Is the DSM-5 a Culturally Appropriate Assessment Tool for Identifying Learners with ADHD in Lebanese Schools?

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Abstract: This study explores counselors' current perceptions of ADHD, the techniques they implement with students who display ADHD and the extent to which they believe the DSM-5 is a culturally appropriated tool for diagnosing Lebanese students with ADHD. Data were collected using mixed methods: (a) interview questions from the Teacher Knowledge of Attention Deficit Hyperactivity Disorder (KADDS), which were derived and modified to explore counselors' perceptions of ADHD and the techniques they used when dealing with such students; and (b) questionnaires including the DSM-5 used as an assessment tool to indicate the extent to which counselors think that DSM-5 is culturally appropriate for the purpose of identifying ADHD students in Lebanon. The sample consisted of 20 Lebanese counselors from 20 schools (10 private and 10 public) in the area of Beirut. Counselors' answers to the KADDS interview questions revealed several misconceptions and lack of knowledge in relation to two subscales: general knowledge and implemented techniques. Findings were reported and discussed.

Keywords: ADHD, DSM-5, teacher knowledge, culture, counselors, perceptions, Lebanon.

Introduction

Attention Deficit Hyperactivity Disorder (ADHD) has become the most frequently diagnosed childhood neurobehavioral disorder and affects 5 to 10 percent of all US school-age children (ASCA, 2008). ADHD, which is the most common disorder of childhood, has been the focus of research for nearly a century (Faraone, Sergeant, Gillberg, & Biederman, 2003). The concept of ADHD has grown progressively. Today, ADHD is regarded as a developmental, neurobiological condition defined by levels of inattention, hyperactivity, and impulsivity that hinder proper functioning and occur persistently in different and multiple situations (Portrie-Bethke, Hill, & Bethke, 2009).

Given the high incidence of ADHD in school populations, school counselors are expected to have acquired the knowledge and undertaken the training to support both students with ADHD and teachers by giving them tips and strategies to apply in their classrooms (Al-Hroub & Krayem; 2018; Shillingford-Butler & Theodore, 2013). The role of the school psychologist/counselor is essential since s/he provides "testing, diagnosis, and/or counseling in group or individual sessions, and advises on class placement, behavior management and appropriate academic accommodations" (Millichap, 2009, p.99). Therefore, counselors' perceptions of ADHD and the tools for its assessment are important when it comes to implementing the appropriate intervention techniques and identifying those individuals who have ADHD.

Interventions for ADHD are a must since it affects both mental health and academic achievement (Blanco & Ray, 2011). To diagnose a child with ADHD, counselors are expected to employ culturally appropriate assessment tools. The most commonly used assessment tool is the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) which is the main diagnostic system employed among professionals (Kress, Eriksen, Rayle, & Ford, 2005). Several researchers (e.g. Culbreth, Scarborough, Banks-Johnson, & Solomon, 2005; Lambie & Williamson, 2004; Schmidt, Weaver, & Aldredge, 2001) have highlighted the point that counselors are among the key players when it comes to promoting and achieving excellence in educational settings. This provides a rationale for investigating counselors' perceptions on ADHD, the intervention techniques they use when dealing with students who display ADHD, and whether or not they believe that the DSM-5 is culturally appropriate for the purpose of assessing students with ADHD.

Although the DSM is considered essential for professional practice, it has been criticized for its lack of cultural sensitivity (Kress et. al., 2005).The issue of cultural appropriateness is a pertinent one with respect to the extent of ADHD in the Arab World (Berri & Al-Hroub, 2016a, 2016c). Research should aim to accurately determine the frequency of ADHD among children as well as teenagers and to address the problems to which the disorder engenders, especially the fact it begets a wide range of mental comorbidities and exercises a striking impact on an individual's daily life. In addition, research should focus on the means of handling ADHD (Berri & Al-Hroub, 2016b; Farah et al., 2009). "The prevalence of ADHD symptoms among Arab students ranges from 5.1% to 14.9% in the school setting, whereas the rate of ADHD diagnosis using structured interviews in children and adolescents ranges from 0.5% in the school setting to 0.9% in the community" (Farah et al., 2009, p. 217). It is worth mentioning that the rates of ADHD at

a child psychiatry clinic in the Kingdom of Saudi Arabia, as well as those in primary care in the United Arab Emirates, are considerably below estimated ranges. In contrast, ADHD has come to be the most common disorder among outpatients in a child psychiatric clinic in Lebanon, "accounting for more than half of outpatient presentations" (Farah et al., 2009, p.219), which implies the need to raise awareness about ADHD.

School counselors play a major role in designing and implementing counseling programs to meet students' needs. American studies on ADHD have concluded that ADHD is largely an American disorder, especially because it may stem from social and cultural aspects that are very common in American society (Faraone et al., 2003). Therefore, counselors' diagnostic assessment must consider the cultural differences, which shape the experience and the behavior of an individual. It is claimed that vital aspects of culture related to diagnostic sorting and assessment were considered when developing the DSM-5 (APA, 2013). Döpfner et al. (2006) explained that several ADHD rating scales have generally been derived from the DSM manual. Thus school counselors in Lebanon generally rely heavily on the Western definitions of ADHD and on the DSM-5 as an assessment tool in particular (Kress et al., 2005). Since the educational reform agenda has been predominantly interested in accountability and student academic outcomes, school counseling research might not have provided enough support to gain attention (Dahir, Burnham, & Stone, 2009). School counselors should be updated with information on all aspects concerning ADHD diagnosis.

The results of the study will provide better opportunities for special education experts to develop assessment tools that are based on the Lebanese classification of ADHD. Moreover, it will assist in the production of comprehensive programs related to ADHD. In practical terms, identifying school counselors' perceptions of ADHD and the techniques they use to intervene with such cases will help in preparing education programs for future counselors to tackle issues related to ADHD. Another point is the need to help with the implementation of professional developmental in-service training, which can then properly use the correct information to rectify common misconceptions that counselors might have about ADHD. Therefore preparing education programs accompanied by developmental in-service training could improve the counseling sector in Lebanon.

Assessment of ADHD

ADHD is recognized worldwide and millions of children are diagnosed with this disorder annually (Millichap, 2009). The geographical location of a country plays a minor role in the prevalence of ADHD around the world (Polanczyk, De Lima, Horta, Biederman, & Rohde, 2007). However, cultural differences have a remarkable effect when it comes to diagnosing and treating ADHD symptoms and hence must be considered because the symptoms depend to a great extent on the background culture of the family and teachers' perceptions (AAP, 2011). Dissimilarities in the occurrence of ADHD go back to the diagnostic criteria used by each country (Ramos-Quiroga, Montoya, Kutzelnigg, Deberdt, & Sobanski, 2013). Different tools may be used in different cultures to diagnose ADHD children, which may lead to prevalence which varies according to country (Bauermeister, Canino, Polanczyk, Rohde, 2010). Assessment tools may include the Strengths and Difficulties Questionnaire (SDQ), the Parent Development and Wellbeing Assessment (DAWBA), and semi-structured interviews, such as the Schedule for Affective Disorders and Schizophrenia for School-Aged Children (K-SADS) (Posserud et al.,

2014). Structured interviews, impairment rating scales, and observations are other ADHD assessment methods that are used around the world (Pelham, Fabiano, & Massetti, 2005).

In the context of Lebanon, Berri and Al-Hroub (2016e) stated, "Regarding identification and assessment, there is no identification procedure because of the absence of an official definition, or a commonly accepted definition for ADHD (p. 60). The scope of special education in Lebanon is limited to students who show special needs only. ADHD is not mentioned in Lebanese ministerial policy documents, including the current revised national curriculum (Berri & Al-Hroub, 2016e). The diagnostic criteria worldwide determine the extent to which ADHD is relevant across cultures (Bauermeister et al., 2010). It is important to note that the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (APA, 2013) describes the disorders that can be identified across cultures, societies, and settings (Bauermeister et al., 2010). Therefore counselors may mainly adopt American and European scales or assessment tools despite the cultural differences.

Counselors' Perceptions of ADHD

Counselors' perceptions play a major role in improving the academic and social functioning of students with ADHD, thereby decreasing the drop-out rate of those students (Shillingford-Butler & Theodore, 2013). A study by Weyandt et al., (2009) showed that school counselors' level of knowledge of ADHD is significantly greater than that of special and general education teachers. The perception and knowledge that school counselors display about ADHD permits them to design and give workshops about the disorder to different members of the school and entitles them to work with ADHD students directly. The findings thus suggest that school counselors may be more qualified than teachers to detect students with ADHD as well as possessing the ability to help launch operative interventions for these students (Weyandt, Fulton, Schepman, Verdi, & Wilson, 2009). Counselors are in a unique position to promote the development of counseling services for students with ADHD including "(a) educating teachers, parents, administrators, school board members, and legislators about the long-term negative social and academic consequences of not providing counseling to children exhibiting disruptive behaviors, (b) educating administrators, teachers, and parents about approaches/techniques to be used; and (c) using research findings to collaborate with school district grant writers to secure state and federal funding to hire additional school professionals and provide specific training to counsel ADHD students" (Meany-Walen, Bratton, & Kottman, 2014, p. 53).

Factors Affecting Counselors' Perceptions

Training program. Culbreth et al (2005) emphasize the importance of training programs in relation to school counselors' knowledge. The study revealed the majority of counselors were women and identified themselves as European/White (90.7%). Although participants had an average of 7.5 years of experience, 67 percent of them believed that their training had not prepared them for their position as school counselors (Culbreth et al., 2005). The numbers presented stressed the importance of having specific and specialized in-service training sessions for beginning counselors before they applied for a school counseling position to assist them in tackling cases related to ADHD and other disorders.

Another study by Corkum, McKinnon and Mullane (2005) suggested that a great reduction in ADHD symptoms was noticed when parents and teachers collaborated and received the proper training and intervention. Hence, it remains essential to have special training sessions for both parents and teachers because they can make a remarkable difference in reducing the symptoms of ADHD.

Culture. Stereotypes are common across cultures and they affect the way ADHD is perceived. A study conducted by Gajaria, Yeung, Goodale and Charach (2011) revealed that people associate ADHD with negative connotations and perceive it as such. People in general label children with ADHD as being mentally ill or dangerous to themselves and others in the society, which affects such children and harms them psychologically. These negative stereotypes have led students to feel ashamed about their ADHD, and hence they have hesitated to ask for external help from the counselor or their parents. These students have expressed their frustration about the common negative stereotypes in terms of their desire to "reframe ADHD as part of who they are, rather than ADHD being considered only as a disease that made them appear as bad" (Gajaria et al., 2011, p.16). Different perceptions of ADHD around the world have affected the way in which parents implement methods with their children. Since counselors are part of society, they are therefore influenced by how society perceives ADHD and thus adopt that perception. Hence, it remains essential to understand how counselors perceive ADHD in different cultures.

Intervention Approaches and Treatments

Assessing and treating children with ADHD has been often a controversial issue. Many studies have called for a comprehensive diagnosis in cooperation with medications; other studies call out for appropriate combinations of remedial education with behavioral, modification, and support (Morisoli & McLaughlin, 2004). There are different intervention techniques for counselors to use with students who are diagnosed with ADHD. Medication was highly recommended by most teachers although it is important for educators to first begin focusing in implementing successful interventions in their classroom after referral to the school counselor/psychologist (Morisoli & McLaughlin, 2004) especially that the majority of individuals discontinue medication in less than one year (Rubia & Smith, 2001). Morisoli and McLaughlin (2004), Rubia and Smith (2001), and Shillinford-Butler and Theodore (2013) have argued that behavioral interventions and teaching strategies are effective in reducing ADHD symptoms. There are many behavioral interventions that can be applied in classrooms after the consultation of the school counselor (Shillinford-Butler & Theodore, 2013), such interventions include Token Economies and Response Cost Systems, Daily Report Card Systems, Cognitive Behavioral Training System, and Positive and Negative Reinforcement (Morisoli & McLaughlin, 2004). In summary, it is crucial to explore counselors' intervention plans for ADHD students since they are highly affected by counselors' perception of ADHD and the causes behind it.

Diagnosis and Assessment of ADHD

School counselors must be in a position that will allow them to identify ADHD themselves or at least provide an appropriate evaluation for the psychologist or the clinician for the purpose of diagnosis. Studies have shown that school-based assessment carried out by school counselors in the evaluation of ADHD has received the greatest empirical support in the literature (DuPaul &

Stoner, 2014). The school counselor is expected to be knowledgeable and to have attended training sessions on the diagnostic criteria either to help them conduct the assessment or refer a student for further diagnosis (DuPaul & Stoner, 2014; Shillingford-Butler & Theodore, 2013). It is thus essential to establish counseling in all schools because it will reduce most of the problems ADHD students face during learning as it will be easy to make referrals for adequate management (Abikwi, 2009). Studies have shown that in-class observation is not enough to identify ADHD; teachers' and parents' reporting forms or questionnaires should be completed before the counselor observes ADHD students in class. Counselors also need to have rating scales to complete when observing students in different settings and at different times (DuPaul & Stoner, 2014; Wasserstein, 2005).

Furthermore, school counselors need to be aware of the symptoms and subtypes of ADHD when referring students because diagnosis precedes treatment/intervention (Dahir et al., 2009). Extensive research has found that the primary symptoms displayed by ADHD children are inattention, impulsivity and hyperactivity (Barkley, 2013).

DSM Criticism

Coghill and Seth (2011) have criticized the DSM IV, specifically with respect to the ADHD criteria. They have been critical of the general structure and subtyping, stating that the subtypes are unstable over time. "The representation of hyperactivity, inattention, and impulsivity in the criterion set is uneven and, thus, differentially weights some features over others. Impulsivity is underrepresented, and inattention is overrepresented" (Coghill and Seth, 2011, p.4). In addition, the organization is not valid, for even when ten criteria are present (five relating to inattention and five to hyperactivity), the child may not be eligible for an ADHD diagnosis. Moreover, criteria are not defined in detail, and this increases criterion variance, which is a major problem in everyday use.

Misdiagnosis occurs when working with people from culturally diverse backgrounds (Kress et al., 2005). The changes that have been included in the latest version of the DSM present a number of features designed to develop its cross-cultural applicability (Berri & Al-Hroub, 2016e; Thakker & Ward, 1998). However, the DSM is based on Western-defined syndromes and has restricted cross-cultural applicability. Those involved in creating the DSM did not take cultural differences and heterogeneity into consideration (Thakker & Ward, 1998). Hence, the latest DSM version may not be universally applicable and thus might not apply to Lebanese students with ADHD. However, since the DSM tool is the clearest diagnostic system available, counselors are expected to know about it since it is a necessity for professional practice (Kress et al., 2005). However, the latter does not indicate that the DSM is a culturally appropriate tool. Literature has exposed and criticized the DSM tool for being inaccurate when it comes to diagnosing groups from different cultures. Many studies have shown that culture affects counselors' perceptions as well as those of the clients, thus impacting the assessment, diagnosis, and intervention techniques applied by the counselors. Therefore counselors must be well aware of their culture and must be knowledgeable about the strengths and weaknesses of the DSM to decide whether or not it is culturally appropriate (Kress et al., 2005). Based on that, it remains important to explore whether or not Lebanese counselors view the DSM-5 as a culturally appropriate tool, and if not, how they would modify it to make it culturally appropriate to dealing with ADHD students.

The Current Study

The purpose of this study was to identify what Lebanese counselors' perceptions are regarding ADHD, to determine to what extent counselors think the DSM-5 can be culturally appropriate for the purpose of detecting ADHD students in Lebanon, and to explore the intervention techniques that counselors use when intervening with students with ADHD. Three questions guided the current research study:

1) To what extent do the counselors think that the DSM-5 is culturally appropriate for the purpose of identifying ADHD students in Lebanon?
2) What are the intervention techniques used by Lebanese counselors to counsel students with ADHD?
3) What are Lebanese counselors' perceptions of ADHD and its symptoms?

An exploratory mixed-methods approach was used to answer the research questions. Given that, in Lebanon, no study has been done to extensively explore counselors' perceptions of ADHD, the intervention techniques they use to deal with individuals with ADHD, and the extent to which they believe the DSM-5 is culturally appropriate when it comes to identifying ADHD an exploratory mixed-methods approach was necessary in order firstly to collect different forms of qualitative data and then to analyze these data quantitatively in order to organize and interpret it. The researcher collects the qualitative data and explores the participants' views. Then the researcher starts with the quantitative phase. The researcher has themes that are pre-established and themes that emerge as the data is analyzed (Creswell & Clark, 2017). Exploratory studies are essential because they revolve around discovering ideas and perspectives and thus they allow more precise investigation to take place afterwards.

Mixed methods designs provide a more holistic understanding of the research problems presented by the study than either quantitative or qualitative research alone. It requires combining both methods; qualitative and quantitative and thus may involve philosophical assumptions and theoretical frameworks (Creswell, 2013). This method was adopted by the researchers because the study includes multiple forms of qualitative data that is later interpreted. The variables are then studied and analyzed by the researchers for emerging themes. The themes that emerged were based on counselors' responses to interview questions.

Method

Participants

Twenty counselors, 10 from private schools and 10 from public schools, were recruited in the area of Beirut. The recruited sample of 20 counselors consisted of 18 females and two males from both public and private sectors. The age of counselors ranged between 21 and 63 *(M = 34.5, SD = 11.97)*. The grade levels of students with whom the counselors worked extended from nursery through to grade 12. One counselor counseled students from nursery through to grade 5; three counselors counseled students in grades 1 to 3; four counselors counseled grades 1 to 5 students; 10 counselors counseled grades 1 to 6 students; and two counselors counseled K to grade 12 students. The years of experience that counselors had ranged between one year and 20

years *(M = 6.1, SD = 5.75)*. Five counselors held Bachelor's degrees and 15 counselors held Master's Degrees. One counselor had a Master's degree and a teaching diploma.

Procedures

The researcher visited each of the participating schools and met with the principal of the school, who was asked to sign a consent form explaining the purpose of the study. Then a meeting was arranged with the school counselor in order to likewise sign a consent form for participation in the study: s/he was also given the freedom to choose not to participate in the study if that was his/her wish. During the meeting, both the purpose and the procedure of the study were explained to the counselor, and the researcher assured the counselor that all personal information would remain confidential. At the end of the initial meeting, the researcher arranged another in order to collect data from the counselor. During this meeting, the researcher interviewed the counselor, asked him/her to complete the demographic information form, and left the questionnaire with him/her to complete and return 48 hours later. The researcher gave the counselor two days to go through the questionnaire in detail in order to add, delete, or annotate the items to better fit the Lebanese culture or s/he could leave the questionnaire if s/he believed that it did not need modification.

Instruments

Demographic information form. The demographic forms included gender, age, the grade level that counselors counsel, years of counseling experience, and the highest level of education that counselors had attained. This form was completed by each counselor before the interview. The researchers' stored demographic information forms a locked drawer.

Interview. The interview was composed of 14 open-ended questions about the counselors' perceptions of ADHD and the various approaches/techniques that they use to deal with children with ADHD and counselors were given the chance to explain or elaborate on their answers. The questions were derived from the Knowledge of Attention Deficit Hyperactivity Disorder (KADDS) questionnaire developed by Sciutto, Terjesen, and Frank (2000) and were modified in order to examine counselors' perceptions of, instead of teachers' knowledge about ADHD. The internal consistency of the KADDS is high when tested on different samples of teachers (.80 to 0.90) (Sciutto et al., 2000). The instrument has also shown evidence of external and internal validity (Soroa, Gorostiaga, & Balluerka, 2013). The KADDS questionnaire is composed of closed questions used to test teachers' knowledge about ADHD. "The KADDS is a 39-item rating scale designed to measure teachers' knowledge about ADHD as it is related to symptoms/diagnosis of ADHD, general knowledge about the nature of ADHD, and the causes and treatment of ADHD using a series of true-false-do not know items" (Sciutto et al., 2000, p.117).

While conducting the interview, the researcher asked the counselor probing questions for further clarification or elaboration. The counselor was given the freedom to discuss anything related to the questions; and the responses were then analyzed.

Each interview took between 30 and 40 minutes. The interviews were tape-recorded with the consent of the interviewees. The recordings were stored on the researchers' personal computer, which is protected by a secure password.

Questionnaire. After completing the interview and the demographic information form, the researchers gave the counselor a questionnaire and asked him/her to complete and return it to the school main office within 48 hours of the meeting time. Counselors had the option to select

the Arabic or the English language version of the questionnaire according to their preference. The questionnaire revolved around the DSM-5. It asked counselors to add, delete, or annotate the DSM-5 to better fit the Lebanese culture. The questionnaire was the actual DSM-5 (specifically the ADHD section). It was divided into three parts: inattention, hyperactivity, and impulsivity. Counselors were given the freedom to add, delete, or annotate all three parts.

It is important to mention that the researchers purposely conducted the interview with each counselor before s/he was asked to complete the questionnaire in order to avoid the interview responses being skewed by the content of the questionnaire, which was based on the DSM-5.

Data Analysis

The researchers transcribed all 20 interviews. Then the transcripts of the responses to each of the 14 interview questions per interview were analyzed using open coding. For each interview question, the second researcher conducted open-coding on two responses for the purposes of reliability. The major concepts and statements marked by both researchers were compared. Next the researchers counted the frequency of occurrence of similar concepts or statements in the responses to a certain interview question. These emerging concepts and statements were later categorized into themes. Both the frequency of occurrence of similar concepts or statements in the responses to each interview question and the identified themes allowed the researchers to answer the first and second research questions.

Results

The interview was semi-structured and was composed of 14 items. The counselors' responses to each of these items were analyzed using the "open-coding" strategy which was described in the methods section. Based on the analysis of the interview questions, the majority of the counselors believed that hyperactivity is one of the characteristics of ADHD and only one individual referred back to the characteristics listed in the DSM-5 assessment tool. A sample of the data from the interviews is provided in Table 1 below. **.** The analysis of the counselors' responses showed 12 different descriptions of an ADHD student that were mentioned by the counselors as characteristics of an ADHD student. These descriptions are shown in Table 1 with their corresponding frequencies and percentage.

Table 1.Characteristics of an ADHD Student as Mentioned by the Counselors

Characteristic	Frequency	Percentage %
Hyperactivity	19	34
Impulsivity	8	14
Cannot focus	7	13
Attention deficit	6	11
Has behavioral problems	3	5
Fidgety	3	5
Aggressive	3	5
Do not follow rules	2	3
Has problems with memory	2	3
Cannot control himself	1	2
Dangerous	1	2
Show DSM characteristics	1	2
Total	56	100

N =20 counselors

Several counselors provided descriptive characteristics of an ADHD student. A counselor from a private school, for example, stated, "An ADHD kid is hyperactive and cannot focus at all". Another counselor from a public school reported, "I think an ADHD student is a student who is so hyperactive and cannot sit still in places such as classrooms or playgrounds." Most counselors observed students in different settings when considering referring them to a specialist since most schools do not provide an in-school assessor or tools to diagnose a student with ADHD. After the diagnosis, counselors provided students with different support strategies; the most common one that counselors mentioned was providing teachers with guidelines to help them deal with ADHD students in class, although they did admit that their implemented techniques and plans did not always work. The counselors assigned some tasks to the teachers, like giving students with ADHD tasks to complete, giving parents some guidelines on how to cope with their children at home, and preparing a behavioral plan for the student to follow.

Counselors stressed the importance of working with parents and teachers as a team because most of them believed that parental and teacher training in how to manage an ADHD student is effective and thus parents should be involved in all the planning that takes place at school. In order to keep teachers and parents updated, counselors believed that greater awareness should be raised to reduce the typical stereotypes and misconceptions that people hold with regard to students with ADHD. One of the stereotypes that counselors agreed is common is hyperactivity, a feature that has indeed been established as a characteristic of ADHD. The majority of counselors had not received any training sessions on how to deal with ADHD students and so they mostly agreed about the importance of receiving training to be able to better address children with ADHD and provide training workshops for parents and teachers on that subject. Some of the counselors believed that they should be able to have more one-on-one sessions with the students and should also be able to diagnose children with ADHD because it would make life much easier for them and their parents, given that the most common reason counselors gave for the increase in number of ADHD cases was misdiagnosis and mislabeling. Counselors did not seem to agree on whether or not reducing the dietary intake of sugar and food additives was likely to reduce the symptoms of ADHD.

Analysis of the DSM-5 as an Assessment Tool Questionnaire

In order to explore whether or not Lebanese counselors believed that the DSM-5 is culturally appropriate when it comes to diagnosing Lebanese students, the same counselors who participated in the interview (10 from public schools and 10 from private schools) were given a questionnaire which displayed all the items from the DSM-5 that targeted ADHD. The questionnaire was kept by the counselors for two days allowing them to add, delete or annotate items in the DSM-5 to make it fit better with Lebanese culture. In the questionnaire, the DSM-5 items were divided into three parts: inattention, hyperactivity, and impulsivity.

Ten counselors did not add, delete or annotate any of the items in the three parts of the questionnaire. When asked about the reason, they said it covered everything about ADHD students and they did not believe anything should be changed in any way to make the assessment tool fit better with Lebanese culture. The remaining 10 counselors added, deleted and/or annotated one or more of the items in three parts of the questionnaire. A summary of what these 10 counselors did is presented in Table 2.

Table 2. ***The Number of Counselors Who Added, Deleted, or Annotated the DSM5 Parts***

	Additions	Deletions	Annotations
Part 1 (inattention)	7	1	6
Part 2 (hyperactivity)	4	2	4
Part 3 (impulsivity)	1	1	3

The three major themes that emerged from the questionnaire were language, culture and the unevenness of the DSM-5. Arabic is the mother tongue in Lebanon and students acquire an additional language or languages at school, namely English and/or French. Hence a child might not seem to listen when spoken to if s/he is spoken to in a language in which s/he is not fluent or does not comprehend. Language is an important aspect of one's identity and hence 5 percent of the counselors who made changes suggested changing the word 'sick' in the Arabic version of the DSM-5. The argument suggests that an ADHD student is not a sick individual but rather an individual with a disorder. It was suggested that the term 'butts' be crossed out because it did not make any sense to 10 percent out of the 10 counselors who made a change. It was commented that the term 'butts' is not a word commonly used in Lebanon and should be annotated to make more sense.

The definition of ADHD is also culturally specific, for culture affects an individual's growth and his/her biological and emotional development to a significant extent (Bauermeister et al., 2010). It has been stated that there are many stimuli in Lebanese schools: specifically there are classes which makes it difficult for a student with ADHD to focus, and hence s/he gets easily distracted by extraneous stimuli. The latter does not necessarily imply that the student has ADHD. 'Often talks excessively' was another item that was deleted. The explanation was culture related: excessive talking is a part of Lebanese culture so it is unfair to diagnose a student with ADHD when this is only a part of his/her culture. Three counselors out of the 10 who made changes to the DSM-5 stated that the impulsivity part in the DSM-5 is so general that the items could apply to any student in Lebanese culture, which is generally chaotic and does not value rules. Lebanese culture is known to be a very vibrant culture with many stimuli and hence it is unfair to diagnose a student with ADHD when almost all people raised in Lebanon could be diagnosed with the condition according to these criteria. Therefore counselors need to be well aware of their culture and should be knowledgeable about the strengths and weaknesses of the DSM in order to decide whether it is culturally appropriate or not (Kress et al., 2005).

Three counselors out of the 10 who made changes shed light the fact that there are more items concerned with the inattention and hyperactivity criteria than with the impulsivity criterion in the DSM-5, which is consistent with Coghill and Seth's (2011) assertion that "the representation of hyperactivity, inattention, and impulsivity in the criterion set is uneven and, thus, differentially weights some features over others. Impulsivity is underrepresented, and inattention is overrepresented" (p. 4).

Discussion and Conclusion

The interviewed counselors were knowledgeable about the general symptoms of ADHD; however, they mixed up the symptoms of other disorders with those of ADHD, for example, 'aggressive' and 'dangerous'. The term 'hyperactive' was frequently used by counselors to identify the whole concept and symptoms of ADHD. Some characteristics overlapped with stereotypes, which imply that counselors did not have a holistic understanding of the disorder. Almost all counselors believed that observation is the best way to recognize students with ADHD, but did not mention teachers' reports or referral forms as part of their plans. Half of the interviewed counselors perceived ADHD to be a biological disorder that can be mitigated by having a good and healthy diet with minimal sugar intake. However, more than half of the interviewed counselors did not have proper knowledge of the tools used to diagnose ADHD. They even mixed up techniques with diagnostic tools. This is related to the fact that almost all the interviewed counselors had not attended any training sessions before they applied for counseling positions. Hence the majority of the interviewed counselors recommended more training sessions to help them handle ADHD cases better.

The results of the study have indicated that the counselors did not use many support strategies with students who display symptoms of ADHD. They revealed possible misunderstanding of the techniques used to intervene with students displaying such symptoms. Counselors did not mention many educational interventions; the most commonly used ones were reinforcement, monitoring techniques, behavioral charts and reward systems. Counselors mostly cooperated with teachers to help them implement techniques to reduce the symptoms of ADHD. Some tasks mentioned however, did not make sense and did not fit within the criteria, which again indicated the need for training sessions.

Counselors ought to be more knowledgeable about the DSM-5 as a diagnostic tool and whether or not it is culturally appropriate for use in diagnosing students in Lebanon. Although counselors who had made the changes highlighted very important themes, namely language, culture, and the unevenness of the DSM-5 criteria, it was expected that more counselors would have made changes to DSM-5 to fit with Lebanese culture.

Recommendations

It is recommended that more studies be conducted on a bigger scale to identify and explore the extent to which counselors believe that the DSM-5 is culturally appropriate. The recommendation would be to use this criterion along with teachers' and parents' input and counselors' in-class observations at different times and in different settings. It is possible that students might feel bored or uninterested in a subject, which might suggest some symptoms of ADHD, when they do not actually have ADHD. The DSM-5 states that six (or more) of the symptoms have to be present and persist for at least six months; however, it is worth noting that some students may display five symptoms from the subtypes, which indicates the possibility of the student having ADHD. The unevennes of the subtypes is also questionnable because a student may display three symptoms of inattention and five symptoms of hyperactiviy which should alert the counselor to the possibility of the student having ADHD. The third recommendation would be for counselors to attend certified training sessions to learn more about ADHD and the tools for its assessment and diagnosis.

Implications and Limitations

In this study, we explored counselors' perceptions of ADHD and the techniques they used with students who displayed symptoms of ADHD, and the extent to which they believed the DSM-5 is culturally appropriate to assess students with such symptoms. Perhaps future research could tackle the private and the public sector separately and compare counselors' perceptions and knowledge in both of them. The public and private sectors are viewed differently in Lebanon and it was noticeable that the interviewed counselors from the private sector were more knowledgeable and had more contact with the students since they remained in the schools for more than 80 percent of the time. The counselors from the public sector, however, did not have much contact with the students since they only visited public schools when they were contacted in an emergency.

Further studies are needed to learn more about ADHD from students' and parents' perspectives since their views are also important to identify how ADHD is seen from all angles. Some of the counselors talked about the need for the Lebanese Ministry of Education and Higher Education (MEHE) and private schools to provide them with the tools to diagnose and assess students with ADHD. Thus one recommendation was that policy-makers and decision-makers in the MEHE and in private schools could set up in-service training for counselors about the different assessment tools, helping them to upgrade their knowledge about ADHD.

There are a number of limitations to this study. One is that it was conducted in the area of Beirut so it does not represent all counselors in Lebanon. Another limitation is the number of counselors interviewed, which does not represent all Lebanese counselors. It would be more accurate to include more counselors so that the sample would be more representative.

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