clinician, whether it's a
health clinician or mental health clinician, your job is to give them the skills and supports that they need that they don't need you anymore. It's really simple.

Ruby’s view of her role is intertwined with her students and contrasts the example provided by Abby that showed a professor separating oneself from students and only presenting information.

In examining the perceptions of professors, one that is often discussed is the potential added work that working with students with ADHD can bring. Reflecting on the perception of added work some colleagues perceive, Abby explained,

Unfortunately, there's always a handful that get a little bent out of shape whenever they are told that they have to have these accommodations or that the student needs to go to the testing center because sometimes it does create extra work for the faculty.

This added work can also take the form of preparing work ahead of time and coordinating with the Office of Disability Studies. Rachel explained how she still sometimes perceives additional work being put upon her,

We want ODS to take care of us as individuals and our students as individuals. Well, they're getting hundreds of requests every day. They say, "We want your test three days in advance." Not all of us have our test ready three days in advance. That can be frustrating when they're asking for things that we haven't even started yet [laughs].

She clarifies that this is more of a reflection on her inability to prepare more than a day or two in advance however, both perceptions shared touch on the idea that professors can
sometimes see students with ADHD as more work for their schedule. This idea of additional work for the professor is seen in the view that all the responsibility is on the professor. When reflecting on difficulties in accommodating students with ADHD and other disabilities, Erik shared the following,

I think the conversations that I've had again relate to large classes and the numbers of accommodation forums. The conversations stand out are really the ones where we've grumbled where we feel-- yes, I think there's a sentiment that there's an increasing burden put on the faculty to provide accommodations which sometimes just don't fit. We just can't do it. Then you're faced with a situation where you've got a student who expects something that we can't practically deliver or if we do deliver it it's probably not the student's benefit ultimately.

His frustrations stem from the position that when it comes to finding space to test, with increasing numbers or a large class, they simply cannot do it. He explains that the professor is the one doing all of that work due to the nature of the task and that means the responsibility is solely on them. Rachel further explains this frustration by reflecting on how difficult it is to schedule with students,

It can be frustrating when I say, "Okay, I need to have you be able to start a test at this time." They say, "Well, no, I have another class." It's like, "Well, how am I supposed to do the accommodation when you don't have that space right around our class?" Usually, they do have time either before or after the outside.
Her reflections highlight the additional effort and responsibility the professor is taking on while sometime, students are less than cooperative and responsive to their efforts.

In a contrast to views of providing accommodations as a burden, Abby reflects on ways in which she doesn’t see that as an issue,

Then is it, really? I have a student, she is deaf in one ear and is losing her hearing in another, and she sits in the front. She's in a room right now with an echo. It's not very good. She asked the professor, this lady professor, "Would you wear a mike?" The lady said, "I don't have clothing that are-- I don't wear clothing that would make it easy for me to put on a mike." Then the student said, "Well, Professor, can you hold it?" She's like, "No. You're going to have to go to disability services and get yourself a hearing--" She went with earmarks. Her quotation was, "Hearing- whatever." It's rough, man. It's rough out there.

Her story highlighted her view that some of the changes that are needed do not actually place much extra work on the instructor. Beyond views of teaching versus learning and the level of burden, many professors perceived their students with ADHD as their responsibility and that it was up to them to provide support. This perception shifts the burden of responsibility a bit and further supports that students with ADHD are seen as in need of help. In reflecting on other professors’ perceptions of students with ADHD, Ruby shared,

I've heard a lot of professors really almost like bash or dish on students who struggle with these things. What I think is well, most of us who are professors are very good at executive function. It's really not fair for us to
assume all of our students will be at the same ability level in terms of those things. We have a responsibility as who can think through a time line and break a big project down into smaller steps. It's our responsibility to provide that, I think.

Ruby showed that the students in need are ones who are already struggling and that it falls on the teacher to help them get to where they need to be. Barry showcased his responsibility as a professor when talking about how he learns from his students,

The necessity to adapt to the realism of student's situations and how their mind works is the most exciting, I think, aspect of my job because I know how to sing, I can sing well, and I know how to teach, but I learned how to sing [chuckles] and I learned how to teach on a daily basis because I deal with people who need to be taught and learn to sing differently.

Both stories from Ruby and Barry show more of a focus on the teacher being the one responsible and the students with ADHD and learning disabilities as the ones who need their skills and help.

**Behavior**

Shifting focus to the behavior’s professors enact when working with students with ADHD, most of the behaviors shared are ones that positively influence the experiences of students. The overall behavioral themes can be broken down into student meetings and the conversations that take place during those times, professor willingness to provide the accommodation, and a tension between behaviors seen as more “open” versus behaviors seen as more “closed”.
**Student Meetings.** One of the most prominent behaviors instructors enacted when working with students with ADHD was to meet with them and have a separate conversation about the accommodation. Multiple participants explained that the purpose of the student meeting in their mind is to go over the form and discuss which accommodations the student wants from the form and agree to implement them. Beyond professors meeting with students to meet the basic requirements on the forms, some instructors were interest in learning more about the student during the meeting. Claire shared the way in which she approaches her student meetings,

> I do appreciate, and I try to treat students who bring me any kind of ODS accommodations the same and say, "Hey, let's sit down and talk about this. Let's talk about what you might need", and always just say, "Hey, come talk to me at any point during the class if something's not working or if you're having a hard time, let me know.

Christi similarly invites students to meet with her before focusing on what the student will need from both her and her class. When looking at the content of the student meetings, two themes were highlighted. The first, was to treat students as individuals with unique experiences and abilities, and two, to continue checking-in with the student throughout the class.

Within the student meetings, professors stressed their intentions to treat each student as a unique individual and tried to determine their unique needs for the class. Abby acknowledges that her inability to understand every disability is one thing that drives her to inquire about her student’s individual experience with disability,
When they do, I do meet with them and try to set up, assess their needs, what they may entail, because I don't understand every disability and say, "How have you dealt with other professionals in the past?" and try to create what may seem somewhat reasonable plan to where it may not compromise the ethics of the class or myself.

Abby explained that by hearing past experiences, she can learn best and worst practices with the student in her current class. Georgia shared that she tries to give the student control over what they wish to share by asking questions,

Normally, I sit down with the students and I ask them specifically if there's anything other than what's on the sheet that they feel like they need from me or in the class. I always ask them if they need a note taker, do I need to be sensitive to their feelings about others knowing that they have ADHD or if they have an issue. How do I need to broach that subject if I'm not labeling anybody?

These questions about needs and preferences when considering a student’s presence in the classroom often helped Georgia recognize when she needed to be flexible or make changes. Greg explains that his intention behind meeting with students is to learn more than what is shared on accommodation forms,

I have the student come in and sit down with me, and I have them tell me what their disability profile is because those letters don't tell you. Then we talk about what strategies that student has, what the expectations of my course are, and how we would need to accommodate those.
Greg elaborated that in order to help different students, he likes to know more about each of their unique experiences with their disability and not solely rely on the general form provided.

A last component of the student meetings professors often prioritize is the focus on checking-in with those students after the initial meetings. Lucy describes her process of continuing to support student needs,

It’s probably more frequent check-ins, especially if a student just hands me the letter, it probably just goes sort of to the back of my mind. As soon as he hands a letter and then talks to me about what problems they have in classes, what accommodations they need, then I’ll probably check in more.

She elaborated that her check-ins are not so constant that it becomes clear that the student needs help however, she makes sure to keep an eye out for the students. Tim also talks about the check-ins he makes and what kind of questions he would ask them,

What I will ask then of the student is, so if you could give me feedback you just touch base with me. How’s it going in the class? Are you able to get notes or take notes? If you want to meet with me?

His focus is on determining if their previously agreed upon plan is still working and if they want to meet again to discuss any concerns. Greg also checks in with students with a slightly different intention,

Then I also try to keep an eye to see like, “Looks like something’s coming up.” Something’s not happening on time or they’re having trouble with
something else, I’ll try to reach out and say, “Hey, is everything good?

Just want to make sure.”

Greg’s focus is still on making sure a student has what they need with the addition of wanting to provide reminders of what is coming up in class or to check in if he perceives the student to be at a different place compared to classmates.

**Accommodations.** The second behavior that came up most frequently in professors’ responses were actions that can be classified as accommodations for students with ADHD and other learning disabilities. When looking at the willingness to provide accommodations and the ways in which they were provided, the interviews highlighted behaviors that were extremely flexible in providing accommodations, behaviors that allowed what is listed as needed, and also examples of what makes professors hesitant to provide the accommodations.

When working with students in need of accommodations, flexible attendance and seating arrangements were listed as two recently discovered forms of accommodations students may need. Christi had similar experiences with flexible attendance where she chose to be calm and less intimidating to alleviate the nervousness that the student came in with,

Open to negotiation. I figured that's less intimidating and I feel like, especially with folks with anxiety, intimidation is one of the things that we're always fighting. I'm trying to think what else we did. She might have to miss class sometimes, so I gave her a certain number of free ones. Then just a little like, "Communicate about it if you need something further than that," but she gets a certain number.
While Christi did not know for sure if the agreed upon accommodation was going to be the final decision, she was willing to leave it open to changes with the student. Peter described another instance where something occurred with a student that he never would have anticipated, and he had to adapt to the student’s needs,

A couple of minutes into it, I kept hearing a noise and then we realized that it was music coming from this laptop that he was presenting from. This is something I'd never - you're presenting you're not supposed to be listening to music. But the other person who was listening had more experience, with this sort of thing. They were able to identify "Oh, this is making you feel better? Does it calm you to have this going?" He was like, "Yes." We let him keep doing it. It was just like, "Wow, I'm not sure I would have thought to let it go."

Despite Peter’s reflection that he really had no clue what was happening in the moment, he was able to be flexible on the spot and allow the student to present in a way that didn’t interfere with the assignment but allowed them to get through something they struggled with.

Beyond overall flexibility, three other specific kinds of flexibility were seen in professors’ responses: flexibility to find space and time, flexible due dates, and flexible formats for assignments and evaluation. When finding alternative times and places for students to take exams—most likely due to time accommodations—instructors showed a flexibility in adapting to student needs. Seth found that one of his students who had ADHD did not like taking the exam in the Office of Disability Services, so he found a
mutual time with the student and they came to his office to take the exam. Tim had a more unique experience with a student with multiple disabilities,

I had a student at [previous school] who had—she had several invisible disabilities, one of them was seasonal affective disorder. I put her in such closet and she was like, it's dark, I can't see the outside. She's like, this makes it worse and I was like, okay. I basically kicked everybody out of my graduate student office, so she can take the exam in there and luckily, I had colleagues who were accommodating and understanding.

Here, Tim’s flexibility mostly concerned the testing space and he was willing to make changes for the student when they explained the reality of their needs. Chris, another professor, shared that he never really cared what the accommodation form said about extra time, if it said the student got an extra half time, and they student needed three quarters, he would just allow that. His view was that that small amount of time didn’t make a difference to him, but it makes a difference to the student.

When it came to due dates of assignments or activities in class, many professors shared the different ways they adapted to students needing more time to compete their work. Georgia shared her experiences with simple in class activities,

I do allow those students if I have like "Okay, let's do a five-minute writing prompt in class." Then I'll say, "Who needs a couple more minutes?" If people put up their hands, I'll extend it.

When looking at long term assignments like papers, Christi approached the need for extra time with one student with ADHD by setting a new due date,
Part of it was giving time after an assignment was due. It was a Tuesday, Thursday class. We said if it’s in by the next week at the same time, then it should be okay.

Ruby took a slightly different approach to papers and supporting the needs of students in need of accommodations by building in small due dates and being clear from the beginning of her time expectations,

Everyone has as much time as they need in terms of products. I let them know way ahead of time. That paper that I mentioned, they already have the due date for that and they already have the rubric for that. They already have all of the instructions and the prompts for that. I have some, two young men in particular who are self-identified, they had their access plans, who are already sensitizing toward that.

All three examples showcase instructors who are willing to adapt their due dates for students who simply need the additional time in order to put forth their best work.

A popular example of professor flexibility when it comes to student accommodations is flexibility in how content is presented, assigned, or evaluated. Bethany explains her intentions behind presenting material in different ways,

Everybody learns different, so I do a lot of—even though it’s literature, I do a lot of visual, I do music, I do all sorts of things to be able to illustrate the same point, different ways, so the one that didn’t get it one way may be able to get it another way.

Additionally, Claire shared her reflections on how her delivery of content has changed over the years with her experiences supporting varied student needs,
My teaching structure has changed since I first started. I went from being totally PowerPoint, trying to teach everything in the textbook, which you cannot do, so I started using the whiteboard and using that old-fashioned method of teaching where I would write terms up on the board, and we would discuss, and I would make notes, or bullet points, or whatever. What I found was that the students that needed the accommodations, or needed the note taking, or whatever felt like that was a much better way of learning for them because they were able to attend better. It wasn’t just somebody up there reading off a PowerPoint, but they had to pay attention and they had to write. Also, trying to be engaging, engage students in the conversation, and asking for examples, and telling stories, those kinds of things to help a little bit.

Both Bethany and Claire showcased a willingness to leave old strategies behind and embrace new methods for the good of their students. Georgia highlighted that when assigning projects, she makes sure to use multiple different formats,

I’m providing everything in two formats, both on paper and digitally. It’s very easy for me to do, but students who can’t use papers can always go online. Students who have problems online, can always get the paper. I just find there are very small things that don’t take me very much time and it just saves everybody a lot of frustration.

Her experience was that by making a small change to what she normally did, providing information only in class on paper, she was able to adapt to the needs in her classroom at any given time.
Lastly, professors shared a variety of ways in which they were flexible when it came to evaluating students on the material they were responsible for knowing. Seth, for example, made sure to write tests that had enough white space so as not to crowd the text for his students with ADHD. Bethany and Ruby both expressed that their long history of working with students with disabilities has led them to be open to all kinds of projects and ideas when considering how to evaluate student knowledge. Barry shared his experience giving his students a very flexible midterm one year,

They would have to pick a musical theater song and they would have to do a film, a short film, that lasted the duration of the song. If you pick that “925,600 minutes,” whatever the words are, I don’t know if that’s the right one, and that’s like four and a half minutes long, but you were going to do your theme on this particular “ism,” so we could say racism or maybe sexism or whatever, you would have to create either through pictures or using something like Windows Movie Maker or you’d have to do a film and then blend it together with some software that was available free to the university and you would have to create something that would tell your story.

Barry followed up this example by explaining the evaluation component as incredibly flexible because basically, if you told a story, he considered the project a success.

In reflecting on her past experiences providing a variety of accommodations, Bethany reflected on the experience that some students with ADHD or students who need accommodations, come in with a sense of entitlement,
Some of them have that certain sense of entitlement too, that makes it difficult sometimes to balance. Because it's like special accommodations doesn't mean some of them are going to get an automatic A just because we have to accommodate until they get an A. Sometimes there's that misunderstanding on their part.

Her reflections include the acknowledgment that this does not occur with all students seeking accommodations or struggling with ADHD but that experiences like the one above can color a professor’s perception of collaborating when it seems like the student feels like they deserve a certain grade without working for it. This can lead to hesitancy in providing accommodations on the professor’s part.

**Open v. Closed.** In looking at behavior’s professors enact, some could be characterized as coming from an open-minded perspective of providing accommodations such as making changes to the classroom, utilizing universal design, and reaching out to the Office of Disability Studies. On the opposite side, more closed-minded behaviors around providing accommodations include frustration with the Office of Disability Studies and a lack of willingness or ability to make changes to the classroom.

Professors shared they make changes to their classroom for the purpose of improving the learning environment for students with ADHD or other learning disabilities. These changes involved technology and providing notes. Embracing different kinds of technology in the classroom can help both students and professors, according to Georgia's reflection about her classroom,

Well, thank goodness I've just started doing this five years ago. I do record all my lectures and that turns out that's useful for this. I had no idea. I
thought it was more just for my own benefit and for regular students, but it
turns out that that's actually an important accommodation for that one
person.
Her change to embrace video recordings allowed students to process the information at
their own pace and in the time, they need. Frank similarly attributes his student’s
satisfaction with the class in part to his recorded lectures that he believed were useful in
the additional way that students could watch the lectures together and could engage each
other with the content. The use of a notetaker was brought up a few times over the course
of the interviews and professors reflected that while that can be helpful, they had
alternative note provision ideas to similarly aid their students. Ruby shared her alternative
to a student notetaker,

The other thing. I often have people who are allowed to have a note taker,
and rather than for them to have to get somebody else’s notes and count on
their handwriting, I make all of my notes available to them so that they’ve
got my notes, they’ve got all of my points, they’ve got chapter summaries.
Ruby felt that it was best for students to simply have access to the most accurate form of
the content. Similarly, Tim was introduced to the idea about providing a form of notes for
students after being approached about it by a student with an accommodation,

Sometimes I’ll offer to send them my lecture outline ahead of time
because I had a student once who asked for that. I started doing that
because then she would print it out and she would take notes on that to
follow along what was going. She said it serves as a checklist for her.
Tim admitted that he never writes out fully detailed notes about his lectures but that he was willing to provide a note-taking tool to help students who struggled to stay focused remain more engaged. Lastly, John took the approach to be completely transparent about his test materials,

The students come up and they give me those forms. The way I do my text is I say, “I know what I want you to know. It shouldn’t be a secret. Here’s the study guide. I’m going to give you the questions exactly the way they are in the test with the answers exactly the way—It’s multiple choice or short answer or true-false and they’ll be randomized, so you can’t memorize your AABDDs whatever, but it’s exactly the way it is in the test. It’s randomized, so you can’t sit next to somebody and say, “What’s the right answer of the next question?”

John continues on to say that this change to his classroom was to support the spirit of his beliefs that he doesn’t want students to be worried about grades, nor does he expect his students to become experts but rather, he wants them to retain enough content to be able to converse about the ideas in everyday life.

Rachel discussed the use of universal design in her classroom and how it helped her students comprehend content,

When I do something in class, I try to write it on the board, verbally say it and then electronically put an announcement. I'm not perfect and I don't always cover all the bases but when I do, I see improved response rates in terms of students remembering to do their stuff.
Rachel’s choice to utilize a universal design allowed her to reach multiple types of student learners and further support their growth and development.

Other ways in which professors demonstrated open behaviors include sending students to the Office of Disability Services to learn more or to seek out collaboration and support from the office. Ruby shared that she makes sure her students know where the Office of Disability Services is,

I will take students in my Friday morning class on a field trip every year to the Office of Disability Services.

Erik adds that he utilizes the Office of Disability Services for more than just test taking support but also sends students there for them to learn more about learning strategies for their situation. Abby shared that she makes sure her students are aware of the additional resources available to them,

Like, for example, if they're struggling with planning and keeping a balance with their schedules and how to motivate themselves to do better, I know they have those resources, I know that sometimes counseling, I send them. When they feel I said, "Have you realized that we do have these counselors?" Even if it's just to talk things out, to talk things with someone, that maybe able offer you a professional perspective.

Making sure that lesser known resources are known to students who struggle with ADHD helps because they can learn more about support strategies and receive additional help. Bethany explained that she utilizes these resources for students when she doubts her ability to completely support her students’ needs,
I am more than willing to admit when I am over my head and reach out to people, I definitely have reached out to the Counseling Center. I'll definitely send kids to the Counselling center, I've sent kids to the Writing Center.

In finding ways to learn new skills and further encourage students to use other resources, professors are taking the responsibility to know what those additional resources are capable of providing.

Contrasting the more open-minded view, some instructors were more closed minded in their willingness to perform certain behaviors. Rachel was oftentimes disappointed in the support provided by the Office of Disability Services as it didn’t feel like the professor was considered as frequently. This resulted in a few reflections on the frustration that goes along with finding new spaces and times for students who need then. Peter additionally reflected that he did not really know what he did not know and wanted more training and opportunities for understanding.

Closed off behaviors also included moments of inflexibility when Rachel would push back against the accommodation and make it more of a challenge for students to learn how to function and advocate, or like Peter, a student would need an official diagnosis before he would consider doing anything differently.

Connections

In looking across the findings, potential patterns begin to emerge in regard to the relationship of knowledge, perceptions, and behaviors when interacting and working with students with ADHD. While not explicitly studied, the relationship between knowledge and perception in participants showed a connection between individuals’ knowledge
being informed by decades of professional experience working with special education students and those individuals’ perceptions of fairness and their role as a professor. The participants who reported extensive professional knowledge also seemed to reflect the belief of fairness as equity and saw their roles as more about student learning and continued growth, rather than as just delivering content.

Patterns also emerged when reflecting on how perceptions influenced behaviors. Participants who saw their role as one focused on student learning and improvement were also more inclined to make changes to their classroom that would benefit their students. Both participants who disclosed that they had ADHD gained their knowledge through lived experience strongly believed that students need long-term skills and that they would help students with differing abilities succeed.
CHAPTER 4: DISCUSSION

This thesis discovered the knowledge, perceptions, and behaviors of professors regarding students with ADHD. To guide this discovery along, three research questions were posed, one for each preceding idea. Many themes emerged from the three questions and this section synthesizes the information gained and compares it to existing research about teachers’ interactions with students with ADHD.

Research Question 1

The first research question was aimed at discovering the knowledge that college professors possessed about students with ADHD. Results showed three important themes to consider when considering the knowledge of college professors, the source of the knowledge, the types of knowledge, and the gaps in the knowledge. Participants often reflected on their ability to recognize ADHD in their classrooms. While professors did not necessarily refer to this ability as being able to recognize symptoms, many expressed their comfort in associating certain classroom behaviors as indicators of the student having ADHD (Guerra & Brown, 2012). These reflections often were shared in association with comparisons to students who disclosed they had ADHD, in a way, providing support for professor’s association of certain behaviors as ADHD symptoms.

A significant portion of professor knowledge about ADHD was influenced by personal and professional relationships. All participants shared in one way or another that their knowledge was gained from either their own experiences with ADHD, their spouses, children, or siblings having ADHD, or from interactions and experiences with students with ADHD. Drawing from multiple experiences, different knowledge levels emerged. While the study did not focus directly on discovering the differences in
knowledge based on years of teaching experience, a common theme was for professors who had been educated to be a teacher or had been connected to the education system in some way for multiple decades, showed a greater breadth of stories of students with ADHD as well as more depth of knowledge about what those students may be experiencing (Liang & Gao, 2016).

Research Question 2

The second research question was posed to discover the perceptions that college professors possessed about students with ADHD. Findings showed six separate themes, the belief students with ADHD work hard to succeed, all students are unique individuals, there are stigmas that come with ADHD identification, students are worthy of compassion, students with ADHD require more work on the professor’s part, and that there are different sources of perceptions. Much of the research about perceptions towards students with ADHD found more negative perceptions with a few positive ones included (Liang & Gao, 2016). This study found the opposite. Many beliefs shared about students with ADHD were focused more on the idea that students with ADHD are just as capable of succeeding and in contrast to findings showing a perception that the students lack the ability to achieve or strive for success, (Al-Omari, Al-Motlaq, & Al-Modallal, 2015) this was seen in the perception that students with ADHD actually work harder than ‘neurotypical’ students, just to keep up with the class.

One of the few more positive perceptions from the research was the idea that teachers had a great deal of empathy for students with ADHD (Spangler & Slate, 2012). While the actual term empathy was not mentioned a significant amount in this study, many professors’ beliefs about students with ADHD indicated a strong belief that said
students are deserving of their compassion. At times, this compassion was seen as a tool for professors when they didn’t necessarily have the knowledge to help and in professor’s willingness to give students the benefit of the doubt at times.

This study provided a new aspect from which to consider professor perceptions. Many participants reflected on examples of negative perceptions colleagues may have and provided musings about what might have caused those negative perceptions. Their thoughts connect to the idea of knowledge being influenced by relational experiences. Many believed that professors who were less compassionate or more critical of students with ADHD most likely had not yet witnessed someone they care about struggling with experiences connected to ADHD. A second possible source is a feeling of having one’s ego or self-esteem threatened. Some participants explained that the could see colleagues feeling threatened if positioned before a student who learns very differently or poses a challenge in the classroom because they may feel it reflects their own expertise and ability to teach. Both of these ideas are no supported theories however, little research has touched on the source of negative perceptions.

**Research Question 3**

The final research question wanted to understand what behaviors college professors enacted when working with students with ADHD. Interview data highlighted five thematic behaviors, providing accommodation, building trust, responsibility on the professor, skill development, and barriers that exist connected to enacting behaviors. When reflecting on their actions in the classroom or outside of it to assist students with ADHD, a frequently discussed action was the provision of accommodations. Many accommodations concerned providing extra time for exams which most professors shared
was never a problem for them to fulfill. Professors also reflected on the changes they made to the classroom environment such as embracing technology and providing guided notes to students (Cleveland & Crowe, 2013).

Most professors were willing to be incredibly flexible with their students, be this in the form of finding additional space and time for tests or remaining flexible with due dates. While changing a courses’ required readings or grading on a different scale compared to other classmates never came up, professors did share their openness to be flexible with the formats their assignments of tests took (Rush, 2011). Some did not care how any student showed their knowledge, just as long as they could prove they learned something. This willingness to change the way they may have previously evaluated showcases a greater flexibility when providing accommodations.

A behavior enacted by many professors was the intersection of coaching and long-term skill development. Coaching uses questioning to support students learning how to set goals, improve their life skills, and prepare for life after college (Cleveland & Crowe, 2013). In this study, multiple professors explained that they do not just want to accommodate test-taking but actually help their students learn how to manage ADHD in their future lives and careers. One professor utilizes the questioning format when working to help students improve their study and planning skills.

**Limitations**

Even though the study was able to show the knowledge, perceptions, and behaviors of college professors concerning individuals with ADHD, there were still limitations to the study. First, the participants in this study were volunteers. Using a bulk email sent to all faculty, the participants reached out to be a part of this project. In doing
so, the study was able to capture the ideas of a very specific group of individuals. This group most likely includes people who have a pre-existing interest in discussing issues facing students with ADHD. This was seen in the data as every participant shared some kind of knowledge gained about students with ADHD from one interaction or another. This means that the information gained, while valuable, does not include a variety of investment levels and thus, the study found an overwhelmingly positive perception towards students with ADHD. The groups of people missing are ones who possibly have had minimal interactions with students with ADHD, have had negative experiences working with students with ADHD, or possibly do not care about the needs of students of differing abilities.

A second limitation is that professors were not always able to isolate their responses to be solely about students with ADHD. This could be because professors do not always know the disability and student may have based on the accommodation form or simply because their breadth of knowledge, perceptions, and behaviors do not vary for each disability they may encounter in their students. This means that not all data is explicitly about students with ADHD but more so, learning disabilities as a whole. Finally, only the perspectives of college professors were analyzed in this study. While an important perspective to have, the full picture is not complete without also learning the perspectives of students, administrators, and members of the Office of Disability Services.

**Future Research and Practical Application**

There are many directions future research endeavors can take based upon the findings of this study. First, researchers should explore the perspectives of students with
ADHD about how their interactions with their professors do or do not support them. Through this research, a more complete picture could be ascertained about what limitations and barriers exist in the way’s professors approach ADHD in the classroom.

Second, a more representative study should be conducted to better understand different perspectives of professors. With more varieties of perspectives represented, showcasing a potential range of interest and investment levels to supporting students with ADHD, researchers can begin to better understand an average climate towards students with ADHD across campus.

Finally, research should delve more into employees who work within the Office of Disability Services. More research needs to be dedicated to learning more about how the Office of Disability Services perceives support for students with ADHD to further complete the triangle of collaboration between professors, students, and the office.

The findings of this thesis can be used to guide future research. Additionally, the ideas gathered from this study showcase thematically, what professors know, perceive, and then how they behave with students with ADHD. This could provide a helpful tool to a disability service office when trying to understand what position professors on campus are in. It could help develop trainings for instructors to share or bolster information. It could serve as a tool for developing communication materials with instructors to encourage best practices when engaging with students about differing abilities. While it is limited to the position of already invested professors on campus, that is an excellent place to begin as there is already buy in and a group of people who are receptive to learning and adapting to new ideas.
This thesis project had provided me with stories from seventeen unique individuals about their experiences with ADHD, both in their personal lives and within their roles as professors. I am incredibly grateful to have been trusted with the opportunity to share their thoughts and begin to highlight the importance of knowing about ADHD at a college level. Over the course of this project one thing that has become very clear to me has been the multiple intersections that occur in numerous ways. First, while I interviewed college professors about their knowledge, perceptions, and enacted behaviors towards students with ADHD, they are but one part of the puzzle. As previously mentioned, student perspectives as well as perspectives from an office of disability services need to be addressed to further highlight the close ties between all three parties and how they influence each other on a campus.

Second, a significant intersecting factor is the presence of power within these interactions. While not addressed explicitly in this project, I felt like the idea was often just under the surface of my interactions with participants. This came up when professors were describing their experiences growing up with ADHD and having no choice over where they were placed within the system, and in professors’ reflections on other colleagues refusing to make small changes to support their students, just to name a few examples.

When first beginning this project and narrowing in on the literature and topic of the thesis, I admit that I was often discouraged by the overwhelming lack of knowledge, negative perceptions, and lack of willingness to make more than minimal changes to a classroom. After hearing the thoughts and stories from the participants in this thesis, I have a renewed sense of hope and encouragement that more work can be done to help
further support provided to students with ADHD. As an exciting contrast to what I had read previously, some professors in this study had vast knowledge and others had minimal knowledge, but they all wanted more—they were open to trying out new ideas and engaging in behaviors that would support students as they grew. The behaviors already being enacted by the participants also stemmed from their perceptions of students with ADHD as wonderful students who are working hard.

Through both the broad and deep discussions I had with participants, I got to hear their frustrations, their joys, their concern, and their passion for education and supporting students of all abilities. I hope that as I continue my academic journey I can remember how it felt to be invited into their stories and continue to follow my passion of aiding students in succeeding in school.
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Appendix A

Interview Guided Questions

1. Can you tell me about any past knowledge you have about invisible or affective disabilities?

2. Could you describe for me any experiences you have had with students coming to you with accommodations from the Office of Disability Services (ODS)?

3. Say a student comes to speak with you about learning disabilities they have; how would you proceed to talk with the student about their concerns?

4. How do your peers view teaching and accommodating students with learning disabilities?
   a. How do you view teaching and accommodating students with learning disabilities? ADHD specifically?

5. Could you describe your experience in teaching students who need accommodations has been like? With ADHD specifically?

6. Do you feel knowledgeable about ADHD? What gaps do you believe you have in your knowledge? Where do you think you gained your knowledge about ADHD?

7. What kinds of training did you receive prior to beginning your teaching?
   a. Was any training provided to you focused on working with student with affective disorders? If so, did you feel it adequately prepared you to work with them?
   b. Can you describe any training or policy explanations you were given regarding accommodation provision for students? Do you think it was effective?
8. How has collaborating with ODS and students who need accommodations impacted your classroom?
   a. What changes have you made to the class (syllabus, structure, accommodations)?

9. What resources exist, that you are aware of, that help you to provide a supportive learning environment for students with disabilities?

10. In your conversations with students, do you feel knowledgeable enough to provide them with resources for navigating their disability on campus? If not, what would be helpful to know?

11. Before we conclude our conversation, is there anything else you wish to add about your experiences working with students with ADHD and/or providing accommodations?
Appendix B

Demographic Questions

1. What is your age?
2. What do you identify as your gender?
3. What do you identify as your race?
4. What is your highest level of education?
5. What is your position/title at this institution?
6. How long have you worked for this institution?
7. What undergraduate degree program do you teach in?
Appendix C

Takeaways and Action Items

• Important connections exist between knowledge, perceptions, and behaviors of college professors.
  
  o When individual’s knowledge is influenced by professional experience working in the special education field, they tend to hold a view of fairness that values equity and sees the role of the professor as supportive.
  
  o When college professors perceived student learning and improvement of skills over time to be important, they also made changes to their classrooms.
  
  o Individuals with lived experience of ADHD highlighted a strong belief in long-term skill development.

• Many participants had the ability to recognize the behaviors associated with ADHD.

• All participants indicated some form of relationship, personal or professional, that contributed to knowledge about ADHD.

• Professors who had been educated to be a teacher or had been connected to the education system in some way for multiple decades, showed a greater breadth of stories of students with ADHD as well as more depth of knowledge about what those students may be experiencing.

• Most professors perceived students with ADHD to be just as capable as “neurotypical” students and that they have the ability and desire to succeed.
• Empathy and compassion for students with ADHD was common among most participants.

• Participants reflected that a lack of relational experiences or a threat to one’s ego and self-esteem contributed to other colleagues’ negative perceptions of students with ADHD.

• Professors varied in their willingness to provide accommodations. All would make minor changes with many willing to make major changes.

• Coaching and long-term skill development were used to help students set goals, improve life skills, and prepare for life after college.

• Future action should be taken to provide professors with more resources such as information sheets, trainings, roleplaying scenarios, and peer support.

• Overwhelmingly, participants shared their desire to know more and do more to support students with ADHD in their classrooms.