



The role of the special education centers in developing students' holistic wellbeing

Zeinab Agha, Lebanese University, Beirut, Lebanon P.O. Box 6573/14 Badaro, Museum, Beirut - Lebanon

Badrie EIDaou*, Lebanese University, Beirut, Lebanon P.O. Box 6573/14 Badaro, Museum, Beirut - Lebanon

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Abstract

This cross-national comparative case study research aimed at examining two private special education centers in Dubai and in Lebanon, which provides special education services for families and children with additional needs. The research investigates the center's structure, staffing and support services, especially for students with ADD/ADHD. Using a qualitative research methodology, the research questions focused on the services provided at these centers to support students (grades 1-6) and the manner in which the teachers and professional staff support the additional needs of the chosen participants. Data collection tools included the following: semi-structured interviews, participatory and non-participatory observations, and document analysis. The study concluded that the professional development and the centers' structure as well as the systematic strategic implementation of the needed services in both centers were important factors of centers' success. Results emphasized that achieving the students' holistic wellbeing and the 'hot zone' is crucial for 21st century skills. Recommendations and future studies were discussed.

Keywords: special education services; holistic wellbeing; ADD/ADHD; hot zone; and professional development

* ADDRESS FOR CORRESPONDENCE: Badrie EIDaou, Lebanese University, Beirut, Lebanon P.O. Box 6573/14 Badaro, Museum, Beirut - Lebanon

E-mail address: badriyadaw@yahoo.com

1. Introduction

Attention-Deficit/Hyperactivity Disorder (ADD/ADHD) is a brain-based disorder that can cause serious lifelong problems; without proper identification and management, it can have long-term complications (Learning Disabilities, 1998; as cited by AghaKassbah (2016). Furthermore, Kewley (2011) stated that one to two children in each class have ADD/ADHD. Consequently, ADD/ADHD is a serious disorder inhibiting many classrooms around the world. According to Barkley (2000), statistics revealed that a third or more of all children with ADHD would be held back in school at least one grade during their educational career, up to 35% may never complete high school, and their academic grades & achievement scores are often significantly below those of their classmates. 40% and 50% of such children will eventually wind up receiving some degree of formal services. More than half of all children with ADD/ADHD also have serious problems with oppositional behavior. 15% to 25% of such children will be suspended or even expelled from school because of their conduct problems (p.226). To avoid the above-mentioned consequences, multiple intervention treatment plans need to be adopted for students with ADD/ADHD as an opportunity to support their needs and improve their performance (Lauer et al. 2006). Therefore, support services need to be done to manage the difficulties associated with ADD/ADHD. A study by Gaad (2004) conducted in the United Arab Emirates revealed that children who suffer from hidden disorders, such as ADD/ADHD, could “go without any form of identification or referral to specialists” throughout their school years (p. 160). Thus, the teacher’s knowledge and awareness about ADD/ADHD disorder is crucial to avoid any delay in identification, as it has tremendous effects on students throughout their lives.

2. Literature Review

2.1. Definition of ADD/ADHD

ADHD is a neurodevelopmental disorder. Today, clinical professionals believe that ADD/ADHD consists of three primary problems in a person’s ability to control behavior. It is a combination of symptoms, including difficulty in maintaining attention, hyperactivity and impulsive behavior (Armstrong, 1999). ADD/ADHD affects the way the brain receives, processes, and responds to information; it affects both children and adults. It is one of the most common neurological disorders of childhood and adolescence. Brown states that there are at least one to two students, in every classroom, that are diagnosed with ADD or ADHD (Brown, 2015). ADHD is more three times more evident in males more than in females, (Barkley, 2006). Scientists have suggested that certain neurotransmitters (chemicals in the brain that allow nerve cells to transmit information to other nerve cells) are deficient among children with ADD/ADHD. The executive function in the orbital front region of the brain is responsible for sustaining attention and employing self-control to inhibit bad behavior. This executive function is critical to planning, organizing, and carrying out complex behavior over a long period of time. It is the brain’s ability to monitor itself and organize information. In a child with ADHD, the “executive function” does a very poor job. This deficit is almost certainly the underlying cause of ADD/ADHD, although not exclusive (Barkley, 2000). ADD/ADHD is a chronic condition that often persists into adulthood.

2.2. Types of ADD/ADHD

There are three subtypes of ADD/ADHD: Inattentive, Hyperactive-impulsive and, combined inattentive and hyperactive-impulsive (Armstrong, 1999).

2.2.1. Predominantly Inattentive Type

Children who suffer from attention deficiency (without hyperactivity) are not very alert to what is happening around them. They have short attention spans and can be easily distracted and pulled off task. They are described as being lethargic, and sluggish—not fully processing the task and its instructions. Therefore, children with ADD should not be labelled as being immature students because they have a different development pace (Armstrong, 1999). In addition, students who are the inattentive type (ADD) are described (by parents and teachers) as being daydreamers or “spacey”, more passive and fearful about things than other children of their age. Hence, they have trouble consistently recalling information. They have fewer problems with aggression, impulsivity, and over activities when compared to children with ADHD. However, children with ADD perform worse on tests that involve perceptual-motor speed or eye-hand coordination (Barkley, 2000).

2.2.2. Predominantly Hyperactive-Impulsive Type

Parents and teachers often label students with the hyperactive type, as having constant movement, cannot sit still, being always lively and energetic. Whereas, impulsive students are defined as having difficulty waiting for turns, blurting out answers to questions before questions have been finished, interrupting conversations and not considering consequences of their actions (Barkley, 2000). Thus, most of the children with ADHD have social problems due to impulsive and aggressive behavior. Bauermeister and his colleagues (date?) conducted a research at the University of Puerto Rico and stated that children diagnosed with ADHD are far more demanding than children diagnosed with ADD; it is also challenging for parents to raise children diagnosed with ADHD (Barkley 2000). Accordingly, these children act before thinking because they have difficulty in accepting delayed gratification, taking turns, and inhibiting behaviour.

2.2.3. Predominantly Combined Type

The combined type of ADD/ADHD has features of some or all of the inattentive and hyperactive-impulsive characteristics. DuPaul and Stoner (2003) mentioned that a person with the combined type exhibits at least six criteria of inattention and at least six criteria of the hyperactive and impulsive named in “the Diagnostic and Statistical Manual of Mental Disorders DSM-V”.

In addition to the three different types of ADD/ADHD (mentioned earlier) some children, with ADD/ADHD, have a comorbid condition. These could be psychological or learning disorders. The term ‘co-morbidity’ is a medical term that means co-existing disorders (Rief, 2003). Research demonstrated that the number of co-existing disorders affects two-thirds of children with ADHD (Rief, 2003). Kewley (2005) states that 40-60% of children with ADHD have co-existing disorders, such as Oppositional Defiant Disorder (ODD) and a learning disability. On average, a third of the children diagnosed with ADHD have a learning disability (DuPaul and Stoner, 2003). Comorbidity conditions can often exacerbate symptoms of the disorder if not dealt with. So, the characteristics of a child with ADHD can suppress him from gaining knowledge and being disciplined in class (Wender, 2000). Thus, the ADD/ADHD disorder in most cases is associated with educational underachievement that requires academic remedial (educational) services.

2.3. ADD/ADHD Support Services

A multi-modal management approach needs to be established to support the needs of students with ADD/ADHD. Since the child’s special needs are different, professionals that provide the support

services vary as well. The child might need health, education, social, and intervention services depending on his/her own needs. In order for all professionals to work together to meet the best of the child's needs, a system of collaboration, coordination, and communication need to be established ("Learning Disabilities", 1998).

Three major sectors provide support services to youth with ADD/ADHD: the general medical sector, the specialty mental health and intervention sector, and the educational sector. The journey of support services begins with diagnosis, assessment and evaluation, and ends with follow-up. Then, the process of supporting a child with ADD/ADHD differs according to students' varying needs.

2.4. Special Education Support Services

A multi-disciplinary team needs to work hand in hand to establish a multi-modal support service to cater for the needs of students with ADD/ADHD ("Learning Disabilities", 1998).

2.5. Diagnosis, Assessment, Evaluation and Follow Up

The American Psychiatric Association published the Diagnostic and Statistical Manual of Mental Disorders fifth edition (DSM-V) as a standardized classification of mental disorders. It contains a listing of diagnostic criteria to be used by the mental health professionals during the diagnostic stage of ADD/ADHD. According to Armstrong (1999), assessment and diagnosis of ADD/ADHD usually require a licensed and highly trained psychologist, psychiatrist, developmental pediatrician, physician, child neurologist or other registered medical specialist. He stated that a child with ADD/ADHD should be seen through an interdisciplinary lens toward a holistic schematic management plan. This holistic plan is implemented and ongoing follow up sessions are scheduled.

2.5.1. Medical intervention

Research has shown that when it comes to students with ADD/ADHD, educators need to include stimulants as a treatment to control their impulsive, inattentive, and restless behavior (Barkley, 2000). Medication works safely and dramatically.

2.5.2. Intervention Services and Behavior Management Programs

The problem with ADD/ADHD does not stem from lack of skill but from neurological (brain) factors that contribute to the lack of self-control (Barkley, 2000). Tactics for managing better and positive behavior on a daily basis (i.e. like Response to Intervention; Multi-Tiered Systems of Support -MTSS) have to be adopted by teachers for students with ADD/ADHD to reduce oppositional behavior and to increase success in school, community, and society (Barkley, 2000).

2.5.3. Educational Interventions

Literature points out that around 80% of children, who suffer from ADHD, have a poor academic performance, and are considered as underachievers (DuPaul & Stoner, 2003). A student with ADHD, as Rief (2003) mentions, is more likely to repeat a class. Thus, ADD/ADHD disorder needs to be diagnosed, assessed and evaluated to allow effective intervention plans to improve student academic achievement.

Educational interventions during remedial classes might include: (a) one-on-one, (b) small group instruction (c) classroom accommodation, adaptations and modifications plans.

One-on-one: A meta-analysis study by Elbaum et al. (2000) demonstrated that one-to one is generally the most effective way for increasing students' achievement.

Small Group Instruction: "In general, if a child is mentally capable of completing the work, a different type of academic environment (e.g. small class with small group), not retention, is needed" (Barkley, 2000, p.240). In fact, many research studies proved that students with ADD/ADHD might be well suited to small group class with various technologies, given their propensity of high stimulation (Zental, 1993).

Classroom accommodation, adaptations and modification plans: accommodations are used to describe an alteration of curriculum format, or equipment that allows a student with ADD/ADHD to gain access to the content and reach his/her maximum potential. Teachers, in general, and special educators in particular, need to know how to support students with ADD/ADHD, and need to have in-depth understanding of his/her 'disability'. This knowledge would assist the special educators in providing the appropriate accommodations to these students rather than finding excuses and blaming external factors for the displayed symptoms of the disorder (Kewley, 2005). On the other hand, modification plans involve changes in the learning environment, materials, teaching methods and assessment. For example, according to Wolraich et al. (2012) "testing modifications" include: extended test time, providing a reader, repeated directions, oral testing and testing away from distractions. In other words, if modification plans were individualized as needed to the particular needs of each student with ADD/ADHD, then the child will experience improvements in both academic performance and in attentiveness.

2.6. Supporting Students with Special Needs in UAE

The UAE Vision of 2021 National Agenda stressed the importance of developing a superlative education system by transforming the current educational and teaching methods (UAE Vision, 2021). Furthermore, the Ministry of Education in UAE is interested in developing ways to increase awareness and foster effective intervention approaches for students with special needs (Hassan, 2008). The UAE government issued a Federal Law, which offered many options (other than schools) for providing education for students with special needs. Article 9 stated that the Ministry will collaborate with skilled authority centers to establish specialized institutes caring, training and rehabilitating children with special needs (Article 9: b cited in Gaad 2011).

2.7. Supporting Students with Special Needs in Lebanon

The initiative of implementing inclusive education to support learning for all is an international phenomenon that is finding its way to the Middle East, Arabian region and, in particular, Lebanon. In the year 2000, the Lebanese government and parliament have passed the law 220/2000 concerning the rights of persons with a disability. The law of article 59 states that every person diagnosed with a learning disability has the right to education opportunities within regular and special classes (UNESCO, 2013). In spite of the Law 220/2000 that decrees accepting people with disability in public schools, a great number of schools still refuse to accept students with disability in their classrooms (Chamsine, 2013), thus special education centers (i.e. school & vocational community; academic remedial and

intervention medical centers), play a major role in developing the holistic wellbeing of students with ADD/ADHD.

2.8. Background of the problem

If services were not managed and well delivered, the intervention will not be effective. Over time, the cumulative effects of missing important information from one school year to the next can cause mild ADD/ADHD cases to develop into moderate or severe cases. To avoid ADD/ADHD regression, Armstrong (1999) proposed that a holistic schematic management plan, should be prepared by a professional team to provide an interdisciplinary understanding of the kind of support services offered to help these students achieve the best results and succeed in school and at home. A student with ADD/ADHD might need a treatment package of multiple interventions to address his/ her specific needs. Treatment strategies such as: medication treatments, intervention services (such as behavioral modification plan) and educational intervention (academic/remedial support) plans might be needed either alone or in combination to reduce ADD/ADHD symptoms. Therefore, it is important to study the role of the centers, in the Lebanese and Dubai context, in providing the professional development training (knowledge, skills and research based best-practices) for special education teachers to achieve the 'hot zone' spot (see figure 1.2) and the wellbeing of students with ADD/ADHD. Hence, the significance of the study lies in its potential impact of responding to globalization pressures to compare and contrast what and how services are provided in two different special education centers in Dubai and Lebanon. More specifically, the value of the research revolves around studying the role of the special education teachers in promoting the students' holistic wellbeing and the hot zone of 21st century skills.

3. Purpose of the study

This comparative study aims at examining two private special education centers, in Dubai and Lebanon, which provides special education services for families, communities and children with additional needs. The research investigates the center's structure, staffing and support services, especially for students with ADD/ADHD. Also, the study focuses on the services provided at these centers to support students with ADD/ADHD (grades 1-6) and how the teachers and professional staff support the additional needs of the chosen participants.

4. Research Questions

The first research question (RQ1) is: What are the services offered at the two private centers to support students with ADD/ADHD (grade1-6) in Dubai and Lebanon?

The second research question (RQ2) is: How do teachers support the needs of students with ADD/ADHD at the two private centers in Dubai and in Lebanon?

The third research question (RQ3) is: What is the effect of the teacher's role on enhancing the student's holistic wellbeing and the hot zone of the 21st century skills.

5. Methodology

This comparative research study adopted three main data collection methods; interviews, observation and document analysis. Multiple visits for over a period of six weeks were conducted to collect data for the goal of answering the research questions.

5.1. Research Design

This is a cross-national comparative case study research. It compares two special education centers in Dubai and in Lebanon; the two centers' structure, staffing and support services were discovered to uncover the types of services available and how these services were implemented, by service providers, to cater for the needs of students with ADD/ADHD. The study was conducted to enable a focused look about what array of services are available and delivered at the centers in Dubai and Lebanon.

5.2. Cite selection

The sites were selected for two reasons. Firstly, they offer the medical, interventional and remedial services required for supporting students with ADD/ADHD. Secondly, among all other centers in the UAE market, the Knowledge and Human Development Authority (KHDA) in UAE recommended the chosen center. Regarding the selected center in Lebanon, it is the only registered school and community center (at the ministry of education) following principles of Rudolf Steiner in the Middle East. Also, it is a registered as a non-profit organization, which is registered in the ministry of social affairs and is a part of the worldwide movement 'Friends of Waldorf Education' in Berlin. The International Council of Curative Education in Dornach, Switzerland accredits the teacher-training program. The hope is that these centers will contribute in providing answers to the research questions and fulfilling the purpose of the study.

Criteria of the private centers chosen include:

1. Center that provides medical, instructional and interventional educational services.
2. Center that has been supporting students with ADD/ADHD in Dubai and Lebanon for at least two years.
3. Center that has a low turnover rate of special education teachers, therapists and specialists.
4. Center that provides access to observe classes and has awareness workshops to educate parents, teachers and the community.

6. Participants

Participants were selected on two different levels. On the first level, the service provider that constitutes the management team, support staff, special education teachers and all those who contribute to the overall development of students. On the second level, the service receivers are mainly parents of students with ADD/ADHD.

As mentioned earlier in the literature review, three major sectors provide support services for students with ADHD: the general medical sector (medication treatment), the specialty mental health sector (intervention services), and the educational sector (remedial services). The goal of selecting

participants was to cover the three sectors offering support for students with ADD/ADHD. The chosen participants of each center (for the interviews) were of three domains: Medical background (developmental pediatrician), behavior management therapists (ABA), cognitive specialists (Educational psychologist, special educators and learning support assistants) and the clinical director.

The selected participants are: one developmental pediatric, one managing director & two coordinators, two special educators, two therapists and two specialists. The main criteria of selecting participants were that; (a) all stakeholders interviewed and observed should have been trained and are aware of ADD/ADHD disorder. (b) At least have 2-4 years of working experience with students with additional needs.

In addition, there were the service receivers, who are the children with ADD/ADHD and their parents. Parents were selected for interviews based on the severity of their children's cases (ADD/ADHD). Then, children were selected based on the severity of the disorder ranging from mild to moderate cases. The choice depended on the children's grade level ranging from grade one to six and parents' willingness to participate in the study. Thirty students with ADD/ADHD were selected in both centers.

7. Data collection tools

7.1. Observations

Observations were the primary method used to take field notes and to understand the practice of offering the service to support students with ADD/ADHD.

At these private centers, two to three observation sessions were conducted per week with a total of 10 interviews, 12-15 observation sessions and document analysis of 6 IEP's plans, 20 worksheets, 17 assessments, 4 lesson plans, teachers' anecdotal notes, communication books and other general artifacts of events.

The purpose of the observations was to confirm emerging findings of what was said during the interviews and what was done in class during the service delivery time.

Classroom observations were used as a supplementary method of collecting data (Burcham & DeMers, 1995) obtained from personal interviews with participants.

Thus, observation was adopted to explore, understand and depict reality to avoid any biases or subjectivity (Bell, 1999).

7.2. Semi-Structured Interviews

Semi-structured interviews were used as a tool for providing beneficial information in this qualitative research. The main purpose of conducting interviews was to understand what is "in and on someone else's mind" (Merriam 2009, p.88).

Data Presentation

Data of this cross-national comparative case study research were collected from different means with a goal to obtain answers to the research questions. The data presented provides an in-depth description of the structure of the centers. It reveals the role of each service provided and the professionals in charge of each service. It also provides "direct quotations from people about their experiences, opinions, feelings, and knowledge" (Merriam, 2009, p.85). It is also comprised of stakeholders' perceptions, opinions and values. In addition, the data includes findings from the researcher-recorded field notes (Merriam, 2009) obtained from participant observations of teachers in classroom sessions. This collected data reflects the reality of catering for the needs of students with ADD/ADHD in Dubai and Lebanon.

Data Analysis

Forms and paper work, lesson plans, IEP's and tracking sheets were used for data analysis. These documents, analyzed by the researcher, revealed specific facts and guidelines on how specialists, at this center, record and plan their support services.

First, data from the interviews were recorded and transcribed. In addition, data from observations and document analysis were thoroughly analyzed. The delivery of the service was investigated through the role of the special educator and the importance of reaching the "hot zone" of support services through cooperation and collaboration. The researcher used qualitative techniques to construct patterns and relationships with previous literature as discussed in the literature review. The collaboration occurred between parents, centers and schools. Then, the researcher synthesized meaningful connections by linking the availability of support services with the role of the teacher in implementing them effectively. This, eventually, allowed the researcher to gain a deeper understanding of how the services at this center are implemented to support students with ADD/ADHD.

12. Results

The study concluded that both centers provide a professional development-training program to improve the educator's quality in teaching, which is based on the European union policy agenda that enhance the students' holistic wellbeing and the hot zone of 21st century skills.

The study also revealed that both centers adopted the latest 21st century technology in teaching, which claims to enhance attention, concentration, motor planning and sequencing in educational settings as well as affect the successful achievements of the students' hot zone of 21st century skill.

13. Conclusion

This cross-national comparative study provides a detailed examination of the support services offered to children with ADD/ADHD in specialized private centers, located in Dubai and in Lebanon. It focuses on the role of each professional, at both centers, in catering for the needs of such students.

At these private centers, the holistic management plan is adopted through communication, collaboration and partnership with parents and schools. The systematic structure played a major role in achieving successful results. It is, discovered, that sometimes, a slight adjustment at home, school or with the teacher can have a greater impact on the child's holistic wellbeing. The managing director of each center confirmed that 75% of special needs students at these centers are included in mainstream schools. The centers provide all the required diagnostic assessments, medical treatment, intervention plans and remedial services to cater for the needs of students with ADD/ADHD. This is evident in figure 1.

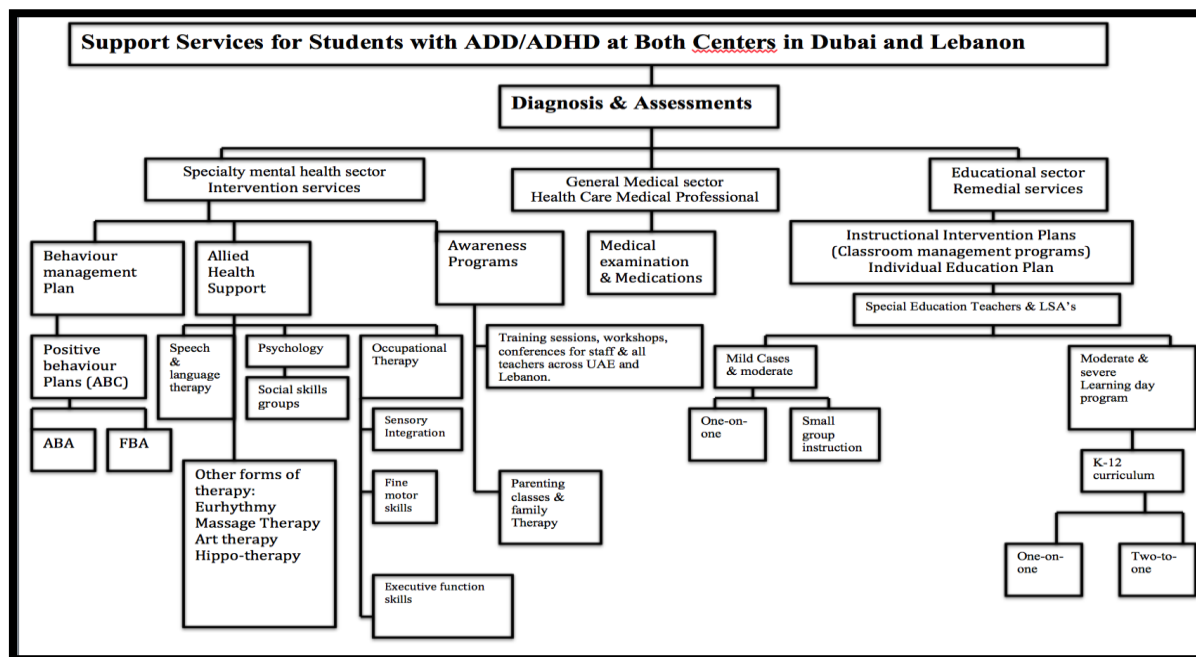


Figure 1. provides a clear preview of the support services for students with ADD/ADHD at both centers

In both centers, the provided services were implemented through a professional collaboration on three fronts- parents, school and the center itself. The goal of communication, cooperation and collaboration is the constant monitoring of the child's progress, in which adjustments are provided accordingly. One of the tools used for implementing the management plan is to use the Individualized Education Plan (IEP) of each student with ADD/ADHD as a road map.

Moreover, these private centers are constructing campaigns to help provide awareness among parents and help them understand the different aspects of special needs. At both centers, parents are a productive figure of the team. Yet, the special educator, experts and therapists are the vital point of the team. However, it is concluded that the special education teacher has the most important role in achieving the hot zone and the students' holistic wellbeing.

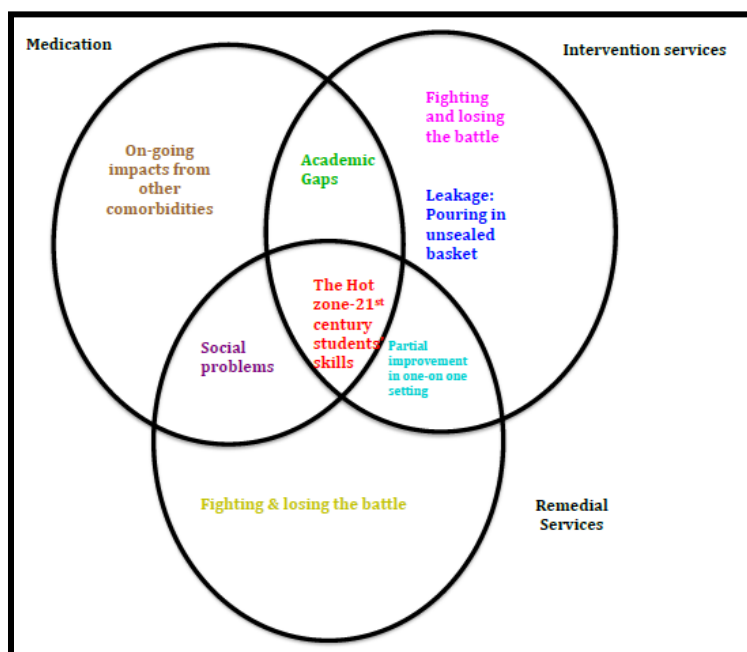
Effective experts are well trained and aware about the disorder and its symptoms. Knowledge regarding this disorder helps the teacher support their students and help them reach their maximum potentials. Students with severe ADD/ADHD disorders require differentiated instructions to match students' learning needs and close academic gaps. Special educators are trained to use a blend of different approaches based on the behaviorist, cognitivist and constructivist learning theories in order to vary their methods, approaches, techniques, tools and strategies while supporting students with special needs.

Special education teachers, at these centers, are channeling the students' energy in a constructive way. They stimulate students' curiosity, inspiring them to confidently ride the path to innovation. They are facilitating their learning via establishing a positive relationship with the student. This healthy

positive relationship driven by caring hearts and a belief in the child is guiding the child to become a better independent and analytical thinker.

The special educator's experience is reflected in applying her skills in class. Effective and high quality teaching methods are adopted to support the child to reach the 'hot zone'. This hot zone is the intertwining area of the support services used to help these students reach their goal, evident in the intersection spot of the three rings of the Venn-diagram figure 2

Figure 2 The "Hot zone" of the three-ring Venn diagram



This figure demonstrates how the use of medication, intervention and remedial services at the same time is essential to reach the 'hot zone', which is the intersection of the three overlapping circles.

Additionally, the UAE government has stressed focus on supporting special needs education. The Khalifa Award for education programme acknowledges the efforts of special needs educators, with financial rewards for the deserving individuals, special need centers, and local community organizations. For example, the Kafa'a programme is an annual professional development programme conducted by the Zayed Higher Organization for Humanitarian Care and Special Needs (ZHO) to recognize the best practices in special education, training, treatment, early intervention, inclusion and other issues related to the care and rehabilitation of people with special needs. On contrary, in Lebanon, the hope is to have an Award for rewarding accomplishments in education programmes as to what UAE is offering. In future, this initiative might be one of the primary reasons of pushing stakeholders at special education centers to increasing the inclusion rate of students at mainstream schools. This suggested award might become a driving force for encouraging "intervention and medical centers" to reach their highest peak in providing support services to succeed and become an example for other centers around the world.

14. Recommendations

We urge the Lebanese government to appreciate people who are providing special needs students with all the required support services needed to motivate them to reach their maximum potential. Since the government in Dubai is constantly offering awards and support to centers and people who support special needs students, people feel appreciated and are always willing to work and update themselves and their centers. Sometimes, leaders need a 'push' as a form of motivation to excel in their work. However, support systems for special needs students are not appreciated in Lebanon. People are also unaware of symptoms regarding disorders. This makes it more difficult for teachers and centers to support students with special needs.

References

- Aizer, A. (2008). *Peer effects and human capital accumulation: The externalities of ADD* (No. w14354). National Bureau of Economic Research..
- Al Banna, A., Al Bedwawi, S., Al Saadi, A., Al Maskari, F., & Eapen, V. (2008). Prevalence and correlates of conduct disorder among inmates of juvenile detention centres, United Arab Emirates.
- Al-Sharbaty, M. M., Zaidan, Z. A., Dorvlo, A. S., & Al-Adawi, S. (2011). Characteristics of ADHD among Omani schoolchildren using DSM-IV: descriptive study. *Journal of Attention Disorders*, 15(2), 139-146.
- Armstrong, T. (1999). *ADD/ADHD alternatives in the classroom*. ASCD.
- Attention-Deficit, S. O. (2011). ADHD: clinical practice guideline for the diagnosis, evaluation, and treatment of attention-deficit/hyperactivity disorder in children and adolescents. *Pediatrics*, peds-2011. [Online]. [Accessed 20 April 2016]. Available at: <http://www.chadd.org/Content/CHADD/Understanding/symtoms/default.htm>.
- Barkley, R. (2006). *Attention-Deficit Hyperactivity Disorder*. 3rd.
- Barkley, R. A. (2000). *Taking charge of ADHD* (rev. ed.)
- Bener, A., Qahtani, R. A., & Abdelaal, I. (2006). The prevalence of ADHD among primary school children in an Arabian society. *Journal of attention disorders*, 10(1), 77-82.
- Bener, A., Qahtani, R. A., & Abdelaal, I. (2006). The prevalence of ADHD among primary school children in an Arabian society. *Journal of attention disorders*, 10(1), 77-82.
- Bradshaw, K., Tennant, L., & Lydiatt, S. (2004). Special education in the United Arab Emirates: anxieties, attitudes and aspirations. *International Journal of Special Education*, 19(1), 49-55.
- Brown, T. E. (2015). ADHD from stereotype to science. *Educational Leadership*, 73(2), 52-56.
- Centers for Disease Control and Prevention. (2010b, May). *Attention-Conference: Meeting will address difficulties that special needs education faces in the region*. *The Gulf News*. Retrieved from <http://gulfnews.com/news/uae/education/dubai-hosts-gcc-learning-disability-conference-1.1250053>
- Deficit/hyperactivity disorder data and statistics (ADHD)*. Retrieved March 23, 2016 <http://www.cdc.gov/ncbddd/adhd/data.html>.
- DuPaul, G. J., & Stoner, G. (2003). *ADHD in the schools* New York.
- Eapen, V., Al-Gazali, L., Bin-Othman, S., & Abou-saleh, M. (1998). Mental health problems among schoolchildren in United Arab Emirates: prevalence and risk factors. *Journal of the American Academy of Child & Adolescent Psychiatry*
- Farah, L. G., Fayyad, J. A., Eapen, V., Cassir, Y., Salamoun, M. M., Tabet, C. C., ... & Karam, E. G. (2009). ADHD in the Arab world: a review of epidemiologic studies. *Journal of Attention Disorders*, 13(3), 211-222.
- Gaad, E. (2004). Cross-cultural perspectives on the effect of cultural attitudes towards inclusion for children with intellectual disabilities. *International Journal of Inclusive Education*, 8(3), 311-328.
- Gaad, E. (2004). Including students with Exceptional Learning needs in regular schools in the United Arab Emirates. *The International Journal of Diversity in organisations, communities and nations*, 4.
- Gaad, E. (2006). The social and educational impacts of the first national Down Syndrome support group in the UAE. *Journal of Research in Special Educational Needs*, 6(3), 134-142.
- Gaad, E. (2010). *Inclusive education in the Middle East*. Routledge.
- Gaad, E. (2010). *Inclusive education in the Middle East*. Routledge.

Agha, Z. & ElDaou, B. (2018). The Role of the Special Education Centers in Developing Students' Holistic Wellbeing. *Journal of Education and Special Education Technology*, 4(1), 01-13.

Gaad, E. E. N. (2004). Pre-service teachers attitudes towards a career in special education in the United Arab Emirate. *College Student Journal*, 38(4), 619-633.

Hassan, H. (2008) Inclusion in the UAE [PDF Document]. Retrieved from http://www.ibe.unesco.org/fileadmin/user_upload/Policy_Dialogue/48th_ICE/Presentations/IBE_ICE_Workshop_3B_Presentation_EN_Hanif_Hassan_Nov08.pdf.

Kewley, G. & Latham, P. (2011). *Conference on Attention Deficit Hyperactivity Disorder*. Taj Palace Hotel. Dubai. 26 March.

Kewley, G. (2005). *Attention Deficit Hyperactivity Disorder What can teachers do?*. London: David Fulton Publishers.

McTague, K. (1998). Children's Literature Bibliotherapy and Learning Problems. *The national UAE*. Retrieved from <http://www.thenational.ae>

MTA Cooperative Group. (2004). National Institute of Mental Health Multimodal Treatment Study of ADHD follow-up: 24-month outcomes of treatment strategies for attention-deficit/hyperactivity disorder. *Pediatrics*, 113(4), 754-761.

National Middle School Association. (2003). *This we believe: Successful schools for young adolescents: A position paper of the National Middle School Association*. National Middle School Association.

Nereim, V. (2012, November 26). New center for children with special needs to open in Dubai. Retrieved from <http://www.thenational.ae>

Osman, O. T., & Afifi, M. (2010). Troubled minds in the Gulf: mental health research in the United Arab Emirates (1989-2008). *Asia Pacific Journal of Public Health*, 22(3_suppl), 48S-53S.

Pelham, W. E., Burrows-MacLean, L., Gnagy, E. M., Fabiano, G. A., Coles, E. K., Tresco, K. E., ... & Hoffman, M. T. (2005). Transdermal methylphenidate, behavioral, and combined treatment for children with ADHD. *Experimental and Clinical Psychopharmacology*, 13(2), 111.

Schultz, B. K., Evans, S. W., & Serpell, Z. N. (2009). Preventing Failure among United Arab Emirates' Government Schools. *The International Journal of Interdisciplinary Social Sciences*. 4 (6), pp.160-171.

Sousa, D. A., & Tomlinson, C. A. (2011). *Differentiation and the brain: How neuroscience supports the learner-friendly classroom*. Solution Tree Press.

Swadi, H. (1999). Child mental health services in the United Arab Emirates. *Child Psychology and Psychiatry Review*, 4(1), 27-29.

United Arab Emirates. (Vision 2021). Education is a Fundamental Element for the Development of a Nation and the Best Investment in its Youth. Retrieved from United Nations Educational Social and Cultural Organization (UNESCO). (2009). *Policy guidelines on inclusion in education*. [online]. [Accessed 20 April 2016]. Available at: <http://unesdoc.unesco.org/images/0017/001778/177849e.pdf>