

Research Article

Emotional and Behavioral Disorders (EBD) and Achievements of Grade 1 Pupils

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Abstract: Emotional and behavioral disorders are potential causes of disciplinary problems in the classroom. The main interest of the study is the EBD and achievements of Grade 1 pupils in public schools of South Cotabato. About 210 Grade One pupils and teachers were involved as subjects and respondents of this inquiry. A questionnaire in EBD was given to teachers for them to carefully assess the pupils' ODD, CD and ADHD level. The survey tools were modeled after the Noanxiety.com resources and the Vanderbilt Rating Scales. Records of pupils' gender, curricular and extra-curricular achievements were taken from the teachers' own class records. Gathered data were suitably tabulated and presented in tables and chart. Both descriptive and inferential statistics were applied to treat the data. Specific tools like percentages, Multiple Linear Regression Analysis, mean and t-test were employed to analyze the collected data. As found out, the Grade 1 pupils' EBD level is singly, and collectively of moderate levels. They have very good level in curricular and extra-curricular achievements alike. Male pupils have relatively higher EBD level than the females. Inversely, the female pupils have comparatively higher achievement than the males. The pupils whose schools were located in highly urbanized places have higher EBD level than those in the less urbanized areas. Also, the achievements of the pupils from schools situated in less urbanized areas were higher than those in the highly urbanized areas. This study concluded that only the pupils' attention deficit hyperactivity disorder was linked to pupils' achievement. Gender and school location also affected pupils' EBD and achievement levels.

Keywords: Classroom Management, Emotional and Behavioral Disorder, Pupils' Achievement, ADHD, ODD, CD.

INTRODUCTION

In most cases, young learners can have mental, emotional and behavioral troubles that are real, painful and costly. Kavale *et al.*; [1] called these problems as "disorders." They are said to be common sources of stress for children, their families, schools and community as well. It is estimated that 1 out of 5 children and adolescents may have a mental health disorder that can be identified for potential treatment. Aside from biological and psychological grounds, many environmental factors can also affect mental health including exposure to violence, severe stress and loss of an important person. Dunn [2] agreed that the school, family and community should work together to assist children with mental disorders.

In most literatures, authors interchangeably used the terms emotional and behavioral disorders, behavioral and emotional disorder, or mental and behavioral disorders to mean "behavioral disturbances." In the Philippines, despite the proclamation of the government over the issue, there seems to be absence of scholarly efforts to truly explore this social phenomenon among children; thus, local studies and literatures still want to date. Cognizant too of the widespread observation of elementary teachers that EBD often

disrupt routine activities in the classrooms, and the pressing call to address them at an early developmental stage, the researchers were inspired of initially assessing this emotional and behavioral tendency among Grade 1 pupils. Theoretically, the emotional and behavioral states of children and the learning outcomes are closely linked to each other. Hence, its considered more practical in this study to relate pupils' curricular and extra-curricular achievements with EBD.

In particular, this study aims to satisfy these objectives, viz., 1) determine the EBD levels of the Grade 1 pupils; 2) describe the pupils' achievements in both curricular and extra-curricular engagements; 3) relate EBD with pupils' achievements; and 4) find out the effect of pupils' gender and school location to their EBD and achievements. Most probably, the results of this investigation would provide benchmark data to parents, basic education teachers and other Dep Ed people on the prevailing EBD among Grade 1 pupils, and allow them to acquire better understanding on how to exactly deal or respond to the EBD phenomenon of these young children. Owing to the limited resources at hand, the present study considered only three (3) types of disorders, namely: conduct disorder, oppositional

defiant disorder, and attention deficit hyperactivity disorder.

LITERATURE REVIEW

A good foundation of any research endeavor relies on the strength of its references and prior studies. This section presents notable articles, reports, and studies done related to the subject at hand.

Emotional and Behavioral Disorder (EBD)

Kavale *et al* [1] wrote that the number of young people and their families who are affected by mental, emotional, and behavioral disorders are now significant. As reported, 20% of the children and adolescents may have mental health disorder. In the study of Cullinan [3] it was pointed out that the cause of mental health disorders in children and adolescents may be biological, environmental, or a combination of both. Biological factors include genetics, chemical imbalances in the body, and damage to the central nervous system, such as a head injury. Environmental factors, on the other hand, include exposure to violence, extreme stress, and the loss of an important person.

Moreover, Jordan's [4] study claimed that when a child exhibits negative behaviors, members of a family may not all agree on whether the behavior are serious. According to him, each child possesses emotional concerns occasionally like adults, as feelings of sadness or loss, and extreme of emotions, are essential part of growing up.

Barbers [5] stated that the emotional and behavioral disorder have five (5) characteristics, such as: 1) inability to learn which cannot be explained by intellectual, sensory, or health factors; 2) inability to build or sustain satisfactory relationships with peers and teachers; 3) inappropriate types of behavior under normal circumstances; 4) general pervasive mood of unhappiness or depression; 5) tendency to develop physical symptoms or fears associated with personal or school problems. He added that behavioral deficits of EBD are referred to as internalizing behavior disorders or over controlled behaviors that are characterized by inner-directed and covert actions.

To correctly inform the parents, Jordan [4] cited various types of emotional or behavioral disorders commonly observed among young children based on Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition Revised (DSM-IVR) criteria. To mention a few, EBD includes Oppositional Defiant Disorder, Conduct Disorder, Attention Deficit Hyperactivity Disorder, Anxiety Disorder, Depression Disorder, Adjustment Disorder, Obsessive-Compulsive Disorder, Post-Traumatic Stress Disorder, Selective Mutism, Anorexia Nervosa, Bulimia Nervosa, Major Depressive Disorder, Bipolar Disorder, Autistic Disorder, Schizophrenia, and Seriously Emotionally Disturbed, among others.

According to Masi and Favilla, [6] a child with an internalizing behavior disorder may be withdrawn, shy, depressed, and/or have dysthymia and other emotional or personality disorders. This disorder is predictive of social adjustment difficulties as well as psychopathology. Most often, internalizing behaviors are associated to impaired cognitive functioning, lack of social competence and acceptance, language deficits, limited problem-solving strategies, and eventually result in nonattendance at school. Lambros and Ward [7] revealed that due to the nature of internalizing behaviors, children do not often come to the attention of teachers or other authorities. Usually, when these problems are identified, they are overlooked because they are not perceived as problems. This inaction as a mistake must be avoided. If internalizing behaviors are not treated, the consequences carry the same seriousness as untreated externalizing behavior disorders.

In a recent study, Tichovolsky [8] revealed that behavioral problems are common during early childhood, and while many children will outgrow them, others will continue to have substantial difficulties. Unfortunately, too little is known about which children will exhibit continued difficulties, making it difficult to intervene before maladaptive behavior becomes entrenched. A number of parenting and parent characteristics, including ineffective discipline, maternal depression, parenting stress, and limited social support have consistently been found to be associated with externalizing problems in young children.

Rippey [9] synthesized that EBD is an emotional disturbance like an educational disability. He added that it is a broad category which is used ordinarily in schools to group a range of more specific perceived difficulties of children and adolescents. Nevertheless, the general definitions and concrete diagnosis of EBD can be contentious since the perceived behavior may depend on many factors. In addition, behavioral disabilities are those that cannot be attributed to psychiatric disorders or developmental disorders. These disabilities are known among children, whose behavior stops them from functioning well in educational settings, thereby putting themselves or their peers in danger. It also prevents them from fully participating in most school programs. Likewise, the causes of ODD, CD and ADHD are not known but one of the identified risk factors is gender. Boys are much more likely than girls to suffer from behavioral disorders.

In the United States, studies made by the National Institute of Mental Health and the Office of School Education Programs showed that efficient medication management and behavioral treatment for ADHD improved all measures of behavior in school and at home. Kauffman [10] cited that treatment of EBD is generally complicated because it depends mainly on the particular disorder as well as the factors surrounding it.

Parental education, family therapy, social training, anger management, relaxation techniques and stress management skills, support for associated problems, encouragement, and medication are among the practical remedies.

Oppositional Defiant Disorder

The American Academy of Child and Adolescent Psychiatry referred ODD “to a recurrent pattern of developmentally inappropriate, negativistic, defiant and disobedient behavior toward authority figures beginning in childhood or adolescence.” Polsgrove [11] also described it as a “condition characterized by a persistent pattern of aggressive and defiant behavior and a need to annoy or irritate others. Common behaviors include frequent temper tantrums, frequent arguing with both peers and adults, intentionally annoying others, blaming others for own mistakes, and appearing angry and vindictive.” Ordinarily, the disorder occurs when children turned 8 years old but sometimes as early as 3 years old. It may develop as a way of dealing with depression, inconsistent rules or standards, or a traumatic event, such as divorce, trauma or conflict. He listed down some symptoms of ODD in a child such as less serious, and less aggressive than a conduct disorder. They also tend to be negative, argumentative and defiant. Likewise, their inability to cooperative with adults or peers often isolates them and creates obstacles to their social and academic success. Lehman [12] explained that this childhood disorder affects anywhere from 6 to 10 percent of children. Moreover, Mayo Clinic studied around one in ten children under the age of 12 years who are observed to have ODD, with boys outnumbering girls by 2:1. As found out, a child with ODD is easily angered, annoyed or irritated, has frequent temper tantrums, argues frequently with their parents, refuses to obey rules, seems to deliberately try to annoy or aggravate others, has low self-esteem, low frustration threshold, and seeks to blame others for any misfortunes or misdeeds. It was also cited that, “if your child or teen has a persistent pattern of tantrums, arguing, and angry or disruptive behavior toward you and other authority figures, he or she may have oppositional defiant disorder”.

As suggested, treatment for this disorder may include counseling, behavior therapy, parent education and medication. Students with ODD may also have other disorders and difficulties, such as attention deficit/hyperactivity disorder, learning disabilities, depression, and are at risk for developing conduct disorder. Younger children with ODD potential may develop a more serious conduct disorder when they get older. In particular, there is some evidence that programs like Head Start and home visitation to high risk families can have a positive impact to preschool children having ODD. Among school-age children, parental management, social skills training, conflict resolution and anger management programs have all been applied

and to some extent successful. Some school-based prevention programs have also produced promising results like preventing bullying, reducing anti-social behavior, and helping out children overcome negative peer group pressures.

According to AACAP [13], there is no clear-cut cause of ODD. Nevertheless, many experts believe that a combination of biological, psychological, and social risk factors play a role in the development of the disorder. Children are more susceptible to developing ODD if they have parents with a history of ADHD, ODD, CD and other types of disorders. Similarly, those with parents who have problems in alcoholism or substance abuse, impairment of the brain, with mothers who smoked during pregnancy, exposure to toxins and poor nutrition, poor relationship with one or more parent, and neglectful or absent parent. Social factors related to ODD are poverty, chaotic environment, abuse, neglect, lack of supervision, uninvolved parent, inconsistent discipline and family instability.

Conduct Disorders

Psych Central described conduct disorder as “a repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated.” Young people with conduct disorder usually have little concern for others and repeatedly violate the basic rights of others and the rules of society[26]. CD causes children and adolescents to act out their feelings or impulses in destructive ways. The offenses these children and adolescents commit often grow more serious over time. Such offenses may include lying, theft, aggression, truancy, the setting of fires, and vandalism.

Research has yielded varying estimates of the number of young people with this disorder, ranging from one to four of every 100 children of 9 to 17 years of age [27]. Usually, children with CD are placed in self-contained classrooms or special programs until they have improved enough to return to mainstream classes. They are aggressive, hurting other students, and ignoring or defying conventional behavioral expectations.

The World Health Organization classified ICD-10 disorder into two subgroups, viz.: conduct disorder and oppositional defiant disorder. CD is more common in older children while ODD is more common in those aged 10 years or younger. The major distinction between the disorders is the extent and the severity of the antisocial behavior. Isolated antisocial or criminal acts are not sufficient to support a diagnosis of conduct disorder or oppositional defiant disorder.

Conduct disorders are the most common mental health disorder in children and young people. The Office of National Statistics Office (NSO) surveys of 1999 and 2004 reported that the prevalence of conduct disorders and associated impairment was 5% among children and

young people. The prevalence without impairment was not much larger, because conduct disorders nearly always have a significant impact on functioning and quality of life. The first survey demonstrated that conduct disorders have a steep social class gradient, with a three to fourfold increase in the social classes D and E compared with social class A. The second survey found that almost 40% of looked after children, those who have been abused and/or those on child protection or safeguarding registers, between 5 and 17 years old, have conduct disorders.

The prevalence of conduct disorder is pegged at between 1.5% and 3.4% of the general child and adolescent population [29]. However, Loeber [30] stated that the start of conduct disorder tends to max out in late childhood and early adolescence. About 40% of children and adolescents with CD ultimately develop antisocial personality disorder. Generally, conduct disorder appears more often in boys than girls with a rate of 6%-10% for males and 2%-9% for females. In an earlier study, Boyle [14] similarly found that rates vary by age range and type of conduct disorder. Epidemiological studies estimate the male-female ratio between 3:1 and 5:1. Gender differences in the expression of CD become more obvious at adolescence, with boys more likely to exhibit aggressive behavior and girls to commit covert offenses and prostitution. Nonetheless, these gender differences in type of behavior tend to disappear in the youth who are the most severely disturbed.

In addition, Psych Central cited [28] that boys who have conduct disorder are more likely to display aggressive and destructive behavior than girls are. Girls are more prone to deceitful and rule-violating behavior. Besides, conduct disorder is more prevalent in children who live in cities than those who live in rural areas.

In treatment of children with CD, multiple agencies may be involved. However, it presents a major challenge for current services in the effective coordination of care across agencies. Interventions have been designed for children with CD and related problems [31]. Other interventions focused on prevention have recently been implemented in the UK. Common to these interventions are strong focus on working with parents and families, recognition of the importance of the wider social system in enabling effective interventions, and focus on preventing or reducing the escalation of existing problems.

Attention-Deficit/Hyperactivity Disorder

Children with attention deficit hyperactivity disorder are unable to focus their attention and are often impulsive and easily distracted. Thompson [15] posted that latest research finding in Australia concluded that 7% of the children worldwide have ADHD. This is lower than the 2011 report by the US Centers for Disease Control and Prevention report that 11.5% among school-aged children have ADHD. Accordingly, most

children with this disorder have much difficulty remaining still, taking turns, and keeping quiet. To be effectively diagnosed, symptoms must be evident at least both at home and in school. The exact causes of ADHD are unknown. Most experts believe that ADHD has a strong genetic component since genes control the levels of certain chemicals in the brain called neurotransmitters that seem to be different in those with ADHD. In some cases, though, there is no genetic link to such disorder, but other common behaviors, like smoking or drinking during pregnancy, and other obstetrical problems have been associated to ADHD in children.

According to Zentall [28], ADHD's core symptoms such as inattention, hyperactivity, and impulsivity, makes meeting the daily rigors of school challenging. Difficulty sustaining attention to a task may contribute to missing important details in assignments, daydreaming during lectures and other activities, and difficulty organizing assignments. In particular, hyperactivity may be shown in either verbal or physical disruptions in class. Impulsivity may certainly lead to careless errors, responding to questions without fully formulating the best answers, and only attending to activities that are entertaining or new. Overall, students with ADHD may experience more problems with school performance than their normal peers.

Emotional and Behavioral Disorders in the Philippines

In the country, concerns over the emotional and behavioral disorders (EBD) among young children are apparently limited to ADHD only. As a matter of fact, the national government promulgated Proclamation No. 472 to declare the 3rd week of October of every year as "National Attention Deficit/Hyperactivity Disorder Awareness Week." Through the Department of Education (DepEd), it has given attention and priority to this disturbing disorder among the learners. Essentially, the government aimed at informing the general public on the rising and alarming cases of EBD that is true to all classrooms in the country. Mishandling of this disorder by the direct stakeholders is a serious concern. As observed, these behavioral problems of children seriously affect the teachers. When the child with EBD enters the perimeters of the school, problems start thereby distracting the natural teaching-learning process.

Relative to this, the DepEd's SPED Unit emphasized that every individual is valuable and so equal opportunities to develop his full potential be afforded. As pointed out, equal educational opportunities do not mean the same educational experiences instead "different" experiences giving attention to the child's unique needs. The right to education cannot be denied a person simply because of his disabilities. Thus, schools should do several interventions to cater all children with Emotional and Behavioral Disorder (EBD).

EBD and Performance

According to Bos *et al.*; [16], children and adolescents with conduct disorder often perceive school as a place of frustration and failure. Ordinarily, they showed inferior academic achievement and could be disliked by their teachers as well as classmates. Faced with frustration and exclusion, the child may resort to bullying and antisocial behavior. He may also align himself with other students who are in a similar situation. Lack of suitable classes, limited resources in the school system, and the need for teachers to have basic child management and parenting skills makes it very difficult to work effectively with CD children in school. Children with CD may be treated effectively in day treatment programs, but good follow-up and transition planning is necessary if treatment gains are to be maintained in regular classrooms.

Loe and Feldman [17] stated that ADHD is associated with poor grades, poor reading and math standardized test scores, and increased grade retention. It is also associated with increased use of school based services, increased rates of detention and expulsion, and eventually with fairly low rates of high school graduation and postsecondary education. Children in community samples who show symptoms of inattention, hyperactivity, and impulsivity with or without formal diagnoses of ADHD also exhibit poor academic and educational outcomes.

Barkley [25] cited that children with a diagnosis of ADHD normally present with a wide range of characteristics and problems including academic underachievement and learning disabilities. In fact, it has been estimated that around 80% of children with ADHD experience low performance in academic and approximately one-third of them have specific learning disabilities. Raggi and Chronis [32] observed that while there is substantial evidence of improvements in core symptoms of AD/HD, important primary cognitive processes, and academic outcome and accuracy, most reviews on this topic simply conclude that, there is limited evidence for a direct impact of stimulant medication on academic achievement.

Schachar *et al.*; [33] claimed that medication alone does not directly enhance academic achievement. In contrast, many clinicians believe that medication may provide a “window of opportunity” for those trying to help these children develop academic skills.

In addition to this, Leo and Feldman [17] discussed that it is critical to learn how various treatments affect academic and educational outcomes. These findings inform clinical practice, public health, public education, and public policy. Children with ADHD show significant academic under achievement, poor academic performance, and educational problems. In terms of impairment of body functions, children with ADHD show significant decreases in estimated full-scale

IQ compared with controls but score on average within the normal range. In terms of activity limitations, children with ADHD score significantly lower on reading and arithmetic achievement tests than controls. In terms of restrictions in social participation, children with ADHD show increases in repeated grades, use of remedial academic services, and placement in special education classes compared with controls. Finally, children with ADHD are more likely to be expelled, suspended, or repeat a grade compared with controls. A study by Barkley *et al.*; [24] also found that 46 percent of their student study group with ADHD had been suspended and 11 percent had been expelled.

Longitudinal studies show that the academic underachievement and poor educational outcomes associated with ADHD are persistent. Academic difficulties for children with ADHD begin early in life. Symptoms are commonly reported in children aged 3 to 6 years [18] and preschool children with ADHD or symptoms of ADHD are more likely to be behind in basic academic readiness skills.

METHODOLOGY

Research Design

This study used a descriptive-survey design as the purpose was merely to describe the degree of the pupils' emotional and behavioral disorder (EBD) and their performance in school, as well as, the existing relationships between them. In doing so, a set of survey questionnaire modeled from Wolraich's Vanderbilt Rating scale for ODD and ADHD, and CD from Noanxiety.com were aptly used.

Respondents of the Study

By exploring literature, there seemed to be no study conducted yet on EBD among Filipino schoolchildren. As an initial survey, the researchers thought of using the Grade 1 pupils as the subjects while their teachers as respondents. It was assumed that the teachers were in the best position to judge the pupils as regards their real emotions and behaviors when interacting others in the classroom. Considering also that better and accurate data can be acquired from the Special Education (SPED) and first section classes of central schools, it was obvious to choose these pupils as proper subjects for this preliminary probe. Moreover, being directly engaged in teaching Grade 1 pupils, the researchers find it fitting to undertake this behavioral study including the performance of these kids. In this study, 200 pupil-subjects were randomly chosen and a total of ten (10) Grade 1 teachers were purposely taken as respondents. In the process, the teachers religiously assessed the individual pupils based on the EBD tool.

Locale of the Study

The study was conducted in the four (4) municipalities of Polomolok, Tupi, Banga, Surallah and the city of Koronadal in the province of South Cotabato. The subjects and respondents belong to the central

elementary schools of these places, namely: Polomolok Central Elementary School, Tupi Central Elementary School, Banga Central Elementary School, Surallah

Central Elementary School and Koronadal Central Elementary School-I. Figure 1 shows the map of South Cotabato, Philippines.



Fig- 1: Map of South Cotabato showing the locale of the study

Sampling Technique

The study used purposive sampling technique in the initial stage. Explicitly, only the central elementary schools in the province with SPED classes were selected as the source of the subjects and respondents of the inquiry. The SPED classes have complete records of pupils' curricular and extra-curricular performance like the first section of the regular classes. Typically, these are the groups of pupil provided with exceptional, if not, extensive attention by most teachers in schools.

To simplify the process, 20 pupils from each of these classes in the five (5) central schools were considered. Finally, these pupils from each SPED and first section class were selected at random out of the population of every section. The teachers of said classes were automatically taken as the respondents of the study. Thus, a total of 5 central elementary schools, 5 SPED classes, 5 Grade 1 First Section classes, 200 Grade 1 pupils and 10 Grade 1 teachers were involved in this investigation.

Data Gathering Tools

The study used the Emotional and Behavioral Disorder (EBD) Assessment Test. The questionnaire was modeled from Vanderbilt Rating Scales for ODD and ADHD that was developed by Dr. Mark L. Wolraich[23]. On the other hand, the CD test was

adopted and sourced out from Noanxiety.com resources. Questions on oppositional defiant disorder (ODD) have twenty (20) items, conduct disorder (CD) has eighteen (18) items, and attention deficit hyperactivity disorder (ADHD) has twenty (20) items. Primarily, the assessment determines the norms of the pupils relative to their emotions and behaviors demonstrated during the teaching and learning processes as observed by the teachers. The summary of results provides the researchers an opportunity to understand the pupils' status of emotional and behavioral disorder. In answering each item, respondents were guided by this rating scale, that is; 4 for Always, 3 for Often, 2 for occasionally, and 1 for Never.

Statistical Treatment

Both descriptive and inferential statistics were used in the analysis of data. In particular, the summation, percentage, means, multiple linear regression analysis, and t-test were applied in the study.

In describing the extent of the EBD in terms of ODD, CD and ADHD, the summation of scores, along with the ranges and descriptive rating as shown below, were used accordingly. This interpretation scheme was adapted from Vanderbilt Rating Scales.[23]

Conduct Disorder

Range of Scores	Description
1.00 – 27.00	Mild
28.00 – 54.00	Moderate
55.00 – 80.00	Severe

Oppositional Defiant Disorder

Range of Scores	Description
1.00 – 12.00	Mild
13.00 – 24.00	Moderate
25.00 – 36.00	Severe

Attention Deficit Hyperactivity Disorder

Range of Scores	Description
1.00 – 24.00	Mild
25.00 – 48.00	Moderate
49.00 – 72.00	Severe

On the other hand, simple mean was applied in showing the pupils’ level of achievement in terms of curricular and non-curricular aspects. For the interpretation of results, the following scales were used as guides (DepEd Form 138).

Curricular and Extra-curricular Achievement

Numerical Rating	Verbal Description
90.00 – 95.00	Outstanding
85.00 – 89.00	Very Good
80.00 – 84.00	Good
75.00 – 79.00	Fair
70.00 – 74.00	Poor

Moreover, t-tests were used to determine the differences of pupils’ EBD, curricular and extra-curricular achievement as a factor of gender. The same test was applied if EBD and performance differed when categorized by school location. Finally, the Multiple Linear Regression Analysis was accordingly applied in determining which among the three (3) disorders relates to pupils’ performance. In all tests, the researcher set the level of significance at .05.

Results and Discussion

Emotional and Behavioral Disorders of Grade 1 Pupils

With reference to Figure 2, the emotional and behavioral disorder (EBD) level of Grade 1 pupils is apparently and generally moderate as assessed by the teachers. However, it is not accurate to make a definite statement on pupils’ EBD because one perceived disorder is characteristically unique from each other. The chart practically demonstrates the relative frequency distribution of pupils in every disorder per level.

Obviously, the bulk of the Grade 1 pupils fit in under moderate level in all disorders. What is significant and alarming in these data are the pupils falling on “severe” state as they are essentially the object of this

survey. Finding indicates that 19% of them have severe emotional and behavioral disorder. This means that almost 2 out of 10 of the Grade 1 pupils have inability to learn without specific reason, inability to sustain satisfactory relationships with others, inappropriate types of behavior under normal situations, general pervasive mood of unhappiness or depression, and tendency to develop physical symptoms related to personal or school problems. The statistics also suggest that 2 out of 10 Grade 1 pupils have severe ODD; nearly 1 out of 10 has severe CD; while nearly 3 out of 10 have severe ADHD.

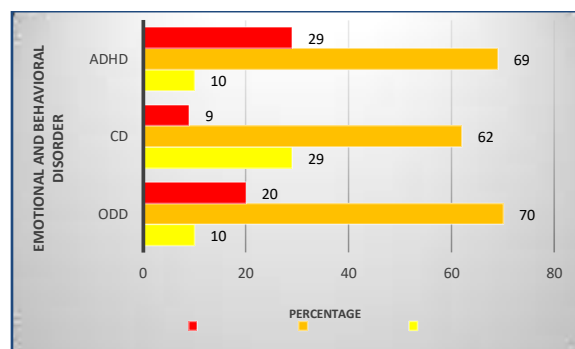


Fig-2: Bar Graph of Emotional and Behavioral Disorder of Grade 1 Pupils by Types and Levels

The finding almost validates Kavale *et al.*; (2014) [1] report that 20% of the children and adolescents may have mental health disorders. In part, the results also confirm AACAP’s (2014) [13] study showing that the oppositional disorder usually appears in late preschool. In contrast, the finding on ADHD is too high compared to Thompson’s (2015) [15] latest finding that it occurs only to 7% of children worldwide and the US 2011 report of 11% ADHD cases on school-aged children. Most possibly, the noted gap across countries is influenced by the type of tools used in every survey.

Pupils’ Achievements

As reflected in Table 1, the achievement of Grade 1 pupils is expressed in curricular and extra-curricular aspects. It can be gleaned from the data that the pupils performed satisfactorily in both areas as they were rated “very good.” This finding may be attributed to the kind of teachers these pupils have. In fact, most teachers in the school division are graduates of great teacher training institutions in the region, such as MSU, SKSU and NDMU. Likewise, records in the Department of Education confirm that South Cotabato outsmarted other school divisions in various extra-curricular competitions for the past 3 years.

Table 1: School Achievement of Grade 1 Pupils

Areas	Mean	Sd	Interpretation
Curricular	87.49	3.37	Very good
Extra-curricular	87.47	1.45	Very good

Relational Analysis of EBD and the Pupils' Curricular and Extra-curricular Achievement

The level of emotional and behavioral disorder of each pupil such as ODD, CD and ADHD were used to predict their curricular and extra-curricular achievement. As shown in Tables 2 and 3, the multiple regression analyses were used to verify the possible linear relationships.

Among the three disorders, it can be noted that only the Attention deficit hyperactivity disorder (ADHD) has significant relationships with curricular

achievement ($t=-4.466, p=.000$) and extra-curricular achievement ($t=-4.466, p=.000$). The negative signs in both cases indicate that the relationship is opposite in direction, such that, when the pupil's ADHD level is high, the achievement tends to be lower or vice-versa. Coincidentally, the values of R^2 or coefficient of determination for the two (2) dependent variables are the same, i.e., .224. It can be said therefore that merely 22.4% of the variations in curricular or extra-curricular performance of pupils can be attributed to their ODD, CD, and ADHD levels.

Table 2: Regression Analysis of Grade 1 Pupils' EBD and their Curricular Achievement

Disorders	Unstandardized Coefficients		Std. Coef.	t	p-value
	B	SE	Beta		
Constant	67.342	.868		77.541	.000
ODD	.011	.064	.018	.177	.860
CD	-.008	.025	-.031	-.336	.737
ADHD	-.147	.033	-.466	-4.466	.000
$R^2 = .224, p<.05, \text{significant}$					

Table 3: Regression Analysis of Grade 1 Pupils' EBD and their Extra-Curricular Achievement

Disorders	Unstandardized Coefficients		Std. Coef.	t	p-value
	B	SE	Beta		
Constant	28.861	.372		77.548	.000
ODD	.005	.027	.018	.179	.858
CD	-.004	.011	-.031	-.339	.735
ADHD	-.063	.014	-.466	-4.466	.000
$R^2 = .224, p<.05, \text{significant}$					

Thus, the derived multiple regression models for curricular achievement is:

$$Y_1 = 67.342 + .011(ODD) - .008(CD) - .147(ADHD)$$

Likewise, the multiple regression models for extra-curricular achievement is:

$$Y_2 = 28.861 + .005(ODD) - .004(CD) - .063(ADHD)$$

Hence, using the two (2) models Y_1 and Y_2 , the curricular or extracurricular achievements of the pupil

can be approximately predicted given their ODD, CD and ADHD levels.

Influence of Gender and School Location to Pupils' EBD and Achievement

One of the objectives of the study is to find out whether gender or location of school affects the Grade 1 pupils' emotional and behavioral disorder levels and performance. Owing to the limited categories of the 2 variables, the t-test analyses for two independent means were properly used as shown in Tables 4 and 5.

Table 4: t-test Analysis of Grade 1 Pupils' EBD and Achievement when Grouped by Gender

Variables	Gender	Mean	Sd	t	p-value
ODD	M	21.21	5.67	4.079	.000
	F	18.17	4.86		
CD	M	39.43	12.05	2.620	.009
	F	34.99	11.94		
ADHD	M	43.53	10.71	3.533	.001
	F	38.33	10.10		
Curricular	M	60.42	3.63	-3.503	.001
	F	62.04	2.90		
Extra-Curricular	M	25.89	1.56	-3.503	.001
	F	26.59	1.24		

$p<.05, \text{significant}$

In Table 4, all disorders as well as the curricular and extra-curricular achievement of pupils indicate significant differences between gender as shown by p-values that are consistently lesser than 0.05. Obviously, the males have demonstrated relatively higher levels in oppositional defiant disorder, conduct disorder and attention deficit hyperactivity disorder than the females. The result is consistent with the following studies: APA's (1994) finding that children with ODD have relatively higher in level and more often among boys than in girls; Boyle's [14] finding that children with CD has the male-female ratio of 3:1 implying that boys are more affected by this disorder; and Keenan's (1994) conclusion that boys are more affected compared to girls by ADHD.

Contrariwise, the females dominate the male with respect to curricular and extra-curricular

achievement. This merely suggests that the girls are more diligent in studies and active in other school-related activities than the boys.

With regard to school location, its influence over the pupils' EBD, curricular and extra-curricular achievement is shown in Table 6. Very clearly, the data and t-tests indicate that pupils who studied in highly urbanized places have relatively higher level of disorders than those in less urbanized areas. This result purports an impression that the intensity of activities or dynamics of people in a locality brings about adverse influence to behaviors and emotions of young children. This finding is related to the claim of Cullinan [3] that mental health disorders in children are caused by biology, environment, or a combination of the two. Environmental factors may include exposure to violence, extreme stress, and the loss of an important person.

Table 5: t-test Analysis of Grade 1 Pupils' EBD and Achievement when Grouped by School Location

Variables	School Location	Mean	Sd	t	p-value
ODD	Less Urbanized	18.66	5.61	-3.292	.001
	Highly Urbanized	21.20	4.94		
CD	Less Urbanized	31.93	9.36	-8.801	.000
	Highly Urbanized	45.08	11.67		
ADHD	Less Urbanized	38.02	9.90	-4.934	.000
	Highly Urbanized	45.23	10.46		
Curricular	Less Urbanized	61.33	2.98	.473	.637
	Highly Urbanized	61.10	3.91		
Extra-Curricular	Less Urbanized	26.28	1.28	.475	.635
	Highly Urbanized	26.19	1.67		

p<.05, significant

CONCLUSION

The Grade 1 pupils' level of emotional and behavioral disorder cannot be categorically labeled in general terms, but separately, based on distinctive types. On this premise, it is more prudent to infer that ordinarily they are of moderate levels in oppositional defiant disorder, conduct disorder and attention deficit hyperactivity disorder. Pupils with ADHD and CD have the most, and least numbers of severe cases, respectively. These young children have achieved very good levels in curricular and extra-curricular achievements alike. It was also proven that ADHD is related to both the pupils' curricular and extra-curricular achievement. Reliably, the male pupils have higher levels of ODD, CD and ADHD over the females. In contrast, the females performed better in school than the males. Pupils in highly urbanized areas have higher EBD levels than those in less urbanized areas. Nevertheless, school location does not affect pupils' achievement.

RECOMMENDATIONS

Considering the disturbing result of the initial survey, it is suggested that further studies will be conducted using a stable questionnaire to exactly portray the emotional and behavioral disorder status of young children. It is also encouraged to pursue a longitudinal study across grade levels to discreetly characterize the

trend of EBD as pupils mature from one developmental stage to another. A thorough inquiry amid relationships of gender differences, and school location with EBD may also be undertaken to see superior explanations. Given limited literature on the subject locally, it is strongly suggested that more studies must be carried out among Filipino children and even adolescents to produce empirical data and legitimate bases for policy formulation or designing necessary program interventions. Finally, the Philippine government through the Department of Education should strengthen its awareness campaign not merely on ADHD but in all mental disorders prevalent to school-aged children.

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