Indicators of Conduct Disorders Among Adolescents in Saudi Arabia

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Abstract

This study aims to explore and explain the degree of CDs' indicators among adolescents in school, society, and the home; and also the differences in these indicators based on the boys' age, school class, and parental status. This involves interpreting qualitatively the quantitative outcomes. Mixed methodology was used to answer the research questions. A sample of 1,245 students from five intermediate schools in Taif, Saudi Arabia was selected randomly by using cluster sampling. A structural questionnaire was administered on these students. Then, a semi-structured interview was developed and applied on a non-random sample of 15 students. The outcomes show that CDs' indicators are higher in society compared with the indicators at home and in schools. The results also show that the adolescents' age (from 13 to less than 14, and from 15 to less than 16), in the third year in intermediate school, and whose parents are either separated or are both dead, represent the highest means in CDs' indicators. All the interviewed boys discussed their aversion to school, their community, and home, as well as their beliefs about others' bad opinions of them. The current data provides a strong hint that there are high degrees of CDs' indicators among Saudi teenagers, and there are differences in these indicators in school, society, and at home (and also differences based on the boys' ages, school class, and parental status), which would contribute to more understanding of adolescent psychological disorders in general and specifically in teenagers with CD in Saudi Arabia.

Keywords: Conduct Disorders (CDs); Adolescents

Introduction

During adolescence a teenager goes through a number of psychological and behavioural changes that may involve suffering from

conduct disorders (CDs). The tenth version of the *International Classification of Diseases* (ICD-10) defines these as follows:

"Conduct disorders are characterized by a repetitive and persistent pattern of dissocial, aggressive, or defiant conduct. Such behaviour, when at its most extreme for the individual, should amount to major violations of age-appropriate social expectations, and is therefore more severe than ordinary childish mischief or adolescent rebelliousness ... Conduct disorder is frequently associated with adverse psychosocial environments, including unsatisfactory family relationships and failure at school, and is more commonly noted in boys" (World Health Organization, 1992).

The fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* also defines other indicators of CDs such as carrying and using weapons (e.g. knives and guns); committing crimes (e.g. stealing bags, armed robbery, fraud, and blackmail); and other behaviours like staying out late from home (American Psychiatric Association, 2013). There are three levels of CDs: a simple level that may cause basic damage such as lying to people, being absent from school, and staying out late at night; a moderate level that includes unacceptable damage like stealing from an anonymous victim; and an intense level that causes great damage such as damage to property, violent theft, use of weapons, and physical violence like rape (ibid.). This shows the complexity of CDs, which, also, involve a number of sub-disorders such as: conduct disorder confined to the family context, un-socialized conduct disorder, socialized conduct disorder, and oppositional defiant disorder (World Health Organization, 1992). Moreover, and based on my clinical observation, the indicators of CDs are similar to the indicators of other disorders such as attention deficit hyperactivity disorder (ADHD), mixed disorders of conduct and emotions, and emotional disorders with an onset specific to childhood. Therefore, the disordered person is not the only sufferer, but their family and community suffer as well (Knopf, 2015).

Ten per cent of children and adolescents in the United States, and 6% in the UK, suffer from CDs, which are more common in males than females (Coghill, 2013). Nevertheless, there are a number of studies that have emphasized that teenagers are the most common age group showing the disorder in its extreme form (Viinamäki et al., 2013, Fairchild et al., 2013, Copur et al., 2005, Wymbs et al., 2014, Nock et al., 2006). In addition, there are other factors which may promote this intensity, such as the death of one or both parents (Himaz, 2013). However, none of the studies mentioned above has defined the degree of CDs' indicators (i.e. the indicators' mean); none of them has distinguished if CDs' indicators differ from one situation (e.g. behaviour inside the home) to another (e.g. behaviour at school); none of them use quantitative and qualitative data to discover and explain these degrees and differences; and none of them has targeted teenagers from Arab

societies. This study aims to fill in this gap in the literature and investigate the indicators of CD among Saudi adolescents, and to reach this aim this study will answer the following questions:

What are the degrees of CDs' indicators among adolescents in school, society, and the home? How do adolescents explain these degrees?

Do the indicators of CDs among adolescents in school, society, and at home differ when age, class, and parental status differ? How do adolescents explain these differences?

Methods

Research Design

Mixed methodology was used to answer the complex research questions, which involves merging the deduction characteristic of the quantitative approach and the induction feature of the qualitative approach (Johnson and Onwuegbuzie, 2004, Lund, 2012, Tashakkori and Teddlie, 2003). In detail, the quantitative data was collected first by using a questionnaire. After analysing it and based on its outcomes, interviews took place to obtain further explanations and explore the possible reasons behind CDs' indicators and differences. The following sections will discuss further the sampling and the research tools.

Population and participants

There is no national data regarding teenagers who suffer from CDs, i.e. this population is unknown in Saudi Arabia. Therefore, the targeted population was to be male students in the intermediate schools and specifically the ones whose age was over 13 but less than 16 years old, as this stage of life is the most likely time when CDs occur and become very intense (Boyes et al., 2014, Fazel et al., 2008, Olino et al., 2010, Heron et al., 2013, Silberg et al., 2015, Rose et al., 2004, Stalk et al., 2015). Even though this student population (in total 17,683) was studying in Taif, Saudi Arabia (Taif Education Gate, 2016), only two drawn samples were selected.

The sample that the questionnaire was administrated on was selected randomly and by using cluster sampling (specifically two-stage cluster sampling that uses area-based procedures). With the help of the Education Department in Taif, one intermediate school from each of the five areas in Taif was selected randomly by using lots. Then, all the students from the five selected schools (whose details such as name, age, and stage at school were already recorded on Excel) were selected (a) randomly by using the function =RAND(), and (b) by proportionality based on the total number of students in each school. Eventually, the sample size was 1,245, which represents 7.04% of the population size (i.e. greater than 5% of the population) and therefore the finite population correction factor (fpc) was calculated to trust

the ability of generating the quantitative outcomes on the current population (Daniel, 2012). The participants of this sample were grouped based on their age, classes, and parental status (Table 1).

Table 1 The participants' groups, frequency, and percentage

Groups	N(%)
Age groups	
From 13 to less than 14 years old	394(31.6)
From 14 to less than 15 years old	636(51.1)
From 15 to less than 16 years old	215(17.3)
Class groups	
First year in the intermediate school	212(17)
Second year in the intermediate school	550(44.2)
Third year in the intermediate school	483(38.8)
Parental status groups	
Live together	1105(88.7)
Separated	30(2.4)
Both are dead	20(1.6)
The father is dead	73(5.9)
The mother is dead	17(1.4)

Concerning the sample that the interviews were applied to, this was non-randomly selected by the academic advisor in each school suggesting three students who (a) are showing indicators of CDs, (b) whose age is between 13 and less than 16, and (c) whose parents either live together, are separated, are both dead, or one of them is dead. In total, 15 students were interviewed, which is a decent sample size for qualitative data saturation (Guest et al., 2006), i.e. reaching "a point in the data collection where no new categories or themes emerge" (DiCicco-Bloom and Crabtree, 2006).

Research instruments:

A structured questionnaire was used to collect quantitative data whereas a semi-structured interview was used to collect qualitative data. Regarding the questionnaire, based on CDs' symptoms that are presented in ICD-10 (World Health Organization, 1992), DSM-4 and DSM-5 (American Psychiatric Association, 2000, American Psychiatric Association, 2013), and the related literature (Colman, 2015, Nock et al., 2006, Copur et al., 2005, Knopf, 2015, Viinamäki et al., 2013, Wymbs et al., 2014), a structured questionnaire of 22 indicators (and that divided into three factors – CDs' indicators at home, school, and society) was developed. The questionnaire's validity (by using the Spearman correlation coefficient between each item and the total questionnaire and then using a correlation coefficient between each item and its factor after the deletion of the item) and reliability (by using Cronbach's Alpha (α)) were checked on an external sample of 174 students (Table 2).

Table 2 The validity and reliability of the structured questionnaire

Factors, (α), and their items	Spearman correlation coefficient	Correlation coefficient after the deletion of the item
The indicators of CDs among teenagers at school (α = .788)		
Honestly, I hate school	.556**	.368**
I don't feel comfortable at school	.611**	.442**
I fight with my school mates	.652**	.529**
I have been punished at school because of my behaviour	.656**	.533**
I have run away from school	.755**	.654**
I don't go to school and I don't attend my classes	.695**	.580**
I verbally or physically offend my teacher	.680**	.573**
I have failed in school many times	.629**	.493**
The relation between the factor and the questionnaire as whole	.805**	
The indicators of CDs among teenagers in society (α = .675)		
I dare anyone who dares me	.434**	.222**
I am ready to get revenge on anyone who hurts me	.586**	.378**
I become moody without any obvious reason	.581**	.402**
I like provoking others	.637**	.463**
I light fires just for fun	.609**	.417**
I don't speak honestly all the time	.499**	.334**
I tortured or killed an animal	.559**	.38**
I stole things from others	.545**	.391**
The relation between the factor and the questionnaire as whole	.758**	
The indicators of CDs among teenagers at home (α = .749)		
Since I was little, my family have considered me naughty	.6**	.428**
My family members say that I am naughty and don't listen to them	.727**	.616**
My family members describe me as disobedient and stubborn	.718**	.602**
I run away from home sometimes	.703**	.588**
There are a lot of problems and fights in my home	.65**	.531**
In my home, we live with a lot of tension	.64**	.514**
The relation between the factor and the questionnaire as whole	.845**	

** $p < .01$

With respect to the semi-structured interview, this was developed after the questionnaire analysis and based on its outcomes. The aim of the interview was to get further explanation and explore the possible reasons behind CDs' indicators and differences. The interview includes five open-ended questions including: Do you hate school? Do you hate your community/society? Do you hate your home? These questions were followed by 'why' questions. The aim of this set of questions was to explain further the CDs' indicators (and their degrees). In addition, two more questions were

included in the interview: How do you think that people outside home describe you? How do you think that your family members describe you? The aim of these questions was to explore and explain how teenagers with CDs (from different age groups, class groups and parental status groups) think about others' views of them.

Results and discussion:

Each of the research questions will be answered quantitatively first. Then, the outcomes will be explained qualitatively and by integration with the related literature, which presents the discussion.

Q1. What are the degrees of CDs' indicators among adolescents in school, society, and home? How do adolescents explain these degrees?

To answer the first part of this question, descriptive statistics were used to identify the degrees of CDs' indicators (Table 3).

Table 3 The degree of CDs' indicators among teenagers in school, society, and at home

Items	M(SD)	%
The indicators of CDs among teenagers at school		
Honestly, I hate school	2.98(1.45)	60%
I don't feel comfortable at school	2.87(1.40)	58%
I fight with my school mates	2.43(1.13)	49%
I have been punished at school because of my behaviour	1.94(1.11)	39%
I have run away from school	1.88(1.20)	38%
I don't go to school and I don't attend my classes	1.87(1.13)	38%
I verbally or physically offend my teacher	1.55(1.02)	32%
I have failed in school many times	1.55(1.18)	31%
The indicators of CDs at school	Grand Mean 2.13(1.20)	43%
The indicators of CDs among teenagers in society		
I dare anyone who dares me	3.61(1.38)	72%
I am ready to get revenge on anyone who hurts me	3.08(1.53)	62%
I become moody without any obvious reason	2.70(1.35)	54%
I like provoking others	2.56(1.41)	51%
I light fires just for fun	2.52(1.47)	50%
I don't speak honestly all the time	2.04(1.15)	41%
I tortured or killed an animal	1.96(1.31)	39%
I stole things from others	1.72(1.14)	34%
The indicators of CDs in society	Grand Mean 2.50(1.34)	50%
The indicators of CDs among teenagers at home		
Since I was little, my family have considered me naughty	2.50(1.47)	50%
My family members say that I am naughty and don't listen to them	2.03(1.26)	41%
My family members describe me as disobedient and stubborn	2.02(1.28)	40%
I run away from home	1.82(1.24)	36%
There are a lot of problems and fights in my home	1.82(1.16)	36%
In my home, we live with a lot of tension	1.71(1.19)	34%
The indicators of CDs at home	Grand Mean 1.98(1.27)	40%

*** $p < .001$

Table 3 shows that the grand mean of CDs' indicators in society was the highest compared with the grand mean of the indicators in school and home.

In detail, the degree of CDs' indicators in school in general was (M = 2.13, SD = 1.20, 43%), and the item with the highest mean was (Honestly, I hate school) M = 2.98, SD = 1.45, 60%. To explain this, and also to answer the second part of the question, the collected qualitative data shows that the majority of the interviewed students discussed their opinion that teachers, the daily school system, school facilities, and classmates were reasons to have a negative attitude towards school. Concerning their teachers, the interviewed teenagers highlighted the fact that the teachers treat them badly (i.e. taunt and hit them), deliberately fail them, prevent them from attending sports classes, and ask for a lot of homework. Regarding the daily school system, they talked about how the first class in their school day starts very early, the day is very long, the classes are not organized, and they feel so bored. With respect to the school facilities, they emphasize the poor and dirty conditions, and also how the food is low quality and expensive. Concerning their classmates, they refer to assaults and, therefore, how they have to defend themselves.

As can be seen from this, all the reasons discussed are actually external factors (i.e. not interpersonal ones). Khamis (2015) found that teachers have negative attitudes toward their students who show signs of CDs, such as messy and chaotic behaviour. The school environment can also be damaging, especially when taking into account how although students learn new knowledge and skills in school, some of them learn how to smoke, use drugs, and drink alcohol there (Bonell et al., 2016).

Regarding the CDs' indicators in society (M = 2.50, SD = 1.34, 50%), the item with the highest mean was (I dare anyone who dares me) M = 3.61, SD = 1.38, 72%. When the interviewed students were asked: Do you hate your community/society? Why? The majority of them talked about how social relationships, using public and private property, and dealing with animals were reasons to have negative attitudes toward society. In detail, and concerning their social relationships, they highlighted that they have a lot of fights with their teenage relatives and neighbours, and they light firecrackers and throw them into the neighbours' houses. Regarding public and private property, they discussed how they steal from their family members as well as from shops, they set fire to trees, and they play inside mosques and praying rooms. Concerning dealing with animals, they said that they hit some animals hard, threw cats, plucked their hair, and poured hot water on them, and also killed birds for fun.

This reflects interpersonal factors, i.e. teenage boys admit their bad behaviour and that it is unacceptable in their societies. Parallel to this, in a

study carried out by Alexandru and Lorand (2015), the researchers found that adolescents with CDs have less chance to merge with their communities compared to their peers without CDs. In another study conducted by Nordström et al. (2013) the researchers conclude that teenagers reflect intense CD symptoms when they also have intense Disruptive Behavioural Disorders (DBDs). With respect to hurting animals, Wilson and Norris (2003) found that harming animals is considered to be a strong and clear indicator of CDs.

Concerning the CDs' indicators at home (M = 1.98, SD = 1.27, 40%), the item with the highest mean was (Since I was little, my family have considered me naughty) M = 2.50, SD = 1.47, 50%. When the interviewed teenagers were asked: Do you hate your home? Why? They emphasized that their bad relationships with their family members and their home environment were reasons to have negative attitude toward their homes. In particular, the boys talked about their way of communicating with their family members: lying and not respecting them, swearing at them, not telling them their school results, taking the family car without their permission, and using family things without asking. The boys also discussed other unacceptable behaviours such as going to bed very late, stealing money from family members, and overusing electronic games during family times.

This reflects interpersonal factors, i.e. adolescent boys admit their bad behaviour inside the home. Pfiffner et al. (2005) found that the mother-child relationship determines the existence (or prevention) of CDs in the child. Therefore, the Quality of Life (QL) inside the home is an important element, especially when taking into account that a high QL is inversely related to CDs (Schei et al., 2016). In other words, a good life leads to mentally and physically healthy children.

Q2. Do the indicators of CDs among adolescents differ in school, society, and home when age, class, and parental status differ? How do adolescents explain these differences?

To answer the first part of this question, one-way analysis of variance ANOVA was used (Table 4).

Table 4 The differences in CDs' indicators among teenagers in school, society, and home based on the differences in age groups, classes, and parental status

Factors and groups	M(SD)	F	*df*	η^2
Factors relating to CDs indicators at school				
Age groups				
From 13 to less than 14 years old	18.3(6.7)			
From 14 to less than 15 years old	16.9(6.2)	3.09*	2	.005
From 15 to less than 16 years old	17.5(6.6)			
Classes				
First year in the intermediate school	16.2(5.1)			
Second year in the intermediate school	17.2(6.5)	2.75*	3	.007
Third year in the intermediate school	18.5(7)			
Parental status				
Live together	16.8(6.1)			
Separated	22.8(8.5)			
Both are dead	24.6(4.7)	6.70***	4	.022
The father is dead	18.7(6.5)			
The mother is dead	19.5(7)			
Factors relating to CDs indicators in society				
Age groups				
From 13 to less than 14 years old	20.4(5.8)			
From 14 to less than 15 years old	20(6.1)	4.501*	2	.007
From 15 to less than 16 years old	20.7(6.1)			
Classes				
First year in the intermediate school	18.5(5.5)			
Second year in the intermediate school	20.6(6.2)	3.42*	3	.008
Third year in the intermediate school	20.7(5.8)			
Parental status				
Live together	19.9(6)			
Separated	23.4(6.2)			
Both are dead	23.1(5.2)	2.723*	4	.009
The father is dead	20.8(6.3)			
The mother is dead	21.2(7)			
Factors relating to CDs indicators at home				
Age groups				
From 13 to less than 14 years old	18.1(6.8)			
From 14 to less than 15 years old	16.1(6.5)	5.479**	2	.009
From 15 to less than 16 years old	16.4(6.8)			
Classes				
First year in the intermediate school	14.7(5.4)			
Second year in the intermediate school	16.7(6.8)	1.702*	3	.004
Third year in the intermediate school	18.3(7)			
Parental status				
Live together	16.1(6.4)			
Separated	23(7)			
Both are dead	24.5(4.5)	9.842***	4	.032
The father is dead	17.4(7.2)			
The mother is dead	20.5(8.5)			

*$p < .05$, **$p < .01$, ***$p < .001$

Table 4 shows that the differences of the CDs' indicators among boys in school, society, and home (based on their age, classes, and parental status) were significant.

Regarding the significant differences in CDs' indicators at school, the age group (from 13 to less than 14 years old) showed the highest in their CDs' indicators. A Scheffe test for multiple comparisons shows that the difference was between the age group (from 13 to less than 14 years old) and the age group (from 14 to less than 15 years old). Teenagers in the third year in the intermediate school were the highest in their CDs indicators, and a Scheffe test shows that the differences were between them and their peers in both first and second years in the intermediate school. Adolescents with both parents dead were the highest in their CDs indicators, and a Scheffe test shows that the difference occurs between the groups (both parents are dead or separated) and (live together or the father is dead).

To explain this, and also to answer the second part of the question, the boys interviewed discussed specifically their hate of their teachers as a reason to hate their schools. For example, one boy emphasized his aversion to school and said, "I hate school because the teachers hit and punish anyone because of anything" (S. A., aged 13). Another student from the third year of intermediate school said, "Everything in school is by force. The teacher forces us to do homework. There is nothing nice about the activities" (A. S., aged 15). Another teenager, an orphan boy whose parents are dead, said, "I hate the school as the teachers punish us and sometimes they swear at us and say bad words to us" (M. A., aged 14). Nevertheless, one can argue that although these students highlighted the negative role of their teachers, they are still a qualitative – small – sample size, i.e. their answers cannot be generated on the population of teenage boys with CDs. Especially when taking into account that Winther et al. (2014) found in their longitudinal study that teachers are able to observe and notice the symptoms of CDs among their students, and actually can help in treating their disorders. In other words, teachers may treat teenagers with CDs in ways that makes the boys hate their teachers and schools, yet teachers may also know how to deal with these boys to help them overcome the disorder symptoms.

Concerning the differences in CDs' indicators in society, the age group (from 15 to less than 16 years old) were the highest in their CDs' indicators. A Scheffe test for multiple comparisons shows that the differences were between this age group and the other age groups (from 14 to less than 15 years old) and (from 13 to less than 14 years old). Teenagers in the third year in the intermediate school were the highest in their CDs' indicators, and a Scheffe test shows that the differences were between this class group and their peers in the first and second years in the intermediate school. Adolescents whose parents are separated were the highest in their

CDs' indicators, and a Scheffe test shows that the difference occurs between the groups (both parents are dead or separated) and (live together or the father is dead).

This can be explained by the answers of the interviewed teenagers when they were asked: How do you think that people outside home describe you? One boy said, "People describe me as a crazy and dangerous boy" (A. M., aged 15). Another student from the third year of intermediate school said, "Loser, stupid, and that I am using a lot of bad words" (N. H., aged 15). Another teenager whose parents are separated said, "I am described as a liar, not listening to others, and noisy" (A. K., aged 13). Related to this, Wakefield et al. (2002) found that CDs may occur when a teenager interprets others' actions in a negative way, however, psychological diagnoses are still important especially with analysing the interpersonal factors.

With respect to the differences in CDs' indicators at home, the age group (from 13 to less than 14 years old) were the highest in their CDs' indicators. A Scheffe test for multiple comparisons shows that the differences are between this age group and the other age groups (from 14 to less than 15 years old) and (from 15 to less than 16 years old). Boys in the third year in the intermediate school were the highest in their CDs' indicators, and a Scheffe test shows that the difference is between this class group and their peers in the first and second years in the intermediate school. Teenagers with both parents dead were the highest in their CDs' indicators, and a Scheffe test shows that the difference occurs between the groups (both parents are dead or separated) and (live together or the father is dead).

This can be explained by the qualitative data collected from the interviewed teenagers when they were asked: How do you think that your family members describe you? One boy said, "They think that I am dirty, a liar, and no one can rely on me" (A. T., aged 13). A student from the third year of intermediate school said, "They tell me that I am an immoral boy, and spend most of my time in the street with bad friends, and no one raises me well" (M. M., aged 15). Another teenager whose parents are both dead said, "My brothers believe that I am very naughty, hyperactive, and I am a liar" (F. G., aged 14). Parallel to this, Wang and Kenny (2014) found that families who use bad words and have bad relationships between members can have teenagers, and specifically those aged 13 and 14, who suffer from CDs.

Conclusion

This study aimed to explore the degree (means and grand means) of CDs' indicators among adolescents in school, society, and home and the differences in these indicators based on the boys' age, school class, and parental status; and this involves explaining and interpreting qualitatively the

quantitative outcomes. The results show that CDs' indicators were higher in society compared with the indicators at home and school which reflect the boys' anti-social behaviour; yet, there are also external factors which should be taken into consideration such as when others' treat these boys strictly and disrespectfully. The results also show that there are differences in CDs' indicators based on the boys' age, school class, and parental status, however, adolescents aged (from 13 to less than 14, and from 15 to less than 16), in the third year in the intermediate school, and whose parents are either separated or both dead, represent the highest means in their indicators. All the interviewed boys discussed their beliefs about others' bad opinions of them. Nevertheless, there are further investigations worth conducting, and primarily it would be important to conduct a survey study to explore the prevalence of CDs in Saudi Arabia. The relationships between teenagers with CDs and their teachers and family members are another significant area of research, especially when taking into account that the interviewed boys in this study discussed their aversion to their teachers as well as their relationships with family members.

Several limitations should be considered. The current sample did not include boys who have actually been diagnosed with CDs, because it has been highlighted that the population suffering from CDs is unknown in Saudi Arabia, and therefore, I relied on the questionnaire outcomes in the quantitative analysis and on the academic advisors in the qualitative investigation (when they were asked to name the students with the most obvious signs of CDs). This study also did not take into consideration of any changes over time that occur in CDs indicators in school, society, or home. Hence, longitudinal effort would be worthwhile to recognize any possible changes. However, even within these limitations, the current data provides a strong hint that there are high degrees of CDs among Saudi teenagers, which would contribute to more understanding of adolescent psychological disorders in general and specifically teenagers with CDs.

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