Hellenic Journal of Psychology, Vol. 6 (2009), pp. 51-65

DIAGNOSING POSSIBLE MENTAL HEALTH PROBLEMS IN PERVASIVE DISORDERS: A CASE REPORT

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Abstract: The last twenty years services and knowledge about conditions in pervasive developmental disorders have been improved. However, today there are still people with borderline abilities who are either misdiagnosed or undiagnosed and in many cases they receive accurate diagnosis only after referral of symptoms of mental health problems. One of these examples is being presented in the case study of Khaldon. He is a second-generation adolescent immigrant in Britain with Turkish background. Interviews with his mother and with Khaldon reveal that he has an undiagnosed pervasive developmental disorder, specifically Asperger's syndrome. Despite the limited information about Khaldon, it is notable that he needs support for additional mental health problems. This case study presents Khaldon's psychological problems, the difficulties he faces because of Asperger's syndrome, the confusion of mental health professionals in diagnosing Asperger's syndrome from psychotic disorder and vice-versa and proposes the guidelines of a treatment adapted to Asperger's syndrome.

Key words: Asperger's syndrome, Mental health, Pervasive developmental disorders.

INTRODUCTION

Even though today in many countries there is good knowledge about conditions of pervasive developmental disorders, and intellectual disabilities, there are still many cases of individuals that are misdiagnosed or undiagnosed. As a result, there are individuals whose needs are not supported and with a combination of stressful experiences they reach clinical services only after facing general mental health problems. There are many cases of individuals with undiagnosed Asperger's syndrome (a type of autism spectrum disorder), who are diagnosed as psychotic or the opposite or have developed an additional psychiatric disorder that is not

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treated. Diagnosing a pervasive developmental disorder and any additional mental health problem in these cases may be very difficult and needs well trained professionals. Good knowledge and the application of models in diagnosis and assessment such as the biopsychosocial by Engels (1980) may be important for supporting these individuals. The biopsychosocial model aims to make health care more humane and effective by teaching, studying and promoting a comprehensive clinical method that integrates biological, psychological, and social perspectives.

A typical example is the case of Khaldon (not his real name). He is a 16-year-old boy, with Turkish background, who lives in London with his parents, his older brother and his younger sister. According to his mother, Khaldon has noticeable behavioural problems, which commenced at the age of four. In the proceeding months his behavioural problems have been increased, causing problems to both himself and his family. For this reason, his mother asked for help in the local clinical services. In this case study Khaldon's condition is assessed by interviewing his mother and Khaldon himself. Additionally, parts of Khaldon's personal and developmental history are presented as well as Khaldon's position in the family and his relationship with the other family members. Also, Khaldon's medical and psychiatric history is investigated and his mental state examination is presented in order to clarify his condition. This case study attempts to distinguish if Khaldon faces either a mental health problem or a pervasive developmental disorder (Asperger's syndrome), or even both of them. Khaldon's case is a good example of misdiagnosis of pervasive developmental disorder and emphasizes the possible need of people diagnosed with pervasive developmental disorders for treatment of additional mental health problems.

CASE HISTORY

Family history

Khaldon is a member of a family which immigrated to England from Turkey. He was born along with a twin brother who died at birth; he has an older brother registered as partially blind who will soon follow studies at a residential college for the blind and he has a younger sister with sight problems and kidney disorder.

Khaldon's mother does not work and has the responsibility to take care of the children and her husband. Most likely family's income remains father's responsibility with the total family income assumed to be low since they are immigrants and live in a three-bedroom estate flat. The father does not interfere with the problems in the house but only when he loses his temper with Khaldon's behaviour. Then, he

starts shouting at Khaldon and he sometimes hits his wife because he believes that she is solely responsible for the children. Recently, the father, according to Khaldon's mother, left home complaining that his wife did not dedicate time for him. Khaldon's only close relationship is with his mother. Khaldon's relationship with his brother is bad and it became worse when he learned about his brother's plans for higher studies. The interaction of Khaldon with his sister is not so bad although he has threatened to kill her with a knife.

Personal and developmental history

According to his mother, Khaldon did not show any problems in his development as a baby. His motor and cognitive development was the same as his older brother. Mother first noticed problems with Khaldon's behaviour when he was between four to five years old and they largely continue up to present. Today, sixteen-year-old Khaldon speaks fluent Turkish and English and according to him he has certificates of performance (GCSE's) for both languages. In England he left school at the age of 15 and tried to get into college. Although he liked studying Spanish, as he is keen on speaking different languages, he could not cope with his fellow students. He used to follow them and shout at them, a situation that got him in a lot of trouble. His mother believes that Khaldon's condition has become worse since remaining full-time at home. He bangs the wall of his bedroom at the homosexual couple that lives next door and he states that he wants to see blood and kill the "gays". Also he shouts out of the window, and is abusive towards Afro-Caribbean people in the street. This behaviour has caused retaliation from others, as Khaldon's family has had their door kicked many times. The information about his psychosexual development and medical history is very limited.

Medical and psychiatric history

There is not enough information for Khaldon's medical history concerning cause of any intellectual disability or physical illnesses such as epilepsy. The only medical condition that his mother admits is that he is registered as partially blind. Khaldon's psychiatric history acknowledges that for several years he was in the local child and adolescent mental health team where Khaldon's Intelligence Quotient (IQ) was found borderline (full-scale IQ: 78) and for several months Khaldon has been under treatment of Prozac 20mg. In addition, a community nurse who used Cognitive-Behaviour Therapy (CBT) visited Khaldon in order to help him with his obsessive-compulsive behaviour but was not proved to be helpful.

CASE PRESENTATION

Currently, Khaldon spends his day listening to music; he has a big music collection and spends much of his daily time categorizing it. Also, as his mother reports, Khaldon cannot sleep during night since he left school and he sometimes falls asleep on a chair in the afternoon. Khaldon does not like his mother entering in the bedroom or changing his bed-sheets, he prefers spending his day rearranging the furniture in his bedroom. Apart from that, the last few months Khaldon has spent much time in the toilet washing his hands something that caused sores at his hands and his neck. It is something that he used to do in the past but the last months this has worsen, he stays in the toilet for long time washing his hands until there is no soap. Also his mother reports that sometimes he gets himself in mess when he uses the toilet and gets faeces all over the bathroom and the hall. He has generally limited social relationships and within family are worsened especially with his brother when Khaldon learned that his brother is leaving home to go in a residential college for blinds.

Mental state examination

The mental state examination is a structured report by a psychologist or psychiatrist that states the symptoms and the behaviour at the time of interview with Khaldon (Gelder, Mayou, & Cowen, 2001).

Appearance: Caucasian (Turkish-English) man in his adolescence. Well-kept and casually dressed, probably because of his mother's support.

Behaviour: His social behaviour during the interview was socially disinhibited and in some points aggressive. There was lack in social skills and an intense interest in particular subjects such as music. There was not much eye contact and not enough information about any psychomotor abnormalities.

Speech: (a) Rate: fast; (b) Content: is interspersed with song lyrics and referring to himself in third person; (c) Flow: is one sided (he has limited ability in reciprocal conversation and changes topics of subjects without saying it).

Mood: (a) Objectively: elevated; (b) Subjectively: not assessed; (c) Affect: congruent but blunted.

Thoughts: Persecutory delusions (e.g., about his participation in the terror acts of 11th of September), probably grandiose delusions if we exclude cultural reason (e.g., he is a man and has to look after his mother) and compulsive rituals because of anxiety (e.g., hand washing).

Perception: It was not noticed any problem.

Cognition: He does not have any problems with memory, concentration and

orientation. His performance in a full scale IQ test was 78, something that shows borderline intellectual abilities. It would be better to have his IQ and adaptive functioning reassessed.

Insight: No insight

Differential diagnosis:

- Pervasive developmental disorder
- Compulsive behaviour anxiety
- Delusional disorder

Explanation key points:

- Asperger's syndrome when he was at the age of 4 the symptoms were recognizable.
- Compulsive behaviour probably because of the autistic rituals or maybe because of obsessional thoughts and anxiety.
- Chronically reduced sensory input (being partially blind) may contribute to delusional disorder.
- Social isolation may also contribute to delusional disorder.
- Second generation of immigrant family.
- Theory of mind does not allow for better social integration

Prognostic factors: Khaldon does not present great chances to present schizophrenia; however, extensive assessment needs to be done.

Physical examination

Physical examination in cases of mental health problems contributes in diagnosis with useful information. Morgan, Roy, and Chance (2003) in a community survey on people with intellectual disabilities and autism found that the 10% of the 164 participants of the study had an overall prevalence rate for hypothyroidism in contrast with the general adult population where the rate is 1%. This study shows a high lifetime prevalence rate of psychiatric disorders and hypothyroidism in adults with a diagnosis of autism spectrum disorder. Generally people with developmental disabilities referred for psychiatric assessment have high rates for physical disorders such as general health problems, neurological disorders, endocrine disorders, and sensory problems. In the present case report a detailed physical examination of Khaldon could be helpful since there is not any information available. He should be checked if he has any signs of hypothyroidism affecting his behaviour and if he sometimes gets in mess when he uses the toilet because of constipation. Also he should be checked if he has any other general health problems and the level of his vision since he is registered as partially blind.

CASE DIAGNOSIS

Khaldon is probably a case of a person who has an undiagnosed pervasive developmental disorder (Asperger's syndrome) and it is possible to have undiagnosed an additional psychiatric disorder. By applying the biopsychosocial model (Engel, 1980), as well as the use of the Autism Diagnostic Interview Revised (ADI-R; Rutter, LeCourter, & Lord, 2003), the Diagnostic and Statistical Manual of Mental Disorders (4th edition, DSM-IV; American Psychiatric Association, 1994), and the International Statistical Classification of Diseases and Related Health Problems (10th Revision, ICD-10; World Health Organization, 1992), Khaldon fulfils the criteria for Asperger's syndrome and for an additional psychiatric disorder. However, cases like Khaldon's should be diagnosed very carefully because many times there is much confusion since people with Asperger's syndrome are diagnosed as psychotic. Life events, such as being second generation of immigrant family in Britain, instable relationships between family members, his father being away, having limited sensory input because he is partially blind, psychological distress because of his social isolation and the disabilities of his brother and his sister face are risk factors of development of psychiatric conditions. By applying Engel's (1980) biopsychosocial model of mental illness a lot of issues concerning Khaldon's mental health are coming up. This model investigates the mental state under biological, psychological and social sides. In the case of Khaldon there are biological, psychological and social underlying factors which may be responsible for his condition.

Pervasive developmental disorder

Today the consensus is that autism and Asperger's syndrome are variants of the same underlying genetic and neural aetiology, with autism being more severe form and earlier notable. Frith (2003) states that people with Asperger's syndrome are at the same time different from, and similar to people with autism. The DSM-IV and the ICD-10 use the umbrella term "Pervasive Developmental Disorder" for all syndromes (autism, Asperger's syndrome, etc.) on the autism spectrum (American Psychiatric Association, 1994; Frith, 2003; World Health Organization, 1993). People with Asperger's syndrome have sustained and severe abnormalities of social behaviour, along with stereotyped, repetitive activities and motor mannerisms such as hand and finger twisting or whole body movements. Asperger's syndrome differs from autism in that there is no general delay of cognitive or language development. Children with this syndrome develop normally until the third to fourth year of life, when they begin to lack warmth in their relationships and speak in monotonous stilted ways (Holt & Bouras, 2002; Wing, 1981).

Khaldon's mother was interviewed using the ADI-R, which classified Khaldon in the autism spectrum. During the interview his mother said that she did not notice any problems with Khaldon until he was four years old when his behaviour problems started to become notable. At present, Khaldon is very interested in music; he has a big compact disc collection and spends much of his time listening to music. Besides this, he is very interested in languages and during his interview he talked a lot about languages such as English, Turkish, German, and Spanish. He also presents compulsive behaviours, such as spending much time in the toilet washing his hands or rearranging the furniture in his room or categorizing his music collection. These behaviours may be an opportunity to avoid anxiety associated with social isolation.

As Frith (1991) states, people with Asperger's syndrome, in order to relax from anxiety associated with social reasons and life events, rely on repetitive behaviours. Clinical experience has indicated that the degree of these repetitive behaviours and interest about something is proportional to the degree of stress. At this period of his life Khaldon faces many stressful situations such as spending much time at home without having anything to do, being socially isolated, experiencing his father leaving home, watching his brother preparing for college and comparing with his failure to continue his studies. However, even if these criteria are included at DSM-IV and ICD-10 there is a considerable debate concerning the diagnostic criteria of Asperger's syndrome and if interests and routines should be a diagnostic feature.

Additional information about Khaldon's behaviour can be taken by using the Theory of Mind hypothesis or Mindblindness (Baron-Cohen, 1995; Volkmar et al., 2004), which is particularly helpful among other aspects to understand social behaviour of people with Asperger's syndrome. Theory of mind regards the inability of people with Asperger's syndrome to understand other people's thoughts, feelings, desires, and beliefs and to predict their behaviour on the basis of those thoughts, feelings, desires and beliefs. According to the Theory of Mind hypothesis people with autism have problems to follow others' gaze, to use eye contact, to use pretend play, teasing, joking, deception, lying, to understand knowledge, to understand beliefs and false-beliefs, something that usually children can do from the age of around four years (Frith, 2003; Frith & Happe, 1994).

It is possible that Khaldon has a difficulty in understanding that other people have knowledge, thoughts, beliefs, and desires that influence their behaviour as all children start to have at the age of four (Baron-Cohen, 1995; Frith, 2003). Mindblindness is likely to affect Khaldon's behaviour resulting in failure in his social relationships. For example, Khaldon may not realize that his comments about the homosexual people living next to his family flat and about Afro-Caribbean people can cause offence or embarrassment to these people or to his family.

Another example is the social problems Khaldon faced while he was at college and was isolated from other students because of his social behaviour, something that was evident during his interview. When he was asked, at the end of the interview, if he had any questions (concerning the interview) Khaldon asked irrelevant questions because he did not understand the exact meaning of the question. So the interviewer had to rephrase the question asking him if he had any question concerning their meeting.

Also it is important to state here that there is clinical evidence that an individual with Asperger's syndrome may have knowledge about other people's minds but he/she is unable to apply this knowledge effectively. This is called *lack of central drive for coherence* and is the inability to see the relevance of different types of knowledge to a particular problem (Bowler, 1992; Frith & Happe, 1994). For this reason many times IQ is not sufficient evidence for the level of abilities of people with Asperger's syndrome.

IQ performance

Something that we should take under serious consideration is Khaldon's IQ level. He was found having a borderline IQ of 78. This cannot be conclusive about Khaldon's level since a person with Asperger's syndrome can have quite good performance in tests requiring knowledge of the meanings of words, arithmetic and block design and factual information. However, for some individuals with Asperger's syndrome there is a great incongruity between verbal and performance IQ. There is a general tendency the intellectual ability to be judged according to the vocabulary and knowledge of facts. Most people with Asperger's syndrome are proficient in this area, and as result have an IQ level greater than their actual IQ. Even if the person with Asperger's syndrome has a very good performance in defining words and recalling information he has very low performance in solving problems. This reflects the social knowledge of the person (Ellis et al., 1994; Carpentieri & Morgan, 1994). In the case of Khaldon it is not sure with which kind of IQ test he was assessed and if his actual IQ performance is 78 higher or lower. Furthermore, a general assessment of functioning for Khaldon would help to understand his level of performance in everyday situations and if there are issues of other mental health problems.

Psychiatric disorder co-morbid with pervasive developmental disorder

The last decades a lot of researchers studied people with pervasive developmental disorders or intellectual disabilities in order to see the prevalence of psychiatric disorders in this population. Borthwick-Duffy (1994) reported prevalence of psychi-

atric illness among adults with intellectual disabilities that ranged between 10% and 39% according to the diagnostic criteria used. More specifically, in pervasive developmental disorders and Asperger's syndrome Howlin (2000) reported that by far the most common psychiatric disorders that co-morbid is depression, bipolar and manic disorder. Also, mood and anxiety disorders have a wide array of disturbances to occur in people with pervasive developmental disorders, including schizophrenia, delusional disorder, catatonia, suicidal behaviour, obsessive compulsive disorder, antisocial and violent behaviour (Ghaziuddin, & Greden, 1998; Gilberg, 1992; Konstantareas & Hewitt, 2001). Wing (1981) reported that of the 18 people with Asperger's syndrome examined, four had become withdrawn and odd probably with underlying depression, one had psychosis with delusions, one had an episode of catatonic stupor, one had bizarre behaviour and unconfirmed diagnosis of schizophrenia, and two had bizarre behaviour but no diagnosable psychiatric illness. In Khaldon's case according to what his mother reported and the brief interview he had, he may present signs of psychiatric disorders. The following four sections summarize the information about Khaldon's symptoms and investigate any possible connection of them with any mental health problem:

Obsessive compulsive behaviour and anxiety. Khaldon shows compulsive behaviour by spending long time during the day in the bathroom by washing his hands until the soap is finished. It could obviously be assumed that this is a sign of obsessive compulsive behaviour (OCD). However, compulsive behaviours and autistic rituals are something quite common in autism spectrum disorders. The diagnosis of OCD in autism spectrum disorders has many difficulties in distinguishing stereotyped and rigid behaviours from the OCD symptoms of obsessions and compulsions. By having only the symptom of washing hands or the habit to rearrange the furniture and his music collection in his room we cannot be conclusive that Khaldon has OCD. Moreover, the available literature that attempts to investigate the relationship between OCD and autism spectrum disorders is very limited and contradictory.

Bejeerot (2007) attempts to propose a link between OCD and autism focusing on the possibility that autism spectrum disorders in their mild forms may be a substantial proportion of patients with OCD. This is further supported by studies that present strong relationship between OCD and relatives of people who are diagnosed with autism (Micali et al., 2004). However, at present this is a hypothesis because of the lack of enough data to support it. In addition, there is a number of clinicians and researchers who do not believe in the strong relationship between Asperger's syndrome and OCD presenting information that show no relationship (Thomsen, 1999).

A probable reason for Khaldon's compulsive behaviour maybe the anxiety he

feels the last months. He has left college and he stays at home for long time where again the environment is stressful for him. Attwood (1988) states that many adolescents who have Asperger's syndrome report intense feelings of anxiety and for some of them it is the treatment of their anxiety disorder that leads to a diagnosis of Asperger's syndrome.

Delusional disorder. A behavioural sign of psychiatric disorder that is quite obvious in Khaldon's case is delusions. Especially during his interview they became obvious when he said "...I killed those people on September the 11th but not taking it lying anymore..." and "....I am man now and I have to look after my mother and those social workers have better get my house sorted". These statements are signs of persecutory delusions and grandiose delusions. However, the second statement in order to be confident we need to exclude cultural reasons. It is known that in eastern societies man is the leader of the house so, Khaldon may feel like that since his father left home and his older brother will soon live home to go to college. Additionally, his speech during the interview was one sided and not reciprocal, he referred to himself in third person, the rate of his speech was fast and he interspersed his speech with song lyrics. Also, while he was talking he was changing subjects without saying it, which maybe is a sign of a disorder of the stream of his thoughts (fight of ideas). All these signs are making an image of a person suffering from delusional disorder.

Kurita (1999) reported a case[1] that has many similarities with Khaldon's behaviour. According to Kurita (1999), a 17-year-old boy was diagnosed with pervasive developmental disorder (high-functioning autism) and delusional disorder. Some of the symptoms that the patient presented were the belief that strangers on the street spoke ill of him, he did not leave home, and he showed repeated hand washing and checking behaviours. This case looks similar with that of Khaldon's; it is possible that Khaldon has a pervasive developmental disorder (probably Asperger's syndrome) and because of this and certain life events he developed delusional disorder and anxiety with resulting compulsive behaviour. Besides, according to DSM-IV, chronically reduced sensory input (being deaf or blind) or social isolation (e.g., being immigrant in a strange country) may contribute to the development of delusional disorder.

Migration and mental illness. There is considerable interest concerning an increased incidence of mental illness in first and second generation of immigrants. Under the migratory procedure of cultural identity and stress there is a high incidence of mental illness especially to the second generation of migrants. Selten et al. (2001) investigated psychotic disorders in immigrant groups in Netherlands. The

1. It should be acknowledged here that every case is different and unique and this case is only used for reference and not to come to a conclusion.

risk of schizophrenia was found increased for all the immigrant groups. Researchers believed that in the process of Westernization people often lead to breakdown of social bonds and worldviews. So people that cannot cope with contradictory information and environmental factors (conflict between Eastern and Western culture) may lead in high rates of schizophrenia. In the case of Khaldon we could assume that being second-generation immigrant in London may have affected to a degree his mental health but we cannot assume that this played a major role in his case. On the other side, it may have played a role in his access to mental health services since he has not been diagnosed as having Asperger's syndrome, as in other cases of people with Asperger's syndrome who were misdiagnosed as psychotic.

Confusion between Asperger's syndrome and psychotic disorder. There are many possibilities that a person who has Asperger's syndrome may also have a co-morbid psychiatric disorder. But there are examples of people with Asperger's syndrome that were diagnosed only with psychiatric disorder because many mental health services lack experience in Asperger's syndrome. One such example is given by Gilberg (2002): "The psychiatrist asked: Are you hearing voices? The answer by the person with Asperger's syndrome was *yes*." The person received a preliminary diagnosis of psychosis with auditory hallucinations that soon changed to schizophrenia. Later the patient himself explained that in the chaos of the emergency room he thought that the doctor was asking if he was hearing the voices of other people in the room and that's the reason for saying that he was hearing voices.

The above example illustrates the major problem of mental health professionals who are called to assess a person having Asperger's syndrome without being aware of the typical impairments of the syndrome. Attwood (1988) also stressed how easy is for inexperienced professionals in Asperger's syndrome to be driven in a false diagnosis. People with Asperger's syndrome may use odd words in their language or they may have the tendency to refer to themselves not by using "I" but by using third person "he" or "she". This kind of behaviour may confuse the clinician and may view it as evidence of psychiatric disorder. According to studies the possibilities for a person with Asperger's syndrome to develop schizophrenia are marginally higher than the rest of population. As reported by Wolff (1995), from the 200 children that Hans Asperger assessed and diagnosed with the syndrome only one developed signs of psychosis or schizophrenia. The question that arises at this point is how we can be sure when psychosis and schizophrenia occurs and what is happening to the current case study of Khaldon. People with Asperger's syndrome can show deterioration in abilities, increased social withdrawal, lack of personal hygiene, and intense preoccupation with their interests. Khaldon's case is more complex since for first time in his life will have support fitted to his autism spectrum condition and support for any additional mental health problem.

TREATMENT GUIDELINES

The treatment programme for the current case study should be based in two axons. The first axon should be the intervention in the pervasive developmental disorder and more specifically in the Asperger's syndrome. The second axon should be the treatment for any additional psychiatric disorder. In many points treatment or training for Asperger's syndrome may overlap with the additional psychiatric disorder. The diagnosis of Asperger's syndrome will be of great help for Khaldon and for his family but also for the services that he attends. For years, according to Khaldon's mother, the family has been wondering what was wrong with Khaldon. By getting informed about Asperger's syndrome, people around Khaldon will understand his behaviour and they will be in position to support him. With that knowledge and training, his family will provide him a good environment that does not cause anxiety or extreme stress but structure and predictability that are very important for people in the autism spectrum. Another important element for someone with Asperger's syndrome is training in social skills. This kind of training should be seen not as a way to cure Asperger's syndrome but as a way to facilitate with everyday interactions with other people. Khaldon should learn how to start and maintain a social activity such as a simple conversation; be cooperative; encouraged to make and model friendships by activities illustrating the qualities of a good friend; enroll in clubs and societies; have guidance and practice in body language, and be trained to understand and express emotions.

People with Asperger's syndrome when they have high level of anxiety show a high degree in preoccupation in their interests. Prolonged periods of severe anxiety can lead in additional psychiatric disorders such as OCD. People with an autism spectrum disorder are very vulnerable in developing OCD after long periods of anxiety (Tantam, 2000). Khaldon presents compulsive behaviours (extensive hand washing, sleeping problems, rearranging furniture and categorizing his music collection). Cognitive behaviour therapy adapted to Asperger's syndrome could be helpful to treat anxiety associated with specific situations and reduce the frequency of compulsions. Case studies have shown that CBT can reduce symptoms of anxiety or obsessions and compulsions up to 65% over a 14 week period in children with Asperger's syndrome (Reaven & Herburn, 2003). With the necessary modifications of the CBT method to Asperger's syndrome therapists should identify the trigger that causes anxiety to Khaldon and then break the circle "trigger of anxiety-compulsion-reduction" and systematically desensitise him from the trigger (Lindsay et al., 1997).

Also relaxation techniques and listening to appropriate music may be helpful reducing anxiety (Gilberg, 2002). Together with the psychotherapeutic programme

a medication for anxiety disorder possibly should be prescribed by a psychiatrist. However, drug treatment may take some time to find the correct drug dosage for any particular person. Probably for that reason treatment with 20mg. Prozac was not successful (Attwood, 1998; Gilberg, 2002). Also cognitive behaviour therapy and the prescription of antipsychotic medications can be very helpful if he actually experiences delusions such as persecutory and grandiose delusions as presented earlier. Any medications could be helpful only in dealing with the associated problems of Asperger's syndrome or any other additional psychiatric disorder (Roth & Fonagy, 1996). In cases like Khaldon's it is always very helpful to have a thorough neuropsychological profile and a further standardized assessment for OCD modified in Asperger's syndrome. Both of them were not available and this is considered as a limitation of the current case study.

CONCLUSION

The present case report investigated a 16-year-old Turkish-British boy whose odd behaviour in a certain period of his life developed severe behavioural problems. At first glance, according to the information taken from the mother and the interview with Khaldon, one could assume it is a classic case of psychotic disorder or schizophrenia. However, by assessing the information in detail and from different perspectives (biological, psychological, social) it is shown that this is a case of a person with a pervasive developmental disorder and most probably Asperger's syndrome. Interviewing Khaldon brings up issues such as problems with socialization, theory of mind, and increased interests for specific things. This interviewing reveals only the tip of the iceberg of his problematic behaviour.

Khaldon from a point and onwards, because of the misdiagnosis and life events, probably developed an additional psychiatric disorder. At this point, professionals must be very careful in their diagnosis because many times there is confusion between the symptoms of Asperger's syndrome and the symptoms of general psychiatric disorders. There are many cases of people with a pervasive developmental disorder treated as general mental health patients with devastating results, or cases of people with intellectual disabilities whose additional mental health problems had never been diagnosed during their life, again with devastating results. As in the case presented, clinical services should be aware of the conditions either in the spectrum of autism or intellectual disabilities spectrum. They should be in position with the application of different models in diagnosis to give the proper diagnosis or to investigate additional mental health problems. Only in this way treatment can be successful and service- users to have a positive prognosis.

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