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How Do People Understand the Decision to Medicate or Try Alternative Treatments for Children with ADHD?: Understanding the decision making process and alternatives through the eyes of an Educator, Psychologist, and a Parent

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Abstract

This study looks at how people understand the decision to medicate or try alternative treatments for children with ADHD through the eyes of a parent, educator, and psychologist. There has been an increase in the diagnosis of ADHD along with the prescription of pharmaceuticals as a treatment. However, there are detrimental long-term effects of pharmaceutical medications for young children. If there is an increase in diagnosis for ADHD, are there healthier treatment alternatives? What are these alternatives, and how do people make the decision to try alternatives or use medication as treatment for children with ADHD? This study finds that two stakeholders (Educator and Psychologist) had similar perspectives regarding the diagnosis process and treatment with alternatives for children with ADHD, one stakeholder's (Parent) decision making process which resulted in medication was influenced by their own philosophy, occupational background, and personality. In addition, this study also finds that regardless of the stakeholders beliefs and philosophy regarding alternatives or medication, the use of medication to treat ADHD can be game changing for certain children, and there are multiple ways people can support children with ADHD in the home and the classroom. Since this study only uses the perspectives and experiences of three individuals, a future study can look at a larger sample of these three stakeholders to find more opinions and alternative methods.

Key Words: ADHD, Alternative Treatments, Decision Making, Behavioral Interventions, Sensory Interventions, Classroom Interventions, Homeopathic, Diet Changes, the Role of Sleep

Introduction

I want you to think about the most challenging or rocky part of your academic career. Was it juggling new friendships and academics in high school? Maybe starting your college career and deciding on a major? For me, the third grade was one of the most challenging years of my academic career. As an eight year old, I loved getting to spend time with my friends in and out of the classroom, and focusing on things that did not necessarily make my teachers extremely happy. I not only had trouble focusing in the classroom, but also making sure I was completing my work to the best of my ability. When these issues were brought to my parents by my teacher, my long journey with improving my attention commenced. Instead of putting their eight year old on stimulants such as Adderall or Ritalin, my parents decided to take an alternative route to try to improve my attention. At the time, this included working with a psychologist on developing different techniques that helped me as a student to not only reel my attention back into my academics but also improve my attention overall, and provide me with skills that can be used to organize my work. The alternative treatments included computer programs to improve my attention on certain tasks, along with having Velcro under my chairs at school as a sensory tool.

Reflecting back on the tumultuous years I spent developing these techniques, and as a future educator myself, the prescription of life long stimulants for young children presenting with ADHD or ADD is increasing (CDC). Young children (early childhood-elementary) are being medicated extremely young, or having trouble in the classroom due to their dysregulated behaviors and emotions which takes a toll on not only the child, but their teachers and parents as well.

The purpose of this qualitative study is to understand the multiple perspectives regarding medication, alternative treatments, and the decision making process for choosing treatment for

children with ADHD via three stakeholders- an educator, a psychologist, and a parent. There is an increase in children being prescribed ADHD medication for their symptoms, however, there are detrimental long term effects of this medication such as cardiovascular effects and reliance on medication. If there is an increase in diagnosis and prescription, are there healthier, more beneficial alternative treatments for these children? This research aims to understand three stakeholders perspectives, decision making processes, and types of alternative treatments by answering the research questions: How do people make and understand the decision to medicate or try alternative treatments for children with ADHD?; How and why do caregivers choose to medicate or try alternatives for their children?; How do they make this decision, how do they feel about it, and what knowledge or understanding do they have about medication and alternatives?; What are some techniques or strategies students and teachers can implement in the classroom to manage behaviors without medication?; How does an educator feel about implementing these techniques?; Do they see results?; Which ones do they use?

This study investigates the multiple perspectives regarding the treatment of children for ADHD, and discusses their decision making processes. Experience, knowledge about treatments, and occupation of these three stakeholders influence the decision to medicate or try alternative treatments. By studying the different viewpoints and considerations of these three stakeholders, this research aims to provide insights into the decision making process, the use of medication and or alternatives in managing ADHD in children, and regardless of the stakeholders position there are general things that can be done to better support children with ADHD.

Literature Review

What is ADHD?

Attention deficit hyperactivity disorder (ADHD), is characterized by symptoms such as, inattention, hyperactivity, impulsivity, often restless, does not follow instructions, tending to act without thinking, and along with many more criteria, according to the DSM-IV (Handbook of Developmental Psychopathology, 428). "According to the Centers for Disease Control website (http:// www.CDC.gov), parents report that approximately 9.5 % of children between the ages of 4 and 17 have ever been diagnosed with ADHD, with 13.2 % of boys and 5.6 % of girls receiving a diagnosis. The CDC also reports that the prevalence of ADHD increased systematically between 1997 and 2007, primarily reflected in higher rates of ADHD diagnoses among adolescents." (Handbook of Developmental Psychopathology, 433). Treatments for ADHD range from medication to psychosocial interventions.

However, according to Bachmann et al., there has been an increase in the use of medication as the main treatment for ADHD in the United States since 2005. When it comes to medication, psychostimulants are the most commonly prescribed medications for treating ADHD in children. (Handbook of Developmental Psychopathology, 439) These psychostimulants are commonly known as methylphenidate (also known as Ritalin) and amphetamine. While medication has become one of the main forms of treatment for children with ADHD, concerns have been raised regarding the safety for children who are prescribed these medications at a young age.

Long Term Side Effects of Medication

The long term side effects have sounded many alarms in parents when deciding to medicate or not to medicate their children for ADHD. There are some concerns due to the long

term effects of pharmaceuticals used to manage ADHD in young children. These include, “suppression of growth and cardiovascular effects.” (Pellow, 327) “Stimulant drugs also may promote physical and/or psychological dependance.” (Pellow, 327) Pellow also notes that antidepressants which are also used to treat ADHD symptoms, due to the increase of serotonin and dopamine, include side effects such as insomnia, decreased appetite, headaches, nausea, and fatigue.

During the diagnosis process, parents are met with the harsh truth of possible side effects their child might encounter. While it is important for parents to be informed by physicians about these possible side effects, the health and quality of life for their children holds a lot of weight when making a decision for their child.

Parents Perspectives Regarding the Decision to Medicate

A parent's decision to medicate their child for ADHD may have serious effects on their child's health, as stated above. Myra Taylor examined the decision making process of Western Australian parents when deciding whether to medicate their child or not. In this study, Taylor expresses how there are many underlying factors parents have to consider when deciding the treatment option they see as a best fit for their child. According to Taylor, these factors include the reliance on pharmacological options in Western Australia due to it being the least costly option, along with the belief that medication cannot be the only viable treatment option for their child. “Parents express their willingness to trial a range of alternative treatment options but maintain a high level of skepticism over the long-term benefits of non-pharmaceutical treatments. They maintain that the expense involved in pursuing alternative treatments often make them a cost-prohibitive option… Parents are exasperated by their inability to find a financially viable treatment option.” (Taylor, 118-119). Pharmaceutical intervention is cost

effective as it is cheaper than weekly appointments with a psychologist to develop alternative techniques.

It is also mentioned in Taylor's study that parents are flooded with frustration and worry regarding the inability for alternative treatments to produce a fast acting and consistent change in their child's behavior, however, they also worry about the long term effects of stimulant medication. "In addition to their frustration over their inability to locate a workable treatment option, many parents state that when confronting the decision of whether to medicate or not to medicate their child, they often worry excessively about the long-term consequences from the prolonged use of stimulant medication." (Taylor, 120) Based on this study, parents are met with multiple factors to take into consideration such as the high cost of alternatives versus a cheaper medication, harmful long-term effects, the time commitment alternatives require, and making a decision that is best for their child.

Psychologist Perspectives Regarding the Decision to Medicate

In a study conducted by Hill and Turner, research indicated that "25 per cent of 4- to 5-year-olds diagnosed with ADHD were treated with stimulant medication without any form of behavioral treatment." (Hill, 13) The authors note that the diagnosis and treatment of ADHD at this young of an age is controversial due to the symptoms this age group is presenting with could be associated with being in the midst of childhood, such as hyperactivity and impulsivity. "The lack of clear consensus on many aspects of the nature of the disorder raises the question of what purpose a diagnosis serves. Previous research has highlighted how parents may seek a diagnosis or label to explain their child's difficulties, especially when this diagnosis is linked to access to resources such as extra help in school and financial support for the family." (Hill, 15) While a diagnosis may be helpful for families and for teachers to provide extra support for children with

ADHD, this all comes with the price of labeling a child. Hill argues that the use of labels for children with ADHD could lead to lower self esteem for the child causing them to limit how they view themselves.

In order to support children with ADHD, there are multiple types of interventions that teachers can implement in the classroom, which differ from the use of medication. Hill notes that based on a study conducted by Prasad et al. (2013), there was an improvement by 15 percent for on-task behavior and completed work for children given ADHD medication compared to children given a placebo. However, there was no indication if medication improves the children's answers. “These results are consistent with Moncrieff’s (2013) view that stimulants improve attention on repetitive tasks over the short term, but there is no evidence that they improve attention on complex tasks over a longer time span/” (Hill, 16) With this in mind, what can be implemented in order for children to learn how to improve their attention in and out of the classroom?

Alan W. Brue wrote a reviewed article outlining the alternative treatments for ADHD and discusses multiple different complementary and alternative medicine (CAM). These CAM methods include diet changes, iron supplements, neurofeedback, homeopathy, herbal medicines, and dietary supplements.“Neurofeedback or electrocencephalogram (EEG) biofeedback training uses a method for repeatedly exercising the pathways of attention and impulse control and has been applied to a number of neurological, psychological, and psychosomatic conditions.” (Brue, 68) Neurofeedback trains your brain to focus your attention for particular situations, something medication does not do. These are examples of alternative treatments psychologists can implement that may produce a more beneficial effect on attention than strictly trusting medication.

Educator Perspectives on ADHD Management in the Classroom

Children with ADHD tend to struggle in the classroom, whether this is through being unable to sit still, talking in class, or having difficulties focusing on a task. While ADHD is challenging for students, it is also challenging for teachers to lead a classroom without supports in place. Teachers are often ill-equipped to support students with ADHD in the classroom. "Imporantly, teachers report higher levels of stress when teaching children with ADHD which can negatively affect teacher-student relationships and exacerbate conflict (Greene et al., 2002)" (Ward, 307) Teachers have begun to implement strategies into the classroom in order to support these students, whether they are recommended by psychologists or not. According to McDougal "Strategies to support learning fell into one of four categories: concrete or visual resources, information processing, seating and movement, and support from or influence of others." (McDougal, 3412) Implementation of these supports not only improves the flow of the classroom, but it also improves teacher confidence which has been reported to be diminished if they are left without strategies in place (Ward, 311). "Having a range of strategies to hand was also identified as extremely important, whether to address difficulties with learning or to address disruptive behaviors. Overall, the accounts of staff interviewed in the present study highlight that they perceive the interaction of knowledge, confidence and strategies and that they are all key to staff feeling adequately equipped to teach and support children with ADHD." (Ward, 315)

Methods

The current study aims to understand the perspectives of three stake holders, an educator, psychologist, and parent regarding medicating children for ADHD, the decision making process

to medication or try alternatives for children with ADHD, along with alternative treatments that are used today.

Methodology

This study consists of qualitative interviews via Zoom with a psychologist, educator, and parent of a child with ADHD to understand their perspectives regarding medicating children for ADHD, the decision making process when deciding treatments, along with alternative treatments to be implemented in the home or at school. Two rounds of interviews were conducted with all three participants ranging from 35-45 minutes each. There was also a written portion after the conclusion of the interviews as part of the study to allow participants to outline any other points they felt were important to include in the study. Each interview was open ended allowing each participant to answer each question in depth as they saw fit for each of the questions (Creswell). This allowed participants to share their experiences, beliefs, and perspectives about the topic in depth. The questions for the first interview were based off of the research questions: How do people make and understand the decision to medicate or try alternative treatments for children with ADHD?; How and why do caregivers choose to medicate or try alternatives for their children?; How do they make this decision, how do they feel about it, and what knowledge or understanding do they have about medication and alternatives?; What are some techniques or strategies students and teachers can implement in the classroom to manage behaviors without medication?; How does an educator feel about implementing these techniques?; Do they see results?; Which ones do they use? One limitation to this study was that this is a very small group of opinions and it should not be applied to the general population of teachers, psychologists, or parents. These three stake holders made sense of the decision of treatments and alternatives based on their individual experiences.

Participants

As stated above, there were three participants in this study, an educator, psychologist, and a parent. The selection of these three participants were based on relationships along with colleagues I have worked with in the past. To recruit these participants to be part of the study, emails (Appendix A) were sent out after IRB approval to ask if they would be interested in working with me for my study. Once the participants expressed that they would participate in the study, I sent them a consent form (Appendix B) that they reviewed and sent me their consent. I had previous knowledge about the parents background, I had worked closely with the educator and observed first hand the implementation of alternatives in the classroom, and I had also worked previously with the psychologist in my own behavioral journey. All of these participants remained anonymous, identifiable data was removed from the findings, and the participants did not know who each other were. They will be mentioned as “Parent”, “Psychologist”, and “Educator” in this study.

To give perspective about each participant, the interviewed psychologist specializes in behavioral or cognitive therapy for children with ADHD and starts treatment with alternatives before medication. It is important to note, that psychologists are not able to prescribe medication, if alternative treatment is not working as they hope, they provide outside recommendations to physicians or psychiatrist for the prescription of medication. The educator has experience in recognizing behaviors that qualify for ADHD and when should be analyzed by specialists, along with implementing behavioral alternative treatments in the classroom to help support students. The parent is a firm believer in pharmaceuticals but did not want to stop with medication and continued to implement behavioral therapies and diet changes for her child. The parent also emphasizes the importance of advocating for your child and doing their own research as a parent

when it comes to treatments. It is important to note that this is a very small group of participants. With that being said, the findings from this research should not be generalized to the entire population of educators, psychologists, and parents. These are three individuals with specific perspectives based on their own experiences, occupations, and beliefs. The three stakeholders statements provide insights into how people might understand the decision to medicate or try alternatives and their knowledge of these alternatives and how they are used.

Data Collection

Data was collected from each participant via Zoom. Each of the three participants were interviewed twice, each interview ranging for 35 minutes to an hour. For the first interview, a set of general questions was created to provide details about each of their backgrounds, occupations, and own philosophies. Similarly, a set of questions based on the research questions were asked to the participants in the first round of interviews in order to demonstrate their knowledge and understanding of the topic and research questions. Once the first section of interview questions were answered, a separate set of questions were asked which were curated to each stakeholder's own occupation. For example, the educator was asked questions that specifically applied to education, classroom observations, or the classroom itself.

The second interview was based on the ideas and perspectives that were mentioned in the first interview. This allowed me the opportunity to ask follow up questions about specific ideas that were previously mentioned that I wanted to know more about or thought were important to possible findings. This also gave the participants another opportunity to add more insights to topics from the first interview. I was also able to construct interview questions that I felt another participant might be able to provide more insight into, while remaining completely anonymous.

For example, if the psychologist mentioned a certain method to be implemented in the classroom, I was able to ask the educator if they had also tried that method or intervention and how they saw the intervention work.

The final stage of data collection was through a short written piece that was sent to each participant via email. The document and questions that were sent to the participants (Appendix C) allowed participants the opportunity to summarize and elaborate on their beliefs regarding medicating children for ADHD and their thoughts on the decision making process. The written portion gave participants the opportunity to think deeply about their own philosophy and perspectives without a time constraint or interruption. The second and final question in the written piece was asked to see if the participants learned anything from working with me on my research or if it made them think about the decision-making process or treatments options for ADHD differently.

Data Analysis

After each interview, Zoom created transcripts for the interview. Once the transcripts had been created, I had to scrub each interview to remove any identifiable data such as names, locations of jobs, and names of children. With the scrubbed interviews I read each of them over and used inductive coding in order to make a codebook (Appendix D), and organize the collected data. With this codebook I was able to mark specific details that contribute to possible findings. Each transcript was marked by hand with the specific code. The coding process made the combination of each statement into a findings document much simpler.

Findings

As previously stated, the following study investigates the multiple perspectives regarding the treatment of children for ADHD, alternative treatment methods, and discusses the decision making processes of three stakeholders. The experiences, knowledge about treatments, and occupation of these three stakeholders influence the decision to medicate or try alternative treatments. By studying the different viewpoints and considerations of these three stakeholders, this research aims to provide insights into the complexities surrounding the decision making process, and the use of medication and or alternatives in managing ADHD in children. Below are the findings from the study.

Finding 1: Similarities in Perspectives of Decision Making Process Perspectives by Implementing Alternatives Before Medication

Two Stakeholders (Psychologist and Educator) Had Similar Perspectives Regarding the Decision Making Process by Implementing multiple alternatives before turning to medication**.** Finding one reflects the similarities that both the Educator and the Psychologist share regarding the decision making process for the treatment for children with ADHD as implementing multiple alternatives before turning to medication. These two stakeholders both mention throughout the two interviews and written portion how beneficial classroom interventions can be for children with dysregulated behavior. They also emphasize how technology can be an enemy for children with ADHD due to its 2-dimensionality, removing the sensory or hands on aspect, and the action of engaging with technology as sedentary. The alternatives that both stakeholders highlight fall under five categories: Behavioral Interventions, Sensory Based Interventions, Classroom Interventions, Homeopathic or Diet Changes, and the Role of Sleep.

Finding 1a: Alternative Method Implementation

Behavioral Interventions that were mentioned throughout the data include brain training or Neurofeedback, and creating strategies for completing assignments such as lists or using mnemonics. “For a student who has a weak working memory, there are a lot of different ways of working with the brain to write down all the steps so you don’t have to keep it in your brain, or use different mnemonics as a way to prime your memory more effectively, or training your brain to pick out specific pieces and great a picture in your brain of it.” (Psychologist Interview 1, 18:29-19:25). This evidence demonstrates the number of ways children are able to work with professionals to train their brain to sustain focus and manage impulse control without medication. Similarly, “core strengthening can help to turn on some of the neural pathways that help improve focus.” (Psychologist Interview 1, 10:15-10:40)

Both the Educator and the Psychologist mention numerous types of Sensory Based Interventions. To name a few, Heavy Work, Velcro under the desk that students are able to feel, having a large rubber band around the legs of chairs for pushing and pulling through the band, 3D or hands on activities, spinning or hanging upside down, or going outside or to the woods.

> “Sensory is a very broad category that can be things like having Velcro under their desk, or having a rubber band around, you know, like one of those big exercise rubber bands around the legs of the chair. Then that gives the kids something to kind of balance their feet on and create pressure kind of pushing through the band and pulling through the band. You can have kids do their work where they’re sitting on Bosu type balls and just kind of bounce slightly. You can do things, just letting the kid have a standing desk can really help improve focus, because that engages the core and tends to help the kid move around a bit… They need to be encouraged to move around to help them focus more effectively. So yeah, there’s a lot of sensory based types of things that can be used as a way of just kind of stimulating the pathways in the brain so that they’re able to stay engaged for a longer period of time” (Psychologist Interview 1, 11:27-12:47)

In this piece of evidence, the Psychologist outlines multiple ways children can be prompted to engage in their work with the help of sensory interventions. As mentioned in that

quote from the Psychologist, movement stimulates parts of the brain that allow children to focus more effectively. The Educator also explains sensory interventions that they use in order to support children in the same ways. These include hands-on activities, being able to immerse all five senses in the outdoors, and the action of spinning or hanging upside down.

> "In the woods is something it's like I mean, it's definitely has been written and researched. But it's also primarily something that we as educators see first hand. Yes, like complete correlation to this child is completely unregulated in a given moment. You go to the woods with a group and then once they're down there and they've exerted an energy getting down there, and then once they're there, their creative juices start to flow and they start playing at a deeper level… They are in their own element, and I think the primary reason for them to be becoming more regulated in that environment is because they are surrounded by their senses, they're being completely stimulated, all five senses. So there's something to be said about the sensorial system and those kinds of inputs, that calm the body and calm the mind." (Educator Interview 1, 11:59)

In addition, the Educator also mentions how children are able to understand their own dysregulated behavior and have sensorial based interventions that they came up with themselves to help put them back into equilibrium. "The brain needing to spin and why children need to be upside down. They need to go up and down a slide. So if you see a child gravitating to a tire swing or a swing swing or just upside down on the jungle gyms and things like that, they are correcting what is needing to happen in their body. So it's also a form of so in addition to heavy work, it's similar, but spinning… And what's amazing is children will naturally take care of themselves." (Educator Interview 1, 17:47-18:32)

These two stakeholders also combine both of these types of alternatives and relate them to what can be done in the classroom with these two types of alternative interventions. Classroom interventions, the third type of alternatives that both stakeholders implement, combine what has been outlined previously and translates them to be able to be implemented in the classroom. It is important to note that both stakeholders believe that all children can benefit from classroom interventions and methods. Classroom interventions include, moment breaks,

sensory based learning in conjunction with a purpose, emotional regulation and modeling behavior, a physical behavioral reward system, and working with different materials and being hands-on.

"The hands-on sensory experiences like gack, Play-Doh, clay, all of the handy things. But what you have to do in conjunction with it is when they're working, they need to be working towards something, like they need to have a purpose to their work." (Educator Interview 2,14:28-14:25) In this piece of evidence, the Educator explains how sensory based activities can be used in conjunction with a purpose where students are able to learn as well. This type of learning also allows students to have a shared component as well, where a group of students can work together to build something hands-on in a shared experience.

A classroom intervention that has not been mentioned before in this research is the intervention of emotional regulation. Young students, specifically at an early childhood age, are not only learning concepts, but they are also learning about others and their own emotions. When a student's behavior and emotions become too much to handle or dysregulated, teachers can intervene by teaching them how to regulate their own emotions to help bring them back to equilibrium. "We are also seeing a need to break down their emotions and teach them how to regulate, how to recognize emotion, how to label it, how to see it in themselves and take them out of a situation as needed. But as teachers we need to model that. So one of the approaches would be literally teaching them how to handle a moment and what they can do, what the steps they can do when they are feeling out of balance." (Educator Interview 1, 15:58) Emotional regulation helps a student feel in control of their own emotions and behaviors, and also teaches them to know when they should ask for help.

As a teacher is observing these interventions, a behavioral reward system may be helpful to also be put in place to show students that their behavior and emotional regulation, along with learning, is not going unnoticed. In the second interview with the Educator, they mention how having a reward system where students are able to place a physical object into a container shows them that their behaviors are being noticed and rewarded. Giving students a physical object such as a marble or a pom pom to contribute to the jar allows them to be part of the process. “You’re helping to generate the system with them…So you could literally have Pom Poms or whatever, but you’re transferring a full jar here to an empty jar and like, do you guys think we can make this jar full?” (Educator Interview 2, 42:22-43:34) This is a collaborative way students can observe a positive result of their regulated behaviors, but they are also able to celebrate their peers as well.

It is no secret that sugar causes a spike in a child's energy and behavior. Both stakeholders agree that there are diet changes that can benefit as alternative treatments for children with ADHD. “Sugar, you know, is the most typical culprit, right, and sugar does have an impact again on pretty much all of us, whether you’re ADHD or not. You know, sugar is gonna have a kind of quick spike in you know, maybe energy and focus, and then kind of a big drop off because it causes a little bit of a glycemic drop that’s gonna impact cognitive functioning.” (Psychologist Interview 2, 12:56-13:24) The Educator also agrees that minimizing sugar and incorporating protein and proper food groups in a child’s diet can be beneficial to ADHD behaviors. Under the homeopathic category, the Psychologist mentions Ginkobiloba as a possible alternative, however, there is not much research about this supplement and there could be a possible placebo effect.

The fifth alternative that the two stakeholders overlap on regarding implementation before medication is the role of sleep. “I never mentioned this before, but sleep is a huge prevention when you talk about interventions. A lot of these kids aren’t getting sleep. So, I would argue that that inattentive state that, you know, prior to medicating a child or any of that stuff, I would for sure, take a close, hard look at their sleep patterns and how much sleep they’re getting.” (Educator Interview 1, 21:55-23:23) A night of bad sleep can heighten or exacerbate ADHD symptoms in children, which transfers over into the classroom and home behaviors. “But we know without a doubt that sleep causes, reduces stamina, reduces consistency of output, more tendency to forget. You know, parts of a task have greater difficulty in organizing your approach to the task. So all of these different behavioral symptoms that are also symptoms of ADHD. So if a person is chronically sleep deprived either because they just have poor sleep habits, or they’ve got sleep apnea, or some other reason why they’re not getting good blocks of sleep time that are uninterrupted. They’re going to have an increase in ADHD symptoms, whether they have an ADHD or not.” (Psychologist Interview 2, 8:10-9:06) Sleep does not completely erase ADHD, but it will improve symptoms.

All five of these categories for alternative methods for treatments require time and patience to show improvement in a child's ADHD. The time frame for improvements in ADHD can fall between having a 3 month turn around for in classroom interventions to show improvements, or a 2-3 week period for behavioral interventions while working with a psychologist. It is also extremely important for parents to be consistent with these interventions and they need to be consistent across all environments, as highlighted by both stakeholders in their interviews. While these alternative interventions may take more time to improve behavior,

they reflect a different, non medicinal route for the treatment of ADHD in children that are also effective and an option.

Finding 2: Different Decision Making Process for Medication

One stakeholder, the Parent, had a completely different decision making process as someone who pushed for medication as treatment for two reasons. The first reason was because the Parent is the person who is making the decision regarding treatment for their child, unlike the Educator or even the Psychologist. Parents are going to the Psychologist because they chose cognitive or behavioral therapies for their child, the Educator and Psychologist are not fully decision makers. The second reason the Parent had a completely different decision making process was because the Parent used for this study chose medication as the main form of treatment for their child. Various different aspects influenced the Parent's decision making process such as personality, occupational background, stigma, and personal research.

Finding 2a: Philosophy and Background Influences Decision Making

The interviewed Parent for this research has a background in special education. Having been a special education teacher and previously working with students with ADHD, the Parent was not surprised with her son "James" diagnosis. "Leading up to that, because my background is in special ed, and I had taught lots of kids with ADHD and kids with varying specific learning difficulties, I wasn't super surprised when he was diagnosed in first grade." (Parent Interview 1, 0:39) Along with the Parent's background, her personality also had an influence in the decision making process. "Straight jump to medication, no hesitation. But that's how I roll, like that's my personality." (Parent Interview 1, 9:28) The Parent's prior knowledge about her son's potential ADHD profile due to her background and beliefs in using pharmaceuticals for ADHD contributed to her decision making process. However, there were other aspects that contributed

to the Parents' philosophy such as the stigma of having a child with ADHD and using pharmaceuticals to treat ADHD. “First of all, I think there’s a stigma for parents if your child does have ADHD, so they have to get over that hurdle, then there’s a stigma with medication. So I think many parents listen to the chatter that sticks a stigma a lot. Again, I was lucky, like I had done this, I knew his background, I knew I was, I’ve always been a big believer in pharmaceuticals, whether it’s for ADHD or anti-depressants, like I always have been, so it wasn’t a big hurdle for me.” (Parent Interview 1, 19:21-20:05) This piece of evidence regarding overcoming this stigma, is a reflection of the Parent’s philosophy and occupational background coming together to influence her decision making process regarding the treatment for her own child.

Finding 2b: Parents Decision Process Regarding to Medicate

Once the Parent understood her son’s possible ADHD profile, the Parent made sure to do her own research when it came to finding an institution to work with for treatment, along with the treatments that were available through the institution she picked. “Straight jump to medication, no hesitation. But that’s how I roll, like that’s my personality. I always feel like you can’t have it both ways. Like if I’m going to bring him, if I did the research to find a place to make the diagnosis, and I trusted that process and they are recommending it. Again, like I am not an MD, like to me again there was no downside. Yes. There’s like side effects and fine. But, I just felt like if it works, great, and if it doesn’t, we take them off of it, like what's the big deal.” (Parent Interview 1, 9:28-10:11) The Parent not only did extensive research regarding the institution they chose for the treatment for her child and made sure it aligned with her own beliefs, but she also felt extremely informed by their doctor and even allowed her son to have a say in his medication as well. “Oh, yeah, they’re like big believers and educating the parents,

letting the parents choose. I mean, if a parent decided not to go medicinal, they would be like you don't get kicked out, they would be fine with that, and they would guide you, they just share the research…. I had 0 pressure and was super informed" (Parent Interview 2, 8:55-9:20) In addition, the doctor was unable to fill the prescription for medication unless the Parent's son went in for a check in, even if they felt the check in was unnecessary. Another aspect that the Parent included in the decision making process for medication was allowing her son to advocate for himself and how he was feeling, along with allowing him to make the decision to take himself off of medication when he felt ready. "I trusted 'James', like even at a young age. I trusted 'James' and I'm like, dude, how are you feeling? Like where are you at? And he was okay with it. And there were times when he would say, like, I think I need to up my dose or I don't need to." (Parent Interview 1, 21:14-23:27) Being able to trust her child and listen to him about how he feels regarding his medication allowed the Parent to make decisions that were best for her child while including his opinion and feelings. The Parent did also mention that if the medication took a long time to leave her child's system, there would have been a pause to choose medication, but since it did not and she could take him off of it whenever, she felt more comfortable.

Finding 3: Similarities in Experiences with Children Led to Diagnosis and Alternative Treatments

Two stakeholders, the Educator and Psychologist, had similar experiences with children which led them to the diagnosis process and resulted in alternative treatments. According to the research, the ADHD brain does not do well in certain environments where something is less desired. For children with ADHD, classes are not often their first choice, leading them to have dysregulated or undesired behaviors in the classroom. ADHD behaviors are reflected in 75%

school performance and the remaining 25% in having difficulty regulating emotions or behavior at home. These two stakeholders expressed similarities in the behaviors that are presented in the classroom and the home that led to a diagnosis along with a similar process in getting to a diagnosis. After a diagnosis with ADHD, both stakeholders figure out alternatives that work best for each individual student.

Finding 3a: Reason for Diagnosis

"The human central nervous system develops, and an ADHD wired brain does very well in certain environments and circumstances, but does not do as well in situations where the the the thing to be focused on is a less desired activity, and so school very often is the primary place where you see students with the Adhd neurodevelopmental make up really struggle because they're often in classes that aren't always their first choice on aren't always what they wanna be doing with their time and their brain. And so they very often struggle to perform up to their aptitude. (Psychologist Interview 1, 1:23 -2:21) As this piece of evidence reflects, school is often an environment where children with ADHD struggle due to the fact they are not always engaged in something they want necessarily to do. The Psychologist mentions in the interviews that oftentimes parents are receiving feedback from their child's school that they are not performing to the best of their abilities or they are having undesired or dysregulated behaviors.

The Educator highlights examples of these undesired or dysregulated behaviors in the classroom, along with an insight into how teachers should understand that these behaviors lead to an ADHD profile and the child requires support when these behaviors emerge. "Lack of eye contact. So, you know, they're not they're not really you know, listening to you. They're distracted. They're fiddling. They're going to start to fiddle with things in their hands a lot, which is fine, but they're all sort of precursors to bigger behavior. And it's not that it's bad behavior. It's

just behavior they're exhibiting because they need something else in that moment. Right. So I think that as educators, I think we make the mistake of thinking those children are naughty or not behaving or not listening or not paying attention, when really it's more of a. Consequence of us not meeting their needs. So the more you can do before they get to that point, I'm trying to think of other things. They will start removing themselves socially. So when they stop playing and they stop engaging with other children, that's a sign to that. They are just not, they don't have the bandwidth to interact that way. " (Educator Interview 1, 19:21-20:21) This piece of evidence from the Educator also reflects how it is important to not label a child as naughty or that their behavior is purposeful. Instead, educators and teachers need to take a step back and realize that these behaviors may be a consequence of classrooms and teaching practices not meeting the students' needs. After recognizing these behaviors and understanding the potential ADHD profile of a student they should think about how they can best support that student in the moment when their behaviors are present.

Finding 3b: Diagnosis Process Resulting in Alternatives

After the recognition of these behaviors, these two stakeholders follow a similar process to lead to a diagnosis. This diagnosis process the two stakeholders outline include getting as many eyes on the student as possible, whether that is through classroom observations from a school psychologist or occupational therapist. "There is also a form that we have to fill out, a learning resource teacher form. On that form are all these different questions like is this a language based problem, is this a visual spatial problem? There are questions that lead to a really definitive exploration of the child. So when they're concerned, they fill out a form so that we have a paper trail to refer to. And then what happens is, and that is in addition to talking to them obviously casually about a child, once that form is filled out, I then meet with a learning resource

team, which consists of myself, a school psychologist, a speech and language pathologist, and an occupational therapist who are all in staff in house." (Educator Interview 1, 25:40-26:30)

It also requires having weekly meetings with teachers for colleague support, so when it is time to meet with parents about their child's behaviors in the classroom and why their child might need an outside diagnosis for ADHD, the parents are well informed about their options along with interventions that were implemented in the classroom that had been working for their child. "You don't want to overanalyze children who are just being children. So it's taking the expertise and being able to relate to a teacher, like, okay this is a problem, this is not a problem. To have a perspective of like, it's okay that this child did whatever they did. This behavior is unusual, this behavior is an outlier, this behavior we need to look at more closely. So sort of taking the edge off and supporting the teacher and teaming up with them so that they feel completely supported, and they're not siloed in a classroom of kids who are out of control." (Educator Interview 1, 26:40-27:23)

In combination with classroom observations and meeting with teachers and other resources, it is an important part of the two stakeholders' diagnosis process to evaluate the child's entire environment. "When I think of young children with an ADHD diagnosis, I think the best approach is first to assess any environmental factors that could be contributing to the dysregulated behavior. Whether looking at diet, screentime or overscheduling, children may not be getting what they need to feel balanced and in control.If we can rule out those kinds of environmental factors, it makes sense to consider alternate forms of action. As educators and parents, we must provide preventative and in the moment strategies to help ADHD children self regulate" (Educator Written) Similarly, when it becomes time to talk to a parent about their child's behaviors in the classroom, it is important to give them resources and positive feedback

instead of just a list of negatives about their child without any solution, as reflected in the following evidence. “I think the best way to talk to a parent about issues with a child is to say, this is what I’m doing in my classroom, because you don’t want to be a mom or a parent or a dad listening to a teacher give you some negative feedback about your child without any solution or anything they’ve tried already. They’re teachers, they’re professionals, they should have a repertoire of strategies that they’ve used.” (Educator Interview 2, 34:11-34:31)

“Without a doubt, there are way too many children that are diagnosed with ADHD and treated with medication without proper assessment and without proper implementation of other strategies. In my opinion, that can be a mistake as it can provide the child with the lesson that taking a pill is the answer to life’s problems. In summary, I believe that having a complete data driven assessment that determines if there is a diagnosis of ADHD is essential.” (Psychologist Written) As mentioned in the data from both stakeholders, understanding the full extent of a child’s behavior in order to assign effective alternatives is essential.

Alternative treatment options are also going to be different depending on the age of the child. “For like a high school kid who has an attentional issue, and that usually goes hand in hand with executive function weakness, we would very often have that type of person work with an executive function specialist who can really help them on learning strategies that will support their executive function system. Whereas an 8 year old, we probably wouldn't do that. We would probably focus much more on the parent, teaching the parent how to help that child on a day to day basis, because the child’s not going to be able to internalize and reflect upon what strategies work and what doesn't work as easily.” (Psychologist Interview 2, 22:48-23:14) As the child develops, their alternative treatments grow with them and become more targeted

Finding 4: Six Shared Points on How We Can Better Support Children with ADHD

There were six shared points on how we can better support children with ADHD regardless of the stakeholders standing or role. The fourth and final finding expresses areas where all three stakeholders overlapped with one another regarding how we can better support children with ADHD, change our perceptions of students with ADHD behaviors, and how medication might be the best form of treatment for certain children or after exhausting all alternative options. These shared points fell under six categories: what can be done in the classroom and in the home with parent support, educating ourselves, combination of multiple treatments, changing perspectives and expectations, advocacy and being cautious of labeling children, and recognizing that medication can be game changing for certain children. The sixth category is the most important due to all three stakeholders, even two who had strong feelings towards the implementation of alternatives, expressing that medication might be necessary for some children.

Finding 4a: What Can Be Done in the Classroom and in the Home with Parent Support

According to the data, there are many things that can be implemented in the classroom and home to better support children with ADHD. Examples include, providing children with healthy snacks in the home and classroom, adapting environments to meet the needs of a child, setting clear boundaries and structure, providing parents with recommendations for behaviors, independence, and implementing sensory interventions in the classroom universally.

“Not just this kid, but a lot of kids right now. So look, we have to, we are in a time where we have to shift out practice to meet the needs of a growing population, and whether we don’t really know, and it might be technology is the reason but we don't know what the reason is for the shift in their behavior. But we can certainly alter our environment to meet the needs.” (Educator Interview 2,11:48-12:15) Some of the alterations for a child's environment that may

provide better support include a schedule and a healthier diet. “You can do a lot with a schedule as far as like we need more than half an hour of recess, increasing the level of times they go outside. Be conscious of the food... How healthy are those things, there should be protein, fiber and vegetables. And just managing our expectations.” (Educator Interview 2, 12:44-13:23)

Within the environment change, parents and teachers can implement more structure and independence so children know what is coming up and there is predictability. In the home, this can be done through creating a family schedule.

> “Sort of the first place that many psychologists intervene is, lets just get a family schedule in place so that your child knows what’s coming up, and knows what their expectations are, and so that just gets more predictability of, as you said, meal time, sleep time, just basic downtime, when homework is going to be, things like that. Family schedule goes a long way to beginning to just kind of reduce the you know, sort of the haphazard nature with which things happen, and the greater likelihood that there’ll be, you know, the biggest challenge to not having a consistent schedule is simile that the kids not ready for what’s coming up. And then that leads to parents getting frustrated and like we gotta get out of the house come on, you know and can spiral into more of a punitive direction, as opposed to a proactive direction.” (Psychologist Interview 2, 26:27-27:27)

As shown in that excerpt from the Psychologist, having a posted schedule where a child is able to understand and reference what is expected of them throughout the day, gives them more predictability, lowers parent child conflict, along with more independence for the child to do things on their own. Giving a child more independence builds their confidence and self esteem. “They feel proud, you know that’s what you're building at home. The goal is to build independence and autonomy so that they're confident, because that’s where your confidence comes from. Independence, like, you did it! I could do it! I don’t need you! You know.” (Educator Interview 2, 39:28-39:41) Teachers are unknowingly increasing children’s independence by letting them do things on their own since teachers cannot take care of everyone at once.

A behavioral reward system can also be implemented in the home and classroom to celebrate a child's good behavioral or emotional controls, or their independence. The Educator previously mentioned a Pom Pom jar system, as mentioned in Finding 1A, however, this system can also be carried over into the home to celebrate certain behaviors and emotional control. “So at home, if you’re a mom at home and your child, hopefully you have more than one child, or there’s a neighbor kid or something, you know or if Mom and Dad are doing something kind to each other, or you know. You definitely can do it together. The more you can have like a together thing, the better versus like this is Johnny’s star chart.” (Educator Interview 2, 44:10-44:30) Similarly, the Parent also mentions, instead of reprimanding children with ADHD at home for their dysregulated behavior, parents should be celebrating their good behavior in the home instead. The Parent mentions having a “catching them being good” philosophy that worked for her in her home. “I also tried to do that with ‘James’ in particular, who responded well to that because you know if you're a kid that like is constantly being told during the school day, like stop talking, stop fidgeting, like he didn't need to hear more of that from me at home, so I tried to find times when he was doing a good job at home.” (Parent Interview 2, 3:10-3:36) Implementing a behavioral reward system that incorporates an entire family, along with celebrating good behavior, will foster a proactive space for behavior and encourage the entire family to work together on behavior.

Another example that was mentioned in the interviews was implementing sensory interventions in all classrooms. “Well, because no child doesn’t benefit from multisensory teaching.” (Parent Interview 2, 18:07-18:22) However, the Parent mentions that from the point of view of a former special education teacher, if teachers are going to implement multisensory practices in the classroom, they should not be for just one student. “As soon as you're like, okay

this is for you. This is your chair. This is your fidget, I'm not sure that helps the kid and it becomes more of a distraction for the other kids" (Parent Interview 2, 18:07-18:22) Individually based multisensory teaching might be distracting for other students, so they should be implemented universally in the classroom for all students.

Finding 4b: Educating Ourselves

All three stakeholders also agree that parents and educators need to educate themselves about the challenges of parenting and teaching students with ADHD so they are well equipped to change their practices and adapt to each child individually. As for teachers, they need "lots of professional development, so like empowering teachers to not just outsource these kids to like the OT (occupational therapist) or the specialist, but to actually be the OT and be like, okay, this is, I'm in charge. I'm the teacher, I'm with them all day. What is it? What skills do I have to manage this moment? So empower the teachers." (Educator Interview 2 12:15-12:40) Empowering and educating teachers regarding the challenges of teaching children with ADHD can benefit both the student and the teacher. The Parent also agrees that having teachers be educated for teaching students with ADHD would make the parents and children feel more comfortable.

Education can also be useful for parents as well to limit power struggles, understand the differences in needs, and how parents can provide a positive environment. "Work with a psychologist or a parent coach on the particular challenges of raising an ADHD child. So where the parents really understand why the child may not be following multistep commands, or the parent really understands the way that certain commands and rewards are going to help a child versus potentially leading into a power struggle. I think the biggest risk factor of a parent raising

a child with ADHD is that they start interpreting the child's behavior as, oh this kid just doesn't care, or this kid's trying to be oppositional." (Psychologist Interview 2, 24:42-25:19)

"All they need to do is a Google search like how to help a child with, or how to help a child this age, whatever they are teaching with ADHD in the classroom… Take a beat and be like what's going on here… But like that's what they can educate themselves and perspectives" (Parent Interview 2, 15:15-15:59) Education of caregivers and teachers does not need to require tedious programs, instead, it could require a simple Google search or talking to colleagues or other peers on strategies that they have used in order to manage behaviors and gain more resources. "No matter what the decision is on medication, for a child with ADHD to be successful, the environment needs to be structured and there needs to be various accommodations and supports programmed into the child's day to help them focus best and manage impulses. In addition, the parents must go through training to make sure that they are providing a positive and supportive environment with structure and predictability." (Psychologist Written)

Finding 4c: Combination of Multiple Treatments

"As much as I am pro medicine, I do think that some parents I think or like for in that, their kids are really young, and they haven't tried anything else they're like lets put them on meds and don't do anything else like that's also a terrible move, you know" (Parent Interview 2, 33:44-34:03) All three stakeholders had similar perspectives on trying multiple treatments for ADHD, whether this was medication in combination with diet changes or behavioral interventions, or alternatives in combinations with another alternative. "I think it's a shame if a parent like absolutely refuses to even think about medicine, I think it's a shame if a parent refused to think about behavioral, even if they're doing medicine. Like everything in isolation, I

think is a shame. I think the balance of doing/trying a little bit of everything, like why wouldn't you, you know?" (Parent Interview 1, 33:24) Children are constantly developing, as do the treatments that work for them, so there needs to be a constant assessment of what is working or not working, as mentioned by all three stakeholders. "Having a one size fits all sensory diet type thing for a classroom doesn't always work, because for some kids movement really helps to regulate them, for other kids, movement over excites them and makes them more impulsive and hyperactive. For some kids heavy lifting or kinda having like a heavy jacket on or whatever would help calm them, for other kids it would be distracting, for some kids having Play-Doh would be exactly what can help focus them, and for other kids it becomes a projectile rocket that they get to throw across the room at somebody." (Psychologist Interview 2, 29:35-30:11) There is also no blanket one size fits all treatment for ADHD, and what benefits one child might be distracting for another. Teachers and parents need to constantly work to find a happy middle ground that works for each individual.

Finding 4d: Changing Perspectives and Expectations

As mentioned before, there is a stigma regarding having a child with ADHD that parents have to overcome, and that teachers have to change their perspectives and expectations as well.

> "We are seeing an increased level of need with children who are unregulated, whether they have ADHD or not in the preschool years we don't really know yet, but we just sort of label it as unregulated. What can we do for them? And we are sort of shifting our mindset away from something's wrong with this child, and the child is needing X, Y, and Z instead. It's a healthy sort of shift. Instead, we are trying to look at this child as what are their strengths so coming at it from a what are they good at? And then also really looking at our program and looking at ourselves and saying, what are we doing as a school to meet the needs of, not just this kid, but a lot of kids right now." (Educator Interview 2, 11:20-11:48)

Educators and parents need to have patience and manage their expectations of children with ADHD in order to best support them. The Psychologist mentions looking at children

through a more compassionate lens in order to understand that while this child may be unregulated right now, they need support and are doing their best. “The irony and the sad part is, when a child is being difficult, it's the last person you want to help in your classroom. You just want to avoid those behaviors, but really ironically, what you need is to actually lean into it, and just really seek to understand who they are.” (Educator Interview 2, 47:29-47-49) With that being said, children who are having a meltdown or are showing dysregulated behavior, need support the most, so instead of avoiding that child, educators and parents should lean in to that child to understand who they are and what they need. “However, when you look at this topic objectively, I realize that we as grown ups need time and patience in order for children to thrive and benefit from any measures we put in place.” (Educator Written)

Finding 4e: Advocacy and Being Cautious of Labeling Children

“Well, there parents are worried about labeling their children, always worried about labeling their children.” (Educator Interview 2, 36:04- 36:09) Parents are worried about labeling their children, whether that is with a learning disability or having their child being labeled as a problem or naughty. “They hear how people talk about them. They hear parents talking about like they hear it all. Then they create a narrative in their own head.” (Parent Interview 2, 16:37-16:47) The Parent expressed how when children are labeled, they internalize peoples perceptions of them which affects their self esteem along with peer relationships. Instead of labeling children, educators and parents should attempt to try to change the narrative of their child by advocating for them. “I was a teacher. Kids with ADHD and ADD, especially with age, are pains to teach, especially when they’re young. It's very disruptive, it’s hard. So I wanted to be ‘James’ advocate and reframe the narrative for his teachers, and I think it was really important

to." (Parent Interview 1, 4:25-7:03) This can be done throughout the diagnosis and treatment process, but also through communication between parents and teachers.

Finding 4f: Recognizing that Medication can be Game Changing for Certain Children

This final finding was probably the most important finding throughout the entire research. In this section, all three stakeholders overlap in the idea that medicine can be game changing for some students, regardless of their beliefs towards medication or alternatives. "If those efforts fail and the child is continuing to struggle, I do think seeking medicinal treatment is warranted." (Educator Written) Even after multiple alternative treatments whether in the classroom or at home, there is a possibility that a child is not able to function to their ability without medical intervention. "They just have such immaturity in some of those brain pathways that even with all the best intentions and interventions and consistency, you're still gonna hit a limit to how much the child is able to function because you're swimming upstream against the biological reality…Where that can sometimes impact a child is just simply they're not able to access a lot of their cognitive aptitude on a consistent basis, and so their availability for learning will be diminished without medical intervention" (Psychologist 2, 18:04-18:32) Alternative methods help children develop important skills for regulating their behavior and emotions along with managing their work load, however, due to the immaturity of the brain pathways which alternative methods are not able to improve fully, medication might be necessary. "If the child then continues to have difficulty in being able to effectively access academic and social opportunities, medication can be a very helpful intervention as part of a complete treatment plan." (Psychologist Written) However, caregivers and teachers should not stop there, they should continue to implement alternative methods in the home to continue to allow their students or child to improve their cognitive abilities.

Discussion

This study examines how people understand the decision to medicate or try alternative treatments for children with ADHD, what the alternative treatments are, and how people can better support children with ADHD. After interviewing three stakeholders, the decision making process, what can be done to support children with ADHD, and the perspectives of different stakeholders were revealed. The findings reveal that each of these different stakeholders take various variables into account into their decision such as personality and ability to make the decision for treatment are going to differ depending on the stakeholders position, however, the findings also reveal the multiple ways we can support students with ADHD regardless of perspectives towards medication. These results met the expectations for what was being researched for this topic. It is important to note that these three participants felt comfortable enough to share personal stories and opinions with me. When conducting this research, I aimed to make my participants feel comfortable by sharing my own personal experiences, which also expressed how important this research is to me. As someone who struggled with my own attention as a child, I am very connected to this research and wanted to understand further what people have to consider when they are making decisions for their children.

This research contributes to the existing literature and a broader community by providing further insights into alternative treatments for ADHD, why some choose to medicate or not to medicate, along with how we can better support children with ADHD in the classroom and at home. While this research provides multiple insights into the decision making process and alternative treatments, there are some limitations. One limitation to this study was that it only includes the perspectives of three individuals. This research cannot be generalized or assumed that all parents, educators, and psychologists agree on the aspects reported in this study. Based on

this limitation, an area for future research can include more perspectives from educators, parents, and psychologists. For future research, a larger sample group for each of the stakeholders can be used in order to find more opinions, perspectives, and alternative treatments for this topic.

Conclusion

This research aimed to understand how people understand the decision making process of medicating children with ADHD, what goes into this decision making process, and what alternative treatments are. This research was based off of research questions that sought to answer: How do people understand the decision to medicate or try alternative treatments for children with ADHD; How and why do caregivers choose to medicate or try alternatives for their children with ADHD?; How do they make this decision, how do they feel about it, and what knowledge or understanding do they have about medication and alternatives?; What are some techniques or strategies teachers, parents, and students can implement in the classroom to manage behaviors without mediation?; How do educators feel about implementing these techniques?; Do they see results?; Which ones do they use?

Based on the qualitative interviews for this research, it can be concluded that there are multiple variables that go into each of the three stakeholders decision making process for treatment and diagnosis, such as personality, ability to assign treatments and an individuals philosophy, overall there are multiple ways we can better support children with ADHD in the classroom and at home, and finally, medication might be necessary for certain children. This study used interviews in order to understand the perspectives of a parent, educator, and psychologist. Future research on this topic is needed in order to provide an overall opinion on how people understand the decision for treatment for children with ADHD and more ways we

can better support children with ADHD. The current study contributes to a broader community by providing insights into alternative treatments for ADHD, why some may choose to medicate or not to medicate, along with how we can support children. I can only hope that this research helps provide people with information regarding the decision making process to medicate or not, alternatives that are available today, and that no one is alone in this process, there are many supports available along with people to help. We all want to see children succeed and be their best selves, and I hope this research helps demonstrate how we can all better support children to be the best they are all capable of being.

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Appendix A:

Dear XX,

I hope you are doing well!

I am currently pursuing my Bachelor's in Educational Studies concentrating in Child Psychology and Development at Trinity College. I am in the process of writing a thesis for my major regarding techniques or strategies young students and teachers can implement in the classroom to help students with ADHD or ADD behaviors that do not require medication.

I would be honored if I could interview you as part of my research. I believe that your perspective and insight would be invaluable to my thesis. I am hoping to conduct two to three interviews with you over Zoom. In addition, after the final interview I am seeking a written piece regarding your own philosophy on the topic or any other information you feel is valuable to include.

If you choose to participate in this research, I will follow up with you with a written consent form for you to sign and return to me via email.

Thank you so much for your consideration. I look forward to hearing back from you.

Best,
Sloane Latimer

Appendix B: Consent form

The purpose of this interview is to gain further insight into the beliefs and perspectives of psychologists, teachers, and parents regarding the use of alternative techniques and strategies for children with ADHD or ADD behaviors. The study also aims to understand caregivers' philosophy for why they choose to medicate their children. The benefit of this research is to consolidate current perspectives and implementation of alternative options to medication for ADHD or ADD. The duration of each interview could range from 45 mins to an hour.

In order to maintain confidentiality, your identity will remain anonymous. Regarding your identity, you will be mentioned as an interviewed psychologist, educator, or parent. Possible risks of this study include being asked to talk about personal or family experiences. The goal of this research is to gain a deeper insight into the philosophy of medicating children or choosing an alternative method, sharing personal stories or experiences will be important to this interview. However, in order to minimize the risks of sharing personal information, you may stop the interview at any time, and you will remain completely anonymous. No names or identifiable information will be shared or mentioned in the written thesis. During the writing of my thesis, any identifiable information will be removed to maintain confidentiality. Only your experiences will be shared.

After hearing the goal of the research and potential risks, do you consent to be in this study?

You are more than welcome to reach out to me with any questions if they arise.

Appendix C: Written Piece for Data

For this final stage of research, I am seeking a short-written piece that considers the following questions. While these questions may be repetitive, they will also give you an opportunity to highlight any important aspects to your own philosophy regarding the research topic along with a chance to elaborate on anything you did not get to mention in the interview portion.

1) What are your beliefs regarding medication for children with ADHD? What are your thoughts regarding the decision-making process for treatment options for young children with ADHD?

2) Did working with me on my research make you think about the decision-making process or treatment options for ADHD differently?

Appendix D: Codebook

Codebook

Parent	
PAR: Background	- How does the parents background influence decision - How does parents background relate to beliefs towards medication - Parent's research into ADHD
PAR: Personality	- How does the parents personality influence decision making process
PAR: Decision to medicate	- Information regarding point of view towards medication - Perspectives regarding medication - Information provided by doctor or institution - Communication with child regarding medication and implementation
PAR: Philosophy	- Perspectives or beliefs regarding medication or alternatives
PAR: Decision	- What contributed to the parents decision for treatment - Anecdotes regarding other parents decision for treatment - Decision to medicate thought process - Insights regarding finding an institution for a treatment plan - Did the parent feel well informed in their decision - Research that contributed to their decision - Experiences with doctors
PAR: Labeling	- Effects of labeling a child - How does a label play into a child's self esteem - How labels can be detrimental - Stigma -

Psychologist	
PSYCH: Diagnosis	- Why do children come to the psychologist practice - The age of children treated in the practice - Providing families and teachers with information
PSYCH: Philosophy	- The misuse of medication being common - Trying alternatives before medication - Not being able to prescribe medication -
PSYCH: Methods - Behavioral - Sensory - Homeopathic/ non western - Diet changes	- Accommodations, modifications, interventions - Alternatives mentioned - Non-western methods - Brain training - Sensory based
PSYCH: Perspectives on decisions/ Caregiver perspective	- Trying to put themselves in parents shoes - Making sure parents are well informed - Providing information
PSYCH: Diagnosis	- What the diagnosis process looks like - When to know to refer to a doctor or psychiatrist
PSYCH: perspectives on alternatives	- Beliefs regarding alternatives - Possible alternatives
Educator	
EDUC: Philosophy	- Own beliefs regarding medication, alternatives, and how to help students with ADHD - Worries about students being medicated - Feelings towards ADHD treatments and implementing these interventions in the classroom - Support for all students and families

EDUC: Diagnosis/ Process	- Certain behaviors that lead teachers to seek outside advice or talk to parents
EDUC: Behavioral Interventions	- Timeline for interventions to work - Emotion regulation - Behavioral supports for the classroom and home -
EDUC: Caregiver Perspective	- Possible perspectives on why caregivers decide to try certain treatments
EDUC: Sensorial Interventions	- Sensory methods that they have observed, know about, or use - Sensory activities with a purpose or lesson
EDUC: Classroom Interventions	- Interventions they implement in the classroom
EDUC: Role of sleep	- Perspectives on importance of sleep
EDUC: Technology	- Perspectives on how technology impacts students
EDUC: Teacher perspectives	- How teachers can change their practices, support each other, and where they can learn more about students with ADHD
EDUC/ PAR Overlap	- Where these two stakeholders overlap in perspectives - Communication and working together
EDUC/PSYCH Overlap	- Where these two stakeholders overlap in perspectives
Overlap with all 3	
	- Perspectives that all 3 stakeholders share - What can be implemented in the home or classroom - Fidget chairs, sensory activities - How can teaching practices change - Importance of movement - Sleep

	- Starting with alternatives before medication - Understanding medication can be game changing - Combination of treatments - Educating themselves - Diet - Adapting to students needs - Change in expectations and perspectives - Labeling - Independence and home supports