The Co-morbidity of Oppositional Defiant Disorder and Conduct Disorder in Children

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Abstract—Co-morbidity refers to the presence of one or more disorders in addition to the main disorder, and it has been one of the most investigated topics over the history of the psychiatry world [1], [2], [3]. According to Carr [4], co-morbidity problems have been a crucial problem which has not been well apprehended by the previous version of the Diagnostic and Statistical Manual of Mental Disorders (DSM). Moreover, in previous work Şar [5] who is the co-chair of the DSM-V Research Planning Conferences on Dissociative Disorders, expressed that the DSM classification system causes a considerable amount of co-morbidity in the diagnostic process of mental health problems. As such, Şar [5] pointed out that the fifth version of the DSM should have focused on bringing some mental health conditions into the same cluster, or should have alternatively differentiated them into different clusters. The aim of the current paper is to critically evaluate both oppositional defiant disorder (ODD) and conduct disorder (CD) as two overlapping conditions by first defining them in detail, and then by comparing them with regard to their similarities and discrepancies. The final step of this work will attempt to criticise whether both these disorders should be addressed as one condition or a separate disorder in the next version of the DSM classification system.

Keywords---Co-Morbidity, Dsm, Conduct Disorder, Oppositional, Defiant

I. Introduction

CHILDHOOD and adolescence disruptive behaviours have been one of the most common psychiatric problems in clinics; and as a result, a considerable amount of researcher has focused on the general characteristics of this problem over the past decades [6]. As we know there were several different symptoms between individuals who have disruptive behaviour disorders; therefore, in the DSM-IV-TR this disorder has been separated into subcategories such as oppositional defiant disorders (ODD), conduct disorders (CD) and attention deficit and hyperactivity disorder (ADHD) [7].

II. Oppositional Defiant Disorder

According to Riley [8], ODD is a psychiatric disorder which is characterised by negative behaviours such as aggressiveness. Children with ODD usually blame others for their own mistakes and tend to be angry, touchy and spiteful [6]. Additionally, in previous work Davison and Neale [9] expressed that these behaviours should not only be presented in specific conditions or places, they should be presented in each period of daily life; whilst these symptoms should be present for at least 6 months, and the child's daily life such as peer relations or academic performance must be suffering because of all these symptoms [7]. According to Riley [8], these kinds of behaviours are presented to take control in social life, especially when they are presented against the main authority of the child's environment; however, the main aim of these children is to fight against "life's boundaries", which are placed by figures of authority such as teachers, parents.

A. Epidemiology Of ODD

Hommersen, Morray, Ohan and Johnston [9] stated that children usually start to present the ODD symptoms after the age of six; however, it is known that most of the oppositional behaviours which are presented before the age of six are accepted as normal behaviour due to the developmental process of children. They add that the oppositional behaviours are usually presented in primary school and the pre-adolescent period, and the most common period is between the age of six and eight.

There is a considerable amount of research indicating that ODD is more common in boys than girls [10]. However, current work has indicated that in early childhood ODD is seen at similar rates for boys and girls, and the predominance of boys starts by late childhood, in other words it starts in the early adolescent period [6]. In earlier work, Costello and colleagues [11] examined the prevalence of ODD in the community and the results indicated that, between the age of 9 and 15, the prevalence of ODD diagnosis ranged from 2.1% to 4.1%, and overall results demonstrated that 2.1% of these rates refers to girls and 3.1% of this rates refers to boys [11].

B. Aetiology of ODD

There are several effective factors on ODD such as genetic, neurological, psychological and social family factors [6]. Specifically, Yoshikawa [12] indicated that some children are more prone to present aggressive behaviours due to family genetics. However, in his twin study Baker [13] indicated that environmental factors affect the prevalence of ODD in a range of 30% and claimed that genetics may not be a crucial effective factor on this disorder. Additionally, Lahey, Miller, Grodon and Riley [14] stated that racial or ethnic differences are also not crucial effective factors on the developmental process of ODD.

In a recent study, Wilmshurst [15] indicated that neurological factors are also crucial for the developmental process of ODD. Specifically, individuals who have ODD

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have lower frontal lobe activity, and this causes a decrease in personal ability such as arrangement of daily life. According to Wilmshurst [15], a decreasing in the activity of the frontal lobe might also be a sign for the existence of Attention Deficit and Hyperactivity disorder (ADHD) and Conduct Disorder (CD).

According to Wenar & Kerig [6], the most important factors in the developmental process of ODD are the psychological factors. Specifically, the relationship between child and mother has been one of the most investigated topics about the aetiology of ODD. In accordance to the attachment approach, insecure attachment increases the existence of oppositional behaviours during the childhood period [6] Therefore, it can be stated that having a good relationship with the mother in early childhood period may be a protective factor for the development of ODD.

In previous work, Hendelen and Mullen [5] analysed whether family violence is an effective factor on ODD. The results indicated that aggressive children who have ODD usually have aggressive family members and are suffering from the physical or emotional harm of their family members. Additionally, in this work they indicated that family violence might be transmitted from family members to the children [16]. Moreover, in 2009 Larsson et al. conducted a study which attempted to analyse the effect of family education on the developmental process of ODD. The results indicated that if the family attitudes can be changed by using a family education program, children who were diagnosed with ODD can make more progress in their treatment process [17].

III. Conduct Disorder

CD is commonly characterised by negative behaviours such as assaulting the basic rights of others, lying about negative experiences, aggressiveness, stealing goods that does not belong to them, cruelty against to animals and people, serious violations of rules and destruction of property [18], [9], [4].

According to the DSM-IV at least 3 of 15 antisocial behavioural symptoms should be present for at least 12 months, and at least one criterion must have been present in the last 6 months in order to tell that a child has CD [7]. Additionally, it is known that these behaviours cause several problems in several places such as the home, school or work; moreover, they may negatively affect the daily life of individuals [18]. According to Carr [4], the symptoms of CD might be separated into three different levels such as mild, moderate and severe. The mild version refers to behaviours which cause little harm to other people, the moderate version points out the signs that cause harm to others and the severe version refers to behaviours which dangerously cause harm to others.

The DSM has evaluated CD in accordance to the onset of symptoms such as child onset and adolescent onset of conduct disorder [7]. In this, child onset refers to symptoms which are presented before the age of 10, and adolescent onset refers to behaviours and symptoms which occurred after the child onset period.

A. Epidemiology of CD

According to Costello, Mustillo, Erkanli and Keeler [11], the prevalence of CD has increased over the past twenty years and it is known that the prevalence of this condition is more common in cities than in the country side. Moreover, they indicated that CD might range from 6-16 % of boys who are under the age 18 and 2-9 % of girls. In previous work, Hill and Maugham [10] stated that CD is more common in boys than girls, and the rates can vary between a range of 4/1 and 12/1. Alternatively, Wenar and Kerig [6], used data from Loeber and Stouthamer-Lober [19], to express that "Girls and boys also tend to display different symptoms: Boys are more likely to engage in overt aggression while girls earn the CD label through more covert antisocial behaviour such as skipping school, running away and abusing substances" (p.302).

In accordance to previous work of Offord et al. [20], the prevalence of CD can differ between a range of 1% and 16% in the community; moreover, in earlier work they demonstrated that 5.5% of the children who are between the age of 4 and 16, presented the symptoms of CD in their daily life.

B. Aetiology Of CD

According to Davison and Neale [9], biological and genetic effects, psycho-social effects and family effects are the main effective factors on conduct disorders. The current part of this work will attempt to examine these effects on CD by using a considerable amount of evidence from previous studies.

In their earlier work, Frick et al. [21], attempted to examine whether CD in childhood related to parental mental health history. In this, children with CD and ODD were compared to children of a control group who have not been diagnosed with mental health problems. Results indicated that 19% of the children who have ODD had a father with antisocial personality disorder (ASPD), 35% of children with CD had a father with ASPD and 8 % of control group children also had a father with ASPD. Additionally, Frick and colleagues [21], demonstrated that ASPD in biologic father is a more effective factor than the environmental factors for the developmental process of conduct disorder. Moreover, Pfiffner, McBurnett, Rathouz and Judice [22] also obtained similar results in previous work, where they compared children with ADHD, the co-morbidity of ADHD and ODD, and the co-morbidity of ADHD and CD. The results of their work indicated that the ASPD in fathers was significantly related to childhood onset CD.

According to Matthys & Lochman [18], children with CD commonly grow up in families with low economic income or divorced families. Moreover, they expressed that in many ways, CD in childhood is a result of unwilling pregnancy, as it is known that parental rejection is a crucial factor on the developmental process of CD [18],. Additionally, Essau [23], stated that sexual or physical harassment, family violence and conservative family disciplines are also crucial factors on conduct disorders. Specifically, in earlier work Rogers and Terry [24], attempted to analyse whether sexual abuse in

childhood is an effective factor on the developmental process of conduct disorder. Findings indicated that people, who suffered from sexual abuse, were 12 times more prone to have CD in their life, even though the other effective factors were controlled.

IV. Dinstinctive Characteristics of Odd And Cd

According to the DSM-IV-TR, ODD, CD and ADHD are psychiatric disorders which are evaluated under the headline of disruptive behaviour disorders, whilst DSM-V evaluated them under the headline of Disruptive, Impulse Control, and Conduct Disorders [7]. Specifically, Green and Doyle [25], pointed out that ODD is usually seen with CD, whilst they also expressed that CD is a more severe version of ODD. Therefore, ODD is usually assessed under the same headline with CD such as behaviour problems. However, this considers ODD as if it were a part of CD; although, ODD is one of the most common disorders that is seen in psychiatry clinics [18].

Wilmshurst [15] stated that, although ODD is commonly linked with the other childhood psychiatric conditions, it also has a considerable amount of distinct characteristics when it is compared to CD. In previous work, Wilmshurst [15] pointed out that the prevalence of age is one of the most crucial distinctive characteristics of ODD and CD. Specifically, ODD is usually seen before the age of 6, and a considerable amount of work has indicated that this illness is frequently seen between the ages of 6 and 8. However, it is known that the symptoms of CD are usually presented after the age of 10 [25]. In addition to this, even though it is believed that ODD is a processor of CD, it is known that 75% of ODD children do not present the symptoms of CD.

In their meta-analysis work, Frick et al. [21] focused on the main characteristics of the frequency of aggressiveness and anger control in the developmental process of ODD and CD. In this work, the results of their meta-analysis work were cross-validated in a clinical sample of 177 boys which ranged between the ages of 7 and 12. As a result of this, they indicated that the frequency of their anger level in conduct disorder is more severe than oppositional defiant disorder. Moreover, they added that the level of anger in ODD is not a disruptive form of this emotion; however, in CD the frequency and level of anger may cause harm to other people [21]. Specifically, Davison and Neale [9] stated that a child with CD commonly attempts to harm animals or damage property as a reflection of their level of anger. Alternatively, the anger level of a child with ODD is not significantly severe and it is usually presented against main authority such as teachers and parents; whereas they do not attempt to harm their social environment.

Biederman and colleagues [26] attempt to analyse the main differences between ODD and CD by using a sample of 643 individuals with oppositional defiant disorder, 262 individuals with co-morbid conduct disorder and a psychiatric comparison group with 695 individuals who have neither oppositional defiant disorder nor conduct disorder. The aim of this work was to compare the main differences about family interactions, social functioning, and psychiatric co-morbidity in ODD and CD. The results indicated that the reason for the developmental process of ODD was mainly due to the psychological and social factors such as family problems or family violence. However, the developmental process of CD was mostly due to the genetic family factors, although they were also affected by the environmental stress factors [26].

According to Matthys & Lochman [18], there are also some differences between social and academic skills of ODD and CD children. Specifically, children with ODD seem to have poorer social skills in their daily life, in comparison to children with CD. However, their school life is usually better than children with CD [18]. When taking these research results into consideration, it is clear that ODD and CD have a numerous distinctive characteristics, although they also have some similarities as their symptoms.

V. Odd And Cd In Dsm-V

The DSM-IV-TR has placed ODD under the headline of Attention Deficit and Disruptive Behavior Disorder [7]. In this version, the symptoms of ODD are expressed by using 4 main criteria, and the first criterion has consisted eight symptoms. However, the DSM-V evaluated this disorder under the headline of Disruptive, Impulse Control, and Conduct Disorders, additionally the new version has also organised the symptoms of ODD, which can be seen under the first criterion, into three groups to distinguish emotional and behavioural symptoms as follows: Angry/Irritable Mood, Defiant/Headstrong Behaviour and Vindictiveness [7]. According to Stringaris and Goodman [27], it was highly important to separate the behavioural and emotional symptoms; however, the criteria of ODD were highly intercorrelated with each other, as they also pointed out the importance of separating the spiteful/vindictive symptoms from the other behavioural and emotional symptoms.

The second differences between these two versions of the DSM are based on the item B, which provides more objective and standard definitions of frequency for ODD symptom threshold in the fifth version of DSM [28]. Additionally, it is known that one of the most argued items in the previous version of manual was item D which expresses that the criteria should not be met for conduct disorder [9]. According to Essau [23], this criticised item causes direct co-morbidity problems in the diagnostic process of both ODD and CD. Therefore, an exclusionary criterion for Conduct Disorder was removed in the fifth version of the manual [28].

There is no difference between the current and previous version of manual about the definitions, criteria or symptoms of conduct disorder. However, in 2010 an additional specifier for Callous and Unemotional Traits in Conduct Disorder (CU) has been proposed by Frick and Moffitt [21]. The new specifier consist of two main criteria; whereby the first one refers to all the symptoms of conduct disorder and the second refers to four main criteria such as lack of remorse or guilt, callous-lack of empathy, unconcerned about performance, shallow or deficient affect [21], [28].

Over the past five years, a considerable amount of

researchers have supported to the inclusion of CU into fifth version of DSM. Specifically, Frick and White [29] to compare the psychosocial outcomes of the symptoms of CU, ODD and CD. Results indicated that the symptoms of ODD can be accepted as the predictor of conduct problems and the symptoms of CD can be seen as a predictor of ASPD. However, CU symptoms are usually seen as predictors of more severe problems such as criminal behaviour. When taking this into account, it is clear that inclusion of the new specifier into DSM-V gives clinicians an opportunity for more valid and reliable diagnostic process.

VI. Conclusion

The aim of this paper was to critically evaluate conduct disorder and oppositional defiant disorder as overlapping conditions by first defining them in details with their aetiology and epidemiology. Then, the main characteristics of these both disorder were compared by indicating the distinctive sides of these conditions. Finally, an attempted was made to analyse how these both conditions were ameliorated in the next version of DSM.

As mentioned above, ODD and CD have a considerable amount of similarities, as well as differences. However, as Essau stated [23] the DSM-IV criteria could not cope well with the co-morbidity problems between ODD and CD. Therefore, it can be argued that the separation of the ODD symptoms into three criteria and removing the exclusionary criterion from the main ODD criteria, which is related to CD, may aid clinicians in the diagnostic process of both these conditions.

In conclusion, it can be said that the separation of ODD symptoms into three groups, elimination of the exclusion criteria for CD from the ODD criteria creates a safer assessment and diagnosis process for the world of psychiatry. Additionally, the new proposed specifier of CU may give clinicians the opportunity to cope with co-morbidity problems which cannot be coped with very well by the previous version of DSM.

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