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

*BY*

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**المستخلص:**

اضطراب فرط الحركة ونقص الانتباه هو أكثر الاضطرابات العصبية النمائية شيوعًا بين الأطفال. تكشف هذه الدراسة بواسطة طريقة تحليل الخطابFoucauldian ، عن الخطابات الناتجة من ستة مدرسين سعوديين وأربعة أطباء أثناء وصفهم لتجربتهم مع اضطراب فرط الحركة ونقص الانتباه. عند تحدثهم عن هذا الاضطراب يقترب الأطباء السعوديون من اعتباره امتدادًا لوجهات النظر الطبية الأمريكية من حيث أسبابه وتشخيصه وعلاجه. في ضوء نقص ادوية ADHD الموصى بها، وبشكل مثير للقلق، زاد وصف الأدوية المضادة للذهان للأطفال المشخصين ب ADHD في السعودية. كانت آراء المعلمين السعوديين حول اضطراب فرط الحركة ونقص الانتباه امتدادًا للخطاب الطبي؛ هذا يعني أنه تم تجاهل نقاط القوة لدى الطلاب وكان التركيز بالكامل على الأنماط السلوكية السلبية. وعندما يختلف سلوك الطفل أو أعراضه عن فهم بعض المعلمين المحدود لماهية فرط الحركة ونقص الانتباه، نعت هؤلاء المعلمون الطلاب العاديين "كثيري الحركة" على أنهم مصابون باضطراب فرط الحركة ونقص الانتباه أو اضطرابات أخرى. حمل المعلمون الآباء الذين لا يمتثلون لاقتراحاتهم، مثل إعطاء الطفل الأدوية او نقله الى مدارس الفكرية، مسؤولية أي نقص في سلوك الطفل وتحصيله الأكاديمي. هذه النتائج لها آثار على الأفراد والمؤسسات التعليمية التي توفر تعليم اضطراب فرط الحركة ونقص الانتباه لكل من الأطباء والمعلمين، وتعزز دعوات الباحثين لفحص فرط الحركة ونقص الانتباه خارج "الصندوق" الوراثي.

**الكلمات المفتاحية**: تجارب، تربية خاصة، دمج، نظرية فوكو، بحث نوعي

**Abstract:**

ADHD is the most commonly diagnosed neurobehavioral disorder among children. Using Foucauldian discourse analysis, this study uncovers the discourses drawn upon 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. Alarmingly, 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'.

***Key words***: Experience, Special Education, Inclusion, Foucauldian theory, Qualitative research

**Introduction**

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' (Timimi & Taylor, 2004). 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 (Cione, Coleburn,

Fertuck, & Fraenkel, 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[1] 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., 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

[1] Participants list the words that come to mind in relation to seeking help for ADHD.

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, Martin, McGonnell, & Corkum, 2015). Many studies point to a need for enhanced teacher training regarding ADHD (Mohr-Jensen, Steen-Jensen, Bang-Schnack, & Thingvad, 2015; Youssef, Hutchinson, & Youssef, 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 (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.

## 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) 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' (Foucault, 1972). 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' (Foucault, 1994). 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[2] 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.

[٢] 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.

Results

In analyzing 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.

*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[3] 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). Teachers did not only confirm or resist a medical diagnosis, but also sometimes suggested their own 'diagnosis'.

[3] See Researcher, 2017.

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 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)

*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' (Foucault et al., 2006). 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), then doctors should monitor research that is being done into these matters, see for example, the systematic review by (Pelsser, Frankena, Toorman, & Pereira, 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[4] 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' (Foucault, 1977). 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:

[4] 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.

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 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.

*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' (Foucault, 1977). 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 (X, 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, Panagiotopoulos, Davidson, & Ho, 2011).

Correll and Carlson (2006) called for more careful use of these medications in treating children.

*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' (Willig, 2008), 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 therapies, especially the brain reward system, were recommended by clinicians to manage ADHD in children. However, a shortage of ADHD medications has led to the prescription of antipsychotics medications like Risperidone, as reported by Saudi parents of children with ADHD (The researcher, 2018) and Saudi clinicians interviewed in this study. They 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), a continuing controversy around the efficacy and side effects of medications for ADHD (Faraone, Biederman, Morley, & Spencer, 2008), and the inconclusive findings regarding cognitive behavioral therapies (Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012).

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, Faccio, Belloni, & Costa, 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 The researcher, 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.

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