

Attention Deficit Hyperactivity Disorder (ADHD) Discourses in Saudi Arabia

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### Abstract

ADHD is the most commonly diagnosed neurobehavioral disorder among children. While ADHD in Western countries has long been recognized and increasingly diagnosed in recent years, there is a growing recognition of this disorder as a significant cross-cultural phenomenon. Saudi studies to date vary in their estimation of prevalence of ADHD, with overall prevalence estimated to be between 3.5% and 6.5%, while the worldwide prevalence of ADHD is 5.29%.

This study is a thesis by three articles. The first article examines the representations of ADHD by the Saudi ADHD Society members on Twitter because, as the only charity serving people with ADHD in Saudi Arabia, they have come to define how ADHD is talked about there. The Society's Twitter account (@adhdarabia) has over 13,500 followers. Tweets posted between December 1<sup>st</sup>, 2016 and January 31<sup>st</sup>, 2017 were collected, with those announcing events and retweets from other accounts eliminated. This resulted in 141 tweets discussing the nature, causation, and treatment of ADHD. The content of these tweets was analyzed using Foucauldian discourse analysis. Findings reveal that the Society's Twitter account shows members constructing ADHD as an experience of suffering; their comments position children with ADHD as sufferers, often subject to additional problems. An alternative discursive construction of ADHD is that caring for a child with ADHD is a 'different' kind of responsibility for parents and teachers, who must be advised by 'experts'. The implications of these discourses are discussed in this paper.

The second article uncovers the lived experience of parents with a child who has had an ADHD diagnosis in Saudi Arabia, and examines how their experiences can be understood in relation to the multiple and competing discourses of ADHD that frame their daily lives. Which discourses do parents draw upon – and reinforce – as they describe their experiences of ADHD, and which discourses do they resist? This study carried out in-depth interviews with seven Saudi parents who have at least one child diagnosed with ADHD, or any of its subtypes, between the ages of two and 11. Foucauldian discourse analysis (FDA) is applied in analyzing parental ADHD discourses, uncovering how these parents made sense of ADHD pre- and post-diagnosis. Four main discourses emerged in the process: ADHD as normal behavior (pre-diagnosis), and ADHD as emerging from supernatural/religious, medical, and social environment contexts (post-diagnosis). This paper also emphasises that the causes of ADHD must be considered in the wider context of misconceptions and uncertainty among Saudi parents. All the participants in this research were influenced by a combination of discourses in their attempts to make sense of their children's symptoms.

The third article explores the discourses drawn upon, reinforced and resisted by six Saudi teachers and four clinicians as they describe their experiences and understanding of ADHD. Saudi clinicians approach ADHD as an extension of American medical views in terms of its causes, diagnosis and treatment. Alarming, in light of the shortage of recommended ADHD medications, there are accounts of antipsychotic medications being prescribed for children. Saudi teachers' views of ADHD were an extension of the medical discourse; this meant that students' strengths were ignored and the focus was entirely on negative behavioral patterns. Despite a tendency to attribute ADHD to genetics, teachers objectified students who 'acted out' as having ADHD or even other disorders (when the child's behavior or symptoms diverged from their limited understanding of ADHD). Parents who do not comply with teachers' suggestions are blamed for any lack of improvement in the child's behavior or academic attainment. Teachers' accounts also revealed some serious pressures on them as a

result of large class sizes and a lack of training in how to teach and manage students with ADHD.

These findings have implications for individuals and institutions providing ADHD education to both doctors and teachers, and reinforce calls for researchers to examine ADHD outside of the genetic ‘box’.

*Keywords:* ADHD, Discourse, Parents, Teachers, Clinicians, Twitter

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## Chapter 1: Introduction

Walking toward the door to leave the room after I interviewed her, the teacher grabbed the door handle, and then she paused and turned to me and asked, “Why? Why did you study this population [children with ADHD] in the university? How did you do it? Was it your choice? God forgive me, but they are very difficult to study” (a teacher participant).

There is a tendency in our society to perceive human experience in a binary way: functional and good, or non-functional and needing to be fixed. What is Attention Deficit/Hyperactivity Disorder (ADHD)? For those who subscribe to the medical account, ADHD is a neurobehavioral condition identified by three distinctive symptoms: inattention and/or hyperactivity, and impulsivity: all three can interfere with functioning and development (Barkley, 2006a; Nigg, 2006). For others who subscribe to social account, ADHD, as a diagnosis accompanied by medical treatment, is a means of ‘social control’ or ‘mind control’ (Conrad & Schneider, 2010; Timimi, 2005). For parents, ADHD symptoms might seem to be no more than typical childhood behaviors (Maniadaki *et al.*, 2007). For teachers, ADHD is often a behavioral issue (Hammond, 2008); or a ‘difficult to understand’ construct, as one participant teacher said. The answer to the meaning of ADHD depends on the perception and perspective of the person asked.

This thesis will examine from a Foucauldian post-structural perspective the ways in which ADHD is talked about in Saudi today. It will provide a narrative account of ADHD by analyzing (1) the discourses used by Saudi parents, educators, and clinicians and (2) the Saudi ADHD Society (sometimes referred to in English as the AFTA Society; AFTA is the Arabic acronym of ADHD). The objective of this doctoral research is to explore the experiences of parents, educators, and clinicians associated with ADHD in Jeddah, Saudi Arabia, to demonstrate the ways different discourses surrounding ADHD make their way into everyday life. The Foucauldian approach to discourse analysis will inform the analysis of the participants’ discourses. This approach is highly applicable for investigating a reflexive

relationship between the realms of medicine and everyday life. The central objective of the research is to “[concentrate] on the relations of power and knowledge in modern society” (Dreyfus & Rabinow, 1982, p. 105). It involves exposing as much as possible the conditions of stability, presence and power relations when analyzing social conditions (Said, 1978) in lieu of accepting grand narratives (Williams, 2005) and absolute truth. This chapter will outline the following: (1) the dominant definition of ADHD; (2) the Saudi context; (3) the research questions; (4) the significance of the project; and finally, (5) the structure of the dissertation.

### **The Dominant Definition of ADHD**

Medical discourse provides the primary ADHD terminology, including scientific descriptions of symptoms, diagnoses and treatments. This terminology circulates between language users in a way that makes it almost impossible to talk meaningfully about ADHD without drawing on medical concepts. As Danforth and Navarro (2001) conclude, “Medical discourse... is so dominant that language users have little choice but to contend with it in some fashion, whether they appropriate the discourse with reflexive acceptance, mild modification, or dramatic resistance” (p.173). This allows the medical discourse to become the “regime of truth” (Foucault, 1977) against which childhood itself is judged. The characteristics of ADHD symptoms are defined in the Diagnostic and Statistical Manual of Mental Disorders (now in its fifth edition, or DSM-5; American Psychiatric Association [APA] 2013). The criteria for hyperkinetic disorder (HKD), the relevant category to ADHD but with more symptoms required to receive a diagnosis, come from the International Classification of Diseases (now in its tenth revision, or ICD-10; World Health Association [WHO], 1993). It is important to note some of the major changes to medical knowledge with regards to ADHD in successive Diagnostic and Statistical Manual of Mental Disorders versions over time. The medical classification of ADHD has shifted from being a disruptive

behavior disorder in the older version of the DSM – DSM-IV-TR – to a neurodevelopmental disorder in the DSM-5. The classification of ADHD as neurodevelopmental disorder has moved beyond a negative view of ADHD as a behavioral disorder. The diagnostic criteria of ADHD had been revised in the DSM-5 by adding specific examples under the same 18-symptom criteria in the DSM-IV-TR. Specific examples were also added to help differentiate either predominantly inattentive from predominantly hyperactive/impulsive presentation of ADHD. The onset age became more flexible in the DSM-5, changing from before the age of 7 in the DSM-IV-TR to before the age of 12 in the DSM-5. Finally, the comorbid diagnosis of autism with ADHD is allowed in the DSM-5.

### **The Saudi Context**

The kingdom of Saudi Arabia was established in 1932 by King Abdulaziz bin Saud. According to the Central Department of Statistics and information, Saudi Arabia's population as of August 2018 Census consisted of 20,768,627 Saudi nationals and 12,645,033 non-nationals. The main religion in Saudi is Islam; the Quran and Sunna (Traditions of the Prophet, peace be upon him) are the basis of Saudi's constitution (The Basic Law of Governance, 2013). Saudi Arabia is a rich country since the advent of oil (OPEC Annual Statistical Bulletin, 2015).

### **ADHD in Saudi**

In many ways, the definition and diagnosis of ADHD in the United States and Saudi Arabia is quite similar. In 2009, the first and so far only charity organization that serves people with ADHD in Saudi Arabia was established. The Saudi ADHD Society (or AFTA Society), aims to provide support, services, and resources for people with ADHD, and to raise awareness about this disorder. This study will review the Twitter account of the AFTA Society. Media portrayals influence the ways in which people understand, perceive disability and health issues (Englandkennedy, 2008; Wilkinson, 2010), and shape the public agenda by

influencing their opinion (Andrews, & Caren, 2010); this is no less true of social media such as Twitter.

The schools selected as the study setting were located in Jeddah. Jeddah is the second largest city in Saudi Arabia, with a population estimated at 3.4 million. The selection of particular schools was deliberate. The sites included government-funded elementary schools for girls that offered ADHD educational programs. These sites allowed different teachers to be interviewed and share their views of ADHD by drawing on their experiences. The criteria for selecting schools were (1) they had to have implemented an ADHD program guided by the Saudi Ministry of Education, (2) that had to have inclusion criteria in place for students with ADHD, and (3) teachers had to be part of the implementation of the ADHD program.

Prior to my study there was no ADHD program in all Saudi schools. The ADHD program began in 2016 (one term prior to my data collection) in three major cities: Riyadh, Damam, and Jeddah. This program provides for the admission of students with ADHD in schools (one child per classroom). To prepare the teachers, each school hosted a two-day workshop by special education supervisors from the Ministry of Education. Attendance was mandatory for all the school teachers.

The participating clinicians were from Jeddah as well. Four parents were from Jeddah, the other three were from Riyadh and Alsulayyil, due to challenges I faced during parent recruitment.

### **The Process of ADHD Diagnosis in Saudi**

According to the AFTA society website, the professionals who are qualified to diagnose ADHD in Saudi include psychiatrists, pediatric neurologists, clinical psychologists, pediatricians, and family physicians. As the AFTA society website and the participant clinicians in this study have stated, the Diagnostic & Statistical Manual for Mental Disorders, Fifth Edition (DSM-V) lists the criteria for diagnosing ADHD in Saudi Arabia. The process

of ADHD diagnosis involves first, an evaluation based on the DSM-V criteria through a clinical interview with the child and his or her parents. In addition to the clinical interview, clinicians might require parents to complete one or more standardized questionnaires to help them differentiate between ADHD symptoms and other problems that could result in similar behaviors. According to the AFTA society website, schools in Saudi have no direct involvement in this clinical process. However, clinicians may request parents to ask their child's teacher to fill out a teachers' questionnaire (similar to the one parents are asked to complete). Depending on the child's behavioral characteristics, clinicians may require additional tests to measure the nature of mental processes such as attention span (AFTA Society website, no date). Upon completion of the clinical interview and additional tests, the clinician writes a final report indicating whether the child has been diagnosed with ADHD or not.

### **The Research Questions**

This study explores the following questions:

- 1) What ADHD discourse(s) are produced on the AFTA Society Twitter site and what discourse(s) are neglected or absent?
- 2) What discourses do Saudi parents, educators, and clinicians draw upon as they describe their experiences of ADHD, and what discourses do they resist (i.e. criticize or discredit)?
- 3) How do Saudi parents, educators, and clinicians view their lived experience of ADHD, and how can their experiences be understood in relation to the multiple and competing discourses of ADHD that frame their daily lives?

### **The Significance and Rationale of the Study**

Quantitative studies based on diagnostic classification have been limited in terms of their contribution to developing an understanding of ADHD. For example, Alzaben *et al.*

(2018) investigated the prevalence of ADHD among 929 students from three male and three female primary government schools in Jeddah. Teachers completed the Vanderbilt ADHD scale for all students in their classes. The authors concluded that the overall prevalence of ADHD was 5% (5.3% in females and 4.7% in males). Quantitative and prevalence-oriented studies like this one give the reader a number (5%) assigned to a specific variable (ADHD screening prevalence). Problematically, it reduces the lived experiences of these screened students to a number alone, and fails to give the reader the context behind this number, including the meanings and perceptions of ADHD from the point of view of those who complete the Vanderbilt ADHD scale: the teachers themselves. The value of qualitative methods have been highlighted by researchers as “[a tool] to gain a richer and more complete description of the phenomena” (Daaleman *et al.*, 2001, p. 1504) and to “illuminate the factors that are absent in the existing literature” (Lyons, 2002, p. 6).

Most major Arab (including specifically Saudi) studies have been quantitative and prevalence oriented (Alhraiwil, 2015). There are no Middle Eastern or North African studies that (qualitatively) investigate the lived experience in meanings of ADHD among different stakeholders, such as individuals with ADHD, parents, teachers, or clinicians associated with it. This has left open several questions that could helpfully be pursued in order to learn more about how the meaning of ADHD is constructed in Saudi society. One particular path followed by this study was to trace the ways in which ADHD is constructed in Saudi social media. Additionally, this research asks: what are the various discursive constructions of ADHD within wider medical, educational and societal discourses? What are the different subject positions that the available discourses offer? What is the relationship between the available discourses and practices? What is the relationship between the available discourses and the subjectivity of the experience? The available studies fall short in terms of answering any of these questions; they were simply not designed to do so. The aim of the present study,

therefore, was to explore in depth the ways in which ADHD is constructed in the discourses reflected in comments made on the AFTA Twitter account, and separately (in interviews) by Saudi parents, teachers, and clinicians associated with ADHD. The remaining task was to map out the dominant ADHD discourses as well as the discourses resisted in light of the three Foucauldian concepts of discourse, knowledge and power. Thus, the present study aims to contribute to an in-depth understanding of the lived experiences of Saudi parents, teachers, and clinicians associated with ADHD. It is hoped that it will shed new light on the meaning and experiences of ADHD among Saudi individuals associated with it, and challenge negative images of ADHD as a purely dysfunctional, purely medical construct. By mapping out the different stakeholders' discourses as well as the interactions or contradictions between them, this study aims to broaden current thinking about the discursive process surrounding ADHD specifically, and medicalized conditions and disabilities in general, both in Saudi Arabia and beyond.

### **Researcher's Stance**

Situating my role as a researcher is crucial in order to be explicit about my subjectivity and biases. I adhere to the notion that it is impossible for the researcher to meaningfully separate him/herself from the research; to be neutral. Hammersley and Atkinson (1995) state that utilizing and taking the researcher's influences, background, ideas and attitudes into account allows a phenomenon to be studied in greater depth. Practicing reflexivity – regularly and consciously reflecting on how my own background and preconceptions might be influencing the research itself – allowed me to step back and be self-aware about the ways in which my presence influenced each step of the research process. Foucault's concept of the "technologies of the self" is consonant with the current practices within educational research of 'stepping back' or self-awareness. In subscribing to Foucault, it is important to reflect on the ways in which my subjectivity and biases might have

influenced the selection of the research topic itself, as well as the data collection process, and the interpretation and analysis of the data.

The selection of ADHD as my research topic was based on personal interest and my sympathies with people who have this disorder. During my master's degree program in Canada, a course on children with emotional and behavioral difficulties sparked my interest in ADHD. But learning about ADHD and how it affects individuals throughout their lives also made me uncomfortable. I had completed my undergraduate studies in Saudi Arabia at a teacher education college and had never had a course on or discussed information about ADHD. Before I came to Canada to pursue a master's degree in education, I worked as a math teacher in a private Elementary school for one year. During that year I encountered children with the type of behavioral problems that I later realized were probably considered ADHD in other countries. In my master's course, I learned that the prevalence of ADHD in North America was close to 6% and that ADHD was the most studied neurobiological disorder. Initially, I allowed myself to think that ADHD was a Western disorder that did not exist in Saudi Arabia. But exploring the web revealed the untenability of that belief and increased my discomfort. According to AFTA Society information, the prevalence of ADHD in Saudi Arabia is estimated to be 16.4% (AFTA, 2010) – much higher than typical international prevalence rates. I also read AFTA website articles about the experiences that children with ADHD encounter in Saudi. One such article was entitled “Riyadh school expels eight students with ADHD”; another, “ADHD and Addiction” (AFTA, 2013). Articles like these indicating such serious interpretations and consequences of ADHD influenced me to ask, in Foucault's words, “How is it that one particular utterance appeared rather than another?” (Foucault, 1970, p. 30). Why was the prevalence rate deemed to be so high in Saudi? How was this assessed? Why were students being expelled and how many more students would go on to experience this? What other difficulties did children with ADHD and

their parents endure? And why was the discourse so entirely negative? With these questions in mind, I became eager to expand my understanding of ADHD by investigating the discourses that have surrounded its emergence in both professional and public understanding in Saudi.

With regard to the data collection process, practicing reflexivity allowed me to take into consideration how the interview questions might influence the answers given. As a consequence, I used open-ended interview questions in order to let the interviewees freely express their views and to include emerging details as much as possible.

I had anticipated that being a female researcher in a conservative country such as Saudi Arabia would act as a constraint in recruiting and interviewing male participants. Thus, during the recruitment phase, I expected that female participants would be more willing to contact me than male participants. In fact, willingness to make contact turned out not to be a simple question of male/female, as two out of the 17 participants were males and eight participants, including females, preferred telephone interviews to personal contact. In addition, I was aware of my ambiguous position: as a Saudi woman with a teaching background, I could be seen as an insider by the teachers I interviewed, but as a doctoral candidate studying in Canada, a non-clinician, and someone who did not have a child with ADHD, the clinicians and parents might have considered me an outsider. Still others might see me as both insider and outsider. I considered myself an outsider inasmuch as I did not have ADHD. Yet I was an insider in light of my involvement with the topic of ADHD since 2010 – studying, attending workshops, enrolling in ADHD coaching training in which most of my classmates were either diagnosed with ADHD or had a family member with ADHD, and subsequently coaching people with ADHD in Canada, where I lived. This involved working closely with children and families on the specific problems they encountered in

school and beyond. I focused on the child's abilities and interests, and helping them to channel their energies in creative ways that minimized disruption to others.

While interviewing the participants, I was aware of the space I inhabited within this research. I made sure not to talk about my experiences with ADHD; I approached the participants, especially parents and teachers, from the stance of a young researcher who wanted to learn about ADHD from their points of view.

Social media played a key role in recruiting participants. Having searched for social media accounts related to ADHD, Instagram was used to contact Aliya, the mother of a child with ADHD who had a WhatsApp group for supporting parents of children with ADHD. I gave Aliya access to my Instagram account, which gave no indication of my studies or research interests, and we communicated initially in this way. Other parents were recruited via another WhatsApp group I had found online.

Twitter and LinkedIn were used to recruit clinicians. Both these accounts indicated that I was a PhD candidate at the University of Ottawa and that I had a background as an ADHD coach. However, I made it clear when interviewing clinicians that I was a young qualitative researcher who wanted to learn from their experiences. In Saudi Arabia, medical, scientific, and quantitative approaches are valued and respected more than qualitative ones. This tendency probably characterized many of my potential participants, who asked me to provide them with the questionnaire or send them the research questions via social media private messages, but I was happy to do this.

Bearing in mind that I had become an interested reader of poststructuralist and ADHD articles during my study in Canada, I knew it was important to be reflexive as to how my understanding of ADHD as well as my general worldview might influence the interpretation of the data. Adhering to Foucault, I was critical of the notion of eliminating all meaning, and of seeing the world as governed merely by rules or structures. Yet I was also opposed to the

continuous search for the deeper meaning or grand truth of social practices and actors. Thus for me, the meaning of ADHD and the usual (clinical) treatments for it could go far beyond the medical definition of ADHD as a dysfunctional neurobehavioral disorder. As an ADHD coach, I believe in the value of focusing on the strengths and interests of children with ADHD. This has the potential to give the child a range of opportunities to compensate for the difficulties he or she has.

As a Muslim researcher, I understand the value of the religious discourse as providing one way for individuals with ADHD to cope with their difficulties. I also acknowledge the value of medical and psychological discourses in providing a sense of relief for both parents and children with the disorder: learning that there is a medical explanation for the difficulties experienced by children, and the treatment options that are available, is reassuring. However, conceiving of ADHD through the lens of medical discourse alone restricts us to thinking about the problem only through the binary of being ‘in order’ – ensuring a child is a good fit for society – or having a ‘disorder’, and in need for continuous medical intervention and surveillance. Thus, in analyzing the data, I worked towards going beyond the universal facts regarding prevailing understandings of ADHD, while acknowledging that the knowledge I obtained was both partial and situated. I was, as Foucault puts it, “always in the position of beginning again” (Foucault 1984, p. 47).

### **The Structure of the Dissertation**

There are seven chapters in this thesis by article dissertation. The first chapter introduced the purpose of the research, highlighted the context and significance of the study, and outlined the research questions. Chapter two presents a contextualization of the study which constitutes three sections. (1) A literature review, which discusses the three main ADHD discourses – medical, psychodynamic, and social construct accounts – as well as studies of ADHD in Saudi, the beliefs and knowledge about ADHD held by teachers, parents,

and clinicians, and ADHD discourses in Western media. (2) A Foucauldian theory section includes the presentation of *discourse* as a key concept in the study alongside the notion of *power/knowledge* and its relation to discourse, and explores *subjectivity* and its relation to discourse and power. (3) The methodology section presents the Foucauldian framework for the methodology and then describes the research design, methods of data collection, methods of analysis, and presentation of findings and also discusses the ethical considerations involved in dealing with data and the methodological challenges encountered in data collection.

Chapter three presents the first manuscript article, entitled *ADHD in 140 characters or less: an analysis of Twitter commentary on Attention Deficit Hyperactivity Disorder in Saudi Arabia*, published in the Universal Journal of Educational Research Vol. 5(12), pp.2186-2195. Chapter four presents the second manuscript article, entitled “*ADHD is like a bat – it is neither a bird nor an animal*”: *Saudi Parents’ Discourses About Attention Deficit Hyperactivity Disorder*. Chapter five presents the third manuscript article, entitled *Saudi Clinicians’ and Teachers’ Discourses About Attention Deficit Hyperactivity Disorder (ADHD) in Jeddah, Saudi Arabia*. Chapter six describes the key findings emerging from interviews and cross-references these with the literature, with the aim of providing a complete picture of the major discourses emerging from the data analysis. Finally, chapter seven concludes the dissertation by presenting the implications, limitations, and contributions of the study to the research literature.

## Chapter Two: Contextualization of the Study

In the first section of this chapter I review the literature relevant to ADHD discourses. This review illustrates (1) the three main ADHD discourses: medical, psychodynamic, and social construct accounts; (2) ADHD studies in Saudi; (3) the beliefs about and knowledge of the nature of ADHD among teachers, parents and clinicians; and (4) ADHD discourses in Western media. The second section of this chapter discusses Foucauldian theory by describing, first, the notion of *discourse* as a key concept in the study as well as the notion of *power/knowledge* and its relation to discourse; and finally, the notion of *subjectivity* and its relation to discourse and power. The third and final section of this chapter discusses the Foucauldian framework for the methodology and then describes the research design, methods of data collection, methods of analysis, and presentation of findings. Finally, it discusses the ethical considerations involved in dealing with data and the methodological challenges that were encountered in data collection.

### ADHD Discourses

#### Medical Accounts

Many studies of mental disorders subscribe to medical interpretations that situate mental disorders firmly within the realm of medicine. The logic is that the same kinds of processes that cause physical diseases also underlie mental illness; hence they can be treated or cured in the same way – by medical interventions (Southall, 2007). This hypothesis has become widely accepted by medical authorities. A review of the history of ADHD in the context of psychiatry reveals the early conclusion that children with ADHD have something wrong with their brains (Southall, 2007).

The medical objectification of ADHD dates back to 1775 when Weikard, a German physician, published a textbook that is thought to contain the earliest description of attention disorders (Barkley & Peters, 2012). In a section entitled “Sickness of the Spirit”, those with

attention disorder are characterized as unwary and careless. Weikard attributes their lack of attention to being taught too many things at once, or indeed the opposite – having dull, inactive lives. Either can make the sensory nerve in the brain too “weak” for the constant attention required in daily life (Weikard, 1775 in Barkley and Peters, 2012). For treatments, he proposed that the those demonstrating lack of attention are to be isolated from the noise, left in the dark, when they are considered too active; their weak nerves are to be strengthened by cold baths, steel powder, and gymnastic exercises (Weikard, 1775 in Barkley & Peters, 2012).

In 1902, the English physician George Still described a set of behaviors exhibited by a group of 20 children in his clinical practice. He assumed that these children were deficient in their “moral control”, leading to a lack of behavioral control. He argued that lowered moral control is linked to a potentially pathological condition, which may occur independently of any physical disease or intellectual impairment. He proposed that these children could be managed with constant and close supervision.

Much of the modern medical literature on ADHD begins with the descriptions provided by Still (e.g. Barkley, 2015; Goldstein, & Ellison, 2002). Barkley (2006a) presents Still's work as the point of origin for the discourse on ADHD and calls for the continued reading of Still's papers. Rafalovich (2004) argues, however, that Still's findings do not constitute the medical discovery of ADHD. The children Still studied were thought to have other mental health problems, and there was no hypothesizing about neurological structures at that time, so the conclusions of Still and his colleagues reflect the contemporary medical discourse. Restless, inattentive children were thought to have both attention and moral control deficits. It is only modern medical accounts of these children, that have retrospectively ‘diagnosed’ them with what we now term ADHD.

In some ways, little has changed with regard to the progress made in modern medical accounts: the theory of a flawed brain continues (Bentall, 2004; Southhall, 2007). The neuro-anatomy of ADHD in modern psychiatric discourse focuses on abnormal development of key brain regions: the orbital prefrontal cortex, the basal ganglia, and cerebellum (Arnsten, 2009). The book *What Causes ADHD?* by Joel Nigg (2006), summarizes the multiple causations of ADHD in terms congruent with the discourse of neurochemistry, yet simplified enough to be understood by a lay audience. The author provides graphics and diagrams of the brain, candidate genes in ADHD, and neural networks involved in ADHD in order to clarify the physical reality of ADHD for the reader.

However, the medical discourse regarding ADHD is far from being a unified discourse. There is ongoing debate around ADHD etiology, diagnosis, and treatment (Hammond, 2008). No unequivocally effective medical treatment for ADHD has been identified; rather, there are multiple pathways. The view that brain abnormalities lead to ADHD symptoms justifies the use of medication (stimulants or non-stimulants) in the treatment of ADHD (Fuster, 1997). The divergent results in the medical research literature have led other researchers to consider alternative approaches to understanding and treating ADHD (Conway, 2012).

### **Psychodynamic Accounts**

Psychodynamics refers to the study of the psychological forces that might affect human behavior and emotions and the ways in which they might relate to early childhood experience. Although the literature on psychodynamic accounts of ADHD is sparse (Conway, 2012), the available studies on the diagnosis of ADHD from this perspective tend to be rooted in two major concepts: ego disturbance and object relations. Proponents of the ego disturbance concept attribute the symptoms of ADHD to difficulties in a child's ego functioning that affects their ability for synthesizing, organizing and integrating their

experiences (Gilmore, 2000, 2002), their relationship to time, and sustaining their attention on an object (Jones, 2011), which may result in hyperactive behaviors in the expression of their feelings (Jones & Allison, 2010). Advocates of the object relations perspective understand ADHD as resulting from early disturbances in the realm of interactions with family members, including experiences of early trauma (e.g. Cione *et al.*, 2011; Leuzinger-Bohleber *et al.*, 2011). Ladnier and Massanari (2000) analyzed the histories of 50 people diagnosed with ADHD and found evidence of disturbances in object relations in their first two years of life. They argue that this disturbance negatively interferes with the development of a healthy attachment to the mother figure, resulting in ADHD-like symptoms in the child (Ladnier & Massanari, 2000).

Psychoanalysts generally consider both ego functioning and the quality of object relations in their identification of core issues; for them, an intensive long-term treatment approach is key to working with children with ADHD. This aims to lessen their ADHD symptoms and to help them develop 'stable self-states' (Jones, 2002). Developing the capacity of the child to think and reflect about his/her own mental state leads to better self-regulation (Fonagy & Target, 1996). In addition, working with the parents can reduce their anxiety and improve the likelihood that treatment will succeed (Cione *et al.*, 2011; Widener, 1998).

### **Social Construct Accounts**

In these accounts, neurobehavioral disorders such as ADHD are considered conditions that are constructed as members of a society experience frequent exposure to the label of ADHD (Berger & Luckman, 1966). Social construct advocates suggest that not only is ADHD a 'contaminated and misleading' mainstream notion (Timimi & Taylor, 2004, p. 8) but also a 'culture-bound syndrome limited to the US or English-speaking countries' (Conrad & Bergey, 2014). They propose that the prevalence of ADHD in recent years is a result of 'the

demands of modern culture' (Hinshaw & Scheffler, 2014; Timimi & Maitra, 2009) and an increasing 'cultural tempo' (Block, 1977). Others view the internal biological dysfunctions of ADHD traits as an "adaptive response" to the "modern-day environment" (Jensen *et al.*, 1997). It is argued that scientific theories about ADHD lack a broader cultural perspective because they view ADHD symptoms as appearing only within the child or his/her immediate environment (Timimi & Taylor, 2004). Social construct advocates suggest that ADHD appears to be an outcome of modern society's radical changes in family structure and parenting styles (e.g., Block, 1977; Cohen, 2016; DeGrandpre, 1999; Timimi & Taylor, 2004). For them, ADHD arguably also reflects the state of modern public education, in which crowded classrooms and overwhelmed teachers become intolerant towards children who cannot focus or sit still (Hinshaw & Scheffler, 2014). In terms of treatment, social construct approaches advocate replacing stimulants with education and cultural modifications (Conrad & Schneider, 2010; Szasz, 2009). They emphasize that children with ADHD need attention, improved parenting, better schooling, and environmental changes as the main line of treatment (Breggin, 1994; Jacobs, 2002).

### **A Foucauldian Lens**

All the previous medical, psychodynamic, and social construct accounts tend to situate ADHD within a dichotomy: is it medical, 'real' illness or disorder, or is it socially constructed and 'unreal' (Hacking, 2000)? But this binary view of ADHD tends to ignore the meanings people assign to the behaviors and practices that gradually constructed the concept and label of ADHD in the first place. For example, Comstock (2011) applied the Foucauldian genealogical approach to examine the discourses that constructed what it means to be a person with ADHD. By examining the relationship between medical power and knowledge constructed through ADHD discourses during the twentieth century, the author found that the recent meaning of ADHD reflects "a governmentality of self-management and an embodied

norm of economic rational self-interest” (p.45). By the latter decades of the twentieth century, by contrast, ADHD-type behaviors simply denoted abnormal behaviors. This shift of meaning from deviant behaviors to an inability to self-manage constitute what modern medical, social, and educational institutions have come to refer to as ADHD (Comstock, 2011). Although there is no proof of any clear biological sign related to mental illness (Cohen, 2016), the use of medical technologies such as brain imaging as a legitimate diagnostic tool mean that the discourse of a deficit in self-management reflects the extent of medical power in characterizing ADHD. This essentially legitimates the use of medication as a means to fix this deficit.

### **ADHD Studies in Saudi**

The definition and diagnosis of ADHD in the United States and Saudi Arabia is quite similar. In 1996, ADHD was first acknowledged in Saudi literature with a survey of services offered in a child psychiatric clinic in Riyadh (Abdur-Rahim *et al.*, 1996). The authors examined 199 cases of patients aged 14 years or younger over a six-year period. Although this study examined a range of children’s psychological problems, it highlighted the prevalence of ADHD within this population, which represented 12.6% of patients (Abdur-Rahim *et al.*, 1996).

Most ADHD studies in Saudi are prevalence-oriented (e.g. Abu Taleb & Farheen, 2013; Jenahi *et al.*, 2012). To date, only three studies assess knowledge and perceptions of ADHD among parents and teachers (Alamiri & Faulkner, 2010; Munshi, 2014; Zaki, 2013). These studies note that teachers and parents alike are challenged by ADHD symptoms, yet they tend to access little information about the disorder (Alamiri & Faulkner, 2010; Munshi, 2014; Zaki, 2013). In the available Saudi studies more broadly, the dominant discourse is the medical one. Parents and teachers are examined in terms of the degree of their medical knowledge of ADHD. There are no studies that examine other discourses related to ADHD.

### Parents' Discourses

Parents' perceptions and beliefs regarding the nature of ADHD symptoms and its etiology has a significant influence on the likelihood of referral, service utilization and treatments (Lawton *et al.*, 2014; Maniadaki *et al.*, 2007). Ghanizadeh (2007) examined 119 Iranian parents of children with ADHD using a mixed method approach. The author found that these parents were poorly informed about ADHD, and that social construct discourses about its causes (such as parental spoiling and child neglect) were apparent among them. Gidwani *et al.* (2006) conducted a cross-cultural study in Puerto Rico, Central and South America, and North America, concluding that expectations for developmentally appropriate behavior vary across ethnic groups. Furthermore, parents who do not accept medical accounts of ADHD may choose services that better suit their understanding of the problem; this may include seeking advice from a spiritual leader (Yeh *et al.*, 2005).

Maniadaki *et al.* (2007) compared beliefs regarding the severity and impact of ADHD symptoms among Greek parents of children who display ADHD symptoms with parents of those who do not. They reported that parents whose pre-school child displays ADHD behaviors believed these indicated normal developmental patterns and saw no need for seeking referral for the child. Bussing *et al.* (2003), investigate the ways in which explanatory models of ADHD shape both gender and cultural variations in terms of whether and how parents seek help for their children with ADHD (N=182). The authors reported that African-American parents were less informed about ADHD symptoms, interventions or services utilizations than Caucasian parents, and concluded that there was a need for culturally tailored parent education approaches. Finally, Sciberras *et al.* (2010) surveyed 96 Australian parents of children with ADHD on their information needs and preferences. Most parents preferred in-person communication, with clinicians a more likely source of information than the Internet.

Rogers *et al.* (2009a) compared Canadian parents of children with and without ADHD in terms of parental involvement in their children's learning. The study sample consisted of 53 parents of children with ADHD and 48 parents of children without ADHD. The authors found that in both categories, mothers' involvement with their children's learning activities in the home were similar, in terms of the nature and level of involvement. In contrast, the behavior of the fathers differed. Fathers of children with ADHD reported less involvement in their children's learning, and they used more controlled interactions regarding their children's achievement in comparison to fathers of children without ADHD. The authors also found that parents of children without ADHD reported higher self-efficacy in their ability to help their children, felt more welcome and supported by their children's schools and teachers, and reported that they had more time and energy for involvement in their children's academic lives than parents of children with ADHD (Rogers *et al.*, 2009a).

That same year, these authors (Rogers *et al.* 2009b) utilized the Family-School Relationships Model path in a study of 53 parents of children with ADHD. They investigated the relationship between parenting stress, involvement style and ADHD in predicting their children's academic achievements. They found that parents who used more controlling parental styles tend to overrate ADHD symptoms in their children, which in turn negatively affected the children's academic achievements. In contrast, parents who used more supportive parental styles tended to rate ADHD symptoms less severely in their children, which in turn, positively affected the children's academic achievements positively. The correlation between these two parenting styles and academic achievement was based on parental experience of only one ADHD symptom – inattention – and only in the home. Other symptoms and contexts/locations were not assessed as part of this study.

### Teachers' Discourses

Teachers' beliefs and knowledge regarding ADHD influence how they interact with hyperactive children in the classroom (MacFarlane & Woolfson, 2013), but also influence the behavior and academic performance of students with ADHD (Rideout & Koot, 2009). Zambo *et al.* (2013) used a mixed methods study to investigate the knowledge and beliefs regarding students of ADHD among 89 pre-service teachers at Arizona State University; most responses showed a lack of understanding of the signs, symptoms and challenges associated with ADHD. Sciutto *et al.* (2000) conducted a study of 149 primary school teachers in the USA, using the Knowledge of Attention Deficit Disorders Scale (KADDS); these teachers scored lower on knowledge of causes of and interventions appropriate for ADHD than they did for knowledge of characteristics of ADHD. Blotnicky-Gallant *et al.* (2005) examined knowledge and beliefs regarding ADHD among 113 teachers in Nova Scotia, using a web-based questionnaire; these teachers knew more about symptoms/diagnosis of ADHD than about evidence-based interventions to treat it. The authors highlighted a significant correlation between teachers' beliefs about ADHD and their use of evidence-based behavior management practices. Many studies investigating teachers' knowledge of ADHD underline the need for more formal teacher training regarding ADHD in school-age children (e.g. Mohr-Jensen *et al.*, 2015; Youssef *et al.*, 2015).

Rogers *et al.* (2015a) examined the relationship between students with ADHD symptoms and their teachers in Canada. The study sample consisted of 35 students with ADHD symptoms and 36 students without such symptoms between the ages of six and 10. The authors revealed that the emotional and collaborative relationship between students with ADHD symptoms and their teachers was negative, especially for girls with ADHD symptoms. They concluded that ADHD symptoms have a tendency to work as a barrier to academic achievement. It also impacted the teacher-student relationship negatively.

### **Clinicians' Discourses**

Primary care clinicians adhere to clinical practice guidelines for the diagnosis, evaluation, and treatment of ADHD (Wolraich *et al.*, 2011). However, Rafalovich (2004) argued that health professionals “buy into” their own expertise as much as those who use their services. Morley (2010) showed that although family physicians (N=187) could distinguish between ADHD-like symptoms and ADHD positive cases, factors such as insurance status, ethnicity, and gender influenced their decisions regarding the diagnosis and treatment of ADHD. Fiks *et al.* (2011a) used free-listing<sup>1</sup> to understand how 60 parents of children with ADHD and 30 clinicians view ADHD. They found that there were differences: the focus of parents was on how ADHD affects the child and the family negatively, while the focus of clinicians was more on how ADHD affects a child's performance in school. The authors showed that parents valued other family members and friends' opinions; clinicians, by contrast, valued those of other professionals and teachers input (Fiks *et al.*, 2011a).

Research also shows that parents and clinicians have a different understanding of the concept of shared decision-making (SDM). Parents viewed SDM as an equal partnership and wanted clinicians to provide them in advance with sufficient information about all treatment options, whereas most clinicians viewed SDM as a task requiring them to explain their own account of treatment choice and encouraging parents to agree (Fiks *et al.*, 2011b). Here, clinicians' responses highlight the hierarchical power relations between the role of the expert and the non-expert. Clinicians follow the clinical guidelines, observe, provide treatment, and accept other experts' input, while parents are expected to be passive recipients of their expertise.

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<sup>1</sup> Participants list the words that come to mind in relation to seeking help for ADHD.

## Media Discourses

Due to the lack of literature investigating Twitter representations of ADHD specifically, I draw upon research describing portrayals of ADHD in Western media more broadly. Media portrayals influence the ways in which people understand and perceive disability (Englandkennedy, 2008). Media framing is “a process through which a communication source defines and constructs a public issue or controversy, and can have significant consequences for how people view and understand an issue” (Schmitz *et al.*, 2003, p.386). Media framing contributes to the normalizing or stigmatizing of mental disorders, so analyzing the ways in which individuals with mental illnesses are portrayed is crucial (Ray & Hinnant, 2009). The literature investigating media influence on understandings of mental health and disabilities in general is vast (Clarke, 2011). However, only a few studies have examined media representations of ADHD.

Lloyd and Norris (1999) undertook the first analysis of UK newspaper coverage of ADHD, examining the role of media framing in the rise of the disorder. They looked at 98 reports published between 1994 and 1999 in the broadsheet and tabloid press. The authors distinguished two main discourses: “the voice of parents” and “the role of experts” (p. 506). The parents who were interviewed were often representatives of parents’ organizations that promoted medical solutions for behavioral difficulties. Professionals were portrayed as “experts”; people who had built their careers on treating ADHD. Lloyd and Norris (1999) noted the exclusion of teachers’ voices from media discourses.

Schmitz *et al.* (2003) used social representations theory (SRT) to investigate coverage of ADHD by US newspapers from 1988 to 1997. They found that biological perspective to be the dominant representation of ADHD, also noting that ADHD was portrayed as primarily affecting young white boys (Schmitz *et al.*, 2003). Horton-Salway (2011) studied UK national newspapers from 2000 to 2009 for references to ADHD, finding two perspectives at

work: the biological and the psychosocial. In her research, the latter was the dominant view, leading to moral judgments about poor parenting in a “sick society” and calls for better parenting as the solution (Horton-Salway, 2011). This dominant early 20<sup>th</sup> century representation disputed the medicalization of children with ADHD, which, until then, had not been widely questioned (Norris and Lloyd, 2000; Schmitz *et al.*, 2003).

Media presentations of ADHD echo scholarly debates regarding the complexity of ADHD and the lack of consensus on the origin and treatment of the disorder. Those who advocate the biological view find the ADHD label a justification for a child’s behavior, interpret medical intervention as helping the child manage difficult behavior, and see the explanation of neurobiological dysfunction as key to the removal of stigma from parenting (Norris and Lloyd, 2000; Schmitz *et al.*, 2003). Those who advocate the psychosocial perspective, however, perceive the use of medication as a highly suspect means of social control (Norris & Lloyd, 2000). These controversies surrounding ADHD are far more multi-layered than the biological/psychosocial binary would indicate (Nigg, 2006). Accordingly, the media is merely circling and countering parental and expert discourses (Lloyd and Norris, 1999; Norris and Lloyd, 2000).

But how is ADHD portrayed in the media? The study of US newspapers by Schmitz *et al.* (2003) found that ADHD was objectified, with negative images of a “broken brain” and “derailed concentration” used to characterize it. Englandkennedy (2008) analyzed US television portrayals of ADHD and concluded:

Few media representations of ADHD exist and most are inaccurate; they reflect and reinforce social concerns and negative stereotypes. Perceptions of ADHD and people who have been diagnosed as ‘having it’ reflect an overarching sociocultural belief that this is an illegitimate category of disability. (p.112).

The author described common beliefs about ADHD: that it is a childhood disorder; that it is easily diagnosed; that it is caused by ‘abuse’ of stimulants by the child or other family members; and that the label is used to excuse bad behavior.

Images of children with ADHD and their parents are mostly negative, with few media accounts portraying them positively (Horton-Salway, 2011). A child with ADHD is described as a “problem child, [or an] abnormal or ordinary naughty child” (Horton-Salway, 2011, p.533), or as the disruptive or deviant young white male (Horton-Salway, 2013; Schmitz *et al.*, 2003). Parents of children with ADHD – primarily mothers – are characterized as ineffectual or neglectful (Horton-Salway, 2011), and consequently feel blamed. Their parenting skills are often seen as the root of the problem (Lloyd and Norris, 1999). Parents felt “distraught,” “frustrated,” “confused,” as if they were “in a nightmare,” “embarrassed,” and victims of their child’s condition (Norris and Lloyd, 2000).

Gendering is deeply embedded in media discourse on ADHD (Horton-Salway 2011 and 2013; Schmitz *et al.*, 2003). As previously mentioned, ADHD is portrayed as a predominantly young male phenomenon (Horton-Salway, 2011 and 2013; Schmitz *et al.*, 2003). Yet the ratio of boys to girls with ADHD is 3:1, this may decrease with age to 1:1 in adults (Swanson *et al.*, 1998). Clearly many girls/women are affected.

Media coverage representing fathers’ perspectives is scarce, while that representing mothers is more common (Horton-Salway, 2013; Schmitz *et al.*, 2003). Mothers are stereotyped as the parent who speaks for the child, while fathers tend to be invisible. Horton-Salway (2013) argues that the absence of fathers in media accounts does not portray the typical family experience, but reflects assumptions that if something is wrong with a child’s behavior, it is the mother fault.

### **Review of Evidence-based Practices**

The behavioral symptoms that have come to characterize ADHD are quite diverse. Therefore, it is accepted that there is a range of treatment options that may be adopted in different situations, by different service providers (Theodore, 2016). Professionals from various fields may be involved – teachers, psychologists and physicians – as well as parents, with each possessing distinct skills for managing particular problems. At present, the preferred treatment is a multimodal, multisystem approach executed over a long period of time (Theodore, 2016).

Various alternative treatments for ADHD have also been developed, but very few are supported by empirical research demonstrating a decrease in symptoms of ADHD. Some treatments are considered to be evidence-based, such as pharmacological treatment, behavior modification, and home-school communication practices (DuPaul, 2007), which are discussed below.

### **Pharmacological Treatment**

Psychotropic medication is the most extensively studied treatment for children and adults with ADHD, especially the use of central nervous system stimulants (Barkley, 2006b). The past two decades have seen a significant increase in prescribing medication to treat ADHD in young children (Compton & Volkow, 2006). The stimulants that are given to pediatric patients most commonly are methylphenidate, dextroamphetamine and amphetamines. Of these medications, the most widely prescribed are the different short and long-acting forms of methylphenidate (Van der Oord *et al.*, 2008). DuPaul (2007) found that methylphenidate and other central nervous system stimulants are the most successful treatment for ADHD symptoms. It has been repeatedly shown in scientific studies that stimulants successfully help with short-term management of both cognitive and behavioral symptoms of ADHD (Brown & Daly, 2009). The impact of methylphenidate and behavioral

intervention – separately and in combination – was examined by Pelham *et al.* (1993) in a sample of boys in America participating in a summer treatment course. Their study showed that when the two treatments were used together, the result achieved was almost the same as when methylphenidate was used on its own. Furthermore, a study by the MTA Cooperative Group (1999) suggested that treatment using medication in combination with behavioral intervention was more effective in decreasing the symptoms of ADHD than behavioral treatment on its own. Various studies have also shown that medication treatments enhance a child's classroom attention, behavioral control, peer communication and precision in academic assignments (Connor, 2006). Nonetheless, it should be observed that to date, no studies have shown that pharmacological treatment is effective over the long term (children taking medications for ADHD have not been tracked beyond a 14 months period). Therefore, the success that is usually associated with medication may only be temporary (Van der Oord *et al.*, 2008), with any longer term effects (positive or negative) as yet unknown.

Furthermore, in the short term, negative side effects of stimulant medications have been observed in some children, such as insomnia, nausea, appetite reduction, headaches and weight loss (DuPaul, 2007; Theodore, 2016). However, another category of medication, antidepressants, has been found to be successful in treating ADHD and decreasing its symptoms (Daley, 2004). Tricyclic antidepressants are frequently used as an alternative treatment for those who have not been successfully treated with stimulant medication (Brown & La Rose, 2002). These authors found that tricyclic antidepressants may particularly be effective in individuals with ADHD who are affected by major mood disorder, as it helps to decrease hyperactivity and stabilize mood .

### **Behavior Modification: Token Reinforcement and Response Cost Interventions.**

Behavioral interventions at school help students with ADHD in adhering to classroom rules and teacher instructions, and becoming involved in suitable interactions with classmates

(Theodore, 2016). Furthermore, ADHD symptoms and comorbid behavioral challenges are extensively treated through behavioral modification interventions, including controlling behavior to alter outcome (DuPaul, 2007). Behavior modification strategies have also been successful in the classroom setting for students with ADHD, leading to a significant decrease in off-task and unsettling behaviors, in addition to improved academic efficiency (DuPaul & Stoner, 2003). There are several behavioral interventions that are used to treat ADHD; however, two consequence-based interventions have been highly supported by the evidence. These are token reinforcement practices (also termed token economy) and response cost practices (DuPaul & Weyandt, 2006; Morris & Kratochwill, 1998).

Token economy signifies an organized exchange system in which conditioned reinforcers are obtained and/or lost by the child, depending on whether s/he is involved in or successful in avoiding particular and clearly explained behaviors (Doll *et al.*, 2013). The behavioral ideal that token systems depend on is the idea of operant conditioning, where a neutral stimulus (such as a tokens) is consistently provided when the desired behavior is demonstrated, to the point where this neutral stimulus becomes a reinforcing entity (Kazdin, 2012).

The ensuing conditioned reinforcers are items or activities that may not be reinforcing on their own; however, when combined with a known reinforcer, children adopt reinforcing characteristics. For instance, a reinforcing program may award a token to students for carrying out recommended behaviors. These tokens can subsequently be redeemed for reinforcers, like free time, or a gift. Tokens may also be used to give awards to students for using skills they have developed. Token reinforcement practices are a good way of improving the behavior of students with ADHD who need help in carrying out classroom tasks (DuPaul & Weyant, 2006) and improving academic performance (Reitman *et al.*, 2004; Sullivan & O'Leary, 1990).

While this type of intervention is quite effective, the teacher may find it very time consuming to put in place. Additionally, implementing such an intervention for a single student might create classroom tensions if the other students feel the teacher is giving undue attention or showing partiality to the ADHD student/s. This issue can be resolved by implementing an intervention for the whole class, but the teacher might then need to put in extra time and energy (Morris & Kratochwill, 1998). Here, response cost practices could provide an additional support, along with behavioral interventions with frequent and immediate positive reinforcement (DuPaul, 2007).

Response cost techniques are mainly employed to restrain behavior, mostly by removal of tokens or fines (Kazdin, 2012). Therefore, when any problematic behavior is observed, the response cost will be losing a little reinforcement, such as a privilege or points (Morris & Kratochwill, 1998). Fines can be imposed for specified behaviors in the response cost program by incorporating token economies with it (Reid, 1999). However, a clear understanding of when the system is to be used, and how points can be gained or lost, should be conveyed to students (Thomas & Grimes, 2002). Another possibility is for the list of possible privileges to be formulated by the students themselves; or, alternatively, a preference evaluation could be conducted by the teacher in order to guarantee prominence of the privileges available (Alberto & Troutman, 2013).

### **Home-School Communication Interventions**

These interventions constitute another evidence-based treatment approach discussed in the literature to improve the functioning of children with ADHD (Frafjord-Jacobson *et al.*, 2013; Jurbergs *et al.*, 2007). Home-school communication activities include daily behavior report cards, home school notes, and home-based reinforcement (Frafjord-Jacobson *et al.*, 2013; Jurbergs *et al.*, 2007).

Home-school communication practices may vary, but they share similar characteristics such as specification of target behaviors, regular scoring of occurrence of behaviors, sharing the information gathered between parents, teachers and students; and analyzing the data to observe the effects of an intervention (Frafjord-Jacobson *et al.*, 2013). The requirements of individual students, parents and situations can be met accordingly, as no specific definition of the term exists. (Chafouleas *et al.*, 2002).

The network of parents, teachers and students is key to the process of home-school communication interventions: by ensuring agreed behaviors are encouraged at home, they are more likely to be carried out at school, where a greater variety of reinforcers exists (Barkley, 2006b). Students with mild to moderately severe ADHD symptoms are most likely to benefit from home-school programs (Pelham & Fabiano, 2008). The advantages of a home-school communication intervention in children with ADHD have been demonstrated in several studies, particularly in the field of educational efficiency and behavioral functioning (Fabiano *et al.*, 2010; Wells *et al.*, 2000).

In achieving the optimal functioning of children with ADHD, the benefits and efficacy of a home-school communication system are well recognized (Fabiano *et al.*, 2010; Pelham *et al.*, 1993; Power *et al.*, 2012). The classroom teacher in this system holds the greatest responsibility, and needs to put extra energy into making this initiative succeed. The daily behavior of the student is monitored by the teacher, a calculation of the targets achieved is regularly carried out, feedback is provided to the student, and notes on all of the above are written for parents (to be delivered by the student – and this, too must be monitored). Coordination among school staff members working with ADHD children and continual data collection by the teacher is required in this regard. These initiatives are characterized by a high degree of vigilance and commitment, as teachers must make sure that any required changes in the goals and reward criteria are made, so that the agreed appropriate

behavior continues to be shaped. For this to be achieved, it is essential for teachers to conduct continuous monitoring. These interventions are not possible without the active, committed participation of the teacher. Treatment will only be effective when honesty among all participants is maintained throughout the home-school communication interventions; in other words, the process will not necessarily be simple or straightforward, and some challenging behavior may occur, particularly in the early stages; this will also need to be reported and discussed among participants. A proposed intervention can only be successful when the teacher considers it to be a valid and acceptable means for reducing behavioral difficulties faced by children with ADHD, and implements it accordingly.

### **Conclusion**

Although this literature review presents an array of perspectives on ADHD, and describes the different discourses shaping how ADHD is perceived, overall, ADHD emerges overall as a negative phenomenon that must be controlled and fixed; it is the medical discourse that ultimately dominates. Yet a recent study found that hyperactivity symptoms, which are common among children with ADHD, in fact help them learn. The squirming movements of children with ADHD are vital to the ways in which they remember information and do complex cognitive tasks (Sarver *et al.*, 2015). One approach that diverges from the dominant negative account of ADHD recommends working with children to express themselves in ways which recognize their emotional, relational nature (Timimi, 2017). Bader *et al.* (2018) emphasize that poor situational contexts are associated with more evident symptoms of ADHD. It is these situations that may need to be addressed as well, not only the behavior of the child; I found much evidence for this in Saudi schools, for example (see Chapter seven).

Overall, psychodynamic and social construct accounts conceive of ADHD more broadly, and from them, a range of approaches that seek solutions in modifying the

social/school environment, focusing on family/social relations, increasing lay knowledge and addressing underlying child needs have emerged. But the portrayal of this phenomenon as assessed in media accounts remains a mostly negative one. My field research and analysis bears this out in the chapters that follow, before referring back to the more broadly focused, situational and relational approaches of psychodynamic and social construct accounts, and what they might contribute to the kind of setting I studied and the children, families and teachers who inhabit it.

## Section Two: Foucauldian Theory

To answer the question, “What is Foucauldian theory?”, this section addresses the key Foucauldian concepts that form the basis of his post structuralist theory: *discourse*, *power*, and *knowledge*. The application of these three core concepts is what unites researchers who adopt Foucauldian theory because Foucault did not provide a systematic guide as to how to apply his work (Wetherell, Taylor, & Yates, 2001). The core of Foucauldian thought encourages researchers to be unsystematic experimenters who think differently rather than systematic theorists who validate what is already known (Foucault, 1991). Thinking differently entails challenging taken for granted concepts and simplified worldviews by revealing the historical and contingent nature of such concepts, which traditional research has viewed as absolute and universal (Taylor, 2014). What is important for Foucault, then, is conducting an “ontology of the present” a process in which a researcher seeks to identify the conditions that continue to legitimize the concepts investigated rather than searching for the purportedly “universal structures of knowledge” that ground them (Foucault, 1984). Hence, Foucauldian theory is about challenging domination and fostering change (Taylor, 2014).

Foucault is concerned with how particular mainstream discourses became dominant and seemingly factual, while others are marginalized (Parker, 1994; Willig, 2008). He strongly emphasizes the way power relations and meanings are established by language, as “discourses facilitate and limit, enable and constrain what can be said, by whom, where and when” (Willig, 2008, p. 172). What we can do and what can be done to us is, therefore, affected by the social consequences of discourse (Burr, 2003). The aim of the present study is to explore in depth the ways in which ADHD is constructed in the discourses employed by the AFTA Twitter account and by Saudi parents, teachers, and clinicians associated with ADHD and to map out the dominant ADHD discourses as well as the discourses resisted

(criticized, discredited) (Burr, 2003) in light of the three Foucauldian concepts mentioned above.

ADHD is a space where individuals are on display in prominent ways; the use of Foucault in exploring Saudi ADHD discourses, therefore, not only makes for a complementary pairing but also fills a gap left by the existing Saudi quantitative literature. Applying Foucault's concepts will help the present study to identify constructions of ADHD and track their changes and challenges through an analysis of the power-laden discourses that form them and will also afford opportunities to challenge the dominant ADHD discourses and to illuminate the marginalized ones.

This section discusses Foucauldian theory by describing, first, the notion of *discourse* as a key concept in the study as well as the notion of *power/knowledge* and its relation to discourse; and finally, the notion of *subjectivity* and its relation to discourse and power.

### **Discourse**

The term *discourse* in a Foucauldian sense can be examined on a number of levels. As Foucault (Foucault, 1972, p. 80) puts it, discourse is understood “sometimes as the general domain of all statements, sometimes as an individualizable group of statements, and sometimes as a regulated practice that accounts for a certain number of statements.” In the first part of this quotation, discourse is understood as a “general domain” structured by the internal linguistic rules of its nature and processes. In this sense, discourse raises questions such as what the rules are that govern a particular utterance (Foucault, 1972). This characterization of discourse marks the beginning of Foucault's work, which was influenced by structuralist ideas. However, Foucault went beyond structuralism by integrating notions from pragmatics such as *speech acts* (Angermuller, 2014). This deeper notion of discourse is defined in the last two parts of the quotation as “individualizable group of statements” and as “a regulated practice,” which together express the notion that discourse is made up of groups

of related statements that merge together to produce both meanings and effects in the real world (Foucault, 1972) – ADHD, for example, as a group of related statements or discourse, is spoken of via speech, texts, or practices that come together to form a representation of ADHD. In this sense, discourses are productive because they produce “the objects of which they speak” (Foucault, 1972, p. 42). The term *discourse productivity* can be performed from different angles.

In one sense, discourses are productive in being constitutive (Foucault, 1977a), meaning they construct a particular version of “truth” about a topic or the object of which they speak. For example, discourses construct some students who fidget as “real” students with ADHD, who are hence exempt from teachers’ punishments, while others who fidget are constructed as acting out and, in turn, needing to be controlled.

Discourses are also productive through its power effects. For example, the discourse about students with ADHD as difficult to deal with operates to produce a particular truth about individuals with ADHD that seeks to invalidate other representations of them. Discourse is everywhere; hence, “all actions have meaning, and to produce and disseminate meaning is to act” (Torfing, 1999, p. 49).

Finally, discourses are productive in being flexible (Foucault, 1990), in that they can draw upon an existing discourse about ADHD, for example, while utilizing, interacting with, and controlled by other dominant discourses, related to gender, family, or culture discourses, that produce additional ways of perceiving the disorder. These newly conceptualized ADHD discourses then connect to common sense ideas about ADHD that convey messages about what constitutes “good,” “bad,” “acceptable,” or “inappropriate” ADHD acts. Moreover, such accounts not only convey meanings about ADHD, they also affect individuals who have ADHD and the people associated with them.

In sum, Foucault's concept of discourse allows researchers to read discourses not only as being laden with power/knowledge but also as playing a critical role in producing power/knowledge networks (Wetherell et al., 2001).

### **Power/Knowledge**

In his early archaeological work, Foucault utilizes the term *power/knowledge* (*pouvoir/savoir*) to convey how an implicit knowledge (*savoir*) such as common sense or a taken for granted social construct plays a role in shaping the explicit knowledge (*connaissance*) of the disciplines that create human science (i.e. biology, psychology, etc.) (Foucault, 1972, p. 182). Knowledge, then, is socially formed and constructed by the effects of power and spoken of as their "truth." The role of power is significant in the production of knowledge and what counts as knowledge in a particular period of time (Foucault, 1990). For example, individuals displaying the characteristics of inattention, hyperactivity, and impulsivity have been reported by many scholars over the past two centuries. According to medical scholars, ADHD has undergone many changes in name and in conceptualization, often reflecting the way in which medical researchers at a given period in time constructed it, with the process culminating in what the dominant discourse says as the "truth" about ADHD today. According to these scholars, characterizations of ADHD have evolved from a "morbid alteration of attention" (Crichton, 1798), to a defect in moral control (Still, 1902), to a deficit in attention (Douglas, 1972), and finally, to a minimal brain dysfunction (Kessler, 1980). The fact that medical researchers claim ownership of such early studies and treat them as the medical discovery of ADHD tells us more about how power is constituted through the dominant discourse (Foucault, 1990) than about whether these studies were describing ADHD or not. The effects of power in the medical discourse have made outdated findings worthy of being considered, and they circulate among scholars as factual developments in ADHD knowledge. Rafalovich (2004) argues that the findings documented in Still's lectures,

for instance, should not be treated as the medical discovery of ADHD. Despite the fact that individuals in these early cases were institutionalized, there was no hypothesizing about neurological problems at that time, and Still's work reflects the influence of the dominant medical discourse of his peers (Rafalovich, 2004). We *can* say that there were children who showed inattentiveness or restless behaviors and were recognized as having attention and moral-control deficits in the past; but this historical statement is then refined, disseminated, and presented by medical discourse as about children with ADHD – a given basic fact. In describing the effects of power relations constituted through dominant discourses, in turn, specify knowledge and common sense, Spivak (1993) argues,

[I]f the lines of making sense of something are laid down in a certain way, then you are able to do only those things with that something that are possible within and by the arrangement of those lines. *Pouvoir-savoir* – being able to do something – only as you are able to make sense of it. (Spivak, 1993, p. 34)

Foucault problematize the meanings and positions of power. Power, in Foucauldian theory, has more a complex meaning than the English word *force* suggests. *Power (pouvoir)* has a dual meaning in French: in addition to force, it means capability or “being able to do” (Foucault, 1972) – being able to do something in order to influence negative as well as positive change. For Foucault, power has multiple forms and can be exercised from anywhere. He encourages researchers to think of power, not only in terms of the traditional top-down view, with the king at the top imposing his order on the people at the bottom, but also as inherent to the individual. Hence, power can arise from the bottom or from anywhere because it is present in all relationships kinds (Foucault, 1977a). He states:

[W]hen I speak of power relations, of the forms of rationality which can rule and regulate them, I am not referring to Power – with a capital P – dominating and imposing its rationality upon the totality of the social body. In fact, there are power relations. They are multiple; they have different forms, they can be in play in family relations, or within an institution, or an administration . . .” (Foucault, 1988, p. 38).

Yet, although power is always ever present, nothing is never outside it (Foucault, 1980, p. 141). Foucault emphasizes that power is distributed unevenly, and this is what

creates domination. Thus, not all discourses produce the same power relations. Dominant discourses have more power, authority, and validity than others. In the case of ADHD, biomedical discourses are the means by which the “truth” of ADHD is established. Thus, medical interventions become instruments of power. They serve to shape people with ADHD in the regulation of their behaviors. Teachers become instruments of power as well, by observing which students are most likely to manifest ADHD behaviors. Here, teachers’ observations are not at the top of the pyramid, but still held power because they subscribe to the dominant medical discourses. Teachers can perform power by recommending to parents of students who manifest ADHD behaviors that they consult a doctor, by altering their teaching strategies to medical discourses, or by resisting the placement of students with ADHD in their classes. Foucault encourage us to take into consideration this lower level of the pyramid when analyzing power practices:

Overall domination is not something that is pluralized and then has repercussions down below. I think we have to analyze the way in which the phenomena, techniques and procedures of power come into play at the lowest levels . . . show, obviously, how these procedures are displayed, extended, modified and, above all how they are invested or annexed by global phenomena, and how more general powers or economic benefits can slip into the play of these technologies of power. (Foucault, 1997, pp. 30-31).

Given that Saudi teachers and parents associated with ADHD have less power within the dominant ADHD discourses than clinicians do, Foucault’s understanding of hierarchal power is significant to this study.

### **Foucauldian Concept of Surveillance, Control and Discipline**

Foucault’s utilization of the metaphor of the ‘Panopticon’ allowed him to explore and deconstruct the concepts of surveillance, control and discipline. The Panopticon is an architectural design by Jeremy Bentham dating from the late 18th century for prisons, asylums, schools, and hospitals. In his book *Discipline and Punish* (Foucault, 1977a), Foucault used the concept of the Panopticon to investigate the relationship between social control and the practices of discipline that people encounter in different public contexts. His

intention was to exemplify the power of surveillance over a large group of people by a central authority. The Panopticon offered a powerful internalized force of surveillance of prisoners, a process in which prisoners are separated from one another with no interaction or communication allowed. The structure of the Panopticon allowed prison guards to observe inside the prison cells from their place in a central observation post. While it would be impossible for the guards to observe each prisoner every moment, the prisoners cannot see the guards, so they must assume that at any point in time, the guards are observing them. This continuous gaze works as a control technique for internalizing constant surveillance. Thus, if individuals assume that they are under surveillance all the time, then in turn, they will discipline their own behavior in accordance with the rules.

Foucault emphasizes that the gaze not only operates from top to bottom in a hierarchical manner, with guards surveilling prisoners, for example; but it may also function in a multi-directional manner, to the extent that guards or other types of supervisory staff members in different settings observe and report on each other (Taylor, 2014). For example, junior doctors, nursing supervisors and support staff who interact with patients in healthcare settings observe and/or treat patients, gathering and transmitting information about them to the senior doctor (Foucault, 2006). Yet, supervisors of one kind or another not only report on the people they are observing (prisoners, patients, students, etc.) but are also informing on one another. As Foucault puts it:

Although surveillance rests on individuals, its functioning is that of a network of relations from top to bottom, but also to a certain extent from bottom to top and laterally; this network “holds” the whole together and traverses it in its entirety with effects of power that derive from one another: supervisors, perpetually supervised. (Foucault, 1977a, p. 176)

Such networks of surveillance, characterized by a multi-directional gaze, facilitate disciplinary power; but at the same time, the ways in which the mechanism of disciplinary power operates allows it to remain inconspicuous (Foucault, 1977a). This disciplinary power

then, depends on normalizing judgement for its continued exercise (Taylor, 2014). Hence, even a small departure from 'norms' is considered deviant and, in the context examined by Foucault, could subject a transgressor to a range of punishments. Taylor (2014) summarizes Foucault's discussion of forms of punishments in Panopticon-style prisons as follows:

First, even minute departures from correct behaviour are punished; second, failure to adhere to rules established on the basis of regularities observed over time is punished; third, exercise is used specifically as a corrective punishment; fourth, gratification is used in addition to punishment for the purposes of establishing a hierarchy of good and bad subjects; and, finally, rank understood as the place occupied in this hierarchy is used as a form punishment or reward (Taylor, 2014, p.31).

Here the concept of the 'norm' is apparent: it is judged by disciplinary power in accordance with accepted standards of normal or abnormal behaviors in a given context. The circulation of discourses regarding normal/abnormal behaviors made possible a push in social control, where members of a given social group gaze at each other, signaling behaviors that deviate from the norm. In the context of the present research, the medical discourse surrounding ADHD in general, and APA's DSM discourse in particular, influence parents of children with ADHD-like symptoms to evaluate the child's behavior as deviant. According to DSM regulations, any behavior that deviates from the norms established in the DSM, representing a consensus amongst clinicians in psychiatry, are seen as symptoms of a disorder and considered problematic. This clinical gaze, as Foucault (1975) calls it, has been extended beyond medical experts to parents and teachers, who are expected to monitor and observe children for possible symptoms. In the context of joint home-school programs discussed previously, it operates in a multi-directional manner to the point of mutual teacher and parental surveillance not only of ADHD children but also of each other, as they carry out a mutually agreed program of reinforcement strategies at home and at school. Any slippage of the child's behavior could be seen as a failure by one or the other (or indeed both) to implement the agreed interventions.

### Subjectivity

For Foucault, the way people become subjects is another vital topic. He argues that power applies to

immediate everyday life which categorizes the individual, marks him by his own individuality, attaches him to his own identity, imposes a law of truth on him which he must recognize and which other have to recognize in him. It is a form of power which turns people into subjects (Foucault, 1982)

Moreover, inasmuch as such power is produced through discourse, people are both subject to and the subject of discourses, and subjects do not pre-exist discourse – they are constituted within it (Fairclough, 1992). Discourse is believed to make available a space for selves to occupy (Willig, 2008). Foucault defines *subjectivity* as what people create about themselves when they dedicate themselves to taking care of themselves (Taylor, 2014). Foucault adds that the subject is not a self-standing entity that exists in isolation from the world (Foucault, 1977b). Produced by activities that are infused with power relations, subjectivity is a dynamic, active relationship creating multiple subject positions (M. Foucault, 1984).

If one subscribes to Foucault, then being a child with ADHD, for example, exists as a result of relational activities. This ready-made character of the self is brought into existence by number of disciplinary power activities. As the child passes through different institutions, such as home, school, and doctors' offices that give form to the child's life, he/she is caught in a web of choices, necessities, and desires. He/she interacts with different kinds of experts who work to help him/her become a happy, disciplined, productive individual in society. He/she occupies different subject positions – child, student, son/daughter, brother/sister, patient – that are dynamic, active, and inseparable. However, a number of discourses surface simultaneously, and subjects can act to defy dominant discourses by taking up counter-discourses. Foucault (1982) argues that it is “power which makes individuals subjects” in the sense of “subject to someone else by control and dependence” and of “tied to [one's] own

identity by a conscience or self-knowledge.” Thus power is inherent to the discursive systems.

In summary, Foucault’s interrelated notions of discourse, power, knowledge, and subjectivity provide the present study with the opportunity to analyze in depth the concept of ADHD in Saudi Arabia and shed a light on Saudi Arabian ADHD knowledge and discourses in light of power relations and subjectivity.

### **Section Three: Methodology**

As demonstrated by the preceding review of literature, Saudi literature on Attention Deficit Hyperactivity Disorder (ADHD) is still limited and exploratory. Research on ADHD has mainly used quantitative methods, which do not contribute to an in-depth understanding of experience. The present study adopts a Foucauldian discourse analysis approach to explore the dominant Saudi ADHD discourses by collecting empirical evidence from interviews and Twitter posts. The interviewees were drawn from parents, educators, and clinicians associated with ADHD in Saudi Arabia. Their experiences, along with AFTA Society Twitter posts, formed the basis of the study (AFTA is the Arabic acronym for ADHD).

This section discusses the Foucauldian framework for the methodology and then describes the research design, methods of data collection, methods of analysis, and presentation of findings. Finally, it discusses the ethical considerations involved in dealing with data and the methodological challenges that were encountered in data collection. There were some recruiting challenges to overcome throughout the course of data collection. Therefore, some of the proposed data collection procedures were not followed as planned. However, the necessary changes were made and resulted in the successful collection of rich data.

#### **Foucauldian Framework for Methodology**

In order to obtain an in-depth understanding of the ADHD discourses that framed the participants' lives, a Foucauldian qualitative approach was utilized and was connected to the initial research questions:

1. How do Saudi parents, educators, and clinicians view their lived experience of ADHD, and how can the ways they view their experiences be understood in relation to the multiple and competing discourses of ADHD that frame their daily lives?

2. What ADHD discourses do Saudi parents, educators, and clinicians draw upon as they describe their experiences of ADHD, and what discourses do they?
3. What ADHD discourse(s) in the AFTA Twitter posts are produced, and what discourse(s) are neglected or absent?

A Foucauldian stance on research, a stance influenced by poststructuralist ideas, needs to be distinguished from the traditional research approaches wherein the researcher's concern is finding truth (Taylor, 2014). From a Foucauldian point of view, paradigms that claim to search for truth are another "quest for and the repetition of an origin that eludes all historical determination" (Foucault, 1972, p. 25). Here, the essence of Foucault's argument is that specific methods applied with the aim of searching for truth are no more than an outgrowth of the same discursive practices that produced those methods. Foucault does not disapprove of *truth*, but he encourage researchers to "historicize grand abstractions" (Foucault, 1984, p. 4) because *reality*, in a Foucauldian sense, is constructed by discourses as "a sequence of multiple and changing perspectives each creating a fragment of the 'total' meaning" (Cataldi, 2004, p. 70). Foucault's aim, then, is to understand the plurality of meaning in order to grasp a fragmented reality (Cataldi, 2004). He is concerned with the operations of discourses where meaning is never an absolute, the subject is seen as a set of shifting and unstable positions, and the discourse participants process the subject as they take part in the discussion (Angermuller, 2014; Harris, 2001 ).

Thus, Foucault methodology offers researchers a critical lens through which to question the relationship between the interconnected triad: discourse/power/knowledge. Foucault's methodological approaches for examining this triad are called *archaeology* and *genealogy*.

## **Archaeology**

*Archaeology* gives a descriptive account of how statements of knowledge are regulated (Stevenson & Cutcliffe, 2006 ). In *The Order of Things* (1970), Foucault applies archaeological methods to investigate the “human sciences.” His work is based on a theory of knowledge that systematically examines what can be thought and said in a society at various periods and epochs. The aim is to reduce these thoughts and this speech to a specific code in order to “replace the fiction of direct reference” (Said, 1978) and shake the fundamental beliefs that govern the stability and consistency of concepts such as “man,” “consciousness,” and “subjectivity” (Foucault & Hoy, 1986). The main premise of the archaeological method, then, is that the system of discursive objects is disciplined by rules, beyond those of grammar, that act below the consciousness of individuals and give meaning to a system that decides the boundaries of thought in a given epoch. An archaeological methodology shifts the question from “According to what rules has a particular utterance been made?” to, in describing a discursive formation, “How is it that one particular utterance appeared rather than another?” (Foucault, 1970, p. 30). Archaeology works to lessen certainty and expose the truth about the absolute existence of discursive objects. The approach, which aims to describe regularities, differences, and changes in relation to statements over time, not only opened new ways of thinking about language (i.e., as language in use rather than as isolated abstract signs) but also influenced Foucault to change the focus of his intellectual journey from theorizing about discourse exclusively to studying discursive practices in relation to the history of human science and power (Williams, 2005 ) in a so-called *Foucauldian genealogy*.

## **Genealogy: A History of the Present**

*Genealogy* attempts to understand the ways in which archaeology is brought into play in daily practices (Foucault & Hoy, 1986). The central focus of this approach is a close study of discourse to reveal the power/knowledge networks in modern society (Dreyfus &

Rabinow, 2014). It involves exposing, as much as possible, the stability, authority, and power relations inherent in a given discursive formation (Said , 1978) rather than accepting grand narratives (Williams, 2005) and absolute truth. In examining the history of discursive objects and its present manifestations, the goal is to map the strategies, relations, and practices of power in which knowledges are embedded in order to reveal something about the nature of power/knowledge. This can, in turn, suppress the primacy of the origin of the dominant truth. Thus, in the present study, a genealogical approach was used to interrogate Saudi discourses about the discursive formation of ADHD, with the aim of tracking the regimes of power/knowledge involved in this construct.

### **Foucauldian Discourse Analysis**

A Foucauldian discourse analysis (FDA) stresses the importance of discourse and of how knowledge with its societal practices, types of subjectivity, and power relations are constituted through discourse (e.g., Arribas-Ayllon, & Walkerdine, 2008 ; Harper, 2007). FDA focuses on describing and showing the ways power manifests itself by means of language. Thus, it aims to recognize and demystify the reciprocal power/knowledge relations that arise in the discursive practices of participation. Using FDA to understand how ADHD discourse(s) were understood by Saudi parents, teachers, and clinicians, as well as in AFTA Twitter posts, was a challenging task. A key challenge was to understand rather than explain reality (Sandu, 2011 ), a process that always includes the enmeshing of the researcher's subjective self in the research (McLaren, 2009 ). It is recognized here that the social role of the author in gathering data, providing analyses of that data, and making a legitimacy claim about the interpretation of the data is the result of the ongoing asymmetry of power between the dominant and less dominant discourses (Denzin, 2000). Nevertheless, for the sake of finding common ground in discussing the findings of my qualitative research, I argue that being open and reflexive in my role as an active agent whose identity is constituted through

the research process and acknowledging the expertise I developed as a researcher through having studied abroad worked to strengthen the analysis by exposing the ways in which my subjective experiences interacted with the research object. A theme in all of Foucault's work is his reluctance to clearly outline his approaches (Tamboukou, 1999). Taking Foucault's work seriously places us in a position relative to dominant modes of thought that may work to prevent us from reaching any definitive knowledge either of the world or of the "limits" of our ability to know and act within that world (Foucault, 1984). Researchers are, as he puts it, "always in the position of beginning again" (p. 47). Despite these constraints, the researcher must examine the interrelated web of discourse, knowledge, and power through a practitioner lens rather than as a theorist. FDA is concerned with how subjects/objects are created within discourse (Fairclough, 1992; Graham, 2005). The researcher's role is to explore and unpack truths in order to seek to understand the hidden conditions of power that hinder or enable subjects' possible actions (Graham, 2005).

### **Research Design and Methods**

In order to conceptualize discourses about ADHD in Saudi Arabia, the present study investigated the following: (1) the discourses and experiences of parents, educators, and clinicians involved with ADHD, and (2) the ADHD discourses in AFTA accounts on social media; namely, Twitter. A Foucauldian methodology is an effective qualitative approach for investigating such discourses because it allows for a thorough, contextual, and comprehensive description of the discourse that is the subject of an inquiry. In this study, analyzing the data through a Foucauldian discourse analysis (FDA) lens could bring to light the common and divergent elements of the varied discourses of each participant and resource.

The remaining sections of this chapter describe the design of the study.

To trace the ways in which discourses about ADHD make their way into everyday life, I collected data from in-depth interviews with the participants, then I reviewed data from

ADHD-related posts on the Saudi AFTA Society Twitter account. Notes from the interview transcripts and AFTA Twitter account form the basis of my findings.

In the proposed plan, the study was to focus on ADHD in Jeddah, Saudi Arabia. However, I faced some challenges in recruiting parents from Jeddah. Only four parents from Jeddah agreed to participate in the study, which made it necessary to expand my participant recruitment outside of Jeddah. I recruited two parent participants from Riyadh and one from Alsulayyil. More details about the challenges of recruiting participants will be presented in the section on participant recruitment.

### **Site Selection**

Site selection began in Jeddah. Jeddah is the second largest city in Saudi Arabia, with a population estimated at 3.4 million. The selection of particular schools was deliberate. The sites included government funded elementary schools for girls in Jeddah that offered ADHD educational programs. These sites allowed different teachers to be interviewed and share their views of ADHD by drawing from their experiences. The criteria for selecting schools were (1) having implemented an ADHD program guided by the Saudi Ministry of Education, (2) having adopted inclusion criteria for students with ADHD, and (3) having teachers being part of the implementation of the ADHD program. Using these criteria, three government elementary schools for girls were selected in Jeddah. These schools were located in three quarters of Jeddah (north, center, and southeast), which enriched the data with demographic, geographic, and social class diversity. The three schools chosen were the only elementary schools for girls in Jeddah that had an ADHD program. The *School Planning–Jeddah Guide* list indicates that these schools adopted inclusion criteria for students with ADHD. Schools in the southwest of Jeddah were excluded due to the absence of inclusion practices. For cultural and religious reasons, girls and boys attend gender-segregated schools in the Kingdom of Saudi Arabia. Moreover, only females are permitted to visit girls' schools, and if necessary,

men can telephone the girls' schools, and vice versa. Because I am a female researcher, it was difficult to include male teachers in the study. There was no site selection done in Riyadh.

### **Research Participants**

The selection criteria for the participants was applied in the following manner.

#### **Parents**

The study aimed to include six parents who

- had a child/ren with ADHD between the ages 7 and 14 years (This range reflects the age group in which ADHD symptoms are most apparent and children encounter difficulties at school);
  - had child/ren who had received a formal diagnosis of ADHD or any of its subtypes;
- and
- lived in Jeddah.

However, due to challenges I faced during participant recruitment, I had to change the age criterion to children under 14 years old, with no minimum age. I also had to include parents from Riyadh and Alsulayyil.

#### **Teachers**

The study included six teacher participants. Each teacher taught at least one or more children diagnosed with ADHD. Teachers' knowledge of ADHD was not mandatory.

#### **Clinicians**

The study consisted of four clinicians who provided diagnosis and/or treatment of ADHD. This number of participants was low enough to ensure the feasibility of the study, and it was high enough to ensure a variety of participant perspectives and to offer a rich picture of their experiences with regard to ADHD discourses.

### **Procedures to Access Sites and Participants**

To gain access to the schools, on October 21, 2016 I obtained ethical clearance from the University of Ottawa (see Appendix B). Next, I obtained a letter from the Saudi Arabian cultural attaché in Canada addressed to the General Administration of Education in Jeddah asking for authorization to conduct the study. I sent both letters, the interview guide for teachers, and an abstract of my study proposal to the General Administration of Education in Jeddah. By the end of November 2016, I had obtained an ethical clearance letter from the General Administration of Education in Jeddah addressed to the three schools. When I had obtained that letter, which would enable me to access the schools, the next step in the process was to access the teacher participants.

### **Participant Recruitment**

Participants' names are not been mentioned in this dissertation; instead pseudonyms or job titles are used to identify the participants.

To recruit teachers, on Sunday December 11, 2016, I visited the school located in the north of Jeddah. I introduced myself to the principal's secretary as a researcher, I showed her the General Administration of Education letter, and I asked to meet with the school principal. In a few minutes, I met with the school principal, introduced myself, showed her the General Administration of Education letter, explained the purpose of my visit and my study, and asked her permission to go to the teachers' room during the lunch break to recruit teachers. I chose the lunch break time (9 a.m. to 9:30 a.m.) purposely because that was the time of day that most of the teachers would be there. During the lunch break, I went to the teachers' room and presented myself as a student who wanted to learn about the experiences of two teachers with regard to ADHD. I read the letter that described the purpose of the study to all the teachers in the room and gave a detailed explanation of the intention of my study and a detailed explanation of the process of the interview. I invited them to ask any questions

regarding the study or the process. The teachers asked questions about the process of recording the interview and the privacy of these recordings. I addressed their questions and concerns, assuring them that the recordings would remain private and that I and the research supervisor were the only ones who would have access to the recordings for research purposes only.

I told them that I was seeking to recruit two teachers who taught students with ADHD and who were willing to participate in the study. Two teachers spoke up immediately and said that they were willing to participate in the study because they had had challenging experience with a student who was diagnosed with ADHD. One teacher was the main classroom teacher for this student and the other teacher was the special education teacher. I invited each of them to propose a day and a time that worked for her. Interview times convenient for each recruited teacher were set during normal working hours. The classroom teacher chose the second period on December 18, 2016. The special education teacher chose the fourth and fifth periods of the same day. At the time of each interview, I read the consent form aloud, explained it, and answered any questions the teacher had; then, I invited the teacher to sign the form (see Appendix D). The consent form guaranteed that the data obtained in the interview process would be confidential and that any publication of the material would protect participant anonymity.

I visited the other two school in the center of Jeddah and in the southeast of Jeddah and followed the same teacher recruitment procedure with no exceptions.

To recruit clinicians, I accessed the Saudi AFTA Society website, which had a list of all the doctors who provided treatment and/or diagnosis of ADHD in Saudi Arabia. On the AFTA website, there were 13 clinicians: 6 psychiatrists, 5 clinical psychologists, and 2 neurologists working in different locations. The proposed plan was to contact the first two from each specialization in order to inform them about my study, and invite them to

participate in the study. I began my search in late October, 2016, but I failed to get any direct contact with the clinicians. The clinicians' contact numbers available on the website were hospitals phone numbers, direct office numbers, or cellphones. If the number was the cellphone, I called and sent a copy of the invitation letter (Appendix C). In all cases, I failed to get a direct contact with the doctor.

In December, 2016, I tried other approaches to recruit clinicians. I searched for clinicians on social media; namely, LinkedIn and Twitter. I used doctor names from the AFTA website as a guide, but these names did not prevent me from searching for other clinicians in Jeddah: family doctors, psychiatrists, clinical psychologists, or neurologists. On LinkedIn, I emailed the letter of invitation (see Appendix C) to four child psychiatrists, a consultant (three males and a female), a family doctor consultant (a female), and a clinical psychologist consultant (a female). The family doctor consultant was the first one to respond, and she agreed to participate in the study. I invited her to schedule a day and a time that worked for her. She invited me to come to her office on December 8, 2016, at 12:00 p.m. On the day of the interview, I read the consent form, explained it, and invited her to sign it (see Appendix D).

The clinical psychologist consultant also responded and agreed to participate in the study. I invited her to schedule a day and a time that worked for her. She indicated that she would be very busy until January 14, 2017. She taught at a private university, and for her, December was an exam period and would be followed by a conference in Europe. She provided me with her cellphone number and asked me to contact her after January 14, 2017. I sent her a message on January 15 and invited her to schedule a day and a time that worked for her. She scheduled January 25, at 7:00 p.m., to do a phone interview, which was her preference. Two days prior to the interview, I emailed her the consent form and invited her to sign it and email it back to me if she had no questions (see Appendix D). On the day of the

interview, she emailed it back to me and indicated that the form was clear and she had no questions.

One of the four child psychiatrist consultants responded and provided me with his cellphone number and asked me to contact him via WhatsApp for additional information. I contacted him via WhatsApp, and he asked questions about the study, the interview questions, and its duration. I explained the study and said that I wanted to learn from his experiences regarding ADHD in Jeddah. I told him that the interview duration was between 40 minutes and an hour. He objected that 40 minutes was too long; like a duration of an exam. I made it clear that the interview was just a discussion about ADHD and that he could refuse to answer any question or cease the interview session at any time. That way he could decide the duration of the interview. Once I had his approval to participate, I invited him to schedule a day and a time that worked for him. He invited me to come to his office on January 29, 2017 at 1:00 p.m. On the day of the interview, I read the consent form, explained it, and invited him to sign it, if he had no questions (see Appendix D).

With regard to the other three child psychiatrist consultants, two of them read the LinkedIn message but did not respond. The third one responded with apologies that ADHD was not his specialization, but he provided me with a list of the names of ten clinicians and told me that those ten were the top doctors specializing in ADHD in Jeddah. I thanked him and asked for some of their contact numbers (the ones that I had not contacted yet or whose contact information I had not found on LinkedIn or Twitter), but he apologized that he could not share this information.

I searched on Twitter for the clinician names that I had been given by the psychiatric consultant. I found five of them and sent each a general message stating that I was a student researcher interested in ADHD and asking them to accept my invitation to connect so that I could send them a private message. Once they accepted, I sent each a letter of invitation (see

Appendix C). Two clinicians accepted my invitation to connect. One of them was a pediatric consultant; I sent her the letter of invitation to her Twitter account by direct message. Once I had her approval to participate, I invited her to reserve a day and a time that worked for her. She provided me with her cellphone number and asked me to contact her on January 13, at 12 p.m., for a phone interview. Two days prior to the interview, I emailed her the consent form and invited her to sign it and email it back to me if she had no questions. I contacted her on the day of the interview, but she did not respond. I sent her a message to ask her if she would like to postpone the interview or if she had decided to withdraw, but she did not respond.

The other clinician who accepted my invitation to connect was a child psychiatrist. I sent the letter of invitation (see Appendix C) to her Twitter account by direct message. Once I had her approval to participate, I invited her to schedule a day and a time that worked for her. She provided me with her cellphone number and asked me to contact her on January 18, at 11 a.m., to do a phone interview, which was her preference. Two days prior to the interview, I emailed her the consent form and invited her to sign it and email it back to me if she had no questions (see Appendix D). On the day of the interview, she emailed it back to me and indicated that the form was clear, and she asked about the process of publishing my research. In total, only four clinicians agreed to participate in the study.

Recruiting parents was the most challenging part of the data collection process. The proposed plan was to communicate with each school counselor and invite her to distribute the recruitment text (see Appendix C) to parents of children with ADHD who might be interested in participating in the study. The school counselor could communicate with parents of children with ADHD via email or telephone, introduce my research, and ask their permission to send the recruitment text to them if they were interested. In each of the three schools I visited, after my meeting with the school principal, I met with the school counselor and invited her to distribute the recruitment text. The school counselors agreed and promised to

do their best to communicate with parents of children with ADHD. Out of the three schools, only one mother contacted me, and said that she and her husband were willing to participate in the study, they asked me to contact them on December 29, at 7 p.m., to conduct a phone interview. Two days prior to the interview, I emailed them the consent form and invited them to sign it and email it back to me if they had no questions (see Appendix D).

Another part of the proposed plan was also to communicate with each clinician and invite him/her to distribute my cellphone number to parents of children with ADHD who might be interested in participating in the study. After conducting each interview, I invited the clinicians to distribute my cellphone number to parents of children with ADHD who might be interested in participating in the study. The clinicians agreed and promised to talk to parents of children with ADHD at the time of their children's appointments. However, no parent referred by doctors contacted me.

In January 2017, I tried other approaches to recruit parents of children with ADHD. I searched for parents of children with ADHD on social media; namely, Instagram and Twitter. I used the terms *ADHD*, *parent of children with ADHD*, and *parent of children with ADHD groups*. The proposed plan was to include four to six parents from Jeddah with children between 7 and 14 years old who had received a formal diagnosis of ADHD or any of its subtypes. However, due to the difficulties I had encountered in recruiting parents via school counselors or clinicians, I expanded the age range in order to recruit more parents. I altered the age criterion to children under 14 years old, with no minimum age.

I searched Twitter for parents or groups of parents in Jeddah with children who had been diagnosed with ADHD. I found two ADHD parent groups and one parent of a child with ADHD. I sent them each an invitation letter stating that I was a student researcher interested in ADHD and asking them to accept my invitation to connect. I did not get a response from the two parent groups. One parent accepted my invitation and I introduced my study in a

private direct message and invited her to participate. She asked me to send her a questionnaire or type the interview questions so that she could answer me in a direct message. I explained to her that I would like to discuss her unique experience as a parent of a child who had ADHD. She said that she was sorry, but she could not participate an interview in person or in a telephone call.

On Instagram, I searched for parents or groups of parents from Jeddah with children who had been diagnosed with ADHD. I found the account of a mother of a child diagnosed with ADHD, named Aliya (not her real name). I contacted her privately, and it turned out that she had created, on WhatsApp, a parent group of mothers whose children had ADHD. I invited her to share the recruitment text with members from Jeddah in her group. She accepted and in a couple of days two mothers contacted me via WhatsApp. I explained my study to them individually and invited them to participate in the study. They agreed to participate and asked me to contact them to conduct the interview. Both mothers indicated that a telephone interview was their preference. The first mother chose January 14, for the phone interview; the second one chose January 30. Two days prior to each interview, I emailed each of them the consent form and invited them to sign it and email it back to me if they had no questions.

On January 20, I contacted Aliya for the second time and explained to her that I had only four parents from Jeddah and I that needed her help to share the recruitment text with all the members in her group and that a first-come, first-served approach would be used with three more parents. Four mothers from Riyadh and one from Alsulayyil contacted me via WhatsApp. I explained the first-come, first-served approach and invited the first three to set a date and time for an individual interview. I explained my study to each individually and invited her to participate in the study. They all agreed to participate and asked me to contact them to conduct phone interviews. The first mother chose January 22, the second one chose

January 28, and the third one chose January 31. Two days prior to each interview, I emailed the interviewee the consent form and invited her to sign it and email it back to me if she had no questions.

### **Data Collection Methods**

Data were collected using two instruments: a Twitter posts review and interviews.

#### **Social Media Review: AFTA Twitter posts**

The proposed plan was to use the Saudi AFTA Society (AFTA) website (<http://adhd.org.sa>) as the main resource for collecting documents to review. However, an important feature of qualitative research is its flexibility in response to emerging data. All of the participants in the interviews I conducted indicated that when they accessed AFTA resources, they always did so, not through the AFTA website, but through the AFTA Twitter account (@adhdarabia). So, I decided that I would not review documents on the AFTA website as planned but would review tweets on their Twitter account.

The Twitter account review was used as a data collection technique in order to analyze ADHD discourses about ADHD resources for parents, teachers, and clinicians in Saudi Arabia. This phase was linked to Research Question 3: “What ADHD discourse(s) in the AFTA Twitter posts are produced, and what discourse(s) are neglected or absent?” The Saudi AFTA Society branch in Jeddah was established in 2013 with the aim of providing support and services for people with ADHD and raising awareness about this disorder. I contacted them in an attempt to gain access to the society and its resources; however, due to planning and staffing issues, the AFTA Society could not guarantee sufficient information or community participation. However, many ADHD resources were available on the AFTA website or on social media such as Facebook, Instagram, Snapchat, and Twitter. Given that the AFTA Twitter account was the major source from the AFTA Society that the participants had indicated they accessed, I used it as the main source for data reviewing. The Saudi AFTA

Society Twitter account (@adhdarabia) has over 13.5K followers, with more than 8,457 tweets.

Tweets posted to the AFTA Twitter account between December 1, 2016, and January 31, 2017, were collected. Tweets that announced AFTA events and retweets from other accounts were eliminated. This resulted in 141 tweets that (1) discussed ADHD; (2) explained the nature, causation, or treatment of ADHD; or (3) represented experts', teachers', and parents' voices.

### **Interviews**

In-depth interviews offer valuable insight into human experiences. According to Fontana and Frey (2000), "interviewing is one of the most common and powerful ways in which we try to understand our fellow human beings" (p. 645). I conducted interviews with parents, teachers, and clinicians. The interviews were open-ended, which allowed me to extend the discussion to include emerging issues. The interview phase was linked to Research Question 1: "How do Saudi parents, educators, and clinicians view their lived experience of ADHD, and how can the ways they view their experiences be understood in relation to the multiple and competing discourses of ADHD that frame their daily lives?" and Research Question 2: "What ADHD discourses are Saudi parents, educators, and clinicians draw upon as they describe their experiences of ADHD, and what discourses do they resist (criticism, non-adherence)?"

Interviews with parents, teachers, and clinicians were audiotaped. Parents preferred telephone interviews. The length of parent interviews was between 46 and 84 minutes. Teacher interviews were conducted in person and occurred at the school sites. The length of teacher interviews was between 31 and 50 minutes. In all the schools, private rooms were provided for the interview(s), with only the participant and I present. Two clinicians preferred in-person interviews, which were conducted at their private offices, with only me and the

participant present. The other two clinicians preferred telephone interviews. The length of clinician interviews was between 39 and 60 minutes. I began each interview by explaining my role as a doctoral student who was highly interested in learning more about ADHD from key informants (Appendices E, F, G).

### **Methods of Analysis and Presentation of Findings**

As previously mentioned, the version of Foucauldian discourse analysis that this study adopted is Willig's six stages (2008). The first steps of data analysis involved reading and rereading the data. Then all the Arabic words, phrases, and implicit references that referred to the discursive object ADHD were systematically itemized. The initial phase of analyzing discourse was done by selecting, reading, and analyzing segments within one data set before moving on to another set. For example, I first read data from AFTA Twitter posts, and then data from interviews with parents, teachers, and clinicians, in that order.

I selected the first data set based on the final research question, which sought to understand the discourses that the AFTA Twitter posts were reproducing or neglecting. I analyzed them in Arabic, using Willig's stages. In analyzing the data, I examined ADHD as a discursive object in order to single out "an emergent set of categories and their properties which fit[ted], work[ed] and [we]re relevant for integrating into a theory" (Glaser, 1978, p. 56). I worked to identify the different ways in which ADHD was constructed in the text. I highlighted all instances (implicit and explicit) of references to the discursive object ADHD. Shared meaning rather than content analysis guided me in the deconstructions of the discursive object. For example, an AFTA Twitter post referred to ADHD as a "condition" and children with ADHD as "cases" and "sufferers"; the fact that, in this text, there was no direct reference to ADHD could shed light on the way in which the discursive object was constructed. The source made implicit references to ADHD as the cause of "the child's suffering," phrasing the discursive object (i.e., ADHD) as something negative. After

identifying all sections of text that contributed to the construction of the discursive object, I focused on locating the various discursive constructions of ADHD within the wider discourses (i.e., interviews with parents, teachers, clinicians). Next, I examined the discursive contexts within which the different constructions of ADHD were being deployed. What did AFTA personnel gain from constructing ADHD in this particular way? I examined the functions (knowledge/power), subject positions, as well as the ways a specific construction related to the other constructions (e.g., parents vs. teachers). This step allowed me to gain a better understanding of what the various constructions of ADHD were capable of achieving within the discourse and what positions within the networks of meaning the subjects took up. After analyzing the data in Arabic, I translated the Twitter results into English. I followed the same procedure with the interview data from parents, teachers, and finally clinicians, in that order. Overall, I worked to trace the consequences of the discourse for the discursive object and the subjects, the interrelation of the multiple discourses, and the way statements were used to perpetuate knowledge/power about ADHD.

Foucault did not provide researchers with a how-to guide to his methodology; thus, although applications of the concepts of discourse, power, and knowledge are common to all FDA researchers, the methods adopted vary. The version of Foucauldian discourse analysis that this study adhered to is that of Willig's six stages (2008), which poses the following questions:

- What are the ways in which the discursive object is constructed?
- What are the various discursive constructions of the object within wider discourses?
- What are the functions and benefits of constructing the object in a specific way?
- What are the different subject positions that these discourses offer?
- What is the relationship between discourse and practice?
- What is the relationship between discourse and subjectivity?

My findings will be presented in according to Willig's six stages. The first stage, *discursive construction*, involves identifying all the references, whether explicit or implicit, of the discursive object constructed in the text (Willig, 2008). The present study was interested in the ways in which people directly or indirectly talk about ADHD and with what consequences; hence, the discursive object was ADHD.

Stage two, *discourses*, locates the different constructions of the discursive object within wider discourses (Willig, 2008). In the present study, depending on the context, people might draw on different discourses when they talked about ADHD. For example, they might draw upon biomedical discourse in the context of talking about the process of diagnosis and treatment, and educational discourse when they talked about schools, teachers, and classmates' experiences.

Stage three, *action orientation*, examines the outcomes and implications of constructing the discursive object in a particular way (Willig, 2008). People's use of biomedical discourse, for example, might allow them to attribute responsibility for diagnosis and treatment to medical professionals.

Stage four, *positionings*, examines the subject positions offered by constructions of the discursive objects (Willig, 2008), such as, in the present case, patient or student with ADHD.

Stage five, *practice*, outlines the possibilities for action contained within discursive constructions. For example, the practice of opposing ADHD medications might be bound up with a discourse that constructed parents as uneducated or ignorant.

The last stage in the analysis explores the relationship between discourse and subjectivity. As Willig (2008) puts it, "Discourses make available certain ways of seeing the world and certain ways of being in the world" (p. 154), giving meaning to our social and psychological realities. This final stage, *subjectivity*, is concerned with the effect of subject

positions on the subject's thoughts, feelings, and experiences, such as, in the present instance, the feelings of guilt or burnout associated with being a parent of a child with ADHD.

Thus, the purpose of employing Foucauldian discourse analysis here was to map out and better understand the discourses of the discursive formation *ADHD* that both AFTA Twitter posts and Saudi parents, educators, and clinicians draw upon, resist, or neglect and to expose the power relations operating within these discourses in Saudi society.

### **Trustworthiness**

Ensuring trustworthiness in qualitative research requires rigorous analysis (Merriam & Tisdell, 2009). The researcher must provide findings and insights that make sense to readers in order to support the likelihood that readers will feel confident about applying the findings to their own situations. In conducting the present research, I concentrated on several trustworthiness principles to substantiate my interpretations. These principles are *credibility*, *transferability*, and *confirmability* (Merriam & Tisdell, 2009).

*Credibility* refers to the likelihood that the findings and interpretations will ring true to readers. To increase the credibility of the findings, I used two sources of data – first, a social media account review, and second, key informant interviews – that were then triangulated. Triangulation enables cross-verification of the data resulting from more than one strategy of data collection as a way of ensuring that findings can be based on multiple sources of information.

*Transferability* refers to the extent to which the findings of a study can be transformed and applied to other situations (Merriam & Tisdell, 2009). I worked to provide sufficient descriptive details to make it possible, to some extent, for the reader to apply the findings to other contexts.

*Confirmability* refers to whether the findings are grounded in the data itself or are simply the product of the interests of the researcher (Lincoln & Guba, 1985). For the present

study, I gathered raw data in the form of electronically recorded materials together with researcher notes on developing interpretations, data synthesis products, and reflections on each data-collection day. These notes will allow the dissertation committee to authenticate the findings of the study (Merriam & Tisdell, 2009).

### **Ethical Considerations**

With regard to meeting the ethical standards, I made sure not to talk about my experiences with ADHD, as I pointed out in the previous paragraph. I made sure to read and explain the consent form to the participants, emphasizing that participation was voluntary, that they could withdraw from the research at any point without consequences, and that their identities would be kept confidential throughout the study. This allowed me to gain their trust and gave them the confidence needed to openly share their experiences with ADHD.

To maintain confidentiality, pseudonyms were used in the data. All relevant information regarding this study was provided to the participants before they chose to participate in the study.

### **Chapter Three**

#### **ADHD in 140 characters or less: an analysis of Twitter commentary on Attention Deficit Hyperactivity Disorder in Saudi Arabia**

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### **Abstract**

Internet-based social networks such as Twitter are rapidly gaining popularity among Saudis, and an increasing number of them are using the internet to source information about Attention Deficit Hyperactivity Disorder (ADHD). The Saudi ADHD Society (known in English as the AFTA Society) is the only charity serving people with ADHD in Saudi Arabia. This article examines the representations of ADHD by AFTA Society members on Twitter, because they have come to define how ADHD is talked about in Saudi Arabia.

The AFTA Society Twitter account (@adhdarabia) has over 13,500 followers. Tweets posted between December 1<sup>st</sup>, 2016 and January 31<sup>st</sup>, 2017 were collected, with those announcing AFTA events and retweets from other accounts eliminated. This resulted in 141 tweets discussing the nature, causation, and treatment of ADHD. These tweets were analyzed using Foucauldian discourse analysis. Findings reveal that AFTA Society tweets construct ADHD as an experience of suffering, and position children with ADHD as sufferers, often subject to additional problems. An alternative discursive construction of ADHD is that caring for a child with ADHD is a 'different' kind of responsibility for parents and teachers, who must be advised by 'experts'. The implications of these discourses are discussed in this paper.

### **Keywords**

ADHD; Discourses; Twitter; Saudi; Foucauldian discourse analysis

## 1. Introduction

Internet-based social networks such as Twitter are rapidly gaining popularity among Saudis (Easton[26], 2013) and an increasing number of Saudis are using the internet to source information about Attention Deficit Hyperactivity Disorder (ADHD) (Alharbi[5], 2017). Twitter (<http://twitter.com>) is a web-based microblogging platform that allows registered users to post and read short text messages (up to 140 characters) commonly known as tweets (Anthony and Zhang[8], 2017). As of June 30, 2016, 10 years after Twitter launched, the number of users had grown exponentially, reaching 313 million per month globally (see <https://about.twitter.com/company> accessed May 16, 2017). Of the 58% of the Saudi population who use the internet (Kemp[44], 2015), 81% have a Twitter account (Global Digital Statistics[34], 2015). Saudi Arabia, with a population of 32 million, has the fastest growing number of Twitter users in the world (Easton[26], 2013).

Twitter offers researchers access to raw, real-time data (Kealey[43], 2012), and has been called “electronic word of mouth” (Jansen *et al.*, [40], 2009). The fact that real-time discourse is ‘searchable’ through Twitter, in a way and to an extent that is novel in history (Zappavigna[79], 2011), has made Twitter a fertile medium for academic research. Twitter in Saudi Arabia has been analyzed for commentary on political news (Allothman[7], 2013), a women’s right to drive campaign (Almahmoud[6], 2015) and women’s identity (Guta & Karolak[36], 2015). Internationally, Twitter studies cover a range of topics, from the statistical properties of Twitter use (Java *et al.*, [50], 2007) and the nature of Twitter users (Krishnamurthy *et al.*, [46], 2008), to its usefulness in raising public awareness of and response to emergency events (De Longueville *et al.*, [24], 2009; Hughes & Palen[39], 2009). Research has also investigated Twitter’s role in supporting individuals with mental health problems (Shepherd *et al.*, [66], 2015). McNeill and Briggs[53] (2014) conclude that “Twitter

can be a powerful tool for the dissemination and discussion of public health information” (p.673).

While ADHD in Western countries has long been recognized and increasingly diagnosed in recent years, there is a growing recognition of this disorder as a significant cross-cultural phenomenon (Hinshaw *et al.*, [38], 2011). ADHD is the most commonly diagnosed neurobehavioral disorder among children (Mannuzza *et al.*, [52], 2003; Zaki[78], 2013). Global prevalence of ADHD is 5.29 % (Polanczyk *et al.*, [59], 2007), but ADHD prevalence in Saudi is to date uncertain (Zaki[78], 2013). According to Saudi’s AFTA Society, prevalence of ADHD in Saudi Arabia is estimated to be 15%, (AFTA Society[3], 2008), which is two and a half times the prevalence of ADHD in North America (Polanczyk *et al.*, [59], 2007).

ADHD is a neurobehavioral condition characterized by three distinctive symptoms: inattention and/or hyperactivity, and impulsivity (Nigg[56], 2006). ADHD symptoms are defined in the Diagnostic and Statistical Manual of Mental Disorders (fifth edition, or DSM-5; American Psychiatric Association[9] [APA] 2013). Saudi Arabia uses the APA’s definition and criteria in assessing ADHD.

In 2004, the first (and still the only) organization serving people with ADHD in Saudi Arabia was established.<sup>2</sup> The Saudi ADHD Society (AFTA Society)<sup>3</sup>, with branches in Riyadh and Jeddah, aims to improve the lives of those diagnosed with ADHD through awareness programs and workshops (AFTA Society[3], 2008). The Society communicates with the public through various platforms: an official website, Facebook, Twitter, Snapchat and Instagram accounts.

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<sup>2</sup> It was granted charitable status in 2008.

<sup>3</sup> In English, AFTA conveys the Arabic acronym of ADHD

Cha *et al.*, [20]. (2010) found that influence is gained in Twitter use through concerted effort, such as tweeting about a single topic. The AFTA Society has over 13,500 followers with more than 8,457 tweets about ADHD as of January 31<sup>st</sup>, 2017. I interviewed six parents, six teachers, and four physicians associated with ADHD in Saudi; most of them said the AFTA Society's Twitter account was their primary source of information from the Society (Alharbi[5], 2017). As the discourses generated by the AFTA Society Twitter account have come to define how ADHD is talked about in Saudi Arabia, I decided to conduct the first study of ADHD discourses as reflected in Twitter use there. In this article, I identify these discourses and assess their implications for families, schools and treatment contexts.

### **1.1. Brief History of ADHD**

Many studies of mental disorders subscribe to medical interpretations that situate mental disorders firmly within the realm of medicine. The logic is that the same kinds of processes that cause physical diseases also underlie mental illness; hence they can be treated or cured in the same way – by medical interventions (Southall[67], 2007). This hypothesis has become widely accepted by medical authorities, but disputed by those who believe that ADHD is a construct caused by social factors and/or personality characteristics, and not an objective entity. Those who dispute the medical approach to ADHD advocate replacing medications with education and cultural modification (e.g., Block[17], 1977).

A review of the history of ADHD reveals the early conclusion that children with ADHD have something wrong with their brains (Southall[67], 2007). In 1775, Weikard, a German physician, published a textbook credited by some as the earliest description of attention disorders (Barkley and Peters[12], 2012). In a section entitled “Sickness of the Spirit”, those with attention disorder are characterized as unwary and careless. Weikard attributes their lack of attention to being taught too many things at once, or indeed the opposite – having dull, inactive lives. Either can make the sensory nerve in the brain too

“weak” for the constant attention required in daily life (Weikard, 1775 in Barkley and Peters[12], 2012).

In 1902, the English physician George Still described a set of behaviors exhibited by a group of 20 children in his clinical practice. He assumed that these children were deficient in their “moral control”, leading to a lack of behavioral control. He argued that lowered moral control is linked to a potentially pathological condition, which may occur independently of any physical disease or intellectual impairment. Much of the modern medical literature on ADHD begins with the descriptions provided by Still (e.g. Barkley, 2015[13]; Goldstein and Ellison[35], 2002). Barkley[11] (2006) presents Still's work as the point of origin for the discourse on ADHD and calls for the continued reading of Still's papers. Rafalovich[61] (2004) argues, however, that Still's findings do not constitute the medical discovery of ADHD. The children Still studied were thought to have other mental health problems, and there was no hypothesizing about neurological structures at that time, so the conclusions of Still and his colleagues reflect the contemporary medical discourse. Restless, inattentive children were thought to have both attention and moral control deficits. It is only modern medical accounts of these children, that have retrospectively ‘diagnosed’ them with what we now term ADHD.

Nevertheless, the theory of a ‘flawed brain’ continues (Bentall[15], 2004; Southall[67], 2007). The medical account of ADHD is far from being a unified discourse; debate about its etiology, diagnosis and treatment continues (Hammond[47], 2008; Visser and Jehan[74], 2009). Opponents of the medical discourse have developed alternative approaches to explaining and treating ADHD, such as the psychodynamics account (Conway[22], 2012) and the social construct account (Conrad & Bergey[21], 2014; Timimi & Taylor[73], 2004). Both see the origin of the problem in factors external to the child.

## 1.2.ADHD: Media Constructions

Due to the lack of literature investigating Twitter representations of ADHD, I draw upon articles describing portrayals of ADHD in Western media more broadly. Media portrayals influence the ways in which people understand and perceive disability (Englandkennedy[27], 2008). Media framing is “a process through which a communication source defines and constructs a public issue or controversy, and can have significant consequences for how people view and understand an issue” (Schmitz *et al.*, [65], 2003, p.386). Media framing contributes to the normalizing or stigmatizing of mental disorders, so analyzing the ways in which individuals with mental illnesses are portrayed is crucial (Ray & Hinnant[62], 2009). The literature investigating media influence on understandings of mental health and disabilities in general is vast (Clarke[19], 2011). However, only a few studies have examined media representations of ADHD.

Lloyd and Norris[51] (1999) undertook the first analysis of UK newspaper coverage of ADHD, examining the role of media framing in the rise of the disorder. They looked at 98 reports published between 1994 and 1999 in the broadsheet and tabloid press. The authors distinguished two main discourses: “the voice of parents” and “the role of experts” (p. 506). Parents interviewed were often representatives of parents’ organizations that promoted medical solutions for behavioral difficulties. Professionals were portrayed as “experts” who built their careers on treating ADHD. Lloyd and Norris[51] (1999) noted the exclusion of teachers’ voices from media discourses.

Schmitz *et al.*, [65] (2003) used social representations theory (SRT) to investigate coverage of ADHD by US newspapers from 1988 to 1997. They found that biological perspective to be the dominant representation of ADHD, also noting that ADHD was portrayed as primarily affecting young white boys (Schmitz *et al.*, [65], 2003). Horton-Salway[48] (2011) studied UK national newspapers from 2000 to 2009 for references to

ADHD, finding two perspectives at work: the biological and the psychosocial. In her research, the latter was the dominant view, leading to moral judgments about poor parenting in a “sick society” and calls for better parenting as the solution (Horton-Salway[48], 2011). This dominant early 20<sup>th</sup> century representation disputed the medicalization of children with ADHD, which, until then, had not been widely questioned (Norris & Lloyd[57], 2000; Schmitz *et al.*, [65], 2003).

Media presentations of ADHD echo scholarly debates regarding the complexity of ADHD and the lack of consensus on the origin and treatment of the disorder. Those who advocate the biological view find the ADHD label a justification for a child’s behavior, interpret medical intervention as helping the child manage difficult behavior, and see the explanation of neurobiological dysfunction as key to the removal of stigma from parenting (Norris & Lloyd[57], 2000; Schmitz *et al.*, [65], 2003). Those who advocate the psychosocial perspective, however, perceive the use of medication as a highly suspect means of social control (Norris & Lloyd[57], 2000). These controversies surrounding ADHD are far more multi-layered than the biological/psychosocial binary would indicate (Nigg[56], 2006). Accordingly, the media is merely circling and countering parental and expert discourses (Lloyd & Norris[51], 1999; Norris & Lloyd[57], 2000).

But how is ADHD portrayed in the media? The study of US newspapers by Schmitz *et al.*, [65] (2003) found that ADHD was objectified, with negative images of a “broken brain” and “derailed concentration” used to characterize it. Englandkennedy[27] (2008) analyzed US television portrayals of ADHD and concluded:

Few media representations of ADHD exist and most are inaccurate; they reflect and reinforce social concerns and negative stereotypes. Perceptions of ADHD and people who have been diagnosed as ‘having it’ reflect an overarching sociocultural belief that this is an illegitimate category of disability. (p.112).

The author described common beliefs about ADHD: that it is a childhood disorder; that it is easily diagnosed; that it is caused by ‘abuse’ of stimulants by the child or other family members; and that the label is used to excuse bad behavior.

The image of children with ADHD and their parents is mostly negative, with few media accounts portraying them positively (Horton-Salway[48], 2011). A child with ADHD is described as a “problem child, [or an] abnormal or ordinary naughty child” (Horton-Salway[48], 2011, p.533), or as the disruptive or deviant young white male (Horton-Salway[49], 2013; Schmitz *et al.*, [65], 2003). Parents of children with ADHD—primarily mothers—are characterized as ineffectual or neglectful (Horton-Salway[48], 2011), and consequently feel blamed. Their parenting skills were often seen as the root of the problem (Lloyd & Norris[51], 1999). Parents felt “distraught,” “frustrated,” “confused,” as if they were “in a nightmare,” “embarrassed,” and victims of their child’s condition (Norris & Lloyd[57], 2000).

Gendering is deeply embedded in media discourse on ADHD (Horton-Salway[48], 2011, 2013; Schmitz *et al.*, [65], 2003). As previously mentioned, ADHD is portrayed as a predominantly young male phenomenon (Horton-Salway[48,49], 2011, 2013; Schmitz *et al.*, [65], 2003). Yet the ratio of boys to girls with ADHD is between 3:1, this may decrease with age to 1:1 in adults (Swanson *et al.*, [69], 1998). Clearly many girls/women are affected.

Media articles representing fathers’ perspectives are scarce, while those representing mothers are more common (Horton-Salway[49], 2013; Schmitz *et al.*, [65], 2003). Mothers are stereotyped as the parent who speaks for the child, while fathers tend to be invisible. Horton-Salway[49] (2013) argues that the absence of fathers in media accounts does not portray the typical family experience, but reflects assumptions that if something is wrong with a child’s behavior, it is the mother fault.

### 1.3. ADHD Studies in Saudi

In 1996, ADHD was first acknowledged in Saudi studies. Abdur-Rahim *et al.*, [1] (1996) surveyed the services offered in a child psychiatric clinic in Riyadh. The authors examined 199 records of patients aged 14 years or younger over a six-year period. Although this study examined children's psychological problems in general, it highlighted the prevalence of ADHD within this population, which represented 12.6% of patients (Abdur-Rahim *et al.*, [1], 1996). Most of the ADHD studies that followed were quantitative (e.g. Taleb & Farheen [71], 2013; Jenahi *et al.*, [41], 2012). Some studies have assessed knowledge or perceptions of ADHD among parents and/or teachers (Zaki [78], 2013; Abed *et al.*, [2], 2014; Munshi [54], 2014; Alamiri & Faulkner [4], 2010). These studies found that teachers and parents have basic knowledge of ADHD, but little understanding of causes and possible interventions.

## 2. Methodology

This article examines the representations of ADHD by AFTA Society members on Twitter within Saudi Arabia. Foucauldian discourse analysis (FDA) is applied in an analysis of how ADHD is discursively constructed through AFTA Society tweets.

Foucault's work acknowledges the uncertainty of 'truth' and the pluralism of meaning in analyzing discourse, which underscores the message that literal meaning should not be the focus for discourse analysts. This is not to suggest that 'anything goes'; on the contrary, it is an invitation, to use a Foucauldian term, to create a space to be able to rethink. What is important, then, is not what the discourse means literally, but what it conceals, and what it achieves. The point of this approach is to "[concentrate] on the relations of power and knowledge in modern society" (Dreyfus & Rabinow [25], 1982, p.105). It involves exposing as much as possible the conditions of stability, presence, authority, and power relations when analyzing social institutions (Said [63], 1978) in lieu of accepting grand narratives

(Williams[76], 2005) and the notion of absolute truth. A commitment to revealing underlying forces as described by Said justifies the use of FDA in this study. It fittingly supports the aim of this research: to identify the discourses emerging on the AFTA Society platform regarding ADHD and assess their implications for understanding and treating ADHD.

FDA is concerned with the role of language in the formation of social life.

Foucault[28] (1972) describes discourse as “practices that systematically form the objects of which they speak” (p.42). Discourse, then, involves social and ideological practices which not only control how individuals think, interact, and behave (Baxter[14], 2002), but also form the reality of what they say. Parker[58] (1992) describes the notion of discourse, in a Foucauldian sense, as facilitating and limiting, enabling and constraining what can be said, by whom, where and when.

Given that FDA acknowledges the link between discourse and power, and questions the subject positions occupied within discourse and its implications for subjectivity and experience (Willig[77], 2008), it was particularly insightful for the present research. Throughout Foucault’s work, he is reluctant to outline his approach clearly (Tamboukou[70], 1999). He states, “I take care not to dictate how things should be” (Foucault[32], 1994, p.288). This reticence has generated various guidelines by subsequent discourse analysts. Willig’s[77] method (2008), in six stages, answers the following questions:

- Discursive constructions: what are the ways in which the discursive object is constructed?
- Discourses: what are the various discursive constructions of the object within wider discourses?
- Action orientation: what are the functions and benefits of constructing the object in a specific way?
- Positioning: what are the different subject positions that these discourses offer?
- Practice: What is the relationship between discourse and practice?
- Subjectivity: What is the relationship between discourse and subjectivity?

## 2.1.Data Collection and Analysis

In this study, I investigated which ADHD discourse(s) the AFTA Society was (re)producing in their Twitter account and what the implications were for ADHD practices. The ADHD Society Twitter (@adhdarabia) has over 13,500 followers. Tweets posted between December 1<sup>st</sup>, 2016 to January 31<sup>st</sup>, 2017 were collected, with those announcing AFTA events and retweets from other accounts eliminated. This resulted in 141 tweets that discuss experiences of ADHD, explain the nature, causation, or treatment of ADHD, and represent experts, teachers, and parents.

## 2.2.Analysis and Findings

In analysing the tweets, I will be following Willig's six stages to answer his accompanying six questions. However, for reasons of space, related stages will be combined. Stages 1 and 2 will be discussed together, as will stages 4 and 5.

### 2.2.1. Stages 1 and 2: Twitter discourses and the discursive construction of ADHD.

The first stage of the analysis involves identifying all the references, whether explicit or implicit, of the discursive object constructed in the text (Willig[77], 2008). The discursive object discussed in the sampled tweets concerns ADHD. Stage 2 locates the different constructions of the discursive object within wider discourses (Willig[77], 2008).

The first discursive construction that emerges is that of ADHD as involving *suffering*. Terms used to describe the effects or consequences of ADHD include "suffering", "problems", or the use of explicit references. For example:

"The ADHD child suffers from impulsivity, inattention, and hyperactivity, so teachers may face difficulty in dealing with him."

Other tweets refer to 'problems' caused by having ADHD:

“Children diagnosed with ADHD often suffer at an early age from social problems such as rejection by their peers.”

“There is a high probability that ADHD children will suffer from sleeping problems.”

Another example of the construction of *suffering* is the reference to ADHD as a “condition” and children with ADHD as “cases”. The use of such language to imply the impersonal, medical nature of the problem constructs the discursive object as something unspeakable and unknowable, at least by those who are non-expert (Willig[77], 2008). For example:

“The condition requires expert diagnosis as it covers a wide range of behaviors.”

“This defect is often the result of a genetic factor in up to 90% of cases.”

Such statements construct the child with ADHD as a *sufferer; subject to other problems*, undergoing *unknowable* experiences. This reflects a deviance discourse, in which subjects are classified as ‘abnormal’. Through concepts of deviancy, ADHD resonates with wider medical and psychological discourses. Busfield[16] (1986) notes that “It is science that permits the boundary between the ‘normal’ and ‘pathological’; it is science that creates possibilities of accurate identification of the mentally ill; it is science that provides effective methods of cure” (p.17). These scientific discourses claim to understand the reasons behind the ‘suffering’, while suggesting interventions that aim to lessen the ‘suffering’ experience.

Presenting ADHD as constituted by *suffering*, medical discourse provides the primary terminology in tweets about ADHD, including scientific descriptions of symptoms, diagnoses and treatments. This terminology circulates between language users in a way that makes it almost impossible to talk meaningfully about ADHD without drawing on medical concepts. As Danforth and Navarro[23] (2001) conclude, “Medical discourse... is so dominant that language users have little choice but to contend with it in some fashion, whether they appropriate the discourse with reflexive acceptance, mild modification, or dramatic

resistance” (p.173). This allows the medical discourse to become the “regime of truth” (Foucault[30], 1977) against which childhood itself is judged.

Psychological approaches have the advantage of including caregivers in the behavioral modification process (Cione *et al.*, [18], 2011; Widener[75], 1998). Although the medical discourse provides the primary framework for discussions of the disorder, the psychological discourse, in AFTA Society tweets, seems to function as a supplement: that is, the medical process of diagnosis and use of pharmaceutical treatment is accepted alongside endorsements of the importance of behavioral interventions for children with ADHD.

An alternative discursive construction of ADHD is the notion that caring for a child with ADHD is a ‘different’ kind of responsibility for parents and teachers. Thus, although it is normal for parents to care for their children without interference from others, and for teachers to teach without advice from other professions, parents and teachers of ADHD children must be advised by ‘experts’. This was presented in various ways, some tweets constructing parents of children with ADHD as responsible for surveillance – a very Foucauldian concept. For example, parents should:

“Note their capacity for concentrating.”

“Gauge the seriousness of a problem. Children with ADHD are regularly disruptive at school and at home. Their behavior causes problems in their relationships with both adults and other children.”

Then, following diagnosis, the parents’ must be role models:

“Tips to help your child continue to focus and organize: (be an example of cleanliness and organization). Prepare the house in an organized way, and make sure that the child knows where everything is.”

“Tips to help your child continue to focus and organize: (Follow a routine). It is important to set a date and place for everything to help a child understand and meet expectations.”

Most tweets constructed parents of children with ADHD as responsible for modifying their children’s behavior:

“To improve communication with your inattentive child, you should always make eye contact with him before talking.”

“There are several things parents can do to help their children with ADHD to sleep better.”

“Role-play with the child the social situations that he may face and switch the roles between you. Do it in a fun way so the child will interact with you.”

The construction of parents of children with ADHD as being responsible for special care of their children with ADHD draws upon different discourses. The criteria and duration of the behaviors that parents have to “note” and “gauge” resonate with the APA’s DSM discourse, which describes the criteria and duration of symptoms indicating a diagnosis of ADHD. This clinical gaze, as Foucault[29] (1975) calls it, has been extended beyond medical experts to parents, who are expected to monitor and observe children for possible symptoms. It operates in a multi-directional manner to the point of parental surveillance over the supervisors themselves. This leads to other constructions of parents as role models, and the need to supervise their own behaviors, in line with the strategies that parents are advised to follow, which echo the psychological discourse. Failing to comply with ‘expert’ advice, such as that offered by the AFTA Society, lends substance to a discourse of guilt and bad parenting (Klasen & Goodman[45], 2000).

Foucault[29,31] (1975, 1988) emphasises that the description of disorders works to supply the human sciences with a locatable object of scrutiny. Following Foucault, then, the

effect of words such as “note” and “gauge” serve to privilege the DSM discourse of the “behaviorally disordered” child. One implication of such language is the codification of practices of self-regularity in an attempt to regulate the ADHD child.

Tweets directed at teachers take two main forms. One constructs teachers as probably the first adults who will suspect ADHD in a student:

“You remember how it was when your teacher told us that it might be ADHD and we ought to see the doctor – what a weight off our shoulders.”

“...and above all don't suffer in silence, talk to a teacher or a GP and get the help you need.”

The second form of tweets for teachers presents strategies that male teachers<sup>4</sup> could use in helping male students with ADHD:

“It is possible to increase the focus of the student with ADHD in the classroom by reducing the visual and audio effects that distract his attention.”

“Give an ADHD child a chance to stand and move reasonably by giving him some tasks to accomplish that allow him to move within the allowed school protocol (such as cleaning the blackboard, distribution of cards).”

The construction of students with ADHD as males by employing the pronouns ‘his’ and ‘him’ echoes the generalising discourse and constructs the discursive object as a male disorder. I argue here that the portrayal of ADHD as a male disorder is problematic because ADHD is recognized to exist in both males and females. Staller and Faraone[68] (2006) estimated that 32 million females worldwide have ADHD, which make their diagnosis an important public health concern. Given that there is no corresponding advice for female teachers of girls. The assumption is that only boys have ADHD and only men teach them. No guidance is provided for women teachers. Tweets that present ADHD as if it involves only

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<sup>4</sup> In Saudi, girls are taught by female teachers separately from boys from the beginning of education.

boys have the potential to impact girls and women with ADHD negatively by overlooking them or misinterpreting their symptoms merely as behavioral problems. Gershon and Gershon (2002) suggest that referral bias continues to overlook ADHD in females, especially in younger girls.

The construction of teachers of students with ADHD as gatekeepers and the description of behaviors that teachers should notice draw upon the DSM discourse. In this discourse, teachers are part of the assessment process for ADHD. The behavioral strategies that teachers are advised to implement in the classroom resonate with the psychological discourse.

### **2.2.2. Stage 3: Action orientation.**

This stage examines the outcomes and implications of constructing the discursive object in a particular way (Willig[77], 2008). By constructing ADHD as an experience of *suffering*, this could help authors/professionals to achieve and secure the status of experts; they are qualified to provide advice and support for ‘sufferers’ reinforced. The AFTA Society’s use of the term ‘suffer’ in conjunction with the schooling discourse (i.e. “the ADHD child suffers from impulsivity, inattention, and hyperactivity, so teachers may face difficulty in dealing with him”) may justify the series of lectures that the AFTA Society is conducting in separate male and female schools in Saudi “to raise awareness among teachers about ADHD” (Teacher Training[72] n.d.). In addition, the Society’s use of medical discourses may support their projects such as their charity clinic or ‘Your Consultant’, a program that provides free medical and psychological counselling services by telephone in collaboration with specialists. It also allows them to attribute the ultimate responsibility for diagnosis and treatment to medical professionals.

The construction of caring for a child with ADHD as a ‘different’ kind of responsibility for parents and teachers serves to emphasize the medical discourse, positioning

a child as ‘suffering’ from “a neurological disorder caused by a defect in the structure of the brain” (Southall[67], 2007). The AFTA Society definition of ADHD subscribes to interpretations that situate mental disorders and treatment approaches firmly within the realm of medicine. This undermines parents’ ability to care for their children with ADHD without ‘expert’ advice. AFTA Society tweets addressed to parents and teachers imply that neither parental styles nor teacher training entail the expertise to implement treatment strategies without professional advice. Illustrating Foucault’s ideas, medical knowledge is fundamental to the exercise of ‘expert’ power, creating a hierarchy of knowledge and credibility, and a distance between professionals and caregivers.

### **2.2.3. Stages 4 and 5: Positioning and practice.**

Stage 4 examines the subject positions offered by constructions of the discursive objects (Willig[77], 2008). Stage 5 outlines the possibilities for action contained within discursive constructions.

Constructions of ADHD as ‘suffering’ portrays those with ADHD as having poor quality of life. They ‘suffer’ both from ADHD symptoms and from the impact of having these symptoms: i.e. they are subject to other social, emotional, physical and financial problems. This opens up the opportunity for medical processes, including medications, which could give children with ADHD the means to control their symptoms. This, in turn, may lessen their ‘suffering,’ with additional psychological interventions moving the child toward the ultimate goal: normalization of their behavior. This construction positions people with ADHD as highly dependent on others, through their need for medical, psychological and educational interventions.

By constructing caring for children with ADHD as a ‘different’ kind of responsibility for teachers, children with ADHD are positioned as ‘difficult’ to handle. The notion that all children with ADHD are difficult to deal with creates preconceptions; Saudi teachers’

knowledge of ADHD comes mainly reading about it (Munshi[54], 2014). Such tweets from an apparently expert body generalize the characteristics of students with ADHD and close down the opportunity for these students to prove that they might not be difficult to handle. The negative portrayal of the condition may lead to limits on the number of students with ADHD permitted in each classroom and could even result in their exclusion.

Tweets containing strategies for teachers to use to alleviate symptoms of students with ADHD imply that teacher training, self-efficacy and past experience are insufficient preparation for teaching such students. Yet Scitutto *et al.*, [64] (2000) examined 149 elementary New York school teachers' knowledge of ADHD using the Knowledge of Attention Deficit Disorders Scale (KADDS) and found that teacher self-efficacy, prior exposure to an ADHD child, and past teaching experience were all positively related to ADHD knowledge.

The construction of raising a child with ADHD as a 'different' kind of responsibility for parents, positions parenting style as similarly insufficient because their children are considered disordered. Thus, parents need advice from ADHD 'experts' ("...always make eye contact with him before talking"). While tweets like these may intend to be helpful, they may also constrain parenting freedom and can position parenting styles as a threat to the way things 'should' be. Parents of children with ADHD must re-formulate their parenting experience to follow the expert advice that will produce "children who are orderly and productive and as such maintain and continue the ways of society" (Austin & Carpenter[10], 2008, p.379).

#### **2.2.4. Stages 6: Subjectivity.**

The last stage in the analysis explores the relationship between discourse and subjectivity. As Willig[77] (2008) puts it, "Discourses make available certain ways of seeing the world and certain ways of being in the world," (p. 154), giving meaning to our social and

psychological realities. This final stage is concerned with the effect of the subject positions on the subject's thoughts, feelings, and experiences.

Some of the discourses identified on Twitter have the power to create a problematizing subjectivity for children with ADHD. This construction of the subject position of the problem child reveals how a child's identity is constructed through descriptions of disorderly behavior. As a result, children with ADHD are classified as deviants in need of expert intervention. This classification creates a false dichotomy: children are either 'normal' or 'abnormal', and those who 'suffer' from ADHD are the latter. Foucault acknowledges that Western culture often depends on binary oppositions, which are always hierarchic, valuing one term over the other. He attacks the notion of binary opposites for their hidden privileges, arguing that the preferred term is not exempt from the negative qualities attributed to the other term, and that these terms are not symmetrically opposite or mutually exclusive (Foucault[29], 1975). But it is not only Western culture that uses binary opposites. As knowledge about ADHD is translated and circulated into other cultures, such approaches are reinforced and extended. AFTA Society constructions of ADHD merely circulate existing, dominant, sometimes misleading Western discourses, but does not critique or challenge them.

Ultimately, using terms like 'ADHD child' not only limits the human being to his/her disorder, but also limits the historically situated meanings people give to the behaviors that constitute the disorder (Hacking[37], 2000).

Applying concepts of deviance, medical practices are deemed correct. Children with ADHD become subject to such practices by those who understand the 'problem' with the aim of lessening the 'suffering':

Due to their dependency upon the adult world for everything from basic sustenance to education and recreation, children are especially subject to the social ramifications of the ADHD diagnosis. Through the eyes of their educators, clinicians, and parents, the ADHD child's world requires regulation to promote the "management" of his/her disorder. Invariably, the active agents in this management are the authority figures surrounding ADHD children. In applying the ADHD mental disorder label to a child,

adults take on the responsibility for structuring the child's life to meet the perceived treatment requirements in conjunction with the diagnosis (Rafalovich[60] 2001, p.373).

This analysis has also revealed that caring for a child with ADHD is considered a 'different' kind of responsibility. This discourse has the power to change the way in which parents or teachers think about children with ADHD. For parents, the portrayal of children with ADHD as 'difficult' to care for may influence them to conceal a diagnosis of ADHD from the school or from other people. This would be an attempt to protect their children from being seen as problematic; parents will also know that they are often considered part of the 'problem' (Johnston[42], 1996; Klasen & Goodman[45], 2000; Neophytou[55], 2004).

Teachers may have negative feelings about having students with ADHD in their classrooms and may oppose their inclusion. I examined teachers' perspectives on including students with ADHD in regular classrooms (Alharbi[5], 2017). Six teachers (five general and one special education) from three districts in Jeddah, reported resistance to full inclusion. They felt that each decision must be made on a case-by-case basis, and assumed that such students require a range of support services.

### **3. Conclusion**

Critically examining the relationship between Twitter framing and ADHD can give researchers a more comprehensive understanding of the construction of ADHD in society, particularly when studied in conjunction with the broader scholarly literature on the subject. Collectively, these findings could encourage society to move beyond the dominant discourse stigmatizing children with ADHD as "disorderly kids" who "need to be fixed." By considering Twitter framings in the broader context of ADHD literature, we can identify negative portrayals of ADHD by social media producers and begin to develop discourses and practices that take advantage of the power of social media to create positive change.

### References

1. Abdur-Rahim, F., Al-Hamed, A., Chaleby, K. and Al-Subaie, A. (1996). A survey of child psychiatry clinic in a teaching hospital in Saudi Arabia. *Saudi Medical Journal*, 17(1), 36-41.
2. Abed, M., Pearson, S., Clarke, P., and Chambers, M. (2014). Saudi Arabian Teachers' Knowledge and Beliefs about ADHD. *Journal of the International Association of Special Education*, 15(1), 67-74.
3. ADHD Society and Support Group. (2008). AFTA information. Riyadh, Saudi Arabia: AFTA.
4. Alamiri, F., and Faulkner, M. (2010). Challenging Gifted Children and the Phenomenon of AD/HD: A Qualitative Study of Teachers' and Parents' Perceptions in a Saudi Arabian Primary School. *Australasian Journal of Gifted Education*, 19(1), 6-15.
5. Alharbi, R. S. (2017). *Attention-Deficit Hyperactivity Disorder (ADHD) Discourses in Saudi Arabia* (Unpublished doctoral dissertation). University of Ottawa, Canada.
6. Almahmoud, J. (2015). Framing on Twitter: How Saudi Arabians intertextually frame the Women2Drive campaign. Georgetown University. Retrieved from <https://search-proquest-com.proxy.bib.uottawa.ca/docview/1679935996?accountid=14701>
7. Alothman, A. B. (2013). A survey of social media users in Saudi Arabia to explore the roles, motivations and expectations toward using social media for social and political purposes (Order No. 1541900). Available from Dissertations and Theses @ Arkansas State University; ProQuest Dissertations and Theses Global. (1419422776). Retrieved from <https://ezproxy.library.astate.edu/login?url=http://search.proquest.com/docview/1419422776?accountid=8363> (accessed 17.07.17).
8. Anthony, S. M., and Zhang, W. (2017). Alternative Tweeting: A Comparison of Frames in Twitter's Political Discourse and Mainstream Newspaper Coverage of the Singapore General Election of 2011. In M. Adria, and Y. Mao (Eds.), *Handbook of Research on Citizen Engagement and Public Participation in the Era of New Media* (pp. 324-343). Hershey, PA: IGI Global. doi:10.4018/978-1-5225-1081-9.ch018
9. American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (DSM-5®)*. American Psychiatric Pub.
10. Austin, H., and Carpenter, L. (2008). Troubled, troublesome, troubling mothers: The dilemma of difference in women's personal motherhood narratives. *Narrative Inquiry*, 18(2), 378-392.
11. Barkley, R. A. (2006). The relevance of the Still lectures to attention-deficit/hyperactivity disorder: a commentary. *Journal of Attention Disorders*, 10(2), 137-140.
12. Barkley, R. A., and Peters, H. (2012). The earliest reference to ADHD in the medical literature? Melchior Adam Weikard's description in 1775 of "attention deficit" (mangel der aufmerksamkeit, attentio volubilis). *Journal of attention disorders*, 16(8), 623-630.
13. Barkley, R. A. (2015) *Attention Deficit Hyperactivity Disorder: A Handbook for Diagnosis and Treatment*, fourth ed. Guilford Press, New York.
14. Baxter, J. (2002). Competing discourses in the classroom: A post-structuralist discourse analysis of girls' and boys' speech in public contexts. *Discourse and Society*, 13(6), 827-842.
15. Bentall, R. P. (2004). *Madness explained: Psychosis and human nature*. Penguin UK.
16. Busfield, J. (1986). *Managing Madness Changing Ideas and Practice*. Hutchinson, London

17. Block, G. H. (1977). Hyperactivity: A cultural perspective. *Journal of Learning Disabilities*, 10(4), 236-40.
18. Cione, G. F., Coleburn, L. A., Fertuck, E. A., and Fraenkel, P. (2011). Psychodynamic play therapy with a six-year-old African American boy diagnosed with ADHD. *Journal of Infant, Child and Adolescent Psychotherapy*, 10, 130-143. doi:10.1080/15289168.2011.576593.
19. Clarke, J. N. (2011). Magazine portrayal of attention deficit/hyperactivity disorder (ADD/ADHD): A post-modern epidemic in a post-trust society. *Health, risk and society*, 13(7-8), 621-636.
20. Cha, M., Haddadi, H., Benevenuto, F., and Gummadi, P. K. (2010). Measuring user influence in Twitter: The million follower fallacy. *Icwsm*, 10(10-17), 30.
21. Conrad, P., and Bergey, M., R. (2014). The impending globalization of ADHD: Notes on the expansion and growth of a medicalized disorder. *Social Science and Medicine*, 122, 31-43.
22. Conway, F. (2012). Psychodynamic psychotherapy of ADHD: A review of the literature. *Psychotherapy*, 49(3), 404.
23. Danforth, S., and Navarro, V. (2001). Hyper talk: Sampling the social construction of ADHD in everyday language. *Anthropology and education quarterly*, 32(2), 167-190.
24. De Longueville, B., Smith, R. S., and Luraschi, G. (2009). Omg, from here, I can see the flames!: a use case of mining location-based social networks to acquire spatio-temporal data on forest fires. In Proceedings of the 2009 international workshop on location-based social networks (pp. 73-80). ACM.
25. Dreyfus, H. L. and Rabinow, P. (1982). *Michel Foucault: Beyond structuralism and hermeneutics*. Wheatsheaf, London: Harvester.
26. Easton, N. (2013). How Twitter is driving change in Saudi Arabia. *Fortune*, 168(9), 76.
27. Englandkennedy, E. (2008). Media representations of attention deficit disorder: Portrayals of cultural skepticism in popular media. *The Journal of Popular Culture*, 41(1), 91-117.
28. Foucault, M. (1972). *The Archaeology of Knowledge: Translated from the French by AM Sheridan Smith*. Pantheon Books.
29. Foucault, M. (1975). 2003. Abnormal: *Lectures at the Collège De France, 1974-1975*.
30. Foucault, M. (1977). *Discipline and punish: The birth of the prison* (A. Sheridan, Trans.). London: Penguin Books.
31. Foucault, M. (1988). Technologies of the self. In L.H. Martin, H. Gutman and P.H. Hutton (Eds.), *Technologies of the self: A seminar with Michel Foucault*. Amherst: University of Massachusetts Press.
32. Foucault, M. (1994). The art of telling the truth. Critique and power: Recasting the Foucault/Habermas debate, 139-148.
33. Gershon, J., and Gershon, J. (2002). *A meta-analytic review of gender differences in ADHD*. *Journal of attention disorders*, 5(3), 143-154.
34. Global Digital Statistics. (2015). In We are social. Retrieved February 3, 2015, from <http://www.slideshare.net/wearesocialsg/social-digital-mobile-in-themiddle-east-north-africa-turkey?related=4>
35. Goldstein, S., and Ellison, A. T. (Eds.). (2002). *Clinician's guide to adult ADHD: Assessment and intervention*. Academic Press.
36. Guta, H., and Karolak, M. (2015). Veiling and blogging: social media as sites of identity negotiation and expression among Saudi women. *Journal of International Women's Studies*, 16(2), 115.
37. Hacking, I. (2000). *The social construction of what?* Cambridge, MA: Harvard University Press.

38. Hinshaw, S., Scheffler, R., Fulton, B., Aase, H., Banaschewski, T., Cheng, W., and Sergeant, J. A. (2011). International variation in treatment procedures for ADHD: social context and recent trends. *Psychiatric Services*, 62(5), 459-464.
39. Hughes, A. L., and Palen, L. (2009). Twitter adoption and use in mass convergence and emergency events. *International Journal of Emergency Management*, 6(3-4), 248-260.
40. Jansen, B. J., Zhang, M., Sobel, K., and Chowdury, A. (2009). Twitter power: Tweets as electronic word of mouth. *Journal of the American Society for Information Science and Technology*, 60(11), 1-20. doi:10.1002/asi.21149
41. Jenahi, E., Khalil, M. S., and Bella, H. (2012). Prevalence of attention deficit hyperactivity symptoms in female schoolchildren in Saudi Arabia. *Ann Saudi Med*, 32(5), 462-468.
42. Johnston, C. (1996) Parent characteristics and parent-child interactions in families of nonproblem children and ADHD children with higher and lower levels of oppositional-defiant behaviour, *Journal of Abnormal Child Psychology*, 24:1, 85-98.
43. Kealey, C. (2012). *The Future is Not Black and White: A Study of a Twitter-based Community of Practice on the Future of Newspapers*. University of Ottawa (Canada).
44. Kemp, S. (2015). *Global digital and social media stats: 2015*. In Social Media Today. Retrieved February 03, 2017, from <http://www.socialmediatoday.com/content/global-digital-social-media-stats-2015>
45. Klasen H and Goodman R (2000) Parents and GPs at Cross-Purposes over Hyperactivity: A Qualitative Study of Possible Barriers to Treatment. *British Journal of General Practice* 50(452): 199-202.
46. Krishnamurthy, B., Gill, P., and Arlitt, M. (2008). A few chirps about twitter. In Proceedings of the first workshop on Online social networks (pp. 19-24). ACM.
47. Hammond, M. (2008). *Twenty-two Lenses for a Single Diagnosis: An Ethnography of ADHD* (Master's thesis). York University.
48. Horton-Salway, M. (2011). Repertoires of ADHD in UK newspaper media. *Health*, 15(5), 533-549.
49. Horton-Salway, M. (2013) 'Gendering Attention Deficit Hyperactivity Disorder: A Discursive Analysis of UK newspaper stories', Published October 1, 2013. DOI: 10.1177/1359105312456326. *Journal of Health Psychology*. Oct. 1<sup>st</sup>, 2013. 1359105312456326.
50. Java, A., Song, X., Finin, T., and Tseng, B. (2007). Why we twitter: understanding microblogging usage and communities. In Proceedings of the 9th WebKDD and 1st SNA-KDD 2007 workshop on Web mining and social network analysis (pp. 56-65). ACM.
51. Lloyd, G., and Norris, C. (1999). Including ADHD?. *Disability & Society*, 14(4), 505-517.
52. Mannuzza, S., Klein, R. G., and Moulton III, J. L. (2003). Persistence of attention deficit/hyperactivity disorder into adulthood: what have we learned from the prospective follow up studies?. *Journal of attention disorders*, 7(2), 93-100.
53. McNeill, A. R., and Briggs, P. (2014). Understanding Twitter influence in the health domain: a social-psychological contribution. In *Proceedings of the 23rd International Conference on World Wide Web* (pp. 673-678). ACM.
54. Munshi, A. M. A. (2014). *Knowledge and misperceptions towards diagnosis and management of attention deficit hyperactive disorder (ADHD) among primary school and kindergarten female teachers in Al-Rusaifah district, Makkah City, Saudi Arabia*. *International Journal of Medical Science and Public Health*, 3(4), 444.
55. Neophytou, K. (2004). ADHD, a social construct. *Australian Catholic University: Melbourne*.
56. Nigg, J. T. (2006). *What Causes ADHD?* New York Guilford Publications.

57. Norris, C., and Lloyd, G. (2000). Parents, professionals and ADHD: what the papers say. *European Journal of Special Needs Education*, 15(2), 123-137.
58. Parker, I. (1992). Discourse dynamics.
59. Polanczyk, G., de Lima, M. S., Horta, B. L., Biederman, J., and Rohde, L. A. (2007). The worldwide prevalence of ADHD: a systematic review and metaregression analysis. *American journal of psychiatry*, 164(6), 942-948.
60. Rafalovich, A. (2001). Disciplining domesticity: Framing the ADHD parent and child. *The Sociological Quarterly*, 42(3), 373-393.
61. Rafalovich, A. (2004). *Framing ADHD children: A critical examination of the history, discourse, and everyday experience of attention deficit/hyperactivity disorder*. Lexington Books.
62. Ray, L., and Hinnant, A. (2009). Media Representation of Mental Disorders: A Study of ADD and ADHD Coverage in Magazines from 1985 to 2008. *Journal of Magazine and New Media Research*, 11(1), 1-21
63. Said, E. W. (1978). The problem of textuality: Two exemplary positions. *Critical Inquiry*, 4(4), 673-714. Retrieved from <http://search.proquest.com/docview/1297265598?accountid=14701>.
64. Sciotto, M. J., Terjesen, M. D., and Frank, A. S. B. (2000). Teachers' knowledge and misperceptions of attention deficit/hyperactivity disorder. *Psychology in the Schools*, 37(2), 115-122.
65. Schmitz, M., Filippone, P., and Edelman, E. (2003). Social representations of attention deficit/hyperactivity disorder, 1988-1997. *Culture and Psychology*, 9(4), 383-406.
66. Shepherd, A., Sanders, C., Doyle, M., and Shaw, J. (2015). Using social media for support and feedback by mental health service users: thematic analysis of a twitter conversation. *BMC psychiatry*, 15(1), 29.
67. Southall, A. (2007). *The other side of ADHD: Attention deficit hyperactivity disorder exposed and explained*. Radcliffe Publishing.
68. Staller, J., and Faraone, S. V. (2006). *Attention-deficit hyperactivity disorder in girls*. *CNS drugs*, 20(2), 107-123.
69. Swanson, J.M. Sergeant, J.A. Taylor, E. Sonuga Barke, E.J. Jenson, P.S. and Cantwell, D.P. (1998) *Attention Deficit Disorder and Hyperkinetic Disorder*, *Lancet*, 351, pp. 429-433.
70. Tamboukou, M. (1999). Writing Genealogies: an exploration of Foucault's strategies for doing research. *Discourse: studies in the cultural politics of education*, 20(2), 201-217.
71. Taleb, H. A., and Farheen, A. (2013). A descriptive study of Attention Deficit Hyperactivity Disorder in Sabia City, Saudi Arabia. *International Journal of Current Research and Review*, 5(11), 36.
72. Teachers Training. (n.d.). Retrieved from <http://adhd.org.sa/ar/project/تدريب-المعلمين/>
73. Timimi, S., and Taylor, E. (2004). ADHD is best understood as a cultural construct. *The British Journal of Psychiatry*, 184(1), 8-9.
74. Visser, J., and Jehan, Z. (2009). ADHD: A scientific fact or a factual opinion? A critique of the veracity of Attention Deficit Hyperactivity Disorder. *Emotional and behavioural difficulties*, 14(2), 127-140.
75. Widener, A. J. (1998). Beyond Ritalin: The importance of therapeutic work with parents and children diagnosed ADD/ADHD. *J Child Psychotherapy*, 24, 267-281.
76. Williams, J. (2005). *Understanding poststructuralism*. New York: Routledge.
77. Willig, C. (2008) *Introducing qualitative research in Psychology*. 2nd ed. Berkshire: Open University Press.

- 78.Zaki, R. A. (2013). Enhancement the Awareness of Family Caregivers Caring for their Children with Attention Deficit Hyperactivity Disorder of the General Administration of Intellectual Education Centers in the city of Abha. *Journal of American Science*, 8, 9.
- 79.Zappavigna, M. (2011). Ambient affiliation: A linguistic perspective on Twitter. *New media & Society*, 13(5), 788-806.

## **Chapter 4**

**‘ADHD is like a bat – it is neither a bird nor an animal’: Saudi Parents’ Discourses**

**About Attention Deficit Hyperactivity Disorder**

Prepared for submission to Journal of Attention Disorder

### Abstract

ADHD is the most commonly diagnosed neurobehavioral disorder among children. While ADHD in Western countries has long been recognized and increasingly diagnosed in recent years, there is a growing recognition of this disorder as a significant cross-cultural phenomenon. Saudi studies to date vary in their estimation of prevalence of ADHD, with overall prevalence estimated to be between 3.5% and 6.5%, while the worldwide prevalence of ADHD is 5.29%. This study uncovers the lived experience of parents with a child who has had an ADHD diagnosis in Saudi Arabia, and examines how their experiences can be recognized in relation to the multiple and competing discourses of ADHD that frame their daily lives. Which discourses do parents draw upon – and reinforce – as they describe their experiences of ADHD, and which discourses do they resist? This study carried out in-depth interviews with seven Saudi parents who have at least one child diagnosed with ADHD, or any of its subtypes, between the ages of two and 11. Foucauldian discourse analysis (FDA) is applied in analyzing parental ADHD discourses, uncovering how these parents made sense of ADHD pre-and post-diagnosis. Four main discourses emerged in the process: normal behavior (pre-diagnosis), supernatural/religious, medical, and social environment (post-diagnosis). This paper also emphasises that the causes of ADHD must be considered in the wider context of misconceptions and uncertainty among Saudi parents. All the participants in this research were influenced by a combination of discourses in their attempts to make sense of their children's symptoms.

While ADHD in Western countries has long been recognized and increasingly diagnosed in recent years, there is a growing recognition of this disorder as a significant cross-cultural phenomenon (Hinshaw *et al.*, 2011). ADHD is the most commonly diagnosed neurobehavioral disorder among children (Mannuzza *et al.*, 2003; Zaki, 2013). While there is some variation in prevalence studies, meta-regression analyses have estimated the worldwide prevalence of ADHD at 5.29% (Polanczyk *et al.*, 2007). To date, Saudi studies vary in their estimation (Zaki, 2013). For example, Al Hamed *et al.*, (2008) investigated the prevalence of ADHD among school-age boys in Dammam city estimating it at 6.5%. Jenahi *et al.*, (2012) studied 1009 female pupils in Al-Khobar city and estimated prevalence at 3.5%. Polanczyk *et al.*, (2007, 2014) argue that variability in ADHD prevalence data between studies is mostly explained by different methodological factors such as the source of the information, or diagnostic criteria. Meanwhile, research in the West finds a relationship between ADHD symptoms and poor educational outcomes, learning difficulties and absenteeism at school (Barry *et al.*, 2002), antisocial behavior, crime, substance abuse, car accidents, and difficulty in finding or keeping a job (Hammond, 2008).

ADHD is a neurobehavioral condition characterized by inattention and/or hyperactivity and impulsivity (Nigg, 2006). ADHD symptoms are defined in the Diagnostic and Statistical Manual of Mental Disorders (fifth edition, or DSM-5; American Psychiatric Association [APA] 2013). Saudi Arabia uses the APA's definition and criteria in assessing ADHD.

Many studies of mental health disorders situate them firmly within the realm of medicine. The logic is that the same kinds of processes that cause physical diseases also underlie mental health illness; hence they can be treated or cured in the same way – by medical interventions (Southall, 2007). This hypothesis has become widely accepted by medical authorities in the case of ADHD. The neuro-anatomy of ADHD in medical discourse

focuses on abnormal development of key brain regions: the orbital prefrontal cortex, the basal ganglia and cerebellum (Arnsten, 2009). Nigg (2006) summarizes the multiple causations of ADHD in terms congruent with the discourse of neurochemistry, presented in vernacular language that can be understood by a lay audience. In this book and others of its kind, readers are presented with hard evidence, given the names of specific organs, chemicals, and shown the ways in which deficits appear as ADHD symptoms; there is no clouding of the discussion by subjectivist explanations drawing on other discourses. Nevertheless, the medical account of ADHD is far from being a unified discourse; debate about its etiology, diagnosis and treatment continues (Hammond, 2008; Visser & Jehan, 2009). Meanwhile, opponents of the medical discourse have developed alternative approaches to explaining and treating ADHD, such as the social construct account (Conrad & Bergey, 2014; Timimi & Taylor, 2004) and the psychodynamic account (Conway, 2012). Both see the origin of the problem in factors external to the child.

Social construct advocates suggest that not only is ADHD a 'contaminated and misleading' mainstream notion (Timimi & Taylor, 2004, p.8) but also a 'culture-bound syndrome limited to the U.S. or English-speaking countries' (Conrad & Bergey, 2014). They propose that the prevalence of ADHD in recent years is a result of 'the demands of modern culture' (Hinshaw & Scheffler, 2014; Timimi & Maitra, 2009). It is argued that biological theories about ADHD are lacking a broader cultural perspective because they view ADHD symptoms as appearing only within the child or his/her immediate environment (Timimi & Taylor, 2004). They suggest that ADHD is an outcome of radical changes in family structure and parenting styles (e.g., Timimi & Taylor, 2004). For others, ADHD reflects the state of modern public education, in which crowded classrooms and overwhelmed teachers become intolerant of children who cannot focus or sit still (e.g. Hinshaw & Scheffler, 2014). Social construct approaches advocate replacing medical interventions with educational and cultural

modifications (e.g., Conrad & Schneider, 2010) and emphasize that children with ADHD need attention, improved parenting, better schooling, and environmental changes (Hansen, 2014; Jacobs, 2002).

The psychodynamic perspectives refer to the study of forces in the social environment that might affect human behaviors and emotions and the ways in which they might relate to early experience (Conway, 2012; Rafalovich, 2001). Psychodynamic studies of the diagnosis of ADHD are rooted in two major concepts: ego disturbance and object relations. Proponents of ego disturbance attribute the symptoms of ADHD to difficulties in a child's ego functioning affecting their ability to synthesize, organize and integrate their experiences (Gilmore, 2000, 2002), to manage their relationship to time, and sustain their attention on a given object (Jones, 2011). This may result in hyperactive behaviors in the expression of their feelings (Jones & Allison, 2010). Another psychodynamic perspective attributes ADHD symptoms to early issues in object relations (Conway, 2012) including disturbances in interactions with family members, and experiences of early trauma (e.g. Cione *et al.*, 2011; Leuzinger-Bohleber *et al.*, 2011). Ladnier and Massanari (2000) analyzed the histories of 50 people diagnosed with ADHD and found evidence of disturbances in object relations in the first two years of life. This interferes with the development of a healthy attachment to the mother figure, resulting in ADHD-like symptoms (Ladnier & Massanari, 2000). From the object relations perspective, an intensive, long-term approach is key to working with children with ADHD and their parents in order to lessen the child's ADHD symptoms, decrease parental anxiety and improve success rates of treatment (Cione *et al.*, 2011; Widener, 1998).

Parents' perceptions and beliefs regarding the nature of ADHD symptoms and its etiology has a significant influence on referral, service utilization and treatment uptake (Lawton *et al.*, 2014; Maniadaki *et al.*, 2007). In a study of 119 Iranian parents and their children with ADHD, Ghanizadeh (2007) found that the parents were poorly informed about

ADHD and had misconceptions about its causes. Gidwani *et al.*, (2006) conducted a cross-cultural study in Puerto Rico, Central and South America, and North America, concluding that expectations for developmentally appropriate behavior vary across ethnic groups.

Furthermore, parents who do not accept medical accounts of ADHD may choose services that better suit their understanding of the problem; this may include seeking advice from a spiritual leader (Yeh *et al.*, 2005).

ADHD was first acknowledged in Saudi studies when Abdur-Rahim *et al.*, (1996) investigated the services offered in a child psychiatric clinic in Riyadh. The authors used semi-structured interviews and a functioning scale to assess 199 children aged 14 years or younger over a six-year period. Although this study examined children's psychological problems in general, it highlighted the prevalence of ADHD within this group (12.6% were diagnosed with ADHD). Most Saudi ADHD studies in subsequent years have been quantitative (e.g. Taleb & Farheen, 2013; Jenahi *et al.*, 2012). Others have assessed knowledge or perceptions of ADHD among Saudi parents (Zaki, 2013; Alamiri & Faulkner, 2010), concluding that parents have basic knowledge of ADHD, but little understanding of causes and possible interventions.

However, as ADHD is not a homogenous disorder, parents of children with the combined presentation of ADHD (both inattention and hyperactive symptoms) may face more challenges than those of children with either inattentive or hyperactive-impulsive presentations (Tzang *et al.*, 2009); the same is true when other disorders are diagnosed alongside ADHD (McIntyre & Hennessy, 2012).

This paper is based on the author's doctoral research, which uncovers the lived experience of parents of children with an ADHD diagnosis in Saudi Arabia, and asks how their experiences can be understood in relation to the multiple and competing discourses of

ADHD that frame their daily lives. What ADHD discourses do parents draw upon – and reinforce – as they describe their experiences of ADHD, and what discourses do they resist?

The paper does not debate the ‘truth’ of ADHD, as others have (Saul, 2014; Visser & Jehan, 2009), or accept claims that ADHD is purely a social construct or a myth (Armstrong, 2017). As Timimi and Taylor (2004, p.9) state, ‘The professional task is to understand how genetic and social influences interact, not to simplify into a polemic’. From a theoretical point of view, Foucault indicates that it is not helpful to focus on the truth or the ontological foundations that may legitimate it (Foucault, 1972). Instead, one should question its discursive formation, in order to reveal it or modify it (Foucault, 1972). Thus, the objective of the present research is to consider the discourses which shape Saudi parents’ perceptions and approaches to ADHD symptoms in their children, influencing both perceptions of ADHD and potential courses of action to address it. This paper asks: what are the experiences of Saudi parents of children with ADHD and what is the influence of Saudi society on them and on understandings of ADHD itself as ‘a system of formation’ (Foucault, 1972, p.205)?

## **2. Methodology**

To explore the discourses related to ADHD in Saudi Arabia, Foucauldian discourse analysis (FDA) formed the analysis of how ADHD is discursively constructed through what parents say about their experience of learning about the disorder and their endeavors to get help for their child or children.

Foucault acknowledges the uncertainty of ‘truth’ and the pluralism of meaning in analyzing discourse, underscoring the message that literal meaning should not be the focus for discourse analysts. This is not to suggest that ‘anything goes’; on the contrary, it is an invitation, to use a Foucauldian term, to create a space to be able to rethink. What is important, then, is not what the discourse means literally, but what it conceals, and what it achieves. The point of this approach is to “[concentrate] on the relations of power and

knowledge in modern society” (Dreyfus & Rabinow, 1982, p.105) and to expose the conditions of stability, presence, authority, and power relations when analyzing social institutions (Said, 1978). A commitment to revealing underlying forces as described by Said makes the use of FDA particularly appropriate for the purpose of this research: to explore the discourses regarding ADHD emerging from the Saudi parents’ interviews, and to assess their implications for understanding and treating ADHD.

FDA is concerned with the role of language in the formation of social life. Foucault (1972) describes discourse as ‘practices that systematically form the objects of which they speak’ (p.42). Discourse, then, involves social and ideological practices which not only influence how individuals think, interact, and behave (Baxter, 2002), but also form the reality of what they say. Parker (1992) describes the notion of discourse, in a Foucauldian sense, as facilitating and limiting, enabling and constraining what can be said, by whom, where and when.

Given that FDA acknowledges the link between discourse and power, and questions the subject positions occupied within discourse and the implications of discourse for subjectivity and experience (Willig, 2008), it provided a fitting theoretical framework for the present research. Throughout Foucault’s writings, he is reluctant to outline his approach in details (Tamboukou, 1999). He states, ‘I take care not to dictate how things should be’ (Foucault, 1994, p.288). This reticence has generated various guidelines by subsequent discourse analysts. Willig’s method (2008), in six stages, poses the following questions:

- What are the ways in which the discursive object is constructed?
- What are the various discursive constructions of the object within wider discourses?
- What are the functions and benefits of constructing the object in a specific way?
- What are the different subject positions that these discourses offer?
- What is the relationship between discourse and practice?
- What is the relationship between discourse and subjectivity?

**Data Collection and Participant Recruitment.** For this study, in-depth interviews were carried out with seven Saudi parents (two of them a married couple and parents of three children with an ADHD diagnosis) who have at least one child diagnosed with ADHD, or any of its subtypes, between the ages of two and 11. Recruiting participants was challenging; initial plans had to be altered in order to find parents willing to be interviewed.

The plan was to interview parents from Jeddah whose children were diagnosed with ADHD between the ages of seven and 14. I planned to recruit them through three public elementary schools in Jeddah offering ADHD programs. In Saudi Arabia, girls are educated separately from boys and by female teachers only. As a woman, I could not approach boys' schools for this study.

In each of the three girls' schools I visited, after my meeting with the school principal, I met the school counselor and invited her to distribute the recruitment text to parents of children with ADHD. Out of the three schools, only one mother responded, indicating that both she and her husband would be willing to participate. I also approached four clinicians to invite them to distribute my contact details to parents of children with ADHD. They all promised to do so, but no parents responded via this route.

I then searched for parents of children with ADHD on social media platforms. I used the search terms "ADHD", "parent of children with ADHD", and "parent of children with ADHD groups" and expanded the age criterion to children under 14, with no minimum age. I found an account of a mother of a child diagnosed with ADHD, named Aliya (not her real name). I contacted her privately and learned that she had created a social media mothers' group for those with children with an ADHD diagnosis. I invited her to share the recruitment text with members from her group. She accepted and two mothers contacted me via WhatsApp. They agreed to participate, choosing a telephone interview. Prior to their interview, they signed a consent form and returned it to me.

I contacted Aliya again to explain that I had recruited only three parents from Jeddah and request her help in sharing the recruitment text with all the members in her group. This yielded three more volunteers, who also chose phone interviews. Again, consent forms were completed and returned.

To protect their anonymity, pseudonyms are used to identify participants.

Recruited/interviewed parents of children with ADHD				
Interviewed Parent	Sex of child/children	Children's age	City	Parent pseudonyms
Father, Mother	2 girls, 1 boy (all diagnosed with ADHD)	8, 10, 11 years	Jeddah	Salem, Sara
Mother	A girl	4 years and 4 months	Jeddah	Farah
Mother	A boy	2 years and 9 months	Jeddah	Fatimah
Mother	A boy	5 years and 6 months	Riyadh	Noof
Mother	A girl	6 years and 6 months	Riyadh	Rama
Mother	A girl	7 years and 10 months	Alsulayyil	Rose

## 2.2. Analysis and Findings

In analysing the data, I follow Willig's six stages of Foucauldian discourse analysis. However, for reasons of space, related stages will be combined. Stages 1 and 2 will be discussed together, as will stages 4 and 5.

### 2.2.1. Stages 1 and 2: Parental discourses and the discursive construction of ADHD.

The first stage involves identifying all the references, whether explicit or implicit, of the discursive object constructed in the text (Willig, 2008). Stage 2 locates the different constructions of the discursive object within wider discourses (Willig, 2008).

The first discursive construction that emerges is that of ADHD symptoms as *normal childhood behaviors* that did not raise any red flag for parents initially. For example:

I told myself their behavior [her three children] was like other children, like us when we were at their age; it is normal behavior. (Sara)

I did not notice, I thought these behaviors were typical childhood behaviors, I did not notice that my child [her youngest child] was unlike the other children. I never noticed. (Noof)

Parents' judged their children's behavior as typical, regardless of the number of children in the family, or their order in the family, or the parents' level of education (Sara had only elementary education while Noof is a professor of early childhood education).

Parents only took action when their children's behavior was pointed out as problematic by someone else – a doctor (who might be visited for another reason, like flu or speech delay), or a teacher or relative:

The doctor noticed that she does not look at him or reach out to the things on his desk and became skeptical and said there is something else than the flu. (Farah)

The problem started with the school. The teachers noticed that she cannot focus, or write the alphabet letters. (Sara)

My mother-in-law is the one who noticed [his behavior] and advised me to take him to a doctor. (Noof)

Having been alerted by others, parents no longer considered the behavior of their ADHD child or children normal; they all seemed ready to pursue the matter further. All parents opted for the religious practice of reading the Quran over the child in order to detect the evil eye, or demonic possession –which were thought to be credible reasons for the children's symptoms. Three of the parents read the Quran over the child themselves:

I read [special Quranic verses used for detect/protect from the evil eye] on her by myself. I felt skeptical because doctors did not know what causes ADHD. (Rose)

The four other parents took their children to one or more clerics to perform this Quranic ritual:

I took her to two clerics, one in Riyadh and one in Jeddah ... He read [the Quran] over her, but excluded the evil eye or black magic [as causes for her symptoms]. He said it is just a medical thing. (Farah)

I tried a number of clerics. One of them told me your son is possessed by demons because [Noof laughed at this point] my son slept when he read on him. Another cleric told me my child had the evil eye since I was pregnant. (Noof)

Within this cultural context, these parents considered the possibility that ADHD could be the result of a supernatural phenomenon, and that one legitimate treatment or approach could be a religious ritual. It is worth noting that Noof, who was highly educated, still thought of visiting several clerics. Clearly social class as indicated by education was no barrier to acceptance of the evil eye as a real force capable of causing ADHD symptoms, and therefore seeking advice from religious authorities.

However, all the parents also turned to medical authorities (including those who had consulted clerics). For three parents, diagnosis was relatively straightforward and accepted by the parents, who complied with the recommended treatment. For the others, getting a diagnosis was more time-consuming, more than one doctor was involved, and their diagnoses differed. But Rama and Rose fully accepted the ADHD label and medications:

I was afraid of the idea of medications, but I noticed her symptoms had gotten worse ... I took her to a psychiatrist ... he asked me number of questions about her history and what we noticed about her. He said she had ADHD based on only that one session... He prescribed Risperidone and two other drugs to help her focus... I knew Risperidone<sup>5</sup> because her cousin took it for his ADHD... I gave her the medications right away. (Rama)

The doctor saw her, asked me and her father about her and then said it is obvious she has ADHD... He asked us if we agreed to give her the medication. We said yes. As long as an expert recommends it, we will accept it right away. (Rose)

All the parents now constructed their children's symptoms as something requiring an opinion from a medical authority. But the medical professionals did not always seem to conduct a rigorous or standardized diagnostic procedure. For example, according to DSM-5 (2013), a second visit, or input from other sources such as teachers should have been sought. Nevertheless, three parents accepted the ADHD label and the medications recommended by the 'expert', even when he or she did not know what caused ADHD:

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<sup>5</sup> Risperidone is used to treat schizophrenia and bipolar disorder (WebMD, 2018).

I have been following up with the genetic diseases clinic, but so far, the causes have not been discovered yet. The consultant said the ADHD diagnosis is not wrong but the reasons that cause it are unclear. It is like, if you have fever, what is causing the fever? That's how he explained it. (Rose)

Four parents had more challenging experiences with medical authorities. They not only resisted the doctors' conclusions and treatments, but also critiqued the medical account as unstable, unconvincing, and irrelevant. The doctor Fatimah visited to ascertain the reasons behind a speech delay of her son, who was nearly three years old, did seem to be more methodical in his assessment. Yet Fatimah did not accept his conclusion:

The doctor did inclusive medical testing, but I was not convinced by the result; yes, he is an active boy, but he does not have ADHD. The doctor said my son did not need medications now, but also said if his symptoms got worse we will have to prescribe medications for him. I do not want to give my son medications (Fatimah)

I think the doctors themselves do not know. They did not get to the real problem; each doctor has an opinion... We gave them the medications, but it did not help them. They sat calmly but in a very bad mood. It is like a man whose brain is very active and we restrained him by using the meds! This is not a solution ... we stopped giving them drugs. (Salem, the sole father interviewed).<sup>6</sup>

I truly believe it is medical flaws ... The problem, I think, in Saudi, is that doctors give you the whole package [the diagnosis results] in half an hour. (Noof).<sup>7</sup>

When talking about the causes of ADHD, six parents drew upon the social environment account:

The main cause of ADHD is TV – children's music channels, which I feel takes the child away from the world he lives in. In the past, when my son cried and I was busy, I let him watch these channels until I finished my work, which was about 50% of his day ... It is our fault we did not interact with him as much as we should. Now, I turn the TV off completely. (Fatimah)

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<sup>6</sup> Salem whose three children all had ADHD-type behavioral symptoms. His oldest child received a different diagnosis from different doctors – ADHD or mental retardation. According to him, the psychologist from the Ministry of Education did an IQ test and concluded that the child is 'mentally retarded'. This term is still used in Saudi Arabia.

<sup>7</sup> Noof whose child received a series of diagnoses from different doctors: autism, then ADHD with mild speech delay, then a doctor advised her that it might be not ADHD but another disorder.

The cause could have been when I was pregnant with him – my psychology was very bad. During my pregnancy, my husband and I were thinking of getting a divorce. (Noof)

Here, key social environmental experiences included early parental behavior, including their psychological state and the possibility that they neglected their child during this period.

All parents drew upon the religious discourse, using terms such as “thank God for this (the child’s condition)”, “God willing, my child will improve”. As part of the religious discourse they saw ADHD as divinely sent:

ADHD is a problem sent from God ... We ask God to help us ... if I were not a believer I would run away; it is a very difficult situation. (Salem, the father of three children diagnosed with ADHD)

Maybe God gave me him so I could modify my own behaviors. I always love perfect things, my children have to have full marks in school, I have to have the best work evaluation, etc. Now God has sent me a message through my son: no, you do not have a perfect home life and you still have to be thankful for it. (Noof)

### **2.2.2. Stage 3: Action orientation.**

This stage examines the outcomes and implications of constructing the discursive object in a particular way (Willig, 2008). By initially constructing ADHD as consisting of *normal childhood behaviors*, parents might be avoiding being blamed for the subjective nature of their own parenting role. Thus, at least in speaking of their initial perceptions, they referred to ADHD symptoms as ‘normal’, ‘typical’, ‘like other children, like us when we were at their age’. This construction avoids any reference to or blame for the failing to suspect ADHD at an early stage and explains their lack of action at that stage.

Once they accepted there was a problem, all the parents were quick to accept a degree of blame for the child’s problems. They then used another discursive technique to emphasize that the child was well cared for: they adopted a range of approaches: supernatural/religious, medical, and social environment. They consulted specialists from each different approach,

often simultaneously. Mobilizing the ‘supernatural’ discourse, they wondered whether supernatural forces could mimic or cause the symptoms of medical conditions. They accepted that religious healers might have been able to learn, through reading verses from the Quran over the child, whether the child had a purely medical condition or whether it might be caused by supernatural forces. Subsequently, as in the accounts cited previously, one parent dismissed or minimized the importance of these clerical pronouncements.

Drawing upon the medical discourse, they took responsibility for following through on their children’s symptoms with medical professionals; this, too, enabled them to construct themselves as active agents in the managements of their children symptoms. When they did not fully accept or comply with the medical professionals’ instructions, this resistance constructed them as victims of medical flaws or inadequacies, with parents as the real experts who are able to understand their children.

Looking at these early years in retrospect could allow them to regain control over the ‘wrongful’ early practices that they engaged in (however innocently or unavoidably, because of work/personal pressures), when they still thought their children were ‘typical’. Thus, they actively sought treatment, perhaps from several sources, dedicating more time to the child with ADHD, and eliminating potentially harmful influences (such as TV) from their homes.

### **2.2.3. Stages 4 and 5: Positioning and practice.**

Stage 4 examines the subject positions offered by constructions of the discursive objects (Willig, 2008). Stage 5 outlines the possibilities for action contained within discursive constructions.

The findings emerging from the previous stages suggest that by constructing ADHD initially as consisting of merely *normal childhood behaviors*, parents were positioning themselves as inexperienced parents who made the best judgment they could, based on their own experience. Yet, motivated by religious, social, educational, or medical discourses,

parents moved on and acknowledged their ignorance (and in some cases, neglect), accepting that they must now do something about it. This opened up opportunities to start taking action as the primary subjects responsible for ‘fixing’ their children’s behavior. The participants started by negotiating the reality of the child’s condition by considering ADHD, either simultaneously or in relatively quick succession, within supernatural-religious, medical and social environment contexts, each of which strengthened the parents’ identity as ‘active’ parents – parents who had to endure great stress in dealing with their children, society’s treatment of them, and in terms of the difficulty of getting help – who were doing everything they could to understand and fix their children’s behavior.

Subscribing to the social environment account, Noof admitted to some early mistakes she felt she had made:

My son also suffers from environmental neglect. From the time I gave birth to him until he was one year and nine months old, he was watching Touoor Aljanah [children’s music channel] without any interaction with me or the nanny, and we did not take him out with the family all week long. He has ADHD tendencies and what we did to him has worsened it. (Noof)

Some parents followed the supernatural/religious and medical recommendations simultaneously. Medications prescribed to treat serious disorders such as schizophrenia or dementia were recommended by doctors, as shown below. These medications, especially Risperidone, were mentioned by all as treatments for ADHD.

Apart from reading verses from the Quran over the child, some clerics offered further treatments such as herbal mixes or creams. Most parents followed both religious and medical approaches, positioning themselves in both contexts in the traditional hierarchy of power as passive parents seeking help from authoritative, knowledgeable experts:

The psychologist told me that she has ADHD with Autism and prescribed Tanakan<sup>8</sup>, Risperidone, calcium tablets, and B12 injections... It was not easy for me to find some of these drugs, so I ordered them online from Egypt and France... The doctor

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<sup>8</sup> Tanakan is used to treat memory disorders such as dementia and Alzheimer’s disease (WebMD, 2018).

advised me to work on both sides: medications and behavioral interventions. When I took her to a cleric who is famous for helping children with ADHD in Jeddah, he gave me a herbal mix and a cream to strengthen her feet. He asked me does she take Risperidone? I said yes, he said continue, do not stop it and give her the herbal mix with it. (Farah)

The doctor prescribed medication for her, but said this medication is not a cure, we use it to make her calm so she can focus. The real treatment is in behavioral therapy... We suffered because we do not have behavioral therapy centers in Alsulayyil. We go to Riyadh to [ a behavioral center] in school holidays. (Rose)

Other parents used the knowledge gained in such encounters as tools to reverse and resist the hierarchy of power, positioning themselves as the real experts and the professionals as ignorant:

I believe the doctors do not know. We are trying to work with the children from home. We reinforce them by giving them money when they do desirable behaviors. (Salem, the father of the three ADHD children)

I feel tired, tired, tired. I got to a point when I searched online on the British Ministry of Health website to see what kinds of medications British parents use for their children. I read British and Canadian parents' experiences with medications and I evaluated whether their kids' behavior seemed similar to my son's behavior. If so, I took a note of the medication name, then went to the doctor and I asked him to prescribe it to my son ... I became the one who diagnosed my son ... if the mother has a different opinion than the doctor, it is her right! We have to trust our motherhood. (Noof)

Medical authorities also recommended behavioral therapies. All parents accepted this type of treatment but voiced some of the obstacles they encountered, such as the availability of behavioral centers, the high cost of such sessions, the time involved, and the questionable expertise of practitioners. This led some of the parents to try behavioral modification practices themselves by following recommendations on social media or YouTube videos:

I could not afford to pay for behavioral sessions. I watch behavioral exercises on YouTube videos, I communicate via social media with specialists, other mothers who have children with ADHD, I purchased games that I saw on YouTube that helps with attention. (Farah)

The behavioral center gave him a package of 14 sessions, which I feel he benefited from more than [treatment from] the doctor. (Fatimah)

As the result of their challenging, difficult experiences, and in the traditional religious context in which they had always lived, some parents drew upon discourses portraying ADHD as an affliction from God. This discourse functioned as a coping mechanism, alleviating the burden of feeling alone with their child's problem – instead, they feel comforted by having inspiration and help from God. As believers, their duty then becomes to accept and address this condition with patience, and to look ahead to the rewards of the afterlife:

The fact that there is life after makes me patient. We are doing our best to give him what he needs ... I once read an article saying that our kids are a blessing from God. Thank God for everything. (Noof)

#### **2.2.4 Stages 6: Subjectivity.**

The last stage in the analysis explores the relationship between discourse and subjectivity. As Willig (2008) puts it, 'Discourses make available certain ways of seeing the world and certain ways of being in the world,' (p.154), giving meaning to our social and psychological realities. This final stage is concerned with the effect of subject positions on the subject's thoughts, feelings, and experiences.

Internalizing the discourse of active parents who take action at 'fixing' the ADHD child's behavior, gives rise to difficult feelings: fear of the future, stress over the urgency of the task, and loss of control:

Thinking about the future disturbs me. What will happen when they grow up and get married? Are they going to have children like them [with ADHD]? ... I am afraid of the future, the problems will increase, what am I going to do when they grow up, how am I going to embrace them when people are rejecting them. ADHD is more like a bat: it is neither a bird nor an animal. We do an injustice to our children whether we place them with sick people, or normal people. (Salem, the father)

I think about the future. I am afraid that as she grows up she will not be a normal child. I am afraid that if I get pregnant I will have another child like her. (Farah)

I think if we did not intervene early, this might make the child less intelligent than her peers. We must be aware of the time and start intervening. (Rama)

Being an active parent to a child with ADHD can also involve feelings of guilt, which is manifested in the acknowledgement by some participants of missing the early signs of ADHD, and possibly an element of neglect in the early years. As Fatimah said, ADHD was her ‘fault’ because she did not interact with her child at an early age; for Noof, ‘What we did to him has worsened [ADHD]’.

Having a child with ADHD can also prompt feelings of distress. These often arise from the way parents are treated by clerics, teachers or doctors, as well as their own families and friends:

We suffered from teachers, doctors, and the high cost of services ...we go back and forth between home and school [to solve the problems they cause] ... Our relatives tell me to come and visit but do not bring your kids with you... The teachers do not want my children to be in the school and when we move them to another school, the old teachers tell the new ones their opinions before my children even start in the new school. (Salem, the father).

My in-laws and society put a lot of pressure on me. The way they look at my child, they say she will not be able to study in typical schools, she will not be able to get married. People ask, what is wrong with your daughter? Why does she act like this? Show her what she should do, your child is sick, she has jinn [evil spirits], there is no cure. Sometimes I explain to them, sometimes I do not. (Farah)

There are many shocks I have encountered: my son’s doctors, his teachers who humiliate me, the fact that I am suffering because I do not have enough money to fix him. Imagine your life is flying by and you cannot do anything, I brought in people [behavioral/speech therapists]. I do not know if they were really specialists or not, but I had to, and you have other children, a husband and [other responsibilities] to take care of. (Noof)

## **Discussion**

Although previous qualitative and discursive studies have identified parental discourses regarding childhood ADHD, I am not aware of any Middle Eastern/North African research that has focused in depth on parental discourses.

This study explored experiences of ADHD among a small sample of Saudi parents of children with ADHD. While not claiming to be representative of all Saudi parental experiences of ADHD, these accounts do convey the subjective world of the participants and

the role of ADHD discourses. The discourse analysis carried out here shows how these parents made sense of their child's behavior pre-and post-diagnosis, constructing four main discourses in the process: normal behavior (pre-diagnosis), supernatural/religious, medical, and social environment (post-diagnosis).

Pre-diagnosis, participants did not objectify their children's behavior as different or deviant: this emerged in the discourses of both professionals and family members in which these behaviors were identified as problematic within a medical, educational, or social context. Contemporary schooling demands, such as the pressure to read and write (and the earlier or younger the better), and crowding of the curriculum have been recognized in Western literature as factors contributing to ADHD referrals (Graham, 2007).

Society's expectations of orderly behavior in children is reflected in the scientific discourse, which is encapsulated in the APA's DSM (describing the criteria and duration of symptoms indicating a diagnosis of ADHD). Teachers are expected to monitor and observe students for possible symptoms, extending the clinical gaze, as Foucault (1975) calls it, beyond medical experts to teachers. This process operates in a multi-directional manner to the point of surveillance over the supervisors themselves. Teachers are often the first to suggest a diagnosis of ADHD (Iudici *et al.*, 2014).

Danforth and Navarro (2001) note that 'medical discourse ... is so dominant that language users have little choice but to contend with it in some fashion, whether they appropriate the discourse with reflexive acceptance, mild modification, or dramatic resistance' (p.173). In the context of ADHD, this allows the medical discourse to become the 'regime of truth' (Foucault, 1977) against which childhood itself is judged.

Saudi parents are engaged in similar medical accounts to those circulating in Western countries. In Saudi social media, namely Twitter, there are illustrations of medical discourse (analyzed in Alharbi, 2017). In the present study, the medical account is invoked within a

context of ambiguity and resistance, especially when the presentation of ADHD is severe or present with comorbid ‘disorders’. Even when a medical diagnosis has been made, its accuracy, causation and medical treatments might still be resisted by parents. For these parents, ADHD is not a sufficiently well-defined medical entity but rather a set of dysfunctional signs (Iudici *et al.*, 2014).

Discourse analysis emphasises that understandings of ADHD, including its causes, emerge within a wider context of misconceptions and uncertainty among Saudi parents. Early neglect, parental preoccupations with other problems, the evil eye, children’s music TV channels were all pointed out as contributors to ADHD symptoms, whereas a heredity discourse was almost absent (or mentioned only with uncertainty).

Saudi parents also viewed ADHD symptoms as an effect of supernatural possession. Forces such as ‘jinn’ and the evil eye are part of Islamic teaching (Al-Habeeb, 2003), including many Quranic references, hence are an enduring and integral part of Saudi society. Supernatural beliefs influenced these parental understandings of dysfunctional behaviors in their children.

Parental beliefs regarding the causes of ADHD influence the treatment practices they favor (Yeh *et al.*, 2005); in this study, all participants considered the possibility of demonic possession and tried Quranic readings. Four participants asked religious leaders to conduct this ritual and three did the readings themselves.

But although supernatural forces were considered a potential cause of their children’s symptoms, this did not prevent these parents from seeking help from other (non-religious) authorities. This contradicts the conclusions of Yeh *et al.*, (2005) – that etiological beliefs involving spiritual foundations are associated with a decreased likelihood of mental health service use.

All participants interpreted ADHD as an affliction from God, reflecting the Muslim belief that every life episode or challenge comes from God (Ismail *et al.*, 2005), including both illness and cure (Alrubh, 2016). So for these parents, their perception of ADHD was shaped and supported by religious doctrine. Religious belief was a coping strategy, alleviating the stress of raising an ADHD child. As Johnson (2009) notes, religious beliefs can involve positive self-evaluations (God chose us), notions of control (God will help us in difficult times), and optimism about the future (God has a plan; Heaven awaits). It helped these parents to accept ADHD as God's will, and it seemed to strengthen their motivation to help their children.

All the participants in this research were influenced by a combination of medical, social, and religious discourses in their attempts to make sense of their children's symptoms. In Foucauldian terms, what is at stake here is that children with ADHD and even parents themselves are placed under close surveillance in the name of the children's wellbeing, and their capacity to fit into society. This places a heavy responsibility on parents, with outcomes for the children themselves uncertain, particularly in a society which is still learning to deal with ADHD-type behavior. Even in the West, where diagnosis and debate regarding ADHD has been a major theme, the pressures on parents and children are clear:

Due to their dependency upon the adult world for everything from basic sustenance to education and recreation, children are especially subject to the social ramifications of the ADHD diagnosis. Through the eyes of their educators, clinicians, and parents, the ADHD child's world requires regulation to promote the "management" of his/her disorder. Invariably, the active agents in this management are the authority figures surrounding ADHD children. In applying the ADHD mental disorder label to a child, adults take on the responsibility for structuring the child's life to meet the perceived treatment requirements in conjunction with the diagnosis (Rafalovich, 2001, p.373).

The one participating father in this study expressed the same responsibility as the participating mothers, in terms of internalizing the discourse of caring for his children's behavior. A Saudi study of childhood epilepsy similarly found that fathers were significantly

involved in caring for their children with epilepsy. Of course, only one father participated in this ADHD study; future research should consult more Saudi fathers of ADHD-diagnosed children to get a wider view of fathers' experiences and degrees of engagement with their children.

Given that as ADHD is not a homogenous disorder (Taylor, 2009) parents' experiences may vary, especially when associated with different subtypes of ADHD or the presence of co-morbid disorders, and depending on the diagnosis, treatment, school context, and course of action followed by parents. Nevertheless, participating parents of ADHD children often experienced feelings of fear, guilt and psychological distress. These negative feelings are well documented in the literature (e.g. Cappe *et al.*, 2017; Narkunam *et al.*, 2014). Findings from the present study add to the scarce body of Saudi literature on this topic, and point to a need for more research into how these apparently problematic behavioral symptoms in children are understood, diagnosed and treated, how families experience these processes, and the discourses that shape the phenomenon of ADHD.

This paper argues that Saudi parents' discourses regarding ADHD are not only linked to diagnostic ambiguity, but also intertwine with the wider dynamics of modern society, including the power relations inherent in religious, medical, educational, and social contexts and how these impact on children's mental health. These factors increase surveillance of the child experiencing ADHD-type symptoms, alongside his or her parents. In this sense, the ADHD phenomenon in Saudi society has become a channel for competing parental, social, and educational demands—to 'naturalize' the child with ADHD in order to 'fit' well into society.

### References

- Abdur-Rahim, F. E. A., Al-Hamad, A. R., Chaleby, K., & Al-Subaie, A. (1996). A survey of a child psychiatry clinic in a teaching hospital in Saudi Arabia clinical profile and cross-cultural comparison. *Saudi Medical Journal*, 17(1), 36–41.
- Alamiri, F., & Faulkner, M. (2010). Challenging Gifted Children and the Phenomenon of AD/HD: A Qualitative Study of Teachers' and Parents' Perceptions in a Saudi Arabian Primary School. *Australasian Journal of Gifted Education*, 19(1), 6.
- Al-Habeeb, T. a. (2003). A pilot study of faith healers' views on evil eye, jinn possession, and magic in the kingdom of Saudi Arabia. *Journal of Family & Community Medicine*, 10(3), 31–8.
- Alharbi, R. S. (2017). *Attention-Deficit Hyperactivity Disorder (ADHD) Discourses in Saudi Arabia* (Unpublished doctoral dissertation). University of Ottawa, Canada.
- Alrubh, F. S. (2016). *Saudi Arabian mothers of children with sickle cell disease as givers of social support*. Electronic Theses and Dissertations. University of Northern Iowa, US.
- Association, A. P. (2013). *Diagnostic and Statistical Manual of Mental Disorders. DSM-5*. Arlington, VA: American Psychiatric Publishing.
- Armstrong, T. (2017). *The Myth of the ADHD Child: 101 Ways to Improve Your Child's Behavior and Attention Span Without Drugs, Labels, Or Coercion*. Penguin.
- Arnsten, A. F. (2009). The emerging neurobiology of attention deficit hyperactivity disorder: the key role of the prefrontal association cortex. *The Journal of pediatrics*, 154(5), I.
- Baxter, J. (2002). Competing discourses in the classroom: A post-structuralist discourse analysis of girls' and boys' speech in public contexts. *Discourse and Society*, 13(6), 827-842.
- Cappe, E., Bolduc, M., Rougé, M.-C., Saiag, M.-C., & Delorme, R. (2017). Quality of life, psychological characteristics, and adjustment in parents of children with Attention-Deficit/Hyperactivity Disorder. *Quality of Life Research*, 26(5), 1283–1294.
- Cione, G. F., Coleburn, L. A., Fertuck, E. A., & Fraenkel, P. (2011). Psychodynamic play therapy with a six-year-old African American boy diagnosed with ADHD. *Journal of Infant, Child and Adolescent Psychotherapy*, 10, 130–143.
- Conrad, P., and Bergey, M., R. (2014). The impending globalization of ADHD: Notes on the expansion and growth of a medicalized disorder. *Social Science and Medicine*, 122, 31–43.
- Conrad, P., & Schneider, J. W. (2010). *Deviance and medicalization: From badness to sickness*. Temple University Press.
- Conway, F. (2012). Psychodynamic psychotherapy of ADHD: A review of the literature. *Psychotherapy*, 49(3), 404.
- Danforth, S., & Navarro, V. (2001). Hyper talk: Sampling the social construction of ADHD in everyday language. *Anthropology & education quarterly*, 32(2), 167-190.
- Dreyfus, H. L. and Rabinow, P. (1982). *Michel Foucault: Beyond structuralism and hermeneutics*. Wheatsheaf, London: Harvester.
- Foucault, M. (1972). *The Archaeology of Knowledge: Translated from the French by AM Sheridan Smith*. Pantheon Books.
- Foucault, M. (1975). 2003. *Abnormal: Lectures at the Collège De France, 1974-1975*.
- Foucault, M. (1977). *Discipline and punish: The birth of the prison* (A. Sheridan, Trans.). London: Penguin Books.
- Foucault, M. (1994). The art of telling the truth. Critique and power: Recasting the Foucault/Habermas debate, 139-148.

- Ghanizadeh, A. (2007). Educating and counseling of parents of children with attention-deficit hyperactivity disorder. *Patient Education and Counseling*, 68(1), 23-28.
- Gidwani, P., Opitz, G., & Perrin, J., (2006). Mothers' views on hyperactivity: A cross-cultural perspective. *Journal of Developmental and Behavioral Pediatrics*, 27, 121–126.
- Gilmore, K. (2000). A psychoanalytic perspective on attention-deficit/ hyperactivity disorder. *Journal of the American Psychoanalytic Association*, 48, 1259–1293.
- Gilmore, K. (2002). Diagnosis, dynamics, and development: Considerations in the psychoanalytic assessment of children with AD/HD. *Psychoanalytic Inquiry*, 22, 372–390.
- Graham, L. J. (2007). (Re)Visioning the Centre: education reform and the 'ideal' citizen of the future. *Educational Philosophy and Theory*, 39(2), 197-215.
- Hammond, M. (2008). *Twenty-two Lenses for a Single Diagnosis: An Ethnography of ADHD*, ProQuest Dissertations and Theses.
- Hansen, J. H. (2014). *Take a chill pill: a cultural history of Attention Deficit/Hyperactivity Disorder*, ProQuest Dissertations and Theses.
- Hinshaw, S., Scheffler, R., Fulton, B., Aase, H., Banaschewski, T., Cheng, W., and Sergeant, J. A. (2011). International variation in treatment procedures for ADHD: social context and recent trends. *Psychiatric Services*, 62(5), 459-464.
- Hinshaw, S. P., & Scheffler, R. M. (2014). *The ADHD explosion: Myths, medication, money, and today's push for performance*. Oxford University Press.
- Ismail, H., Wright, J., Rhodes, P., & Small, N. (2005). Religious beliefs about causes and treatment of epilepsy. *Br J Gen Pract*, 55(510), 26-31.
- Jenahi, E., Khalil, M. S., & Bella, H. (2012). Prevalence of attention deficit hyperactivity symptoms in female schoolchildren in Saudi Arabia. *Ann Saudi Med*, 32(5), 462-8.
- Johnson, D. D. (2009). God would be a costly accident: Supernatural beliefs as adaptive. *Behavioral and Brain Sciences*, 32(6), 523-524.
- Jones, B., & Allison, E. (2010). An integrated theory for attention-deficit hyperactivity disorder [ADHD]. *Psychoanalytic Psychotherapy*, 24, 279–295.
- Jones, B. (2011). The reality-sampling deficit and ADHD: Indication for an active technique. *Journal of Infant, Child and Adolescent Psychotherapy*, 10, 73–86.
- Ladnier, R. D., & Massanari, A. E. (2000). Treating ADHD as attachment deficit hyperactivity disorder. *Handbook of attachment interventions*, 27-65.
- Lawton, K., Gerdes, E., Haack, A., & Schneider, C. (2014). Acculturation, Cultural Values, and Latino Parental Beliefs About the Etiology of ADHD. *Administration and Policy in Mental Health and Mental Health Services Research*, 41(2), 189-204.
- Leuzinger-Bohleber, M., Laezer, K., Pfenning-Meerkoetter, N., Fischmann, T., Wolff, A., & Green, J. (2011). Psychoanalytic Treatment of ADHD Children in the Frame of Two Extra clinical Studies: The Frankfurt Prevention Study and the EVA Study. *Journal of Infant, Child, and Adolescent Psychotherapy*, 10(1), 32-50.
- Iudici, A., Faccio, E., Belloni, E., & Costa, N. (2014). The Use of the ADHD Diagnostic Label: What Implications Exist for Children and Their Families? *Procedia-Social and Behavioral Sciences*, 122, 506-509.
- Maniadaki, K., Sonuga-Barke, E., Kakouros, E., & Karaba, R. (2007). Parental beliefs about the nature of ADHD behaviours and their relationship to referral intentions in preschool children. *Child: care, health and development*, 33(2), 188-195.
- Mannuzza, S., Klein, R. G., and Moulton III, J. L. (2003). Persistence of attention deficit/hyperactivity disorder into adulthood: what have we learned from the prospective follow up studies?. *Journal of attention disorders*, 7(2), 93-100.

- McIntyre, R., & Hennessy, E. (2012). 'He's just enthusiastic. Is that such a bad thing?' Experiences of parents of children with Attention Deficit Hyperactivity Disorder. *Emotional and Behavioural Difficulties*, 17(1), 65-82.
- Narkunam, N., Hashim, A. H., Sachdev, M. K., Pillai, S. K., & Ng, C. G. (2014). Stress among parents of children with attention deficit hyperactivity disorder, a Malaysian experience. *Asia-Pacific Psychiatry*, 6(2), 207–216. <https://doi.org/10.1111/j.1758-5872.2012.00216.x>
- Nigg, J. T. (2006). *What Causes ADHD?* New York Guilford Publications.
- Parker, I. (n.d.). *Discourse dynamics: Critical analysis for social and individual psychology*. London; New York: Routledge.
- Polanczyk, G., de Lima, M. S., Horta, B. L., Biederman, J., and Rohde, L. A. (2007). The worldwide prevalence of ADHD: a systematic review and meta-regression analysis. *American journal of psychiatry*, 164(6), 942-948.
- Polanczyk, G. V., Willcutt, E. G., Salum, G. A., Kieling, C., & Rohde, L. A. (2014). ADHD prevalence estimates across three decades: an updated systematic review and meta-regression analysis. *International journal of epidemiology*, 43(2), 434-442.
- Rafalovich, A. (2001). Disciplining domesticity: Framing the ADHD parent and child. *The Sociological Quarterly*, 42(3), 373-393.
- Said, E. W. (1978). The problem of textuality: Two exemplary positions. *Critical Inquiry*, 4(4), 673–714.
- Saul, R. (2014). *ADHD does not exist: The truth about attention deficit and hyperactivity disorder*. Harper Collins.
- Southall, A. (2007). *The other side of ADHD: Attention deficit hyperactivity disorder exposed and explained*. Radcliffe Publishing.
- Taleb, R., & Farheen, A. (2013). a Descriptive Study of Attention Deficit Hyperactivity Disorder in Sabia City, Saudi Arabia. *Ijcurr*, 5(11), 36–41.
- Tamboukou, M. (1999). Writing Genealogies: an exploration of Foucault's strategies for doing research. *Discourse: studies in the cultural politics of education*, 20(2), 201-217.
- Taylor, E. (2009). Developing ADHD. *Journal of Child Psychology and Psychiatry*, 50(1-2), 126-132.
- Tzang, R. F., Chang, Y. C., & Liu, S. I. (2009). The association between children's ADHD subtype and parenting stress and parental symptoms. *International Journal of Psychiatry in Clinical Practice*, 13(4), 318-325.
- Timimi, S., and Taylor, E. (2004). ADHD is best understood as a cultural construct. *The British Journal of Psychiatry*, 184(1), 8–9.
- Visser, J., and Jehan, Z. (2009). ADHD: A scientific fact or a factual opinion? A critique of the veracity of Attention Deficit Hyperactivity Disorder. *Emotional and behavioural difficulties*, 14(2), 127-140.
- Widener, A. J. (1998). Beyond Ritalin: The importance of therapeutic work with parents and children diagnosed ADD/ADHD. *Journal of Child Psychotherapy*, 24(2), 267–281.
- Yeh, M., McCabe, K., Hough, R. L., Lau, A., Fakhry, F., & Garland, A. (2005). Why bother with beliefs? Examining relationships between race/ethnicity, parental beliefs about causes of child problems, and mental health service use. *Journal of Consulting and Clinical Psychology*, 73(5), 800.
- Willig, C. (2008) *Introducing qualitative research in Psychology*. 2nd ed. Berkshire: Open University Press.
- Zaki, R. A. (2013). Enhancement the Awareness of Family Caregivers Caring for their Children with Attention Deficit Hyperactivity Disorder of the General Administration

of Intellectual Education Centers in the city of Abha. *Journal of American Science*, 8(9).

## **Chapter 5**

### **Saudi Clinicians' and Teachers' Discourses About Attention Deficit Hyperactivity Disorder (ADHD) in Jeddah, Saudi Arabia**

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### **Abstract**

ADHD is the most commonly diagnosed neurobehavioral disorder among children. While ADHD in Western countries has long been recognized, there is a growing recognition of this disorder as a significant cross-cultural phenomenon.

Using Foucauldian discourse analysis, this study uncovers the discourses drawn upon, reinforced and resisted by six Saudi teachers and four clinicians as they describe their experiences and understanding of ADHD. Saudi clinicians approach ADHD as an extension of American medical views in terms of its causes, diagnosis and treatment. Alarming, in light of the shortage of recommended ADHD medications, there are accounts of antipsychotic medications being prescribed for children.

Saudi teachers' views of ADHD were an extension of the medical discourse; this meant that students' strengths were ignored and the focus was entirely on negative behavioral patterns. Despite the tendency to attribute ADHD to genetics, teachers objectified students who 'acted out' as having ADHD or even other disorders (when the child's behavior or symptoms diverged from their limited understanding of ADHD). Parents who do not comply with teachers' suggestions are blamed for any lack of improvement in the child's behavior and academic attainment.

These findings have implications for individuals and institutions providing ADHD education to both doctors and teachers, and reinforce calls for researchers to examine ADHD outside of the genetic 'box'.

While acknowledging the lack of solid clinical evidence for ADHD, this paper does not debate the ‘truth’ of the disorder, as others have (Saul, 2014; Visser & Jehan, 2009), or accept claims that ADHD is purely a social construct (Armstrong, 2017). As Timimi and Taylor state, ‘The professional task is to understand how genetic and social influences interact, not to simplify it into a polemic’ (2004, p.9). From a theoretical point of view, what is important is to query the discursive formation of a given social issue or problem, in order to reveal or modify it (Foucault, 1972). The purpose of this study is to uncover the discourses drawn upon, reinforced and resisted by Saudi teachers and clinicians as they describe their experiences and understanding of ADHD.

Many studies situate mental health disorders firmly within the realm of medicine. The logic is that the same kinds of processes that cause physical diseases also underlie mental illness; hence they can be treated or cured in the same way – by medical interventions (Southall, 2007). This hypothesis has become widely accepted by medical professionals in the case of ADHD. In a clinical context, ADHD is a neurobehavioral condition characterized by inattention and/or hyperactivity and impulsivity (Nigg, 2006). The neuroanatomy of ADHD in medical discourse focuses on abnormal development of key brain regions (Arnsten, 2009). Nigg (2006) summarizes ADHD causation in terms congruent with the discourse of neurochemistry, presented in vernacular language that can be understood by a lay audience. In his book and others of its kind, readers are presented with hard evidence, given the names of specific organs, chemicals, and shown the ways in which deficits appear as ADHD symptoms; there is no clouding of the discussion by subjectivist explanations drawing on other discourses. Nevertheless, the medical account of ADHD is far from being a unified discourse; debate about its etiology, diagnosis and treatment continues (Hammond, 2008; Visser & Jehan, 2009).

Opponents of the medical discourse have developed alternative approaches, such as the social construct account, in which ADHD results from the demands of modern culture and education (Hinshaw & Scheffler, 2014; Timimi & Maitra, 2009). They argue that biopsychological theories regarding ADHD lack a broader cultural perspective, viewing ADHD symptoms as appearing only within the child or his or her immediate environment (Timimi & Taylor, 2004). The psychodynamic account views ADHD as a result of early childhood disturbances, including possible trauma (e.g. Cione *et al.*, 2011; Leuzinger - Bohleber *et al.*, 2011). Both approaches see the origin of ADHD in factors external to the child.

Clinicians adhere to clinical practice guidelines for the diagnosis, evaluation, and treatment of ADHD (Wolraich *et al.*, 2011). However, Rafalovich (2004) argued that health professionals ‘buy into’ their own expertise as much as those who use their services. Morley (2010) found that although family physicians in the US could distinguish between ADHD-like symptoms and positive ADHD diagnoses, factors such as insurance status, ethnicity and gender influenced diagnosis and treatment decisions. Fiks *et al.* (2011) used free-listing<sup>9</sup> to study the ways in which parents of children with ADHD and clinicians in the US view ADHD, finding significant differences between the two groups. Parents emphasized the negative ways in which ADHD affects the child and the family, while clinicians focused on how ADHD affects a child’s performance in school. Parents valued the opinions of friends and family; clinicians valued input from other professionals, including teachers (Fiks *et al.*, 2011). Meanwhile, parents and clinicians have different understandings of the concept of shared decision-making (SDM): parents viewed SDM as an equal partnership and wanted information about the full range of treatment options, whereas most clinicians viewed SDM as a matter of explaining their treatment choice and encouraging parents to agree (Fiks *et al.*,

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<sup>9</sup> Participants list the words that come to mind in relation to seeking help for ADHD.

2010). Here, clinicians' responses highlight the hierarchical power relations between the role of expert and non-expert.

Teachers' attitudes towards ADHD-diagnosed children – and their limited knowledge of the disorder – influence their behavior towards these students (MacFarlane & Woolfson, 2013), but also shape their students' behavior and academic performance (Rideout & Koot, 2009). Zambo *et al.* (2013) investigated the knowledge and beliefs of American pre-service teachers regarding ADHD. Most participants indicated a lack of understanding of the symptoms and challenges associated with it. Sciutto *et al.*'s 2000 study of primary school teachers in the USA used the Knowledge of Attention Deficit Disorders Scale (KADDS). These teachers knew less about the causes of and treatments for ADHD than its characteristics. Teachers in Nova Scotia (Canada) knew more about the symptoms/diagnosis of ADHD and less about evidence-based interventions (Blotnicky-Gallant *et al.*, 2015). Many studies point to a need for enhanced teacher training regarding ADHD (e.g. Mohr-Jensen *et al.*, 2015; Youssef *et al.*, 2015).

ADHD was first acknowledged in Saudi studies when Abdur-Rahim *et al.* (1996) reported on a six-year study of children's psychological problems at a Riyadh clinic. The study highlighted the prevalence of ADHD within this group (12.6% were diagnosed with it). Most subsequent Saudi ADHD studies have been quantitative (e.g. Alzaben *et al.*, 2018; Taleb & Farheen, 2013). Others have assessed knowledge of ADHD among Saudi teachers (Alamiri & Faulkner, 2010; Munshi, 2014), noting that teachers find ADHD symptoms challenging to manage, yet they tend to access little information about the condition.

## **2. Methodology**

Foucauldian discourse analysis (FDA) formed the basis for examining how ADHD is discursively constructed in Saudi Arabia, examining what clinicians and teachers say about

their experience of learning about dealing with children diagnosed with ADHD and their parents.

Foucault acknowledges the uncertainty of ‘truth’ and the pluralism of meaning in analyzing discourse, emphasizing that literal meaning should not be the focus for discourse analysts. This is not to suggest that ‘anything goes’; on the contrary, it is an invitation, to use a Foucauldian lens, to create a space to be able to ‘rethink’ a given problem. What is important, then, is not what the discourse means literally, but what it conceals and what it achieves. The point of this approach is to ‘[concentrate] on the relations of power and knowledge in modern society’ (Dreyfus & Rabinow, 2014, p.105) and to expose the conditions of stability, presence, authority and power relations when analyzing social institutions (Said, 1978). A commitment to revealing underlying forces as described by Said makes the use of FDA particularly appropriate for the purpose of this research into grasping ADHD in Saudi Arabia.

FDA examines the role of language in the formation of social life. Foucault describes discourse as ‘practices that systematically form the objects of which they speak’ (1972, p.42). Discourse, then, involves social and ideological practices which not only influence how individuals think, interact and behave (Baxter, 2002), but also what they say. Parker (1992) describes the notion of discourse, in a Foucauldian sense, as facilitating and limiting, enabling and constraining what can be said, by whom, where and when.

Foucault states, ‘I take care not to dictate how things should be’ (1994, p.288). This reticence has generated various guidelines by subsequent discourse analysts. Willig’s method (2008) , adopted here, poses the following questions:

- How is the discursive object constructed?
- What are the discursive constructions of the object within wider discourses?
- What are the functions and benefits of constructing the object in a specific way?
- What are the different subject positions that these discourses offer?

- What is the relationship between discourse and practice?
- What is the relationship between discourse and subjectivity?

**Participant Recruitment.** In-depth interviews were carried out in Jeddah, with four Saudi clinicians who treat ADHD, and six female teachers of one or more children diagnosed with ADHD.

Teachers were recruited at three public elementary schools for girls<sup>10</sup> offering ADHD programs. At each school, I explained the purpose of my study to the principal, and received permission to go to the teachers' room during lunch to attempt to recruit participants. There, I described the study and the interview process and invited questions. Two teachers from each school agreed to participate. Five were general classroom teachers, identified in this paper as T1-T5, and one was a special education teacher, identified as S1. Interviews were scheduled at their convenience during working hours.

Recruiting clinicians was challenging. I had intended to find them through the Saudi ADHD Society website, which lists doctors who diagnose ADHD, along with contact phone numbers. I called all these numbers but no-one responded.

I then searched two popular social media platforms. I used doctors' names from the Saudi ADHD Society website as a guide, but also searched for other Jeddah clinicians. On each of the two platforms, I emailed the letter of invitation (see appendix G) to 11 clinicians. Four agreed to participate: a female family doctor (C1), a female clinical psychologist (C2), a male child psychiatrist (C3), and a female child psychiatrist (C4). Two chose phone interviews and two I met at their offices.

**Data Collection.** Data were collected using in-depth, open-ended, audiotaped interviews lasting 30-60 minutes. The interviews were conducted in Arabic, transcribed, and then translated into English.

## 2.2. Findings

In analysing the data, I follow Willig's six stages of Foucauldian discourse analysis. For reasons of space, related stages are combined, with stages 1 and 2, and stages 4 and 5 discussed together.

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<sup>10</sup> In Saudi Arabia, girls are educated separately from boys and by female teachers only. As a woman, I could not approach boys' schools for this study.

### 2.2.1. Stages 1 and 2: Clinicians' and teachers' discourses and the discursive construction of ADHD.

The first stage involves identifying references, whether explicit or implicit, to the discursive object constructed in the text (Willig, 2008). Stage 2 locates the different constructions of the discursive object within wider discourses (Willig, 2008).

The main discursive construction that all the clinicians drew upon was that of ADHD having a cognitive 'within the child' causation, however incompletely understood; this adhered to dominant medical and psychological discourses:

We do not yet know 100% what causes ADHD. But they [researchers] did MRI scans and found that the frontal lobe in the brain in children who have ADHD is not working the same as in children who do not have ADHD. They found that norepinephrine and dopamine, which are proteins in the brain cells, are low. (C4)

ADHD is a genetic disorder – [some] families are [more inclined to be] receptors than others. Also, environmental factors may enhance or decrease symptoms. We believe in the risk factors but when you say that this is caused by that, you have to have evidence. So I go more with genes because we have more evidence of their association with ADHD. (C1)

We do not know what causes ADHD. It could be linked to genetic/heredity causes, but we cannot exclude the environmental factors associated with problems in pregnancy, during birth, and problems in the first few months of a child's life that have an effect on brain development. (C2)

All the clinicians reported using the DSM-5 in diagnosing ADHD:

We rely mainly on the [APA] DSM-5. It is true that the official [WHO] guide is ICD-10. When we enter the patients' data and diagnosis, we use the ICD-10 codes, but clinically we use the DSM-5. (C3)

In the DSM-5, ADHD is classified as a neurodevelopmental disorder, whereas in the DSM-IV-TR, ADHD is classified as a disruptive behavior disorder. Thus the Saudi doctors' discourse of ADHD classification as *a cognitive*, not a behavioral disorder, is apparently based on DSM-5.

Despite variations in prevalence rates noted in the literature, the clinicians assumed that ADHD was highly prevalent in Jeddah, reflecting international prevalence rates:

Cases of course exist and are many in number, like the international ratio... (C3)

Too many...maybe the same number of children I saw in the US. I see a mix of boys and girls, but I see more boys... (C4)

In contrast to the clinicians, the main discursive construction that the teachers drew upon was the attribution of the causes of ADHD to factors *external to the child*. In this, they reflected the social environment account:

ADHD is a disorder...maybe from the environment, I do not know. Maybe from the tension between the parents. I feel that Nora [a pseudonym - her student with ADHD] – her father has diabetes, so he is always angry, he made her like this. Her mother tells me that there are always problems in the family. (T1)

ADHD is a psychological illness...There are cases of child physical abuse when they were little. The student in my class was abused by the housemaid when she was little, her mom told me. Psychological issues that children faced when they were little cause ADHD. (T5)

ADHD is a temporary condition...It is written about as having a genetic cause. I don't know, but if it is a genetic cause it should be classified as a disability. I do not think hyperactivity would be a disability. I don't know...from my experience, [there can be behavior indicating] intensive attention, as well as lack of attention, so the person starts to act [in order] to grab the attention of others around him. (T4)

Here, key social/environmental experiences included parental and possibly other adult behavior, including the possibility of child neglect or abuse, and the resulting effects on the child's psychological state. Only the special education teacher, attributed ADHD to 'within the child' reasons, although she still considered it a behavioral disorder:

ADHD is a behavioral disorder with a neurological imbalance and this affects the student's movements [hyperactive, inattentive, or impulsive], which are beyond her ability to control. The cause is not environmental, for sure. Brain dysfunction is what cause this disorder. (S1)

Yet in practice, all the teachers to some extent pathologized their students with ADHD, using terms such as mentally disabled, mentally delayed, not normal, autistic, and even possessed:

Sometimes, I feel that ADHD is like mental delay. I do not know. Meaning, something mentally related, even in the way they behave. It is like their mind is ill, not healthy. (T1)

I had a student with ADHD, but I don't think her [real] diagnosis is ADHD. From what I know, students with ADHD are academically acceptable, but this student [in the first grade] acted like a three-year old: she put everything in her mouth – pencils, erasers...she was physically aggressive towards her classmates and me, she screamed during Quran periods. I thought she was possessed...she went often to a cupboard in the classroom and closed it on herself; she is highly inattentive. (T3)

Last year, we had two sisters with ADHD; that is, the medical report said they both had ADHD, but as a teacher, I saw something else. I saw mental disability. The one in the second grade was 11 years old, but she repeated first grade three times, and lost one year moving between different schools. She was very calm. According to her mother, when she was little she moved a lot, but her movements decreased when she grew up and her hyperactivity turned into distraction. The youngest sister is in the first grade. She was the opposite of the oldest one – she moved a lot, was aggressive. What made me think hers were not ADHD symptoms is that she went frequently into the classroom cupboards and closed them on herself. She talked to herself a lot, she imitated what the teacher did, and she repeated what the teacher said as if she was the teacher, but to herself...Her reactions were not normal, like ordinary students. When we would take something from her, she would throw herself on the ground and start screaming and crying...When the teachers played a loud audio of verses from the Quran, she got upset, closed her ears with her hands, and screamed. Frankly, we [the teachers] thought she was possessed. (S1)

Here, teachers not only resisted the medical diagnosis based on their knowledge or feelings ('from what I know', T3), ('as a teacher, I saw something else'), ('I feel', T1) but they also suggested, based on their opinion only, an alternative diagnosis, sometimes acting on it (as we will see subsequently).

The teachers stated that they had never encountered students with ADHD symptoms until the ADHD program began in 2016 (one term prior to my data collection). This program provides for the admission of students with ADHD in schools, (one child per classroom). To prepare the teachers, each school hosted a two-day workshop by special education supervisors from the Ministry of Education. Attendance was mandatory.

I had never heard of ADHD. I never noticed it or had students like this in past schools I taught in. When I came here, I encountered this case...the school hosted a two-day workshop about ADHD ...The workshop was about how to deal with these students, what strategies to use, and how to support them. (T2)

Four of the teachers conducted internet searches<sup>11</sup> to learn more about ADHD, while five reported asking the special education teachers or psychologist in the school for more information.

The lecturers told us that students with ADHD should be normal learners and that they need special strategies, that they move a lot but should not behave like the one in my class. They can be impulsive, but not like this student... When I saw this girl in my class, I tried to learn more. I read and searched on the internet...I asked the special education teacher for advice. (T3)

My bachelor degree is in autism and behavioral disorders. We studied ADHD as a part of behavioral disorders, but not in-depth...[After becoming a special education teacher] I was advised to work on both the students' learning difficulties and behavioral modifications. I felt it was a lot to ask with all the cases I had. I had no experience, the ADHD program was new, no-one I asked could help me...I searched on the internet and started to understand gradually about ADHD, its symptoms, and how to handle them. I contacted special education teachers from other schools, but they were lost, like me: the ADHD program was only a name with no clear mechanism. In the second term, I asked for [help from] a psychologist and I learned a lot from her. She came once a week and we discussed the cases together, what strategies to use, how to do individual sessions with the ADHD students, and what books to read. (S1)

Despite seeking additional advice online and in person, the teachers did not acquire an in-depth understanding of ADHD. Yet they began to evaluate and, in some cases, pathologize the students' behavior. This is an example of how people 'reproduce the discourses which legitimate them in the first place' (Willig, 2008, p.176). Teachers did not only confirm or resist a medical diagnosis, but also sometimes suggested their own 'diagnosis'.

ADHD is not a homogenous disorder (Taylor, 2009); its manifestations vary depending on the presentation and severity of symptoms, and the possibility of comorbid disorders. The brief workshops these teachers attended may be part of the problem, not the solution. Two days is a very short period of time to learn about a complex disorder like ADHD, even with additional information sought. Based on the teachers' explanations, the nature of the discourse during workshops was medical/psychological. Yet a one-size-fits-all

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<sup>11</sup> See Alharbi, 2017.

discourse describing students with ADHD ignores their diverse needs and abilities, and requires teachers to become agents of surveillance. In the process, this clinical gaze, as Foucault (1975) calls it, has been extended beyond medical experts to teachers, who are expected to monitor students for possible ADHD symptoms and report on them to parents and principals. As a result, teachers effectively pathologize students who ‘act out’ in one of two categories: those who meet the teachers’ expectations of the disorder are understood to have ADHD, while others, whose symptoms do not conform to their understanding of ADHD, are thought to have a different disorder – perhaps autism (which they may also know very little about). One consultant expressed concern:

Until recently, ADHD was unknown in schools. After the workshops, lectures, media, and doctors’ school reports, teachers started to some extent to recognize it, but before that they did not know about it... Some parents consulted me because teachers had suggested that their children had autism or something else! It is terrible that children with ADHD were wrongly thought to be autistic. (C3)

The term ADHD belies its complexity: understanding the disorder exclusively in its ‘combined’ presentation (featuring symptoms of both inattentiveness and hyperactive-impulsivity), results in oversight of other presentations of the disorder. This can be expected, and problematic, in the case of predominantly inattentive presentation. For example, three out of six teachers referred to students with ADHD with inattentive presentation as having a ‘mental disability’, because to them, a child with ADHD moves a lot and is easily distracted; but when *calm* and distracted, she is thought to have a ‘mental disability’ (S1, T3, T4). This confusion was also described by C3.

I told you about this girl; I believe she has a mental disability. Anyone who sees her will say the same. It is impossible that she has ADHD, because she does not move a lot, but she is distracted all the time. I ask her a question, she gives me a wrong answer. (T4)

Families have a problem, especially when the ADHD presentation is not the combined one. When we tell them the name, they say, ‘Okay, but my child does not have this, why do you say he has only inattention?’; ‘Why do you say ADHD?’ or the other way around. We explain that this is the name of the disorder and that it has different types. When we prescribe medications, they say ‘this is for hyperactivity or inattention’. So

the idea of the name and that it has different presentations is weak among people. Even with doctors, I focus on the idea that impulsivity is not mentioned in the ADHD term, although sometimes it is the reason behind the family consultation. (C3)

### 2.2.2. Stage 3: Action orientation.

This stage examines the outcomes and implications of constructing the discursive object in a particular way (Willig, 2008). By constructing ADHD as a cognitive ('within the child') disorder, Saudi clinicians are reinforcing the dominant Western discourse of ADHD as a bio-psychological construct, in turn legitimizing the need for parents to consult a doctor, and for the doctor to implement pharmaceutical interventions. Although Saudi clinicians confirmed that the etiology of ADHD remains unknown, their use of terms like 'gene', 'brain development', 'the frontal lobe', 'proteins in the brain cells', 'MRI scans' and 'evidence', denotes that ADHD is built on hard science, despite gaps in the evidence for ADHD, low efficacy of drug treatments, and concern about side effects (Cortese *et al.*, 2013; Timimi, 2017). Foucault reminds us that, because a psychiatric diagnosis is binary and absolute (mad or not mad, for example) rather than differential (symptoms are related to specific organic etiologies), 'The problem psychiatry faces becomes precisely that...of establishing the kind of test...that will enable it to meet the requirement of absolute diagnosis' (2006, p. 267). By their exclusive use of medical/hard-science discourse, Saudi clinicians by implication discredit underlying social/environment, religious/cultural, and dietary factors that might be relevant to ADHD symptoms/treatment. One doctor openly dismissed such factors:

Some people think ADHD is related to societal developments: things like watching TV, using the cellphone, or using PlayStation a lot as causing ADHD...Some think it's supernatural forces like the evil eye...Others think there is a relationship between foods and ADHD...[But] there are no strong studies that support such claims. (C3)

Yet if medical progress 'is made through the careful research steps that build a foundation that is larger than the sum of its parts' (Champagne, 2013, p. 634), then doctors should monitor research that is being done into these matters (see, for example, the systematic review by Pelsser *et al.* (2017))

While dismissing social/environment ‘causes’ of ADHD, they did acknowledge the role of Saudi culture in posing obstacles to diagnosing ADHD:

The DSM and the ICD are both followed in Saudi, and we go more with the American one. Both work well and are applicable and compatible. The difference is in the way people interpret the symptoms; this will delay the diagnosis, not reverse it. Medicine does not change; we follow medical resources. But some Saudis do not get diagnosed early because a mother will say, this is normal. They consider jumping, naughtiness, and breaking stuff normal... Usually it is not the parents who notice, it is the school. (C1)

In diagnosing ADHD, they [Western researchers] found that the diagnosis ratio is quite similar in the US, Europe, and Spain. By implication, the same gene deficit in the whole world is also present in Saudi. However, in Saudi culture, when a boy is acting out they say he is a wolf, a man, my boy is normal, my boy is like me when I was a child; the interpretation is different. The fathers do not know that they might have undiagnosed ADHD themselves. Schools are the ones who complain because this ‘wolf’ does not sit still, does not do well in school... I did not feel there was a difference between boys and girls; many girls come because of low academic achievement. The way some Saudis interpret the symptoms is different, but the ADHD symptoms are the same. This is what we call cultural sensitivity; we have to be careful. (C4)

Here, clinicians indirectly criticized parents for misinterpreting and minimizing their children’s behavior. They also noted that teachers were the ones who identified ‘deviant’ behavior.

One outcome of teachers’ adherence to the deviance discourse was a disproportionate focus on students with ADHD who attempt to exert a high degree of control over their parents. By viewing students with ADHD through the deviance lens, teachers felt they understood how the parent-child relationship should be adjusted or changed following diagnosis. All the teachers interviewed insisted on parents’ cooperation with them. Five out of six teachers went further, suggesting that parents should be ‘honest’, declare the student’s ‘real’ diagnosis, report any treatment prescribed by a doctor and maintain or change any medications as suggested by the doctor. Additionally, they expected parents to accept the teacher’s recommendations, such as continuing with the classroom plan, perhaps consulting another doctor, bringing any fresh medical report to the teacher’s attention, and even having

the child take an IQ test. The following comment indicates one teacher's attempts to influence parents, but also some parental resistance:

I told her to consult another doctor; maybe your daughter has something else. The mother responded, no, she has a report from the hospital that she has ADHD...The mother is convinced by the report and saw no need to re-diagnose her. The mother was not co-operating with us [teachers had suggested a repeat IQ test<sup>12</sup> for her daughter because they were unconvinced by the result]...I wish parents of those students would help them by giving them medications because they are in danger. If she needed the medication, of course it should be under medical supervision. The medications make her relax so she can comprehend the subject materials...The reinforcement plan for students with ADHD that we use in the classroom – parents are supposed to use it at home as well. We must use discipline with students with ADHD: we must. (T3)

The teachers' attempt to convince the mother to repeat her daughter's IQ test reflect their view of ADHD as an intellectual deficit.

Students' behavior became, as Foucault described in the context of prisoners' conduct, 'no longer the offence...it was the departure from the norm, the anomaly; it was this that haunted the school...or the prison' (1977, p.299). Being unable to sit still or pay attention, were reviewed by the teachers as deviant. This deviance label changed 'ownership' of the student from parents to teachers, and, through the use of drug interventions, doctors.

Teachers viewing students with ADHD through the deviance lens perceive such students, by implication, as difficult to deal with and a burden for both themselves as teachers, as well as the other students in the class. This is reinforced by the teachers' lived experience with students diagnosed with ADHD. Teachers objected to integrate such students in ordinary classrooms. They felt that placement decisions must be made on a case-by-case basis:

After recess, the girl...does not listen to me, she turns the classroom light on and off...Sometimes when I ask a question, she annoys me, saying repeatedly, 'me teacher', while she doesn't know the answer...She has no respect for the teacher...The special education teacher takes her to give us [the teacher and classmates] a break...She needs special treatment...She keeps me busy all the time. I

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<sup>12</sup> Although an IQ test is not one of the ADHD diagnostic criteria, some doctors order it to rule out any intellectual deficit that might be blocking the child's achievement at school.

am tired, tired of having to deal with her...I have 33 other students in my class. Frankly, I feel that students with ADHD should have special classrooms; I am strongly against inclusion. (T1)

When asked if she would accept more than one ADHD student in her second-grade class, T2 answered forcefully:

ADHD – NO! It has to be one student, it cannot be two – never! We cannot, the teacher, the other students, the big classroom number! The classroom has between 34, 35 students! What are you asking? She moves a lot, is aggressive toward me and the other students, dealing with her is difficult...The student in my class makes her classmates exhausted and tired. I would agree to work with students with other learning difficulties, but students with ADHD are too difficult to handle, in my experience. (T2)

In the context of Foucauldian discourse analysis, we need to ask ourselves what is going on here. Is the problem in the students themselves, or in the labelling (and stigmatizing) of the students that their teachers do not fully understand? Nor, by their own admission, are teachers adequately trained to deal with children with ADHD. Is the problem additionally in the school environment, given large class sizes and the lack of sufficient specialist support for both teachers and ‘difficult’ students? These factors are all relevant to the problem of having a disruptive child in the classroom, and may contribute to the very disruption caused by a child with ADHD-type symptoms – but none of them are addressed by standard medical-behavioral treatments for ADHD.

### **2.2.3. Stages 4 and 5: Positioning and practice.**

Stage 4 examines the subject positions offered by constructions of the discursive objects (Willig, 2008) and stage 5 outlines the possibilities for action contained within discursive constructions.

The DSM definition of ADHD as a neurodevelopmental disorder allows clinicians to take ownership of ADHD knowledge; this term implies that specialist knowledge is required to treat such a disorder. This reflects the Western scientific-medical hierarchy in which clinicians have the power to influence the definition and practices regarding assessment and

treatment of disorders like ADHD, followed by psychologists, and then others such as teachers (Timimi, 2005). As was seen in previous stages of analysis, Saudi clinicians fully adhere to the medical model of childhood development. This allows them to maintain the dominant role in diagnosing and treating ADHD, using American or WHO-based diagnostic criteria. Thus, consultation and follow-up sessions, the prescription of medications and behavioral therapies become legitimate forms of clinical practice. The clinicians interviewed for this study indicated that their treatment decisions depended on the child's individual needs; however, all reported school difficulties as a crucial factor motivating medication intervention:

In parental sessions we teach them about behavior, how to motivate the child to do homework, how to deal with him in the home, or school...we try in these sessions to make the families qualified to deal with their children...Behavioral strategies do not differ much from one child to another, but our goals differ depending on the family's priorities. It depends on behavioral modifications, the concepts of reinforcement and punishment, the importance of routine, discipline, and positive environment. We usually recommend starting with behavioral therapies, especially when the child is five years old or less...[but]if the child has many school difficulties and is threatened with being kicked out of school, then we have to start with the medications even if the child is not old enough. (C2)

Having a child with ADHD, then, means that parents must rely on the doctors' authority. Medications and other interventions become forms of discipline to improve the educational attainment of the students, as well as producing social conformity more broadly (Comstock, 2011). As Foucault writes, 'Discipline 'makes' individuals; it is the specific technique of a power that regards individuals both as objects and as instruments of its exercise' (1977, p.170). The desire to make students with ADHD adhere to school norms makes medication interventions a necessity; the disciplinary power of the discourse becomes evident here.

This could also entail pleasant outcomes for the child. All participants commented on the importance of a ‘brain reward system’ or positive reinforcement as part of behavioral therapy:

The idea of behavioral therapy [for ADHD children] is the same as if the child were normal. It’s called the brain reward system. This is one of the best things we can do after the family has established discipline at home. For example, if you did this I will give you a star. Then parents collect how many stars the child gets by the end of the week and they reward him...Punishment or negativity is prohibited. (C4)

The teachers also utilized a reward system based on positive reinforcement, keeping students with ADHD busy in order to calm them and allow their classmates do tasks without interruption. All of this required time and effort from teachers:

I mostly use positive reinforcement. She loves gifts...so I give her gifts...when I use posters or stickers they don’t work with her as well as when I give her gifts...I put a smiling face sticker on her name on the blackboard, I ask her classmates to greet her. However, she gets bored very quickly...When her classmates write an exam or do an activity, I try to keep her busy by showing her pictures or video clips, so she does not disturb them. (T3)

In light of the teachers’ pathologized perspective, discourses about students’ strengths or interests were absent among the teachers. None of the teachers reported investing in the students’ strengths; indeed, a strength could even be seen as deviant:

I feel she is mentally delayed or, God knows, autistic – I don’t know. The scary thing is that she can read! Once she got close to me and saw my own books and she started reading from them. I couldn’t believe it, I was in shock. Students at her age, who [have] just started school, read letters, they don’t read words or long sentences, but she does. [I asked if she gave her more to read, given that she liked reading? She replied: no, only what is required in the curriculum]. (T3)

But medication remains central to ADHD treatment. The four Saudi clinicians described a shortage of ADHD medications, and two noted the shortage of specialists in Jeddah:

We are under intense pressure because there are less than 10 ADHD specialists who are qualified to diagnose ADHD in Jeddah...Specialists...such as psychologists or special education teachers, are very few in number as well. With regard to medications, it is a disaster: there are only one or two medications, and even these are not available all the time. This causes suffering to the families and us, because for cases that need drug interventions, medications are not available. (C3)

This shortage could explain the prescription of antipsychotic medications like Risperidone, which has been reported by some Saudi parents as the first line of treatment for ADHD instead of Ritalin (Alharbi, 2018). A literature review on antipsychotic medications use found major differences internationally in the use of antipsychotic medications to treat children with ADHD; they are used more frequently in the US than Europe, for example (Patten *et al.*, 2012). The Saudi clinicians reported that they follow American medical practices, including the use of antipsychotic medications. Yet the reported side-effects risks of antipsychotic medications include lifelong endocrine, metabolic, and neurological side effects (Correll & Carlson, 2006; Pringsheim, 2011). Correll and Carlson (2006) called for more careful use of these medications in treating children.

#### **2.2.4 Stages 6: Subjectivity.**

This last stage in the analysis explores the relationship between discourse and subjectivity. As Willig puts it, 'Discourses make available certain ways of seeing the world and certain ways of being in the world' (2008, p.154), giving meaning to our social and psychological realities. This final stage is concerned with the effect of subject positions on the subject's thoughts, feelings and experiences.

The neurodevelopmental model of ADHD allows clinicians to hold the dominant position regarding knowledge of ADHD. The Saudi doctors interviewed in this study emphasised the importance of increasing ADHD awareness among Saudi parents, teachers and even other doctors:

Until recent times, doctors have not known about ADHD, because generally in doctors' training in Saudi they have little contact with psychiatry, and you are talking about a specialization within psychiatry. I have been consulted by doctors about their own children. They tell me, 'I think my child has ADHA, ADH...'. They do not know even the name of the disorder; in turn, they do not know about it. Whether ADHD or autism, these disorders were neglected within the ministry of health, doctors were unaware of them, they did not order ADHD drugs, and so pharmaceutical companies did not order them...Some parents come to me because teachers asked them to. For them [the parents], the child is normal...the role of media [in spreading awareness],

whether TV, newspapers, or social media...is very weak. We struggle over how to correct the wrong information they spread, such as a relationship between TV or nutrition and ADHD...The Saudi ADHD Society needs to do more...Teachers, when they note the child has a problem, refer them to us as having autism or something else...When we write a report to them some of them apologize, [saying] that they do not have the time or resources to apply it...Parents need to demand services so that society will pay attention to them. (C3)

Power, in a Foucauldian sense, can have a negative or positive impact. As the dominant actors in assessing and treating ADHD, specialist clinicians are also ADHD advocates; all those interviewed voiced concern over the huge amount of misinformation among teachers, and the need to address this. They also sympathized with parents of children with ADHD:

We need to support parents, because they suffer a lot; it's such a pity. The school problems are blamed on them, the child's behavior is blamed on them...Parents are the ones who suffer the most. We need to discuss what they need. Some tell me about the specialist shortage, the lack of support from the school. People look at them in a bad way, as if they did not rear their children well. (C2).

As mentioned previously, teachers sometimes view themselves as being in a superior position to parents of children with ADHD by strongly suggesting what parents should do in order to help their children. Teachers are trying to deal with students with ADHD in often very difficult circumstances: inadequate training, large class sizes, and the stress of teaching children with ADHD. They expressed mainly negative feelings such as annoyance, tiredness, nervousness (T1,T2,T3,T4,T5), fear (T1,T3,S1, T5), or despair ('nothing works with her') (T2), ('I used different approaches, but I could not deal with her') (T3).

## **Discussion**

While not claiming to be representative of all Saudi teachers and clinicians in an ADHD context, the accounts featured in this study do convey the subjective world of the participants and the role and nature of ADHD discourses. Although previous studies have identified professionals' discourses regarding childhood ADHD in other parts of the world, I

am not aware of any Middle Eastern/North African research that has focused in depth on such discourses.

The discourse analysis carried out here shows Saudi clinicians' view ADHD as a neurodevelopmental disorder that is highly prevalent in Jeddah, particularly among boys. The medical and prevalence discourses regarding ADHD were consistent among participants and reflected adherence to the DSM-5/dominant Western discourses regarding ADHD. They disregarded religious, dietary, and cultural factors in connection with ADHD, and described the underlying mechanism of ADHD as genetic, while acknowledging the lack of a clear etiology.

Medications and cognitive behavioral therapy (CBT), especially the brain reward system, were recommended by clinicians to manage ADHD in children. Battagliese *et al.* (2015) conducted a meta-analysis study of 24 US studies to examine the efficacy of cognitive behavioral therapy in improving the social competence of children and adolescents (under 18) demonstrating three specific externalized behaviors namely ADHD, opposition defiant disorder, and conduct disorder. The analysis also investigates the efficacy of CBT in improving positive parenting, parental stress and maternal depression. The authors found CBT to be an effective intervention for managing the ADHD symptoms in children with ADHD. They also found that CBT to be associated with reduced parental distress and maternal depressive symptoms. They emphasised on the importance of multimodal interventions targeting both children and their parents in order to produce long-term benefits. Yet a shortage of ADHD medications has led to the prescription of antipsychotic drugs like Risperidone; this was reported by both Saudi parents of children with ADHD (Alharbi, 2018) and Saudi clinicians interviewed in this study. The authors of this study also noted the role of school difficulties in prompting consultation with a doctor, often resulting in drug interventions. Saudi clinicians' beliefs regarding ADHD were an extension of American

medical views, despite the lack of proof of ‘biological abnormality’ in those diagnosed with ADHD (Timimi, 2017, p.3), a continuing controversy around the efficacy and side effects of medications for ADHD (Faraone *et al.*, 2008).

Saudi teachers’ views of ADHD as highly deviant were an extension of the medical discourse. One of the implications of this view is that students’ strengths were ignored and the focus was only on their disruptive behaviors. Yet focusing on other dimensions of these children’s personalities could yield positive effects for them and their parents. Timimi (2017) developed the Relational Awareness Program (RAP), a non-diagnostic approach to children diagnosed with ADHD and their parents. Clinicians adopting this approach view children with ADHD not as deviant, but as relational, emotional individuals; the focus is on building relationships, not simply on controlling behavior. This program has resulted in positive outcomes for both parents and children: parents developed a more positive attitude towards their children, and children were more cooperative and understanding.

Most teachers interviewed for this study attributed ADHD to genetic factors. Yet the medical account is invoked within a context of ambiguity and resistance, especially when the presentation of ADHD is predominantly inattentive or severe.

A potentially harmful view of children diagnosed with ADHD, and teachers’ intervention in parent-child relationships is influenced by the medical discourse, which reduces children with ADHD to neurobiological objects. Clearly, there are no rules regarding what teachers suggest to or require of parents. It is one thing that teachers are often the first to suggest the child be tested for ADHD (Iudici *et al.*, 2014); it is quite another to request an alternative medical report or IQ test. What are the implications of such recommendations on the parents or students themselves (see Alharbi, 2018)?

It is noteworthy that participants’ ADHD discourses in Jeddah paralleled standard Western positivist views of ADHD, including its diagnostic guidelines, etiologies and

practices. In the Saudi context, treatment of ADHD may be more problematic in terms of drug shortages and the replacement of stimulants with antipsychotic medications; it was not possible to verify the extent to which this is happening in Saudi, but it does take place in other countries as well (Patten *et al.*, 2012).

Drawing on poststructuralism, there is some loss of faith in any approach that claims ownership of the ‘reality’ of things, especially with the deficit discourse in the neurodevelopmental model with no proof of causations or biological signs of mental disorder (Burstow, 2015; Cohen, 2016). Given that the definition and course of childhood development differs from one culture to another, and within the same culture over time (Timimi, 2005), I adhere to a call for an understanding of ADHD which goes beyond the reduction of children with ADHD to neurobiological objects, and asks all relevant actors, from parents and teachers to doctors, pharmaceutical companies and policy-makers, to consider other factors that might correlate with mental/behavioral disorder, be they psychological, social, cultural, economic or environmental (Cohen, 2016; Erlandsson & Punzi, 2017). This appeal seeks to steer society away from the notion of the universal child (Timimi, 2005) and to acknowledge diversity.

Findings from the present study add to the scarce body of Saudi literature on this topic, and point to a need for more research into how behavioral symptoms in children are understood, diagnosed and treated, how families and children experience these processes, and the discourses that shape both clinical understandings and educational practice regarding the phenomenon of ADHD.

This paper encourages scholars to challenge the single-sided view of ADHD as a neurodevelopmental entity and favors the inclusion of individuals’ experiences in attempt to understand the phenomenon of ADHD in family, educational and other social settings.

Saudi clinicians' and teachers' discourses regarding ADHD are powerful, despite the ambiguity surrounding causation of ADHD. These discourses intertwine with wider dynamics, including the power relations inherent in medical, educational, and social contexts and how these affect children's mental health. The result is increased surveillance of the child experiencing ADHD-type symptoms, alongside his or her parents. In this sense, the ADHD phenomenon in Saudi society has become a channel for complementary and mutually reinforcing medical and educational approaches that aim to 'naturalize' the child with ADHD in order that they 'fit' well into society.

### References

- Abdur-Rahim, F. E. A., Al-Hamad, A. R., Chaleby, K., & Al-Subaie, A. (1996). A survey of a child psychiatry clinic in a teaching hospital in Saudi Arabia—clinical profile and crosscultural comparison. *Saudi Medical Journal*, *17*(1), 36-41.
- Alamiri, F., & Faulkner, M. (2010). Challenging Gifted Children and the Phenomenon of AD/HD: A Qualitative Study of Teachers' and Parents' Perceptions in a Saudi Arabian Primary School. *Australasian Journal of Gifted Education*, *19*(1), 6.
- Armstrong, T. (2017). *The Myth of the Adhd Child: 101 Ways to Improve Your Child's Behavior and Attention Span Without Drugs, Labels, Or Coercion*: Penguin.
- Arnsten, A. F. T. (2009). Toward a new understanding of attention-deficit hyperactivity disorder pathophysiology. *CNS drugs*, *23*(1), 33-41.
- Baxter, J. (2002). Competing discourses in the classroom: A post-structuralist discourse analysis of girls' and boys' speech in public contexts. *Discourse & Society*, *13*(6), 827-842.
- Blotnicky-Gallant, P., Martin, C., McGonnell, M., & Corkum, P. (2015). Nova Scotia teachers' ADHD knowledge, beliefs, and classroom management practices. *Canadian Journal of School Psychology*, *30*(1), 3-21.
- Burstow, B. (2015). *Psychiatry and the business of madness: An ethical and epistemological accounting*: Springer.
- Champagne, F. A. (2013). Early Environments, Glucocorticoid Receptors, and Behavioral Epigenetics. *Behavioral Neuroscience*, *127*(5), 628-636. doi:10.1037/a0034186
- Cione, G. F., Coleburn, L. A., Fertuck, E. A., & Fraenkel, P. (2011). Psychodynamic play therapy with a six-year-old African American boy diagnosed with ADHD. *Journal of Infant, Child, and Adolescent Psychotherapy*, *10*(1), 130-143.
- Cohen, B. M. Z. (2016). *Psychiatric hegemony: A Marxist theory of mental illness*: Springer.
- Comstock, E. J. (2011). The end of drugging children: Toward the genealogy of the ADHD subject. *Journal of the History of the Behavioral Sciences*, *47*(1), 44-69.
- Correll, C. U., & Carlson, H. E. (2006). Endocrine and metabolic adverse effects of psychotropic medications in children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, *45*(7), 771-791.
- Cortese, S., Holtmann, M., Banaschewski, T., Buitelaar, J., Coghill, D., Danckaerts, M., . . . Sergeant, J. (2013). Practitioner review: current best practice in the management of adverse events during treatment with ADHD medications in children and adolescents. *Journal of Child Psychology and Psychiatry*, *54*(3), 227-246.
- Dreyfus, H. L., & Rabinow, P. (2014). *Michel Foucault: Beyond structuralism and hermeneutics*: University of Chicago Press.
- Erlandsson, S. I., & Punzi, E. (2017). A biased ADHD discourse ignores human uniqueness: Taylor & Francis.
- Faraone, S. V., Biederman, J., Morley, C. P., & Spencer, T. J. (2008). Effect of stimulants on height and weight: a review of the literature. *Journal of the American Academy of Child & Adolescent Psychiatry*, *47*(9), 994-1009.
- Fiks, A. G., Gafen, A., Hughes, C. C., Hunter, K. F., & Barg, F. K. (2011). Using freelisting to understand shared decision making in ADHD: parents' and pediatricians' perspectives. *Patient education and counseling*, *84*(2), 236-244.
- Fiks, A. G., Hughes, C. C., Gafen, A., Guevara, J. P., & Barg, F. K. (2010). Contrasting parents' and pediatricians' perspectives on shared decision-making in ADHD. *Pediatrics*, peds-2010.

- Foucault, M. (1972). *The archaeology of knowledge: Translated from the french by AM Sheridan Smith*: Pantheon Books.
- Foucault, M. (1975). *The Birth of the Clinic: An Archaeology of Medical Perception*, trans. AM Sheridan Smith (New York: Vintage, 1994). *Discipline and Punish: The Birth of the Prison*, 1978-1986.
- Foucault, M. (1977). The return of morality. *Michel Foucault: politics, philosophy, culture: interviews and other writings*, 1984, 242-254.
- Foucault, M. (1994). *The Art of Telling the Truth*, [in:] *Critique and Power: Recasting the Foucault/Habermas Debate*, ed: Michael Kelly Cambridge, MA: MIT Press.
- Foucault, M., Lagrange, J. E., Burchell, G. T., Ewald, F. E., Fontana, A. E., & Davidson, A. I. (2006). *Michel Foucault: Psychiatric Power: Lectures at the Collège de France, 1973-1974*.
- Hammond, M. (2008). *Twenty-two Lenses for a Single Diagnosis: An Ethnography of ADHD*: York University.
- Hinshaw, S. P., & Scheffler, R. M. (2014). *The ADHD explosion: Myths, medication, money, and today's push for performance*: Oxford University Press.
- Hofmann, S. G., Asnaani, A., Vonk, I. J. J., Sawyer, A. T., & Fang, A. (2012). The efficacy of cognitive behavioral therapy: A review of meta-analyses. *Cognitive therapy and research*, 36(5), 427-440.
- Iudici, A., Faccio, E., Belloni, E., & Costa, N. (2014). The Use of the ADHD Diagnostic Label: What Implications Exist for Children and Their Families? *Procedia-Social and Behavioral Sciences*, 122, 506-509.
- Leuzinger-Bohleber, M., Laezer, K. L., Pfenning-Meerkoetter, N., Fischmann, T., Wolff, A., & Green, J. (2011). Psychoanalytic treatment of ADHD children in the frame of two extraclinical studies: The Frankfurt Prevention Study and the EVA Study. *Journal of Infant, Child, and Adolescent Psychotherapy*, 10(1), 32-50.
- MacFarlane, K., & Woolfson, L. M. (2013). Teacher attitudes and behavior toward the inclusion of children with social, emotional and behavioral difficulties in mainstream schools: An application of the theory of planned behavior. *Teaching and teacher education*, 29, 46-52.
- Mohr-Jensen, C., Steen-Jensen, T., Bang-Schnack, M., & Thingvad, H. (2015). What do primary and secondary school teachers know about ADHD in children? Findings from a systematic review and a representative, nationwide sample of Danish teachers. *Journal of attention disorders*, 1087054715599206.
- Morley, C. P. (2010). The effects of patient characteristics on ADHD diagnosis and treatment: A factorial study of family physicians. *BMC family practice*, 11(1), 11.
- Munshi, A. M. A. (2014). Knowledge and misperceptions towards diagnosis and management of attention deficit hyperactive disorder (ADHD) among primary school and kindergarten female teachers in Al-Rusaifah district, Makkah City, Saudi Arabia.
- Nigg, J. T. (2006). *What causes ADHD?: Understanding what goes wrong and why*: Guilford Press.
- Parker, I. (1992). *Discourse dynamics: Critical analysis for social and individual psychology*.
- Patten, S. B., Waheed, W., & Bresee, L. (2012). A Review of Pharmacoepidemiologic Studies of Antipsychotic Use in Children and Adolescents. *The Canadian Journal of Psychiatry*, 57(12), 717-721. doi:10.1177/070674371205701202
- Pelsser, L. M., Frankena, K., Toorman, J., & Pereira, R. R. (2017). Diet and ADHD, Reviewing the Evidence: A Systematic Review of Meta-Analyses of Double-Blind Placebo-Controlled Trials Evaluating the Efficacy of Diet Interventions on the Behavior of Children with ADHD. *PloS one*, 12(1), e0169277.

- Pringsheim, T., Panagiotopoulos, C., Davidson, J., & Ho, J. (2011). Evidence-based recommendations for monitoring safety of second generation antipsychotics in children and youth. *Journal of the Canadian Academy of Child and Adolescent Psychiatry = Journal de l'Academie canadienne de psychiatrie de l'enfant et de l'adolescent*, 20(3), 218.
- Rafalovich, A. (2004). *Framing ADHD children: A critical examination of the history, discourse, and everyday experience of attention deficit/hyperactivity disorder*: Lexington books.
- Rideout, G. W., & Koot, R. A. (2009). Reflective, humanistic, effective teacher education: Do principles supported in the Deans' Accord make a difference in program outcomes? *Canadian Journal of Education*, 32(4), 927.
- Said, E. W. (1978). The problem of textuality: two exemplary positions. *Critical inquiry*, 4(4), 673-714.
- Saul, R. (2014). *ADHD does not exist: The truth about attention deficit and hyperactivity disorder*: Harper Wave New York.
- Sciotto, M. J., Terjesen, M. D., & Frank, A. S. B. (2000). Teachers' knowledge and misperceptions of attention-deficit/hyperactivity disorder. *Psychology in the Schools*, 37(2), 115-122.
- Southall, A. (2007). *The other side of ADHD: Attention deficit hyperactivity disorder exposed and explained*: Radcliffe Publishing.
- Taleb, H. A., & Farheen, A. (2013). A descriptive study of attention deficit hyperactivity disorder in Sabia City, Saudi Arabia. *International Journal of Current Research and Review*, 5(11), 36.
- Taylor, E. (2009). Developing Adhd. *Journal of Child Psychology and Psychiatry*, 50(1-2), 126-132.
- Timimi, S. (2005). *Naughty boys: Anti-social behaviour, ADHD and the role of culture*: Palgrave Macmillan.
- Timimi, S. (2017). Non-diagnostic based approaches to helping children who could be labelled ADHD and their families. *International Journal of Qualitative Studies on Health and Well-being*, 12(sup1). doi:10.1080/17482631.2017.1298270
- Timimi, S., & Maitra, B. (2009). ADHD and Globalization. *Rethinking ADHD: from brain to culture*, 198-217.
- Timimi, S., & Taylor, E. (2004). ADHD is best understood as a cultural construct. *The British Journal of Psychiatry*, 184(1), 8-9.
- Visser, J., & Jehan, Z. (2009). ADHD: A scientific fact or a factual opinion? A critique of the veracity of Attention Deficit Hyperactivity Disorder. *Emotional and behavioural difficulties*, 14(2), 127-140.
- Willig, C. (2008). Foucauldian discourse analysis. *Introducing qualitative research in psychology*, 2, 112-131.
- Wolraich, M., Brown, L., Brown, R. T., DuPaul, G., Earls, M., & Feldman, H. M. (2011). Subcommittee on Attention-Deficit/Hyperactivity Disorder; Steering Committee on Quality Improvement and Management. ADHD: clinical practice guideline for the diagnosis, evaluation, and treatment of attention-deficit/hyperactivity disorder in children and adolescents. *Pediatrics*, 128(5), 1007-1022.
- Youssef, M. K., Hutchinson, G., & Youssef, F. F. (2015). Knowledge of and attitudes toward ADHD among teachers: insights from a Caribbean Nation. *SAGE Open*, 5(1), 2158244014566761.
- Zambo, D., Zambo, R., & Sidlik, L. (2013). Preservice Teachers' Perceptions of Neuroscience, Medicine, and Students With ADHD. *Journal on Excellence in College Teaching*, 24(3).

## Chapter 6: Discussion

This study adopted a Foucauldian discourse analysis approach to explore the dominant Saudi ADHD discourses by collecting empirical evidence from interviews and Twitter posts. The interviewees were parents, educators, and clinicians associated with ADHD in Saudi Arabia. Their experiences, along with AFTA Society Twitter posts, formed the basis of the study (AFTA is the Arabic acronym for ADHD). This study sought to address the following research questions:

- 1) What ADHD discourse(s) in the AFTA Society Twitter site are produced, and what discourse(s) are neglected or absent?
- 2) What discourses do Saudi parents, educators, and clinicians draw upon as they describe their experiences of ADHD, and what discourses do they resist (i.e. criticize, discredit)?
- 3) How do Saudi parents, educators, and clinicians view their lived experience of ADHD, and how can their experiences be understood in relation to the multiple and competing discourses of ADHD that frame their daily lives?

The previous three chapters addressed the following separately: the discourses of AFTA Society Twitter posts, the discourses of parents of children with ADHD, and the discourses of teachers and clinicians. By contrast, this chapter revisits the research questions collectively for all categories of participants, along with AFTA Society Twitter posts.

This chapter describes the key findings emerging from interviews and cross-referenced with the literature, with the aim of providing a complete picture of the major discourses that emerged from data analysis.

## Revisiting the Research Findings

### Major ADHD Discourses

Two discourse-laden research questions guided this study: *What ADHD discourse(s) in the AFTA Society Twitter posts are produced, and what discourse(s) are neglected or absent? What discourses do Saudi parents, educators, and clinicians draw upon as they describe their experiences of ADHD, and which discourses do they resist (i.e. criticize, discredit)?*

#### AFTA Society Twitter Posts Discourses

The major discourses resulting from an analysis Twitter posts are (1) ADHD as a condition involving suffering, and (2) that caring for a child with ADHD is a ‘different’ kind of responsibility for parents and teachers. Terms used to describe the effects or consequences of ADHD include ‘suffering’, ‘problems’, or the use of explicit references to the negative aspects of children’s behavior. Another example of the construction of suffering is the reference to ADHD as a ‘condition’ and children with ADHD as ‘cases’. The use of such clinical, impersonal language, denoting the medical nature of the problem, constructs the discursive object –the symptoms classified as ADHD – as something not yet defined, at least by those who are non-expert (Willig, 2008). The child diagnosed with ADHD is portrayed as a sufferer, subject to associated problems (problems socializing, sleeping, learning), undergoing problematic experiences and, in the words of many parents and teachers, very difficult to deal with. Thus the child with ADHD is, for them, a cause of suffering as well, as the powerful, sometimes shocking, sometimes poignant words of parents and teachers reveal (see article one).

The discourses expressed in the Saudi ADHD Twitter site have the power to create a portrayal subjectivity of children with ADHD as deeply problematic children. This

construction of the subject position of the problem child reveals how a child's identity is formulated through descriptions of disorderly behavior. As a result, children with ADHD are classified as deviants in need of expert intervention; the children's strengths are ignored and the focus was entirely on negative behavioral patterns. This classification creates a false dichotomy: children are judged as either 'normal' or 'abnormal', and those who 'suffer' from ADHD are automatically placed in the latter category. These examples reflect a deviance discourse and through the concept of deviance, ADHD resonates with wider medical and psychological discourses which similarly identify those experiencing various mental health symptoms as deviant.

The deviance discourse posits that caring for a child with ADHD is a 'different' kind of responsibility for parents and teachers than caring for or teaching 'normal' children. In various ways, some tweets constructing parents of children with ADHD as responsible for surveillance of their child with ADHD— a very Foucauldian concept. Then, when diagnosis is confirmed, the parents must be role models, even as they continue to monitor their child. Most tweets reflected an assumption that parents of children with ADHD are responsible for modifying their children's behavior.

Different discourses shape the portrayal and experience of parents of children with ADHD. The criteria and duration of the behaviors that parents have to 'note' and 'gauge' resonate with the APA's DSM discourse, which describes the range of symptoms assigned to a diagnosis of ADHD. This leads to other constructions of parents as role models, and the need to monitor their own behavior, in line with the strategies that parents are advised to follow, which echo the psychological discourse. Failure to comply with 'expert' advice, such as that offered by the Saudi AFTA Society, lends substance to a discourse of guilt and bad parenting (Klasen & Goodman, 2000).

Tweets directed at teachers are categorized in two ways. One presents teachers as probably the first adults who will suspect ADHD in a student, hence, responsible for surveillance of all students. The second way presents strategies that male teachers could use in helping male students with ADHD. The presentation of students with ADHD as male, by employing the pronouns ‘his’ and ‘him’, echoes the generalising discourse and constructs the discursive object as a male disorder. Strikingly, there is no corresponding advice for female teachers of girls. The assumption is clearly that only boys have ADHD and only men teach them, so there is no need for guidance for women teachers. Comments discussing ADHD as if it involved only boys have the potential to impact girls (and, ultimately, women) with ADHD negatively by overlooking them or misinterpreting their symptoms merely as behavioral problems due to failings in the individual child.

Teachers of students with ADHD are viewed as gatekeepers, and the description of behaviors that teachers should notice draw upon the DSM discourse. In this discourse, teachers play a key role in the assessment process for ADHD. The strategies that teachers are advised to implement in the classroom resonate with a medicalized, psychological discourse.

### **Saudi Parents’ Discourses**

Four major discourses were identified in interviews with Saudi parents of children with ADHD: initial understandings of their child’s behavior as normal (pre-diagnosis), and, with time, the adoption of supernatural/religious, medical, and/or social environment explanations for their child’s behavior (and, post-diagnosis, their ‘symptoms’). Pre-diagnosis, Saudi parents did not objectify their children’s behavior as deviant or even different: this emerged in the discourses of both professionals and family members in which these behaviors were identified as problematic within a medical, educational, or social context.

For parents, the medical account is invoked within a context of ambiguity and resistance, especially when the presentation of ADHD is severe, or appear with comorbid

‘disorders’. Even when a medical diagnosis has been made, its accuracy, causation and recommended medical treatments might still be resisted by parents. For these parents, ADHD is not a sufficiently well-defined medical entity, but rather a set of dysfunctional signs (Iudici *et al.*, 2014). Discourse analysis emphasizes that understandings of ADHD, including accounts of its causes, in a wide context of worries, misconceptions and uncertainty among Saudi parents. Experiences and situations such as early neglect, parental preoccupations with other problems including marital tensions, the ‘evil eye’ (see article two), or too much time spent watching children’s TV channels were all identified as contributors to ADHD symptoms, whereas a heredity discourse was almost absent (or mentioned only with uncertainty).

Saudi parents also viewed ADHD symptoms as an effect of supernatural possession, an idea which remains commonplace in Saudi life and culture. Forces such as ‘jinn’ and the evil eye are part of Islamic teaching (Al-Habeeb, 2003), including many Quranic references, hence are an enduring and integral part of Saudi society. Supernatural beliefs influenced parental understandings of dysfunctional behaviors in their children.

Beliefs regarding the causes of ADHD influence treatment practices parents tend to favor (Yeh *et al.*, 2005). In interviews conducted for this study, all parents considered the possibility of demonic possession and pursued the traditional ‘treatment’ of Quranic readings. Four participants asked religious leaders to conduct this ritual and three did the readings themselves. Although supernatural forces were considered a potential cause of their children’s symptoms, this did not prevent these parents from seeking help from other (non-religious) authorities, including doctors and particularly, psychiatrists. This contradicts the conclusions of Yeh *et al.* (2005) – that etiological beliefs involving spiritual foundations are associated with a decreased likelihood of mental health service use. While a willingness to combine medical with spiritual approaches might be seen in a positive light, the problem arose when,

attending medical consultations, medications prescribed to treat serious disorders such as schizophrenia or dementia were recommended by doctors. These antipsychotic medications, especially Risperidone, were mentioned by all parents as treatments for ADHD (one doctor expressed concern about this and explained that there was a shortage of the usual ADHD medication, Ritalin).

All participants interpreted ADHD as an affliction sent by God, reflecting the Muslim belief that every life episode or challenge comes from God (Ismail *et al.*, 2005), including both illness and cure (Alrubh, 2016). So for these parents, their perception of ADHD was shaped and supported by religious doctrine. It is important to emphasize that religious belief was not simply a matter of seeing a problem like ADHD as a curse; it also provided a set of coping strategies, alleviating the stress and isolation that can be part of raising an ADHD child. As Johnson (2009) notes, religious beliefs can involve positive self-evaluations (God chose us), notions of control (God will help us in difficult times), and optimism about the future (God has a plan; Heaven awaits). It helped these parents to accept ADHD as God's will, and it seemed to strengthen their motivation to help their children. However, any focus on children's strengths or interests remained absent; the attention was entirely on negative behavioral patterns and how to cope with or fix them.

### **Saudi Teachers' and Clinicians' Discourses**

The major discourse among Saudi clinicians that emerged in this study was viewing ADHD as a neurodevelopmental disorder, one that was highly prevalent in Jeddah, particularly among boys. Both medical and prevalence discourses regarding ADHD were consistent and reflected adherence to the DSM-5/dominant Western discourses regarding ADHD, though there is little evidence that prevalence is higher in Jeddah than other parts of Saudi or indeed, higher than global rates generally (which themselves are somewhat contentious). Discourses reflecting religious, dietary, and cultural factors in connection with

ADHD were disregarded by doctors; they described the underlying mechanism of ADHD as genetic, while at the same time acknowledging the lack of a clear etiology. They minimized the role of diet on ADHD despite the evolving literature demonstrating evidence as to its effect (Pelsser *et al.*, 2017; Sarris *et al.*, 2015).

Instead, they recommended medications and cognitive behavioral therapies for managing ADHD in children. However, a shortage of ADHD medications in Saudi has led to the prescription of antipsychotic medications such as Risperidone, as reported by Saudi parents of children with ADHD (Alharbi, 2018) and the Saudi clinicians interviewed for this paper. Medical doctors also noted the role of a child's difficulties at school in prompting consultation with a doctor, often resulting in pharmaceutical interventions. Treatment of ADHD may be more problematic in Saudi in terms of medication shortages and the replacement of stimulants with antipsychotic drugs. It was not possible to verify the extent to which this is happening in Saudi, but it does take place in other countries as well (Patten *et al.*, 2012).

Saudi teachers' discourses regarding ADHD reflected their perception of ADHD as highly deviant; they reflected an extension of the medical discourse. Most teachers interviewed for this study attributed ADHD to genetic factors. Yet this medical account is invoked within a context of ambiguity and resistance, especially when the presentation of ADHD is predominantly inattentive or severe. An illustration of the extent to which teachers are influenced by the medical discourse is the intervention by teachers in parent-child relationships, which can reduce children with ADHD to neurobiological objects. In the Saudi context, there were no rules regarding what teachers suggested to or required of parents. It is one reality that teachers are often the first to suggest the child be tested for ADHD following a period of surveillance (Iudici *et al.*, 2014); it is quite another to expect parents to follow

their instructions on how they interact with their child home, or to request an alternative medical report or IQ test (as seen in this study).

### **Parents, Teachers, and Clinicians: Lived Experiences of ADHD**

The third research question guiding this study was *How do Saudi parents, educators, and clinicians view their lived experience of ADHD, and how can the ways they view their experiences be understood in relation to the multiple and competing discourses of ADHD that frame their daily lives?*

#### **Parents' Lived Experiences of ADHD**

As mentioned previously, parental discourses showed that they view their lived experiences of ADHD as taking place in two distinct episodes: pre- and post-diagnosis. Pre-diagnosis, parents view ADHD symptoms as normal childhood behaviors that did not initially raise any serious concerns. Parents took action only when their children's behavior was pointed out as problematic by someone else – a doctor (who might be visited for another reason, like flu or speech delay), or a teacher or a relative. The identification of these behaviors as problematic within medical, educational, or social contexts led parents to engage, most of the time simultaneously, in a combination of discourses in their attempts to make sense of their children's symptoms. Post-diagnosis, they actively engaged in supernatural/religious, medical, and social environment discourses. For Hansen and Hansen's (2006) qualitative study the authors conducted semi-structured interviews to investigate the perceptions of ten Canadian parents' regarding the stimulant medication used to treat their children's ADHD. The main discourse that emerged from these interviews was the parents' tendency to describe the experience of having a child treated with stimulant medication as a dilemma. These parents felt caught in a dynamic balancing act, as the medication had both desirable and undesirable effects in different settings.

By internalizing the discourse of needing to understand and ‘fix’ their children’s ‘deviant’ behaviors, parents experienced troubling feelings such as fear of the future, stress over the urgency of the task, social isolation, and loss of control. In interviews conducted for the present study (see Chapter 4), parents also reported feelings of guilt, manifested in the regret expressed by some who felt they had missed the early signs of ADHD, and others who wondered if there had been an element of neglect in their parenting during the child’s early years. Having a child with ADHD can also prompt feelings of distress, which often arise from the way parents are treated by clerics, teachers or doctors, as well as their own families and friends. These negative feelings are well documented globally in the literature (e.g. Cappe *et al.*, 2017; Narkunam *et al.*, 2014) and were confirmed in my own research and interviews carried out for this dissertation.

### **Saudi Teachers’ and Clinicians’ Lived Experiences of ADHD**

The Saudi clinicians’ lived experiences of ADHD were quite similar to those described by Western clinicians (American Psychiatric Association, 2013) in relation to ADHD causation, diagnosis protocols, and treatments. Despite variations in prevalence rates noted in the Saudi literature and amid a continuing debate over the validity of a fixed global prevalence rate, the clinicians assumed that ADHD was highly prevalent in Jeddah, reflecting international prevalence rates. They described a shortage of ADHD medications, and some noted a shortage of specialists in Jeddah. While subscribing to a largely medicalized account of ADHD, they were also very attuned to the personal/family difficulties involved and the strains on teachers, while expressing concern over the huge amount of misinformation and wrongful practices among teachers.

In light of inadequate training, large class sizes, and the stress of teaching children with ADHD, teachers’ lived experiences of ADHD in Jeddah were mainly negative. They reported students with ADHD as disruptive, difficult to deal with and a burden – both for

themselves as teachers as well as for the other students in the class. They resisted accepting such students in regular classrooms, recommending that placement decisions be made on a case-by-case basis. They also expressed feelings of annoyance, tiredness, nervousness, fear and despair. They were quite intolerant and judgemental of children with ADHD and their parents, and intervened in parent-child relationships, setting out what parents should or should not do. Rogers *et al.* (2015b) explored the state of knowledge about the academic functioning of students with ADHD by utilizing ecological systems theory in reviewing relevant literature. This theory helps to delineate the different, overlapping elements that influence the functioning of students with ADHD, by examining the role played by other students, teachers and parents and the external world, in a series of systems moving outwards from the school, to the home, to external influences on parents and families, to the broader socio-cultural context, and finally to the chronology of events in a child's/family's life. The authors highlighted the importance of sustainable, collaborative and context-based interventions in order to meet the complex needs of students with ADHD.

### **The Intersection of ADHD Discourses**

In this dissertation, the discourses that have emerged around ADHD in Saudi Arabia are the focus of my investigation: that is, the language that is used to describe and interpret it both clinically and in the emotive terms sometimes employed by teachers and parents; and the underlying attitudes to children who are diagnosed with ADHD in Saudi, alongside beliefs about the disorder, that are conveyed by this language and these discourses. This section goes beyond the identification and organization of discourses around distinct stakeholders, by presenting a wider discussion of the interaction of discourses across the network of different actors.

One of the reasons Foucault is so influential in social sciences is the way he conceptualized discourse and power. For Foucault, the world and social life is created by

language. The meaning of language is regulated by social structure, culture and discourses, and the way they interact and circulate. In a Foucauldian sense, language is not just descriptive of the social world; it is a social activity that constructs our social world. Discourses create and are created by social interaction, among a particular language community, and in a given socioeconomic context (Hare-Mustin, 1994). Foucault worked to uncover and deconstruct knowledge and power, and this endeavor led him to advance ideas about the way people perceive power, if indeed they are aware of how power is sometimes used and exerted (i.e. through his ideas about both discourse and surveillance). Power is an important element in producing and circulating what counts as 'truth' and in turn, what counts as knowledge; where ADHD is concerned, we see the medical discourse achieving dominance through agreement on a set of symptoms by US mental health clinicians and spreading worldwide, to a general clinical consensus. In this way, children are given a medical diagnosis, and often, a medical treatment. This medicalized understanding (and treatment approach) then spreads beyond the realm of doctors, to the families and teachers of diagnosed children.

Yet Foucault reminded us that discourse is, most of the time, no more than the product of repetition, discursive 're-circulation' and that there is no escape from power into freedom (Foucault, 1986). He aimed to make us aware of the limits within which we speak; so even when we think we are expressing something in terms of innovation or novelty, as far as Foucault is concerned, we are merely referring to or recirculating what has been said before (Foucault, 1986). So although clinical diagnosis and treatment based on a Western medical consensus is now the dominant paradigm for dealing with ADHD in Saudi, this sits comfortably alongside traditional, culturally based ideas about deviance which are present in the context of Saudi/Muslim beliefs regarding possession by spirits causing certain behaviours. In interviews conducted for this dissertation, participants saw no contradiction in

seeking help from both clerics and clinicians in addressing their child's problems. These problems had often been initially reported by teachers, some of whom also referenced spirit possession or djinns, but who nevertheless supported medical diagnosis and treatment paradigms.

Thus medical, educational, social, supernatural and religious discourses about ADHD intersect and circulate in Saudi while at the same time preserving and reinforcing dominant Western discourses about ADHD.

In Foucauldian terms, the 'power' to identify ADHD lies initially with parents and/or teachers, and when they bring it to the attention of clinicians, it is clinicians who have the power to diagnose and treat it, usually with medication. Clinicians in particular must accept a pre-existing Western discourse which finds behavioural symptoms of a certain degree and type (consistent with the DSM) among children to be deviant, and in need of correction. While parents and teachers may be unfamiliar with this Western discourse (and its formalization in the DSM), it fits neatly enough with Saudi ideas of acceptable and unacceptable behaviour among children, though there are distinctive Saudi (religious/spiritual) discourses which reinforce ideas of deviance.

Following diagnosis, one of the non-medical programs to manage ADHD in an educational context, the home-school communication program, brought teachers and parents together to jointly monitor the ADHD child at home and at school. While this cannot be compared with the 'discipline and punish' framework of prisons as Foucault wrote about them, where home-school programs are concerned there are strategies in place to reinforce desired behaviors, with an element of punishment if a child's behaviour does not achieve this standard, or regresses. Foucault's ideas regarding the power of both discourse and surveillance provide useful insights into the emergence of ADHD as a diagnosis and

treatment category for Saudi children, and the lived experience of the teachers and parents who deal with it on a daily basis.

This study demonstrated that there is an array of different, sometimes complementary, sometimes competing discourses circulating in Saudi culture where ADHD is concerned. However, some of these have a privileged and dominant influence on language, thought and action. The dominant discourses in Saudi society about ADHD are highly influenced by Western approaches and discourses, influencing diagnosis. Other discourses are less dominant, some of them are marginalized, and some are co-opted by the dominant discourses. For example, the religious/supernatural interpretation of 'disordered' children's behaviour is not found in the west, but is still prevalent in Saudi Arabia and other conservative Muslim societies, even if it sits comfortably alongside a medical approach; it could be argued that Saudi cultural discourse has in this case been co-opted by the dominant (Western) medical discourse. Alternatively, some treatment approaches that challenge the medicalization of ADHD remain relatively marginal (for example, that of Gapin *et al.* 2011), while others might be complementary to medical treatment (for example, the home-school programs discussed in Chapter 2).

The dominant discourse in the production of meanings concerning ADHD in Saudi is the medical discourse, which was affirmed by clinical experts I interviewed, and regarded as common sense. This discourse is highly influenced by – and in turn reproduces – Western medical discourse. ADHD within this context is seen as a deviance construct: a subject deviates from normality to abnormality if s/he meets the DSM criteria for ADHD. These criteria are the result of a vote by the membership of the American Psychiatric Association. This discourse circulates among experts and is transferred to clinicians more widely (not only psychiatrists, but also pediatricians and GPs, for example, and then beyond them to teachers, parents and so on). The medical discourse interacts with educational, societal and social

media discourses regarding the generally accepted type and standard of behaviour among children. The result of this discursive process, in which medical, educational, societal and social media discourses interact and circulate, has the effect of supporting and reproducing ADHD as a deviance construct.

The circulation of the idea that inattentiveness, hyperactivity, or impulsivity were signs or symptoms of ADHD, prevalent in both expert and lay discourses, and the cumulative influence of these discourses on parents, gradually formed a 'reverse' discourse among parents. This led to the disappearance of 'normality' discourse (in understanding their child's behaviour), as abnormality or deviance discourse began to demand that they acknowledge its legitimacy, using medical vocabulary and categories. This 'normalization' of the 'abnormal' child resulted in that child becoming an object of interventions ranging from medical and religious to educational and parental (home-based). Such is the power of discourse.

## Chapter 7: Conclusion

Western medical views of ADHD are intrinsic to Saudi medical practice, reflecting a similar hierarchical status in which doctors maintain the dominant role in treatment decisions, dismissing explanations or treatments which challenge medicalized explanations and treatments. AFTA Society twitter posts constitute an application of these medical views. While reflecting varying degrees of adherence to religious/societal understandings of disruptive behavior (including the 'evil eye'), Saudi teachers are nevertheless followers of the medical account of ADHD. When the presentation of ADHD is predominantly inattentive or severe, the medical account is invoked within a context of ambiguity and resistance among those teachers. In such cases, reflecting both the dominant medical and cultural/religious discourses, teachers pathologized their students with ADHD using stigmatizing terms such as 'mental delayed' or 'possessed'.

Saudi parents, by contrast, considered their children's behaviors normal until pointed out by medical, educational or other social actors as problematic. Afterward, they engaged, often simultaneously, in a series of multiple consultations and treatment recommendations emerging from different discourses: supernatural/religious, medical, and social environment, often with conflicting results. These discourses share the same concept: ADHD is seen as deviant. While it is clear that ADHD is a quite nuanced and challenging experience for children with ADHD, their families, and teachers, situating ADHD within the deviance discourse exclusively did not ease the participants' struggles, but arguably made them worse. Post-structuralist accounts have no faith in any discourse that claims to be a privileged truth, such as the traditional deviance model of deficit and pathology. Other views and voices need to be incorporated into understandings of ADHD within families and schools, among doctors and in society more widely.

### **Implications, Limitations and Contributions**

This study has shown that the dominant discourses as presented in comments on the AFTA Society Twitter account, and in the views of parents, teachers and clinicians, reflect a view of children with ADHD as deviant, negative and dysfunctional. An important implication of this view is that children's strengths were ignored and the focus was only on their disruptive behaviors. Yet focusing on other dimensions of these children's personalities could yield a positive image of these children. Timimi (2017), a consultant in child and adolescent psychiatry, developed the Relational Awareness Program (RAP), a non-diagnostic approach to children diagnosed with ADHD and their parents. Clinicians adopting this approach view children diagnosed with ADHD not as deviant, but as relational, emotional individuals; the focus is on building relationships, not simply on controlling behavior. This program has resulted in positive outcomes for both parents and children: parents developed a more positive attitude towards their children, and children became more cooperative and understanding. Another effective alternative approach concerns the role of physical activities (PA) on managing ADHD symptoms. A literature review by Gapin *et al.* (2011) explored a range of findings regarding the relationship between PA and ADHD symptoms. The authors found evidence for the benefit of PA in managing cognitive and behavioral symptoms of ADHD in children.

Given that ADHD is situational, meaning that symptoms vary according to situational contexts (Bader *et al.*, 2018) i.e. in places – like schools – where they are expected to behave in a certain way, the findings of the present research also highlight the ways in which the Saudi school environment may be particularly challenging for students with ADHD. Factors identified here include large class sizes, inadequate teacher training, teacher ignorance and intrusion into both familial and medical contexts, and overall negative perceptions of ADHD. These problems reveal the need for intervention by the Saudi Ministry of Education with

regard to reducing school class sizes and adding more training resources for pre-service teachers; teachers need to be encouraged to focus not only on the dysfunctional side of ADHD, but also on students' interests and strengths.

Two limitations to this study which are acknowledged. The first concerns the representation of ADHD discourses in AFTA Society. I collected AFTA Society tweets during for the same period I conducted the interviews, between December 1, 2016, and January 31, 2017. The tweets collected over these two months might not be representative of all AFTA Society discourses. Future research should examine an expanded period of tweets or include tweets from other Saudi Twitter accounts that mention ADHD. Another limitation is that only two participants were males: one father and one clinician. It was expected during the proposal phase that female participants would be more willing to contact me than male participants, since I am a female researcher. In a conservative country such as Saudi Arabia, this would act as a constraint on recruiting and interviewing male participants. Future research should consult more Saudi fathers of ADHD-diagnosed children to get a wider view of fathers' experiences and degrees of engagement with their children (male or female).

These limitations notwithstanding, findings from the present study add to the scarce body of Saudi literature on this topic, and point to a need for more research into how ADHD symptoms in children are understood, diagnosed and treated, how families experience these processes, and the discourses that shape the phenomenon of ADHD.

## References

- Abdur-Rahim, F. E. A., Al-Hamad, A. R., Chaleby, K., & Al-Subaie, A. (1996). A survey of a child psychiatry clinic in a teaching hospital in Saudi Arabia—clinical profile and crosscultural comparison. *Saudi Medical Journal*, *17*(1), 36-41.
- Abed, M., Pearson, S., Clarke, P., & Chambers, M. (2014). Saudi Arabian Teachers' Knowledge and Beliefs about ADHD. *Journal of the International Association of Special Education*, *15*(1).
- Al Hamed, J. H., Taha, A. Z., Sabra, A. A., & Bella, H. (2008). Attention deficit hyperactivity disorder (ADHD) among male primary school children in Dammam, Saudi Arabia: prevalence and associated factors. *J Egypt Public Health Assoc*, *83*(3-4), 165-182.
- Al-Habeeb, T. A. (2003). A PILOT STUDY OF FAITH HEALERS' VIEWS ON EVIL EYE, JINN POSSESSION, AND MAGIC IN THE KINGDOM OF SAUDI ARABIA. *Journal of family & community medicine*, *10*(3), 31.
- Alamiri, F., & Faulkner, M. (2010). Challenging Gifted Children and the Phenomenon of AD/HD: A Qualitative Study of Teachers' and Parents' Perceptions in a Saudi Arabian Primary School. *Australasian Journal of Gifted Education*, *19*(1), 6.
- Alberto, P. A., & Troutman, A. C. (2013). *Applied Behavior Analysis for Teachers*. 6th: Prentice Hall.
- Alharbi, R. S. (2017). ADHD in 140 Characters or Less: An Analysis of Twitter Commentary on Attention Deficit Hyperactivity Disorder in Saudi Arabia. *Universal Journal of Educational Research*, *5*(12), 2186-2195.
- Alharbi, R. S. (2018). *Attention Deficit Hyperactivity Disorder Discourses in Saudi Arabia*. Dissertation. Education. University of Ottawa.
- Alhraiwil, N. J., Ali, A., Househ, M. S., Al-Shehri, A. M., & El-Metwally, A. A. (2015). Systematic review of the epidemiology of attention deficit hyperactivity disorder in Arab countries. *Neurosciences*, *20*(2), 137.
- Almahmoud, J. (2015). Framing on Twitter: How Saudi Arabians intertextually frame the Women2Drive campaign.
- Alothman, A. B. (2013). *A survey of social media users in Saudi Arabia to explore the roles, motivations and expectations toward using social media for social and political purposes*: Arkansas State University.
- Alrubh, F. S. (2016). Saudi Arabian mothers of children with sickle cell disease as givers of social support.
- Alzaben, F. N., Sehlo, M. G., Alghamdi, W. A., Tayeb, H. O., Khalifa, D. A., Mira, A. T., . . . Koenig, H. G. (2018). Prevalence of attention deficit hyperactivity disorder and comorbid psychiatric and behavioral problems among primary school students in western Saudi Arabia. *Saudi Medical Journal*, *39*(1), 52.  
doi:10.15537/smj.2018.1.21288
- American Psychiatric, A. (2013). *Diagnostic and statistical manual of mental disorders (DSM-5®)*: American Psychiatric Pub.
- Andrews, K. T., & Caren, N. (2010). Making the news: Movement organizations, media attention, and the public agenda. *American Sociological Review*, *75*(6), 841-866.
- Angermuller, J. (2014). *Poststructuralist discourse analysis: Subjectivity in enunciative pragmatics*: Springer.
- Anthony, S. M., & Zhang, W. (2017). Alternative Tweeting: A Comparison of Frames in Twitter's Political Discourse and Mainstream Newspaper Coverage of the Singapore General Election of 2011. In *Handbook of Research on Citizen Engagement and Public Participation in the Era of New Media* (pp. 324-343): IGI Global.

- Armstrong, T. (2017). *The Myth of the Adhd Child: 101 Ways to Improve Your Child's Behavior and Attention Span Without Drugs, Labels, Or Coercion*: Penguin.
- Arnsten, A. F. T. (2009). Toward a new understanding of attention-deficit hyperactivity disorder pathophysiology. *CNS drugs*, 23(1), 33-41.
- Arribas-Ayllon, M., & Walkerdine, V. (2008). Foucauldian discourse analysis. *The Sage handbook of qualitative research in psychology*, 91-108.
- Austin, H., & Carpenter, L. (2008). Troubled, troublesome, troubling mothers: The dilemma of difference in women's personal motherhood narratives. *Narrative Inquiry*, 18(2), 378-392.
- Bader, M., Tannock, R., & Hadjikhani, N. (2018). The Zappel-Philipp a historical example of ADHD Clinics. *ADHD Attention Deficit and Hyperactivity Disorders*, 10(2), 119-127. doi:10.1007/s12402-017-0239-4
- Barkley, R. A. (2006a). Comorbid disorders, social and family adjustment, and subtyping. *Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment*, 184-218.
- Barkley, R. A. (2006b). The Relevance of the Still Lectures to Attention-Deficit/Hyperactivity Disorder: A Commentary. *Journal of attention disorders*, 10(2), 137-140. doi:10.1177/1087054706288111
- Barkley, R. A., & Peters, H. (2012). The Earliest Reference to ADHD in the Medical Literature? Melchior Adam Weikard's Description in 1775 of "Attention Deficit" (Mangel der Aufmerksamkeit, Attentio Volubilis). *Journal of attention disorders*, 16(8), 623-630. doi:10.1177/1087054711432309
- Barkley, R. A. e. (2015). *Attention-deficit hyperactivity disorder : a handbook for diagnosis and treatment* (Fourth edition / edited by Russell A. Barkley.. ed.): New York : The Guilford Press, 2015
- ©2015.
- Barry, T. D., Lyman, R. D., & Klinger, L. G. (2002). Academic underachievement and attention-deficit/hyperactivity disorder: The negative impact of symptom severity on school performance. *Journal of school psychology*, 40(3), 259-283.
- The Basic Law of Governance. (2013). *Royal embassy of Saudi Arabia in Washington, DC*.
- Battagliese, G., Caccetta, M., Luppino, O. I., Baglioni, C., Cardi, V., Mancini, F., & Buonanno, C. (2015). Cognitive-behavioral therapy for externalizing disorders: A meta-analysis of treatment effectiveness. *Behaviour research and therapy*, 75, 60-71.
- Baxter, J. (2002). Competing discourses in the classroom: A post-structuralist discourse analysis of girls' and boys' speech in public contexts. *Discourse & Society*, 13(6), 827-842.
- Bentall, R. P. (2004). *Madness explained: Psychosis and human nature*: Penguin UK.
- Berger, P. L. (1967). *The social construction of reality : a treatise in the sociology of knowledge*. Garden City, N.Y.: Garden City, N.Y. : Doubleday, 1967, c1966.
- Block, G. H. (1977). Hyperactivity: A Cultural Perspective. *Journal of Learning Disabilities*, 10(4), 236-240. doi:10.1177/002221947701000412
- Blotnicky-Gallant, P., Martin, C., McGonnell, M., & Corkum, P. (2015). Nova Scotia teachers' ADHD knowledge, beliefs, and classroom management practices. *Canadian Journal of School Psychology*, 30(1), 3-21.
- Breggin, P. R. (1994). *Toxic Psychiatry: Why Therapy, Empathy and Love Must Replace the Drugs, Electroshock, and Biochemical Theories of the "New Psychiatry"*: Macmillan.
- Brown, R. T., & Daly, B. P. (2009). Neuropsychological effects of stimulant medication on children's learning and behavior. In *Handbook of clinical child neuropsychology* (pp. 529-580): Springer.

- Burstow, B. (2015). *Psychiatry and the business of madness: An ethical and epistemological accounting*: Springer.
- Busfield, J. (1986). *Managing madness: Changing ideas and practice*: Hutchinson London.
- Bussing, R., Gary, F. A., Mills, T. L., & Garvan, C. W. (2003). Parental explanatory models of ADHD. *Social psychiatry and psychiatric epidemiology*, 38(10), 563-575.
- Cappe, E., Bolduc, M., Rougé, M.-C., Saiag, M.-C., & Delorme, R. (2017). Quality of life, psychological characteristics, and adjustment in parents of children with Attention-Deficit/Hyperactivity Disorder. *Quality of Life Research*, 26(5), 1283-1294.
- Cataldi, B. J. (2004). *Foucault's discourse theory and methodology: An application to art education policy discourse 1970-2000*. The Ohio State University,
- Cha, M., Haddadi, H., Benevenuto, F., & Gummadi, P. K. (2010). Measuring user influence in twitter: The million follower fallacy. *Icwsm*, 10(10-17), 30.
- Chafouleas, S. M., Riley-Tillman, T. C., & McDougal, J. L. (2002). Good, bad, or in-between: How does the daily behavior report card rate? *Psychology in the Schools*, 39(2), 157-169.
- Champagne, F. A. (2013). Early Environments, Glucocorticoid Receptors, and Behavioral Epigenetics. *Behavioral Neuroscience*, 127(5), 628-636. doi:10.1037/a0034186
- Cione, G. F., Coleburn, L. A., Fertuck, E. A., & Fraenkel, P. (2011). Psychodynamic play therapy with a six-year-old African American boy diagnosed with ADHD. *Journal of Infant, Child, and Adolescent Psychotherapy*, 10(1), 130-143.
- Clarke, J. (2011). Magazine portrayal of attention deficit/hyperactivity disorder (ADD/ADHD): A post-modern epidemic in a post-trust society. *Health, Risk & Society*, 13(7-8), 621-636. doi:10.1080/13698575.2011.624178
- Cohen, B. M. Z. (2016). *Psychiatric hegemony: A Marxist theory of mental illness*: Springer.
- Compton, W. M., & Volkow, N. D. (2006). Abuse of prescription drugs and the risk of addiction. *Drug and alcohol dependence*, 83, S4-S7.
- Comstock, E. J. (2011). The end of drugging children: Toward the genealogy of the ADHD subject. *Journal of the History of the Behavioral Sciences*, 47(1), 44-69.
- Connor, D. F. (2006). Stimulants. *Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment*, 608-647.
- Conrad, P., & Bergey, M. R. (2014). The impending globalization of ADHD: Notes on the expansion and growth of a medicalized disorder. *Social Science & Medicine*, 122, 31-43. doi:10.1016/j.socscimed.2014.10.019
- Conrad, P., & Schneider, J. W. (2010). *Deviance and medicalization: From badness to sickness*: Temple University Press.
- Conway, F. (2012). Psychodynamic Psychotherapy of ADHD: A Review of the Literature. *Psychotherapy*, 49(3), 404-417. doi:10.1037/a0027344
- Correll, C. U., & Carlson, H. E. (2006). Endocrine and metabolic adverse effects of psychotropic medications in children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, 45(7), 771-791.
- Cortese, S., Holtmann, M., Banaschewski, T., Buitelaar, J., Coghill, D., Danckaerts, M., . . . Sergeant, J. (2013). Practitioner review: current best practice in the management of adverse events during treatment with ADHD medications in children and adolescents. *Journal of Child Psychology and Psychiatry*, 54(3), 227-246.
- Crichton, A. (1798). *An Inquiry Into the Nature and Origin of Mental Derangement: Comprehending a Concise System of the Physiology and Pathology of the Human Mind. And a History of the Passions and Their Effects* (Vol. 2): T. Cadell, junior, and W. Davies.

- Daaleman, T. P., Cobb, A. K., & Frey, B. B. (2001). Spirituality and well-being: an exploratory study of the patient perspective. *Social Science & Medicine*, 53(11), 1503-1511. doi:10.1016/S0277-9536(00)00439-1
- Daley, K. C. (2004). Update on attention-deficit/hyperactivity disorder. *Current Opinion in Pediatrics*, 16(2), 217-226.
- Danforth, S., & Navarro, V. (2001). Hyper Talk: Sampling the Social Construction of ADHD in Everyday Language. *Anthropology & Education Quarterly*, 32(2), 167-190. doi:10.1525/aeq.2001.32.2.167
- De Longueville, B., Smith, R. S., & Luraschi, G. (2009). *Omg, from here, i can see the flames!: a use case of mining location based social networks to acquire spatio-temporal data on forest fires*.
- Degrandpre, R. (1999). [Ritalin nation: rapid-fire culture & the transformation of human consciousness]. In (pp. D24-D25). Toronto, Ont.
- Denzin, N. K. (2000). The practices and politics of interpretation. *Handbook of qualitative research*, 2, 897-922.
- Doll, C., McLaughlin, T. F., & Barretto, A. (2013). The token economy: A recent review and evaluation. *International Journal of basic and applied science*, 2(1), 131-149.
- Douglas, V. I. (1972). Stop, look and listen: The problem of sustained attention and impulse control in hyperactive and normal children. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, 4(4), 259.
- Dreyfus, H., & Rabinow, P. (1982). The subject and power. *Michel Foucault: Beyond structuralism and hermeneutics*, 221-222.
- Dreyfus, H. L., & Rabinow, P. (2014). *Michel Foucault: Beyond structuralism and hermeneutics*: University of Chicago Press.
- DuPaul, G. J. (2007). School-based interventions for students with attention deficit hyperactivity disorder: Current status and future directions. *School Psychology Review*, 36(2), 183.
- DuPaul, G. J., & Stoner, G. (2003). ADHD in the schools: Assessment and intervention strategies.
- DuPaul, G. J., & Weyandt, L. L. (2006). School-based intervention for children with attention deficit hyperactivity disorder: Effects on academic, social, and behavioural functioning. *International journal of disability, development and education*, 53(2), 161-176.
- Easton, N. (2013). HOW TWITTER IS DRIVING CHANGE IN SAUDI ARABIA. *Fortune*, 168(9), 76.
- Englandkennedy, E. (2008). Media Representations of Attention Deficit Disorder: Portrayals of Cultural Skepticism in Popular Media. *Journal of Popular Culture*, 41(1), 91-117. doi:10.1111/j.1540-5931.2008.00494.x
- Erlandsson, S. I., & Punzi, E. (2017). A biased ADHD discourse ignores human uniqueness. In: Taylor & Francis.
- Fabiano, G. A., Vujnovic, R. K., Pelham, W. E., Waschbusch, D. A., Massetti, G. M., Pariseau, M. E., . . . Carnefix, T. (2010). Enhancing the effectiveness of special education programming for children with attention deficit hyperactivity disorder using a daily report card. *School Psychology Review*, 39(2), 219.
- Fairclough, N. (1992). *Discourse and social change* (Vol. 10): Polity press Cambridge.
- Faraone, S. V., Biederman, J., Morley, C. P., & Spencer, T. J. (2008). Effect of stimulants on height and weight: a review of the literature. *Journal of the American Academy of Child & Adolescent Psychiatry*, 47(9), 994-1009.

- Fiks, A. G., Gafen, A., Hughes, C. C., Hunter, K. F., & Barg, F. K. (2011). Using freelisting to understand shared decision making in ADHD: parents' and pediatricians' perspectives. *Patient education and counseling*, 84(2), 236-244.
- Fiks, A. G., Hughes, C. C., Gafen, A., Guevara, J. P., & Barg, F. K. (2011). Contrasting parents' and pediatricians' perspectives on shared decision-making in ADHD. *Pediatrics*, 127(1), e188. doi:10.1542/peds.2010-1510
- Fonagy, P., & Target, M. (1996). Playing with reality I. *The International journal of psychoanalysis*, 77(2), 217.
- Fontana, A., & Frey, J. H. (2000). The interview: From structured questions to negotiated text. *Handbook of qualitative research*, 2(6), 645-672.
- Foucault, M. (1970). *The Order of Things*. 1966. New York: Vintage.
- Foucault, M. (1972). *The archaeology of knowledge: Translated from the french by AM Sheridan Smith*: Pantheon Books.
- Foucault, M. (1975). *The Birth of the Clinic: An Archaeology of Medical Perception*, trans. AM Sheridan Smith (New York: Vintage, 1994). *Discipline and Punish: The Birth of the Prison*, 1978-1986.
- Foucault, M. (1977a). *Discipline and Punish*, trans. Alan Sheridan (New York: Vintage, 1979), 242.
- Foucault, M. (1977b). The return of morality. *Michel Foucault: politics, philosophy, culture: interviews and other writings*, 1984, 242-254.
- Foucault, M. (1980). *Power/knowledge: Selected interviews and other writings, 1972-1977*: Pantheon.
- Foucault, M. (1982). The subject and power. *Critical inquiry*, 8(4), 777-795.
- Foucault, M. (1984). *The Foucault Reader* (PRabinow Ed.). New York: Pantheon.
- Foucault, M. (1988). *Politics, Philosophy, Culture*, ed. LD Kritzman. New York and London: Routledge.
- Foucault, M. (1990). *The history of sexuality: An introduction, volume I*. Trans. Robert Hurley. New York: Vintage.
- Foucault, M. (1994). The Art of Telling the Truth, [in:] Critique and Power: Recasting the Foucault/Habermas Debate, ed. In: Michael Kelly Cambridge, MA: MIT Press.
- Foucault, M. (2006). *Psychiatric Power: Lectures at the Collège de France, 1973–1974*, trans. Graham Burchell, general eds François Ewald & Alessandro Fontana Palgrave Macmillan, London.
- Foucault, M., & Hoy, D. C. (1986). *Foucault : a critical reader*. Oxford, UK New York, NY, USA: Oxford, UK New York, NY, USA : B. Blackwell, 1986.
- Frafjord-Jacobson, K. L., Hanson, A. C., McLaughlin, T. F., Stansell, A., & Howard, V. F. (2013). Daily report cards: A recommended intervention in the schools. *International Journal of basic and applied science*, 1(3), 461-472.
- Fuster, J. M. (1997). Overview of prefrontal functions: The temporal organization of behavior. *The prefrontal cortex-anatomy, physiology and neuropsychology of the frontal lobe*, 209-252.
- Gershon, J., & Gershon, J. (2002). A meta-analytic review of gender differences in ADHD. *Journal of attention disorders*, 5(3), 143-154.
- Ghanizadeh, A. (2007). Educating and counseling of parents of children with attention-deficit hyperactivity disorder. *Patient education and counseling*, 68(1), 23-28. doi:10.1016/j.pec.2007.03.021
- Gidwani, P. P., Opitz, G. M., & Perrin, J. M. (2006). Mothers' views on hyperactivity: a cross-cultural perspective. *Journal of developmental and behavioral pediatrics : JDBP*, 27(2), 121.

- Gilmore, K. (2000). A Psychoanalytic Perspective On Attention-Deficit/Hyperactivity Disorder. *Journal of the American Psychoanalytic Association*, 48(4), 1259-1293. doi:10.1177/00030651000480040901
- Gilmore, K. (2002). Diagnosis, Dynamics, and Development: Considerations in the Psychoanalytic Assessment of Children with AD/HD. *Psychoanalytic Inquiry*, 22(3), 372-390. doi:10.1080/07351692209348993
- Glaser, B. G. (1978). Advances in the methodology of grounded theory: Theoretical sensitivity. In: Mill Valley, CA: Sociology Press.
- Goldstein, S. (2002). *Clinicians' guide to adult ADHD assessment and intervention*. San Diego, Calif.: San Diego, Calif. : Academic Press, c2002.
- Graham, L. J. (2005). Discourse analysis and the critical use of Foucault.
- Graham, L. J. (2007). (Re)Visioning the Centre: Education Reform and the "Ideal" Citizen of the Future. *Educational Philosophy and Theory*, 39(2), 197-215. doi:10.1111/j.1469-5812.2007.00306.x
- Group, A. S. a. S. (2010). *AFTA information*.
- Group., A. S. a. S. (2008). *AFTA Information*. Riyadh.
- Guta, H., & Karolak, M. (2015). Veiling and blogging: social media as sites of identity negotiation and expression among Saudi women. *Journal of International Women's Studies*, 16(2), 115-127.
- Hacking, I. (2000). *The social construction of what?* (1st Harvard University Press pbk. ed. ed.). Cambridge, Mass: Cambridge, Mass : Harvard University Press, 2000, c1999.
- Hammersley, M., & Atkinson, P. (1995). Insider accounts: Listening and asking questions. *Ethnography: Principles in practice*, 124-156.
- Hammond, M. (2008). *Twenty-two Lenses for a Single Diagnosis: An Ethnography of ADHD*: York University.
- Hansen, J. H. (2014). Take a chill pill: a cultural history of Attention Deficit/Hyperactivity Disorder.
- Harper, D. (2007). Discourse analysis. In *Choosing methods in mental health research* (pp. 63-83): Routledge.
- Harris, P. (2001). Towards a critical post-structuralism. *Social Work Education*, 20(3), 335-350.
- Hinshaw, S. P., & Scheffler, R. M. (2014). *The ADHD explosion: Myths, medication, money, and today's push for performance*: Oxford University Press.
- Hinshaw, S. P., Scheffler, R. M., Fulton, B. D., Aase, H., Banaschewski, T., Cheng, W., . . . Sadeh, A. (2011). International variation in treatment procedures for ADHD: social context and recent trends. *Psychiatric Services*, 62(5), 459-464.
- Hofmann, S. G., Asnaani, A., Vonk, I. J. J., Sawyer, A. T., & Fang, A. (2012). The efficacy of cognitive behavioral therapy: A review of meta-analyses. *Cognitive therapy and research*, 36(5), 427-440.
- Horton-Salway, M. (2011). Repertoires of ADHD in UK newspaper media. *Health*, 15(5), 533-549. doi:10.1177/1363459310389626
- Horton-Salway, M. (2013). Gendering attention deficit hyperactivity disorder: A discursive analysis of UK newspaper stories. *Journal of Health Psychology*, 18(8), 1085-1099. doi:10.1177/1359105312456326
- Hughes, A. L., & Palen, L. (2009). Twitter adoption and use in mass convergence and emergency events. *International Journal of Emergency Management*, 6(3-4), 248-260.
- Ismail, H., Wright, J., Rhodes, P., & Small, N. (2005). Religious beliefs about causes and treatment of epilepsy. *The British journal of general practice : the journal of the Royal College of General Practitioners*, 55(510), 26.

- Iudici, A., Faccio, E., Belloni, E., & Costa, N. (2014). The Use of the ADHD Diagnostic Label: What Implications Exist for Children and Their Families? *Procedia-Social and Behavioral Sciences*, 122, 506-509.
- Jacobs, B. (2002). *Queensland children at risk: The overdiagnosis of "ADHD" and the overuse of stimulant medication*: Youth Affairs Network of Queensland.
- Jansen, B. J., Zhang, M., Sobel, K., & Chowdury, A. (2009). Twitter power: Tweets as electronic word of mouth. *Journal of the American society for information science and technology*, 60(11), 2169-2188.
- Java, A., Song, X., Finin, T., & Tseng, B. (2007). *Why we twitter: understanding microblogging usage and communities*.
- Jenahi, E., Khalil, M. S., & Bellac, H. (2012). Prevalence of attention deficit hyperactivity symptoms in female schoolchildren in Saudi Arabia. *Annals of Saudi medicine*, 32(5), 462.
- Jensen, P. S., Mrazek, D., Knapp, P. K., Steinberg, L., Pfeffer, C., Schowalter, J., & Shapiro, T. (1997). Evolution and Revolution in Child Psychiatry: ADHD as a Disorder of Adaptation. *Journal of the American Academy of Child & Adolescent Psychiatry*, 36(12), 1672-1681. doi:10.1097/00004583-199712000-00015
- Johnston, C. (1996). Parent characteristics and parent-child interactions in families of nonproblem children and ADHD children with higher and lower levels of oppositional-defiant behavior. *Journal of Abnormal Child Psychology*, 24(1), 85-104.
- Jones, B. (2011). The Reality-Sampling Deficit and ADHD: Indication for an Active Technique. *Journal of Infant, Child, and Adolescent Psychotherapy*, 10(1), 73-86. doi:10.1080/15289168.2011.575708
- Jones, B., & Allison, E. (2010). An integrated theory for Attention-Deficit Hyperactivity Disorder ADHD. *Psychoanalytic Psychotherapy*, 24(3), 279-295. doi:10.1080/02668734.2010.491198
- Jones, J. D. (2002). Plea for a measure of understanding: The importance of intensive psychotherapy in the treatment of children with ADHD. *Psychotherapy: Theory, Research, Practice, Training*, 39(1), 12.
- Jurbergs, N., Palcic, J., & Kelley, M. L. (2007). School-home notes with and without response cost: Increasing attention and academic performance in low-income children with attention-deficit/hyperactivity disorder. *School Psychology Quarterly*, 22(3), 358.
- Kazdin, A. (2012). *The token economy: A review and evaluation*: Springer Science & Business Media.
- Kealey, C. (2012). *The Future is Not Black and White: A Study of a Twitter-based Community of Practice on the Future of Newspapers*: University of Ottawa (Canada).
- Kemp, S. (2015). Global digital & social media stats: 2015. *Social Media Today*.
- Kessler, J. W. (1980). History of minimal brain dysfunctions. *Handbook of minimal brain dysfunctions: A critical view*, 18-52.
- Klasen, H., & Goodman, R. (2000). Parents and GPs at cross-purposes over hyperactivity: a qualitative study of possible barriers to treatment. *Br J Gen Pract*, 50(452), 199-202.
- Krishnamurthy, B., Gill, P., & Arlitt, M. (2008). *A few chirps about twitter*.
- Ladnier, R. D., & Massanari, A. E. (2000). Treating ADHD as attachment deficit hyperactivity disorder. In *Handbook of Attachment Interventions (Second Edition)* (pp. 27-65): Elsevier.
- Lawton, K., Gerdes, A., Haack, L., & Schneider, B. (2014). Acculturation, Cultural Values, and Latino Parental Beliefs About the Etiology of ADHD. *Administration and Policy in Mental Health and Mental Health Services Research*, 41(2), 189-204. doi:10.1007/s10488-012-0447-3

- Leuzinger-Bohleber, M., Laezer, K. L., Pfenning-Meerkoetter, N., Fischmann, T., Wolff, A., & Green, J. (2011). Psychoanalytic treatment of ADHD children in the frame of two extraclinical studies: The Frankfurt Prevention Study and the EVA Study. *Journal of Infant, Child, and Adolescent Psychotherapy*, *10*(1), 32-50.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry* (Vol. 75): Sage.
- Lloyd, G., & Norris, C. (1999). Including ADHD? *Disability & Society*, *14*(4), 505-517. doi:10.1080/09687599926091
- Lyons, M. A., Jacobson, S. S., Prescott, B., & Oswalt, D. (2002). Women's experiences during the first year following diagnosis of breast cancer. *Southern Online Journal of Nursing Research*, *1*(3), 1-26.
- MacFarlane, K., & Woolfson, L. M. (2013). Teacher attitudes and behavior toward the inclusion of children with social, emotional and behavioral difficulties in mainstream schools: An application of the theory of planned behavior. *Teaching and teacher education*, *29*, 46-52.
- Maniadaki, K., Sonuga-Barke, E., Kakouros, E., & Karaba, R. (2007). Parental beliefs about the nature of ADHD behaviours and their relationship to referral intentions in preschool children. *Child: Care, Health and Development*, *33*(2), 188-195. doi:10.1111/j.1365-2214.2006.00642.x
- Mannuzza, S., Klein, R. G., & Moulton Iii, J. L. (2003). Persistence of attention-deficit/hyperactivity disorder into adulthood: what have we learned from the prospective follow-up studies? *Journal of attention disorders*, *7*(2), 93-100.
- McIntyre, R., & Hennessy, E. (2012). 'He's just enthusiastic. Is that such a bad thing?? Experiences of parents of children with Attention Deficit Hyperactivity Disorder. *Emotional and behavioural difficulties*, *17*(1), 65-82. doi:10.1080/13632752.2012.652428
- McLaren, H. (2009). Using 'Foucault's toolbox': the challenge with feminist post-structuralist discourse analysis. *Foucault*, *25*.
- McNeill, A. R., & Briggs, P. (2014). *Understanding Twitter influence in the health domain: a social-psychological contribution*.
- Merriam, S., & Tisdell, E. T. (2009). *Qualitative Research: A Guide to Design and Implementation*. San Fransisco: John Willey & Sons. In: Inc.
- Mohr-Jensen, C., Steen-Jensen, T., Bang-Schnack, M., & Thingvad, H. (2015). What do primary and secondary school teachers know about ADHD in children? Findings from a systematic review and a representative, nationwide sample of Danish teachers. *Journal of attention disorders*, 1087054715599206.
- Morley, C. P. (2010). The effects of patient characteristics on ADHD diagnosis and treatment: A factorial study of family physicians. *BMC family practice*, *11*(1), 11.
- Morris, R. J., & Kratochwill, T. R. (1998). Historical context of child therapy. *The practice of child therapy*, 1-4.
- Munshi, A. M. A. (2014). Knowledge and misperceptions towards diagnosis and management of attention deficit hyperactive disorder (ADHD) among primary school and kindergarten female teachers in Al-Rusaifah district, Makkah City, Saudi Arabia.
- Narkunam, N., Hashim, A. H., Sachdev, M. K., Pillai, S. K., & Ng, C. G. (2014). Stress among parents of children with attention deficit hyperactivity disorder, a Malaysian experience. *Asia-Pacific Psychiatry*, *6*(2), 207-216. doi:10.1111/j.1758-5872.2012.00216.x
- Neophytou, K. (2004). ADHD, a social construct: the experiences of families who have a child diagnosed with Attention Deficit Hyperactivity Disorder.
- Nigg, J. T. (2006). *What causes ADHD?: Understanding what goes wrong and why*: Guilford Press.

- Norris, C., & Lloyd, G. (2000). Parents, professionals and ADHD: what the papers say. *European Journal of Special Needs Education, 15*(2), 123-137. doi:10.1080/088562500361565
- OPEC Annual Statistical Bulletin 2015. (2015). from In OPEC
- Parker, I. (1992). Discourse dynamics: Critical analysis for social and individual psychology.
- Patten, S. B., Waheed, W., & Bresee, L. (2012). A Review of Pharmacoeconomic Studies of Antipsychotic Use in Children and Adolescents. *The Canadian Journal of Psychiatry, 57*(12), 717-721. doi:10.1177/070674371205701202
- Pelham Jr, W. E., & Fabiano, G. A. (2008). Evidence-based psychosocial treatments for attention-deficit/hyperactivity disorder. *Journal of Clinical Child & Adolescent Psychology, 37*(1), 184-214.
- Pelham, W. E., Carlson, C., Sams, S. E., Vallano, G., Dixon, M. J., & Hoza, B. (1993). Separate and combined effects of methylphenidate and behavior modification on boys with attention deficit-hyperactivity disorder in the classroom. *Journal of Consulting and Clinical Psychology, 61*(3), 506.
- Pelsser, L. M., Frankena, K., Toorman, J., & Pereira, R. R. (2017). Diet and ADHD, Reviewing the Evidence: A Systematic Review of Meta-Analyses of Double-Blind Placebo-Controlled Trials Evaluating the Efficacy of Diet Interventions on the Behavior of Children with ADHD. *PloS one, 12*(1), e0169277.
- Polanczyk, G., De Lima, M. S., Horta, B. L., Biederman, J., & Rohde, L. A. (2007). The worldwide prevalence of ADHD: a systematic review and metaregression analysis. *American journal of psychiatry.*
- Power, T. J., Mautone, J. A., Soffer, S. L., Clarke, A. T., Marshall, S. A., Sharman, J., . . . Jawad, A. F. (2012). A family-school intervention for children with ADHD: Results of a randomized clinical trial. *Journal of Consulting and Clinical Psychology, 80*(4), 611.
- Pringsheim, T., Panagiotopoulos, C., Davidson, J., & Ho, J. (2011). Evidence-based recommendations for monitoring safety of second generation antipsychotics in children and youth. *Journal of the Canadian Academy of Child and Adolescent Psychiatry = Journal de l'Academie canadienne de psychiatrie de l'enfant et de l'adolescent, 20*(3), 218.
- Rafalovich, A. (2004). *Framing ADHD children: A critical examination of the history, discourse, and everyday experience of attention deficit/hyperactivity disorder*: Lexington books.
- Ray, L., & Hinnant, A. (2009). Media Representation of Mental Disorders: A Study of ADD and ADHD Coverage in Magazines from 1985 to 2008. *Journal of Magazine & New Media Research, 11*(1).
- Reid, R. (1999). Attention deficit hyperactivity disorder: Effective methods for the classroom. *Focus on exceptional children, 32*(4), 1.
- Reitman, D., Murphy, M. A., Hupp, S. D. A., & O'Callaghan, P. M. (2004). Behavior change and perceptions of change: Evaluating the effectiveness of a token economy. *Child & Family Behavior Therapy, 26*(2), 17-36.
- Rideout, G. W., & Koot, R. A. (2009). Reflective, humanistic, effective teacher education: Do principles supported in the Deans' Accord make a difference in program outcomes? *Canadian Journal of Education, 32*(4), 927.
- Rogers, M., Bélanger-Lejars, V., Toste, J. R., & Heath, N. L. (2015). Mismatched: ADHD symptomatology and the teacher-student relationship. *Emotional and behavioural difficulties, 20*(4), 333-348.

- Rogers, M., Boggia, J., Ogg, J., & Volpe, R. (2015). The Ecology of ADHD in the Schools. *Current Developmental Disorders Reports*, 2(1), 23-29. doi:10.1007/s40474-015-0038-6
- Rogers, M. A., Wiener, J., Marton, I., & Tannock, R. (2009a). Parental involvement in children's learning: Comparing parents of children with and without Attention-Deficit/Hyperactivity Disorder (ADHD). *Journal of school psychology*, 47(3), 167-185.
- Rogers, M. A., Wiener, J., Marton, I., & Tannock, R. (2009b). Supportive and controlling parental involvement as predictors of children's academic achievement: Relations to children's ADHD symptoms and parenting stress. *School Mental Health*, 1(2), 89-102.
- Said, E. W. (1978). The problem of textuality: two exemplary positions. *Critical inquiry*, 4(4), 673-714.
- Sandu, A. (2011). Appreciative Philosophy-Towards a Constructionist Approach of Philosophical and Theological Discourse.
- Sarris, J., Logan, A. C., Akbaraly, T. N., Amminger, G. P., Balanzá-Martínez, V., Freeman, M. P., . . . Mizoue, T. (2015). Nutritional medicine as mainstream in psychiatry. *The Lancet Psychiatry*, 2(3), 271-274.
- Saul, R. (2014). *ADHD does not exist: The truth about attention deficit and hyperactivity disorder*: Harper Wave New York.
- Schmitz, M. F., Filippone, P., & Edelman, E. M. (2003). Social representations of attention deficit/hyperactivity disorder, 1988–1997. *Culture & Psychology*, 9(4), 383-406.
- Sciberras, E., Iyer, S., Efron, D., & Green, J. (2010). Information Needs of Parents of Children With Attention-Deficit/ Hyperactivity Disorder. *Clinical Pediatrics*, 49(2), 150-157. doi:10.1177/0009922809346730
- Sciutto, M. J., Terjesen, M. D., & Frank, A. S. B. (2000). Teachers' knowledge and misperceptions of attention-deficit/hyperactivity disorder. *Psychology in the Schools*, 37(2), 115-122.
- Shepherd, A., Sanders, C., Doyle, M., & Shaw, J. (2015). Using social media for support and feedback by mental health service users: thematic analysis of a twitter conversation. *BMC psychiatry*, 15(1), 29.
- Society, A. (n.d.). Teachers Training. . <http://adhd.org.sa/ar/project/تدريب-المعلمين/>
- Southall, A. (2007). *The other side of ADHD: Attention deficit hyperactivity disorder exposed and explained*: Radcliffe Publishing.
- Spivak, G. C. (1993). Marginality in the teaching machine. *Outside in the teaching machine*, 53-76.
- Staller, J., & Faraone, S. V. (2006). Attention-deficit hyperactivity disorder in girls. *CNS drugs*, 20(2), 107-123.
- Statistics, G. D. (2015). In We are Social. <http://www.slideshare.net/wearesocialsg/social-digital-mobile-in-themiddle-east-north-africa-turkey?related=4>
- Stevenson, C., & Cutcliffe, J. (2006). Problematizing special observation in psychiatry: Foucault, archaeology, genealogy, discourse and power/knowledge. *Journal of Psychiatric and Mental Health Nursing*, 13(6), 713-721.
- Still, G. F. (1902). The Goulstonian Lectures. *Some abnormal psychical conditions in children*, 1008-1012.
- Sullivan, M. A., & O'Leary, S. G. (1990). Maintenance following reward and cost token programs. *Behavior Therapy*, 21(1), 139-149.
- Swanson, J. M., Sergeant, J. A., Taylor, E., Sonuga-Barke, E. J. S., Jensen, P. S., & Cantwell, D. P. (1998). Attention-deficit hyperactivity disorder and hyperkinetic disorder. (includes bibliography)(Seminar). *The Lancet*, 351(9100), 429.

- Szasz, T. a. (2009). *Antipsychiatry : quackery squared* (1st ed.. ed.). Syracuse, N.Y.: Syracuse, N.Y. : Syracuse University Press, 2009.
- Taleb, H. A., & Farheen, A. (2013). A descriptive study of attention deficit hyperactivity disorder in Sabia City, Saudi Arabia. *International Journal of Current Research and Review*, 5(11), 36.
- Tamboukou, M. (1999). Writing Genealogies: an exploration of Foucault's strategies for doing research. *Discourse: studies in the cultural politics of education*, 20(2), 201-217.
- Taylor, D. (2014). *Michel Foucault: key concepts*: Routledge.
- Taylor, E. (2009). Developing Adhd. *Journal of Child Psychology and Psychiatry*, 50(1-2), 126-132.
- The Mta Cooperative, G. (1999). A 14-Month Randomized Clinical Trial of Treatment Strategies for Attention-Deficit/Hyperactivity Disorder. *Archives of general psychiatry*, 56(12), 1073-1086. doi:10.1001/archpsyc.56.12.1073
- Theodore, L. A. (2016). *Handbook of evidence-based interventions for children and adolescents*: Springer Publishing Company.
- Thomas, A. E., & Grimes, J. E. (2002). *Best practices in school psychology IV, Vols. 1-2*: National Association of School Psychologists.
- Timimi, S. (2005). *Naughty boys: Anti-social behaviour, ADHD and the role of culture*: Palgrave Macmillan.
- Timimi, S. (2017). Non-diagnostic based approaches to helping children who could be labelled ADHD and their families. *International Journal of Qualitative Studies on Health and Well-being*, 12(sup1). doi:10.1080/17482631.2017.1298270
- Timimi, S., & Maitra, B. (2009). ADHD and Globalization. *Rethinking ADHD: from brain to culture*, 198-217.
- Timimi, S., & Taylor, E. (2004). ADHD is best understood as a cultural construct. *The British Journal of Psychiatry*, 184(1), 8-9.
- Torfin, J. (1999). New theories of discourse Laclau, Mouffe and Zizek.
- Van der Oord, S., Prins, P. J. M., Oosterlaan, J., & Emmelkamp, P. M. G. (2008). Efficacy of methylphenidate, psychosocial treatments and their combination in school-aged children with ADHD: a meta-analysis. *Clinical psychology review*, 28(5), 783-800.
- Visser, J., & Jehan, Z. (2009). ADHD: A scientific fact or a factual opinion? A critique of the veracity of Attention Deficit Hyperactivity Disorder. *Emotional and behavioural difficulties*, 14(2), 127-140.
- Wells, K. C., Pelham, W. E., Kotkin, R. A., Hoza, B., Abikoff, H. B., Abramowitz, A., . . . Del Carmen, R. (2000). Psychosocial treatment strategies in the MTA study: Rationale, methods, and critical issues in design and implementation. *Journal of Abnormal Child Psychology*, 28(6), 483-505.
- Wetherell, M., Taylor, S., & Yates, S. J. (2001). *Discourse as data: A guide for analysis*: Sage.
- Widener, A. J. (1998). Beyond Ritalin: The importance of therapeutic work with parents and children diagnosed ADD/ADHD. *Journal of Child Psychotherapy*, 24(2), 267-281. doi:10.1080/00754179808414817
- Wilkinson, I. (2010). Grasping the point of unfathomable complexity: the new media research and risk analysis. *Journal of Risk Research*, 13(1), 19-28.
- Williams, A. (2005). Genealogy as methodology in the philosophy of Michel Foucault. *London Foucault Circle*.
- Willig, C. (2008). Foucauldian discourse analysis. *Introducing qualitative research in psychology*, 2, 112-131.

- Wolraich, M., Brown, L., Brown, R. T., DuPaul, G., Earls, M., & Feldman, H. M. (2011). Subcommittee on Attention-Deficit/Hyperactivity Disorder; Steering Committee on Quality Improvement and Management. ADHD: clinical practice guideline for the diagnosis, evaluation, and treatment of attention-deficit/hyperactivity disorder in children and adolescents. *Pediatrics*, *128*(5), 1007-1022.
- World Health, O. (1993). *The ICD-10 classification of mental and behavioural disorders: diagnostic criteria for research* (Vol. 2): World Health Organization.
- Yeh, M., McCabe, K., Hough, R. L., Lau, A., Fakhry, F., & Garland, A. (2005). Why Bother with Beliefs? Examining Relationships between Race/Ethnicity, Parental Beliefs about Causes of Child Problems, and Mental Health Service Use. *Journal of Consulting and Clinical Psychology*, *73*(5), 800-807. doi:10.1037/0022-006X.73.5.800
- Youssef, M. K., Hutchinson, G., & Youssef, F. F. (2015). Knowledge of and attitudes toward ADHD among teachers: insights from a Caribbean Nation. *SAGE Open*, *5*(1), 2158244014566761.
- Zaki, R. A. (2013). Enhancement the awareness of family care givers caring their children with attention deficit hyperactivity disorder of the general administration of intellectual education centers in the city of Abha. *Journal of American Science*, *8*(9).
- Zambo, D., Zambo, R., & Sidlik, L. (2013). Preservice Teachers' Perceptions of Neuroscience, Medicine, and Students With ADHD. *Journal on Excellence in College Teaching*, *24*(3).
- Zappavigna, M. (2011). Ambient affiliation: A linguistic perspective on Twitter. *New media & society*, *13*(5), 788-806.

### Appendix A

#### *Recruited/interviewed parents of children with ADHD*

Recruited/interviewed parents of children with ADHD				
Interviewed Parent	Sex of child/children	Children's age	City	Parent pseudonyms
Father, Mother	2 girls, 1 boy (all diagnosed with ADHD)	8, 10, 11 years	Jeddah	Salem, Sara
Mother	A girl	4 years and 4 months	Jeddah	Farah
Mother	A boy	2 years and 9 months	Jeddah	Fatimah
Mother	A boy	5 years and 6 months	Riyadh	Noof
Mother	A girl	6 years and 6 months	Riyadh	Rama
Mother	A girl	7 years and 10 months	Alsulayyil	Rose

## Appendix B

File Number: 08-16-15

Date (mm/dd/yyyy): 10/21/2016



**Université d'Ottawa** **University of Ottawa**  
 Bureau d'éthique et d'intégrité de la recherche Office of Research Ethics and Integrity

### Certificate of Ethics Approval

#### Social Science and Humanities REB

#### Principal Investigator / Supervisor / Co-investigator(s) / Student(s)

<u>First Name</u>	<u>Last Name</u>	<u>Affiliation</u>	<u>Role</u>
Raymond N.	LeBlanc	Education / Education	Supervisor
Rabab	Alharbi	Education / Education	Student Researcher

**File Number:** 08-16-15

**Type of Project:** PhD Thesis

**Title:** Attention Deficit Hyperactivity Disorder: ADHD Discourses in Jeddah, Saudi Arabia

**Approval Date (mm/dd/yyyy)**

10/21/2016

**Expiry Date (mm/dd/yyyy)**

10/20/2017

#### Special Conditions / Comments:

N/A

File Number: 08-16-15

Date (mm/dd/yyyy): 10/21/2016



**Université d'Ottawa**      **University of Ottawa**  
Service de subventions de recherche et déontologie      Research Grants and Ethics Services

This is to confirm that the University of Ottawa Research Ethics Board identified above, which operates in accordance with the Tri-Council Policy Statement and other applicable laws and regulations in Ontario, has examined and approved the application for ethical approval for the above named research project as of the Ethics Approval Date indicated for the period above and subject to the conditions listed the section above entitled "Special Conditions / Comments".

During the course of the study the protocol may not be modified without prior written approval from the REB except when necessary to remove participants from immediate endangerment or when the modification(s) pertain to only administrative or logistical components of the study (e.g. change of telephone number). Investigators must also promptly alert the REB of any changes which increase the risk to participant(s), any changes which considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project and safety of the participant(s). Modifications to the project, information/consent documentation, and/or recruitment documentation, should be submitted to this office for approval using the "Modification to research project" form available at: <http://recherche.uottawa.ca/deontologie/submissions-and-reviews>.

Please submit an annual status report to the Protocol Officer 4 weeks before the above-referenced expiry date to either close the file or request a renewal of ethics approval. This document can be found at: <http://recherche.uottawa.ca/deontologie/submissions-and-reviews>.

If you have any questions, please do not hesitate to contact the Ethics Office at extension 5387 or by e-mail at: [ethics@uOttawa.ca](mailto:ethics@uOttawa.ca).

## Appendix C

### Introductory Letter for Participants

My name is Rabab Alharbi and I am writing to you to invite you as participant in my doctoral research in Education at the University of Ottawa (Ottawa, Canada). The study I am conducting concerns Attention Deficit Hyperactivity Disorder in children. I am interested in interviewing parents, teachers and clinicians of children with ADHD, in order to understand your lived experiences.

If you are interested, I would like to arrange a time to discuss your experiences with ADHD. The interview will take approximately one hour. Please call me at the number below if you are willing to be interviewed. If you change your mind, you may withdraw from this research at any time and for any reason. Please be assured that everything stated during the interview will be held strictly confidential, and the actual names of respondents will not be used in the thesis. I sincerely hope that you can assist me in my research about ADHD, the results of which may be useful to the scientific and scholarly community, as well as to lay persons interested in this disorder.

If you have any questions please feel free to contact me.

Sincerely,

Mrs. Rabab Alharbi  
Ph.D. Candidate  
Faculty of Education  
University of Ottawa

## Appendix D

### Participant Consent Form

**Project title:** Attention Deficit Hyperactivity Disorder: ADHD Discourses in Jeddah, Saudi Arabia

**Names of researchers and contact information:**

Mrs. Rabab Alharbi  
Ph.D. Candidate  
Dean  
Faculty of Education  
University of Ottawa

Raymond Leblanc, Ph.D.  
Full Professor and Acting  
Faculty of Education  
University of Ottawa

**Invitation to Participate:** I have been invited to participate in a research project conducted by Mrs. Rabab Alharbi under the supervision of Professor Raymond Leblanc as part of Mrs. Rabab's doctoral research project in Education at the University of Ottawa.

**Purpose of the Study:** This project is being undertaken as a doctoral dissertation in Education at the University of Ottawa. The purpose of this study is to understand and articulate the experiences parents, educators, and clinicians involved with Attention Deficit Hyperactivity Disorder (ADHD). This project is not a clinical study, rather, the aim of this research is to allow people involved with ADHD to express themselves and portray their experience surrounding this disorder.

**Participation:** Each participant will be asked to complete an interview session, which will take approximately one hour. This session will be arranged at a time convenient for the participant. The content of interviews will be recorded and strictest confidentiality will be ensured. No participant identity will be revealed without being granted written permission by the participant. Participants will be asked questions pertaining to their involvement with ADHD. These questions will be subjective in nature. Any participant can refuse to answer any question, or cease the interview session at any time. All identities of participants will remain strictly confidential. Only the investigator herself will have access to the contents of the

interviews. There is no monetary compensation offered for participation in this study. Participants must also be aware that the contents of this study may be published. Any published material will strictly preserve the anonymity of participants.

**Assessment of risks:** My participation in this study entails no foreseeable risks. However, if I experience any discomfort, Mrs. Alharbi has assured me that she will make every effort to minimize this discomfort. I may decide to stop the activity and interview at any time.

**Benefits:** Being involved in this project, I will contribute to the understanding of the experiences of people involved with ADHD in Saudi Arabia.

**Privacy of participants:** I have received assurance from Mrs. Alharbi that the information I share will remain strictly confidential. My identity will be protected.

**Confidentiality and conservation of data:** The data will be used for the completion of the thesis project as well as for dissemination in research journals and presentations. I have been assured that the audio recordings will be kept in a secure manner at the researchers' home during the research, and upon completion of the project will be stored on Rabab Alharbi's and Professor Leblanc password protected computers. The data will be securely safeguarded for a minimum of ten years along with the other data collected for the thesis.

**Voluntary Participation:** I am under no obligation to participate and if I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, all interviews gathered until the time of withdrawal will be destroyed.

**Acceptance:** I, \_\_\_\_\_, agree to participate in the above research study conducted by Mrs. Alharbi as part of her Doctoral project, at the Faculty of Education, University of Ottawa under the supervision of Professor Leblanc.

If I have any questions about the study, I may contact Mrs. Alharbi and Professor Leblanc.

If I have any questions regarding the ethical conduct of this study, I may contact the Office for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5

Tel.: [613) 562-5387

Email: [ethics@uottawa.ca](mailto:ethics@uottawa.ca)

There are two copies of the consent form, one of which is mine to keep.

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Participant Name	Signature:	Date:
Rabab Alharbi		

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Researcher Name	Signature:	Date:
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## Appendix E

### Interview Guide for Parents of Children with ADHD

Thank you for agreeing to take part in this interview. I understand that you are very busy and want to thank you for taking the time to be interviewed today. ADHD manifests differently from one individual to another. The purpose of this interview is to explore your unique experience with ADHD as a parent.

- 1) What is your child's age? Grade? Gender?
- 2) Given your expertise as a parent of a child with ADHD, what is your story with ADHD?

#### **Following up questions.**

What made you seek an ADHD assessment?

Can you talk more about your child's behaviors and emotions in his/her day/week?

What management approaches did you use with your child?

What are the resources that aid you in learning about ADHD?

What do you think the role of media in relation to ADHD?

Where do you think your greatest support is coming from?

How do your family and friends understand your experience with ADHD?

In your opinion, what is ADHD?

What causes ADHD?

When you hear the word 'ADHD', what comes to mind?

What does ADHD means to you?

How can the community support you?

## Appendix F

### Interview Guide for Teachers

Thank you for agreeing to take part in this interview. I understand that you are very busy and want to thank you for taking the time to be interviewed today. The purpose of this interview is to explore your unique experience with ADHD as a teacher.

- 1) What is your specialty and years of experience?
- 2) What is your story of teaching students with ADHD?

#### **Following up questions.**

In your opinion, what is ADHD?

What causes ADHD?

When you hear the word 'ADHD', what comes to mind?

What does ADHD mean to you?

Do children with ADHD differ in the classroom? In what ways?

Can you talk more about students with ADHD behaviors and emotions in the school day?

What strategies do you use in helping students with ADHD?

How can the school or Ministry of Education support you?

In your opinion, how can the student's parents support her?

Where do you think your greatest support is coming from?

What are the resources that aid you in learning about ADHD?

What do you think the role of media in relation to ADHD?

## Appendix G

### Interview Guide for Clinicians

Thank you for agreeing to take part in this interview. I understand that you are very busy and want to thank you for taking the time to be interviewed today. The purpose of this interview is to explore your unique experience with ADHD as a clinician.

- 1) What is your specialty and years of experience?
- 2) What is ADHD?
- 3) What is your experience with ADHD in children in Jeddah?

#### **Following up questions.**

How long have you spent becoming familiar with the ADHD disorder?

In your opinion, what is ADHD?

What causes ADHD?

When you hear the word 'ADHD', what comes to mind?

What does ADHD means to you?

Can you talk more about the ADHD assessment process in Jeddah?

How much time on average do you spend with a child before providing a positive or negative diagnosis of ADHD?

What resources aid you in the assessment process?

Can you talk more about the DSM V and/or ICD-10?

What is your opinion about these diagnostic guides?

What treatment approaches do you first suggest? In what ways these approaches differ from one child to another?

In your opinion, how can the child's parents support their child?

What do you think the role of media in relation to ADHD?