



Attention Deficit Hyperactivity Disorder (ADHD) and Adjustment of In-School Adolescents in an Inclusive Education settings in Cross River State, Nigeria.

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Abstract

The study examined attention deficit hyperactivity disorder (ADHD) and adjustment of in-school adolescents in inclusive education settings in Cross River State, Nigeria. Kurt-lewin's field theory formed the theoretical background of this work. The independent variable is attention deficit hyperactivity while the dependent variable is adjustment in school adolescents in inclusive education. The research design used is Ex-post facto design. The population comprised in-school adolescents in the junior secondary classes (JSS 3) in two (2) education zone (Calabar and Ikom) of Cross River State. From this population one hundred and eighty students were sampled using the simple random and purposive sampling procedures. One valid and reliable instrument was used for data collection, with Cronbach coefficient of ($\alpha = 0.91$) Data analysis was contingency chi-square (X^2) at 0.05 level of significance. The finding of the study indicates that, there is a statistical significant influence of conduct disorder and oppositional defiant disorder on social adjustment among in-school adolescents in Cross River State. It is concluded that the manifestation of ADHD among in-school adolescents ADHD prone students is high. It was recommended among others that, anecdotal record of student should be enforced in public schools so as to identify early ADHD adolescents and be referred to the school counsellor.

Keywords: ADHD; Adolescents, social Adjustment, inclusive education introduction

Introduction

Education is an essential tool and key for development, especially in contemporary world. It guarantees the realization of the human potentials. It is used to mitigate most of the challenges faced in life. Education opens doors to a lot of opportunities for learners. Access to quality education helps peoples escape from poverty and provides the basis for economic planning and development. Like health, education is a basic human right which everybody should be entitled to. Little wonder, Irina Bokova, former Director General of UNESCO then hold strongly that "education is a development multiplier, a pillar of global citizenship and a force for peace" (UNESCO, 1994).

In all nations, Nigeria inclusive, education remains a very potent instrument for effective national development. Education entails the enlightenment of people in their ways of pursuit in life. Development is associated with a positive change in the condition of either individual groups, communities or even a country as a whole (Abraham, 2012). Magrab (2003) described inclusive education as the method that acknowledge the difference in a child and accept the child in a regular school despite the barrier or physical challenges affecting the child to receive quality education.

Persons with special needs are found in all societies of the world. Within and outside our different institutions of learning, we find learners with special needs that require unique responses to their education needs. These categories of children cannot benefit from the conventional classroom instructional procedures because they require special education and related services, if they are to realize their maximum potential. This implies creating an environment in schools where children that are able and disable can learn together. Such an environment must be friendly and welcoming, healthy and protecting for children. The development of such child friendly learning environment is an inclusive classroom; it is providing an environment of love and acceptance for the child with special needs in the classroom (Ajobiewie, 2014)

From the above background, a simple definition of inclusive special needs education is described as a wholistic practice of least restrictive environments and integration in its various ramifications for ensuring functional learning and training for all learners with special needs.

Technically speaking, inclusive education therefore, means educational practices which make provision for functional and effective learning and training for all learners within all settings most readily available to them. As a United Nations Educational, Scientific and Cultural Organization (UNESCO) Salamanca (1994) declaration summed it up, “schools should accommodate all children, regardless of their physical, intellectual, emotional, social, linguistic or other conditions.”

Inclusive education is the cornerstone of a “transformational agenda, committed to addressing all forms of exclusive marginalization, disparities and inequalities in access, participation and learning outcomes. Inclusive education is committed to making necessary institutional policies to support the disadvantaged especially those with disabilities to ensure that there is no one left behind policy of vision 2030 is achieved. When the child first finds him/herself at school, he/she finds out that there are certain ways of life that are strange to them. Where such is the case, a state of disequilibrium is created, to which the child must strive to attain a balance. School social adjustment therefore refers to the extent to which the child is able to interact with fellow children and teachers at school and his level of participation in activities as well as the ability to act within the set rules of conduct.

Adeyemo (2005) defined students' adjustment as "the ability to cope, to manage their emotion and anatomy to behave in socially appropriate and responsible way to meet up school challenges and responsibilities. This means that adjustment involves coping ability of physiological and emotional components to meet up the social demands of the environment. Generally, school social adjustment is relative; some children are better adjusted than some. What needs to be noted is that children's psychological health in school is dependent on their levels of adjustment. An adjusted child is a psychologically healthy child, but it is the life events in school that really shape children's psychological health. Students know that their actions or behaviours have direct or indirect consequences upon the school environment, as well as their academic performance. When school children realise the consequences of their behaviours as the result of the forces within the environment; they are expected to adjust adequately in order to pursue their goal in life. This calls for effective interaction among the students in school in order to share in their uniqueness. Student's willingness to participate and adjust to school programmes might be influenced by school environment and students' experiences inside and outside school. Indeed, a students' school adjustment depends on the match between his/her competences and needs and the demands of the environment

Though adjustment is a major concern at all life stages, it becomes especially critical at the stage of adolescents being a phase of rapid growth and development. A period when they experience storms and stress, here adjustment problem is at peak during this period. Most adolescents experience adjustment difficulties in emotional, social and/or educational aspect of their live Adjustment potentials enable student deal better with pressures of peers, school life, academic challenges and temptation of alcohol, drugs and sex. Students variables that are involved in school adjustment are numerous and include the individuals' competences, example: social, behavioral, emotional, academic competences. Peer acceptance, motivation, school interest and so on, contribute to their adjustment. Poor school adjustment leads to low academic achievement, behavioural problems, discordant educational aspirations and even school dropout (Vasalampi, Salmela-Aro, Nurmi, 2009).

Attention deficit/hyperactivity disorder

Students with emotional and behavioural disorders can be among the most difficult to teach in a regular class, and they are a source of concern for many prospective teachers (Avramids, Bayliss, & Burden, 2000). Professionals in education define behavioural disorders as behaviours that deviate so much from the norms that they interfere with the child's own growth and development and/or the lives of others. Clearly, deviation implies a difference from some standard and standards of

behaviours differ from one situation, age group, culture, ethnic group and historical period to another.

Most young kids have difficulty focusing and staying still. Kids are up and around so often we call them fidgety. But when a child is significantly less able to focus than his or her peers, it may be a case of attention deficit hyperactivity disorder (ADHD). This is the condition characterized by memory issues, impulsiveness, and time disorientation. Attention deficit can occur with and without hyperactivity, kids tend to be impulsive cognitively, but physically they remain stationary and unfocused. The National Institute of Neurological Disorders and Strokes defines ADHD as a neuro-behavioural disorder that interferes with a person's ability to stay on task and to exercise age appropriate inhibition (cognitive alone or both cognitive and behavioural). In 2003, ADHD became the number-one diagnosed school age disorder in the United States. Prevalence estimates in school-age children have ranged from 2 to 18 percent in community samples (Pastor & Reuben, 2006). However, there is some difficulty in explaining the variances in diagnosis of ADHD. For example, symptoms might be interpreted differently by different cultures.

Children with ADHD diagnosis generally display some disturbance in each of these areas, but in various degrees. These manifestations may be pervasive; appearing in more than one situation (home, school, and social situation) sometimes they are situational (occurring in only one situation). ADHD first appears in early childhood, but, it is not often recognized until the child enters school. Contrary to a once commonly held belief, the condition is not ordinarily "outgrown", but its characteristics may change. For e.g. the motorically hyperactive child may remain inattentive and impulsive throughout adult life, even after such hyperactive behaviours as constantly running around or jumping up in the classroom have diminished.

Persons with ADHD are inattentive and impulsive in several ways. They have difficulty sticking to tasks, often do not finish tasks, and have difficulty organizing and completing work. They often appear not to listen or follow through on instructions. Work is often done carelessly and impulsively, and the product is likely to be messy. ADHD children interrupt adults and other children frequently (blurting out answers to a question before the question has been completely stated or talking out of turn) are poor at following directions, fail to wait for their turn in group situations or to follow the rules in structured games, and do not listen to other children. They may shift frequently from one activity to another; intrude on other family members, and often engage in accident-prone behavior (Tensen, 2010).

Children with ADHD show hyperactivity by having trouble remaining seated, running in the classroom, fidgeting, manipulating objects, and twisting and wiggling in their seats. They are often noisy. They talk excessively and may be unable to play quietly in conformity with the demands of games. In preschool children, over activity and the frequent shifting from one activity to another without having completed the first are common (Tensen,2010). In older children, excessive fidgetiness and restlessness are more common than the gross motor over activity seen in younger children. Other characteristics of children with ADHD include low self-esteem, mood ability, low frustration tolerance and temper tantrums. ADHD children are often bossy and domineering. Most children are underachiever academically. ADHD typically persists throughout childhood and frequently continues into and through adulthood. Children with ADHD often later develop oppositional defiant disorder and conduct disorder and antisocial personality disorder.

In samples studied in outpatient clinics, children with ADHD often displayed some or all the symptoms of oppositional defiant disorder, or specific developmental disorder. Antisocial personality disorder often ensues in adulthood for those who develop conduct disorder. Coexisting conduct disorder is low and a severe mental disorder is predictive of a poor outcome of childhood ADHD. ADHD is the most widely research psychiatric conditions. The oppositional defiant disorder (American Psychiatric Association, 1987) is characterized by a pattern of negativistic, hostile, and defiant behaviour without serious violation of the basic rights of others. Children with this diagnosis are argumentative with adult, others lose their temper, swear, are often angry and resenting, and easily annoyed by others. The oppositional defiant disorder typically begins by age eight and usually does not start later than early adolescence. It sometimes evolves into conduct disorder or a mood disorder. Before puberty, it is more common in boys than in girls, but it is presumed to occur with equal frequency in both sexes in adolescence.

The essential features of conduct disorder are a persistence pattern of conduct in which the basic rights of others and major age appropriate societal names or rules are violated. The criterion of persistence is paramount because the majority of children and adolescent commit antisocial acts occasionally. Physical aggression is common. They may set fires, steal, mug, snatch purses, or engage in extortion or armed robbery. In later adolescent, they may engage in physical violence in the form of rape or assault, they commonly lie and cheat in games and school work. They are often truant and may run away from home. Although the project an image of toughness, these children usually have low self- esteem. They are extensively irritable and reckless and have temper outbursts and a poor tolerance for frustration. Their academic achievement is partially below the levels expected for their age and intelligence.

According to Frick and White (2008), children high in conduct disorder are more risk taking, novelty – seeking, physically divvy, less emotionally reactive, show lower levels of anxiety and neuroticism, but those who have higher levels of proactive and reactive aggression, are less responsive to treatment and more likely to persist in their deviant behaviour towards others. In order words, children low in conduct disorder show intellectual impairment, difficulty regulating emotions (more emotionally reactive), have higher level of trait, anxiety and are prone to reactively, but not proactively aggressive against others and overfly difficulty in adjusting to social situations (Frick & White, 2008).

Several meta-analytic studies have supported the utility of conduct disorder as a predisposing factor to antisocial and aggressive behaviour in community, clinical and forensic individual aged 4 to 20years (Edens, Campell & War, 2007; Frick, Kimonis, Dandreaux & Farrell, 2003). Frick, Shickle, Dandreaux, Farrell, and Kimonis (2005) conducted a four year longitudinal study on children (grades 3 to 7) and found children with conduct problems and people with disability (PD) had the greatest frequency of conduct problems, self-reported, delinquency and police contacts, this group accounted for more than 50% of the police contacts report in non-referred adolescents, high conduct disorder in youth are associated with higher levels of aggressive and antisocial behaviour, externally shy problems and psychosocial impairment (Essau, Sasaqawa, & Frick, 2006)

Bradley (2005), randomly selected 294 doctoral level clinicals and asked them to rate the last adolescent's boy or girl they had a session with and were diagnosed with conduct disorder according to the Diagnostic and Statistical Manual for mental disorders, 4th Edition, Text Revision (DSM-IV-TR) criteria in using Shedler Western Assessment Procedure – 200 for Adolescents (Westen, Shedler, Durrett, Glass & Martens, 2003). Bradley (2005), found adolescent girls diagnosed with conduct disorder more internalizing and emotionally dramatic, experienced intense emotional deregulation without the ability to self-soothe, evidenced identity disturbance, fear of rejection and abandonment, felt misunderstood, mistreated, or victimized and tended to feel unhappy, depressed or despondent. Boys diagnosed with conduct disorder presented with more externalizing problems i.e. aggressive, descriptive, and antisocial behaviour, gained pleasure or satisfaction by being sadistic, aggressive, or bullies, have exaggerated senses of self-importance, dominated others, got into power struggles with adults, tended to be angry, rebellious and defiant towards authority and blamed others for their own failure or problems.

Independently, poor behavioural disorders that include attention defiant hyperactivity disorder (ADHD) conduct disorder and oppositional defiant disorder (Dougherty, et al., 2003). In a large

meta-analysis study that reviewed studies using forensic, clinic and community samples of children, adolescents and adults, anti-social individuals had poorer executive functioning, especially on tasks that assess behavioural motor control and inhibition compared to non-antisocial individual (Morgan & Lilienfeld, 2000). One explanation behind this association is provided by Zuckerman's stimulation seeking theory (2007) that posits that children with disruptive behaviour problems have lower resting autonomic nervous system (ANS) activity levels; this lower activity is experienced adversely. Due to the aversive experience of low activity level, the children are motivated to seek outside stimulation to rouse their autonomic nervous system activity to more normal and optimal arousal levels. Another under-arousal theory is that of fearlessness. The fearless theory states that under-aroused experienced by antisocial individuals is a sign of low level of fear (Raine, 1993).

According to the fearlessness theory, antisocial individuals engage in aggressive and delinquent behaviour because they are not deterred by the consequences and are more focused on the rewards to be gained. In another study, adolescents diagnosed with disruptive behaviour disorders (e.g. conduct disorder, oppositional defiant disorder, ADHD) exhibited poor inhibition of responses and high levels of poor social adjustment (i.e. more errors on Go/stop tasks) and greater reward – dominant responses (i.e. favouring immediate rewards over future rewards) when compared to age – matched control, and controlling for intelligence (Dougherty et al, 2003).

Objectives

The main objectives of this study include:

1. To ascertain how conduct disorder influence social adjustment among in-school adolescents.
2. To investigate how oppositional defiant disorder influence social adjustment among in-school adolescents.

Two commensurate research questions and null hypotheses were formulated based on the objectives thus:

- A. How does conduct disorder influence social adjustments among in-school adolescents?
- B. How does oppositional defiant disorder influence social adjustments among in-school adolescents?

Null hypotheses

1. There is no significant influence of conduct disorder on social adjustment among in-school adolescents.
2. There is no significant influence of oppositional defiant disorder on social adjustment among in-school adolescents.

Research methodology

The study area is Calabar Education and Ikom Education zones of Cross River State, Nigeria. The research design used for this study was the ex-post facto design because the independent variables cannot be manipulated by the researchers. The total population of JSS 3 in the two zones are 13,697 (7,798 females and 5,899 males) in 232 public secondary school in 2020/2021 academic session.

Multi-stage sampling techniques involving stratified, purposive, proportionate and simple random technique was adopted in selecting 720 J SS 3 students which is made up of 360 males and 360 females for the study. The students were stratified based on schools, gender and local government areas. Out of a total of 232 public secondary schools, 30 (12%) of the schools were randomly selected for the study, from the selected schools in each local government, 5.3 % of the total number of students were selected using proportional sampling technique, giving a total sample of 720 JSS 3 students for the study with an age limit of between eleven to twenty-two (11-22) years.

The instrument used for measuring the influence of “Attentive Deficit Hyperactivity Disorder (ADHD) on Social Adjustment of In-School Adolescents” was a questionnaire tagged “Adolescents’ Social Adjustment Pattern (ASAP)”. The instrument had two parts and two sections. The first part sought information on students’ demographic data. The second part of the questionnaire had three sections (A, B, C) and was constructed to measure the two aspects of ADHD in sections A and B, which also included the following independent variables: Conduct disorder and oppositional defiant disorder while section C measured Adolescents’ Social Adjustment, the only dependent variable of the study with a 5-point scale as follows: Most often – 5 points, Very often – 4 points, Often – 3 points, Rarely – 2 points and Never – 1 point for all positively worded items and the order of scoring was reversed for all negatively worded items with ‘most often’ attracting 1 point and ‘never’ 5 points respectively. Content validity of the questionnaire was established, and to ascertain the reliability of the instrument, the Cronbach Alpha Method was used. This gave a reliability estimates ranging from .84 to .91. The statistical package for social sciences (SPSS) computer programme was used to analyse the data collected. The hypotheses were tested using contingency Chi-square for the two hypotheses.

Results and discussion

This section brings to focus the hypothesis-by-hypothesis presentation of results; the statistical analysis technique deployed to test each hypothesis is also presented and interpreted. Each hypothesis was tested at .05 level of significance.

Hypothesis one

There is no significant influence of conduct disorder on social adjustment of in-school adolescents. The independent variable is conduct disorder, while the dependent variable is social adjustment. The conduct disorder was categorized into three, based on respondent score on the five items used to measure conduct disorder in part 2, Section A of the research instrument. Those who scored from (5-11) were categorized as low conduct disorder; (12-18), were categorized as moderate conduct disorder, while those who scored from (19-25) were categorized as high conduct disorder. The same process was applicable in the categorization of social adjustment. The statistical analytic technique deployed to test this hypothesis was 3 x 3 contingency chi-square (X^2) and the results of the analysis are organized and presented in Table 1. The observed frequencies are shown without parenthesis while the expected frequencies are shown within parenthesis.

Table 1: Contingency Chi-square (X^2) analysis of the influence of conduct disorder on social adjustment of in-school adolescent

Conduct disorder	Low	Moderate	High	Total	X^2 Cal	X^2 Crit
Low	59 (67)	82 (90)	71 (54)	212	38.58	9.45
Moderate	100 (76)	111 (102)	29 (61)	249		
High	70 (85)	114 (114)	84 (68)	268		
Total	229	307	184	720		

* $P < .05$, $df = 4$

The results presented on Table 1 indicated that the social adjustment of in-school adolescents was based on their conduct disorder. The comparison of the observed frequencies with the expected frequencies yielded a calculated Chi-square (X^2) value of 38.58, which is higher than the critical Chi-square (X^2) value of 9.45 at .05 level of significance with 4 degree of freedom. This implies that conduct disorder has a significant influence on social adjustment of in-school adolescents.

Hypothesis two

Oppositions defiant disorder has no significant influence on social adjustment of in-school adolescents.

The independent variable in this hypothesis is oppositional defiant disorder while the dependent variable is social adjustment of in-school adolescents which had three categories in the study as earlier explained in hypothesis one. Respondents were scored on the three categories of

oppositional defiant disorder on the questionnaire (low, moderate and high) and each respondent was classified into where he/she had the highest scores. The statistical analysis technique deployed to test the hypothesis is 3x3 Contingency Chi-square (X^2) and the results of the analysis are displayed in Table 2. The observed frequencies are without the parenthesis; while the expected frequencies are within parenthesis.

Table 2: Contingency Chi-square (X^2) analysis of the influence of oppositional defiant disorder on social adjustment of in-school adolescents

Oppositional defiant disorder	Low	Moderate	High	Total	X^2 Cal	X^2 Crit
Low	80 (101)	140 (130)	93 (83)	313	11.20	9.45
Moderate	44 (37)	41 (48)	30 (30)	115		
High	108 (94)	117 (121)	67 (77)	292		
Total	232	298	190	720		

* $P < .05$, $df = 4$

The results presented on Table 2 shows the social adjustment of in-school adolescents on the three groups chosen for the study based on their scores of oppositional defiant disorders. The calculated Chi-square (X^2) value of 11.20, which represents the influence of adolescents' oppositional defiant disorder, is higher than the critical Chi-square (X^2) of 9.45 at .05 level of significance with 4 degree of freedom. With this result, the null hypothesis was rejected. This implies that the oppositional defiant disorder of adolescents significantly influences their social adjustment in schools.

Discussion of findings

The central concern of this study was to investigate the influence of Attention Deficit Hyperactivity Disorder (ADHD) on social adjustment of in-school adolescents in Cross River State, Nigeria. Two main revelations have emerged at the end of the study. The findings from the first hypothesis tested revealed that there is a significant influence of conduct disorder on social adjustment of in-school adolescents in Cross River State. This follows from the fact that the computed Chi-square (X^2) value of 38.58 exceeded the critical Chi-square (X^2) value of 9.45 at .05 level of significance. The findings of this study is in line with the findings of Frick and White (2008) whose study on the importance of callous unemotional traits for developmental models of aggressive and antisocial

behavior revealed that children high in conduct disorder are more risk taking, novelty seeking, physically divvy, less emotionally reactive, show lower levels of anxiety and neuroticism, while higher level of proactive and reactive aggression are less responsive to treatment and more likely to persist in their deviant behavior towards others.

The result of this hypothesis is supported by Frick, Shickle, Dandreaux, Parallel and Kimonis (2005) who conducted a four-year longitudinal study on children (grades 3 to 7) and found that children with conduct disorder had the greatest frequency of conduct problems, self-reported delinquency and police contacts. The findings from testing the second hypothesis indicated a significant influence of oppositional defiant disorder on social adjustment of in-school adolescents. The findings of this study are in consonance with studies done by American Psychiatric Association (2000) to determine the extent to which oppositional defiant disorder related to social adjustment of students in this finding, the association observed that the oppositional defiant disorder is characterized by a pattern of negativistic, hostile and defiant behaviour without serious violation of the basic rights of others. Furthermore, the findings also concluded that children with this diagnosis are argumentative with adult, other lose their tempers, swear, are often angry and resenting, and easily annoyed by others.

This study has further come to confirm the earlier finding of Frick, et al., (2005) whose study had earlier discussed the social adjustments of adolescents with conduct disorder, the study further revealed that students with conduct disorder are a little difficult to control and adjust seamlessly into the school programs of activities. They become temperamental with peers and aggressive, but most become very homely with identified peers and can also be very reserved to themselves in the face of serious provocation. Adolescent with conduct disorder easily make friends, but are always very quick to criticize or discriminate. Their conduct behavior can be tamed or controlled through therapeutic counselling over a period of time, since it is a condition that can be corrected with time and age. But the effect on the child's conduct in a later age cannot be completely eradicated, but controlled.

The result of the on the hypothesis on the issue of oppositional defiant disorder also has confirmed the earlier finding of Bradley, et al., (2005); Ajobiewie, (2014), whose study found that adolescents including adults with oppositional defiant disorder also have attention deficit disorder, they have short span to work or participate in anything or activities. Their learning and absorption capacities during class instructions are short spanned and cannot take in anything further, once the limit of the

attention span is reached. Adolescent in this group can be very intelligent, but they seldom concentrate for a long while, while instructional procedure lasts.

These authors further posited that they break rules, hardly operate according to laid down rules and regulations, they like to boss over others, they become aggressive, violent, bullying and talkative. They appear to oppose every instruction or directives. In all, they can be controlled but not completely cured. Both conditions have significant influence on in-school adolescent's social adjustments, therefore, for these adolescent to be assisted in their social adjustments in schools, this requires the concerted efforts of both parents, school teachers, counsellors and school administrator to collaborate with the counsellors who are the ring leaders in this transactions to make the social adjustment of these adolescents a success in their respective school settings.

Conclusion

Based on the above findings, the researchers arrived at the conclusions that ADHD variables such as, conduct disorder and oppositional disorder have significant influence on students' school social adjustment in an inclusive education. That is to say, low level of conduct and oppositional disorder is needed for effective school social adjustment and proper interpersonal relationship among students in school.

Recommendations:

Based on the findings of this study, it was recommended that:

- i. Since conduct disorder still has moderate impact on social adjustment of in-school adolescents, there is need for school counsellors and handlers of adolescents to assist in providing counselling programmes that will build self-identity in adolescents and remove their dependency on external influences.
- ii. Since oppositional defiant disorder has a significant influence on social adjustments, all hands must be on deck to ensure that children are not argumentative with adults, but should learn to show respect to them at all times.

References

- Abraham, N.M. (2012). Towards sustainable national development through well managed early childhood education. *World Journal of Education*, 3(2), 43-48
- Adeyemo, D. A. (2005), Parental Involvement, Interest in School Environment as predictors of Academic Self-efficacy among Fresh Secondary School Student in Oyo State, Nigeria. *Electronic Journal of Research in Educational Psychology*, 5(3),163-180.
- Ajobiewie, T. (2014). Education for all and children with special needs: policy and practice review in Nigeria. A lead presented at the 24th annual conference of the NCEC at Alvan Ikoku Federal College of Education Owerri, Imo State between August 4th to 9th 2014.
- American Psychiatric Association (2000). Diagnostic and statistical manual of mental disorders (4th ed. text revision). Washington DC Author.
- Avramidis, E., Bayliss, P. & Burda, R. (2000). Student teachers' attitudes toward the inclusion of children with special education needs in the ordinary school. *Teaching and Teacher Education*, 16, 277-293.
- Bradley, Z. I., Coriklin, C. K. & Westen, D. (2005). The borderline personality diagnosis in adolescents under differences and subtypes. *Journal of Child Psychology and Psychiatry*, 46, 1006-1119.
- Dougherty, D. M. Bjork, J. M., Harper, R. A., Marsh, D. M., Moeller, G., Mathiaas, C. W., & Swann, A. C. (2003). Behavioural impulsivity paradigms: A comparison in hospitalized adolescents with disruptive behaviour disorders. *Journal of Child Psychology and Psychiatry*, 33, 1145-1157.
- Edens, J. F, Campell, J. S., & Weir, J. M. (2007). Youth psychopathy and criminal recidivism: A meta-analysis of the psychopathy checklist measures. *Laws and Human Behaviour*, 31, 53-75.
- Essau, C. A., Sasaqawa, I. & Frick, P. I. (2006). Callus-unemotional traits in community sample of adolescents. *Assessment*, 1-16.
- Frick, P. J., & White, S. F. (2008). Research review: The importance of callous unemotional traits for developmental models of aggressive and antisocial behaviour. *Journal of Child Psychology and Psychiatry*, 49, 359-375.

- Frick, P. J., Kimonis, E. D., Dandreaux, D. M. & Farrell, J. M. (2003). The 4 year stability of psychopathic traits in non-referred youth. *Behavioural Sciences and the Law*, 21, 713-736.
- Frick, P. J., Stickle, T. R., Dandreaux, D. M., Farrell, J. M., & Kimonis, F. R. (2005). Callous-unemotional traits in predicting the severity and stability of conduct problems and delinquency. *Journal of Abnormal Child Psychology*, 33, 471-487.
- Morgan, A. B., & Lilienfeld, S. O. (2008). A meta-analysis review of the relation between antisocial behaviour and neuropsychological measures of executive function. *Clinical Psychology Review*, 201, 113-136.
- Pastor, P. N., and Reuben, C. A. (2006). Identified attention deficit/hyperactivity disorder and medically attended, nonfatal injuries: US school-age children, 1997-2002. *Ambulatory Pediatrics*, 6, 38-44. doi:10.1016/j.ambp.2005.07.002
- Raine, A. (1993). *The psychopathology of crime: Criminal behaviour as a clinical disorder*. San Diego, CA: Academic Press.
- Shedler, J., & Westen, D. (2004). Refining personality disorder diagnosis integrating science and practice. *American Journal of Psychiatry*, 161, 1350-1365.
- Tenzen, E. (2010). *Different brains, different learners: How to reach the head to reach/*Eric P. Jensen (2nd ed.)
- UNESCO (1994). *The Salamanca Statement and Framework for Action on Special Needs Education*. Access and Quality Paris
- Vasalampi, K., Salmela-Aro K., Nurmi, J. (2009). Adolescents self-concordance, school engagement, and dropout predict their educational trajectories. *European psychologist*, 14(4). 332-341
- Zuckerman, M. (2007). *Sensation seeking and risky behaviour*. Washington DC: American Psychological Association.