

## Age and Birth Order as Factors for Parental Stress of Children with Autism and Coping strategies

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### Abstract

Parenting can be one of life's greatest joys and accomplishments but can also be a stressful time for parents when children are born with disabilities such as autism spectrum disorder (ASD). Autism Spectrum Disorder from literature is a complex developmental disability that typically appears during the first three years of life, a lifelong neurologically based disability that often requires comprehensive and extensive services with its attendant huge financial involvement. The behavioural manifestations include head banging, aggression and deficits in language. Coping strategies have been adopted by parents. Since autism is not well known in Nigeria and diagnosis is consequently arbitrary, to what extent are parents stressed, does the level of stress depend on age and birth order, to what extent do parents cope and, what is the implication for counselling practice. The study adopted a descriptive survey design with a population of 34 families whose children attended a special school for persons with special needs in Nsukka and Enugu towns in Enugu State, Nigeria. Self-report questionnaires were completed by the parents. Interview schedule was also used to elicit information on level of stress and coping. A purposive-convenience sampling procedure was used in selecting 34 parents from the special schools in Nsukka and Enugu towns. A digital recorder was used to record all the interviews. Transcriptions were done in English. Data collected were analyzed using mean and standard deviation while Analysis of Variance (ANOVA) was used to test the null hypotheses at 0.05 level of significance. The findings indicate that parents have high level of stress which is not influenced significantly by either age or birth order. There was however an indication that parental stress heightens more with adolescent children due to worries about regular care as the parents are growing older too. Counsellors and special education professionals need to engage the parents in constant review of the behavior pattern of the children to enable parents understand autism better, teach basic operant behavior management techniques like prompting, cueing and reinforcement among others, organize parents into self-support groups and link parents with special schools and other supporting agencies to alleviate their caring burden.

**Keywords:** Autism, Stress, Age, Birth Order, Counselling

### INTRODUCTION

Autism, also referred to Autism Spectrum Disorder (ASD), is a multidimensional disorder and involves various developmental deficiencies. The American Autism Society (ASA, 2000) stated that it is a complex developmental disability, lifelong neurologically based disability that typically appears during the first three years of life and often requires comprehensive and extensive services. According to Sileo, Tyler, Smith, Ellamann and Yzquerdio (2007), ASD is a cluster of five disorders including autism, childhood disintegrative disorders (CDD), Aspergers syndrome, Rely's syndrome and pervasive developmental disorder and characterized by problems in communication, social skills and range of interests or patterns of behaviors.

Autism Spectrum Disorders (ASD) according to the American Psychological Association (APA, 2000; Halle, & Ebata, 2010), is equally characterized by deficits in language, social, and behavioral domains and diagnosed in children before the age of three

Individuals with autism may display repetitive or restrictive as well as challenging behaviors that may occur with greater frequency and higher intensity than other children (American Psychiatric Association, 2004). Oke (2007) added that it is also characterized by difficulties in social interaction, verbal and non-verbal communication in varying degrees. Other characteristics of autistic children according to Brobst et al., (2009); Hoffman, Sweeney, Hodge, Lopez- Wagner, and Looney, (2009); Lee et al., (2009) include cognitive impairments, repetitive behaviors, and self-stimulatory behaviors that can make care giving challenging and exhausting.

Autism is now regarded as a global epidemic. Reports say that it is the 3<sup>rd</sup> most common disability in the world and is four times more prevalent in boys than in girls and knows no racial, ethnic or social boundaries (Smith, Polloway, Patton & Dowdy 2004). The Autism Society of America, (ASA,2000) reported that 70% of ASD are diagnosed as intellectual disability, 50% never developed functional speech, 17% engage in self-injurious behavior, 4 out of 5 are males while 33% have epilepsy.

In Nigeria, particularly, in rural areas, persons with autism and disabilities are thought to be possessed and evil and the level of awareness about autism in Nigeria is pathetically low. According to the Coordinator, Autism Associates in Nigeria, Martins (2007), "Many children in Nigeria with autism are

either not diagnosed or misdiagnosed. Yet, according to him, it is estimated that about one million Nigerians are at risk of ASD. They either end up being hidden at home or clubbed with the deaf, dumb or children with intellectual disability. In rural areas where there are no psychiatric hospitals, majority end up on the streets as insane fellows. Tayo (2012) confirmed that over 1 million people in Nigeria live with autism today and knowledge about the disease is poor. Report of an experience from a visit to a family with an 18-year-old autistic person stated thus:

*“Born autistic, this person showed symptoms which seemed to have increased due to the biological changes brought by the teenage years. When he has one of his episodes, he would get really restless, and often attempt to pull out the television or the microwave. He is on medication to calm him down but on this occasion, he was on a new medication; one that his body was not accustomed to as yet and he would bang his head on surfaces, and throw tantrums” One can only imagine how difficult this is for his parents, his siblings and other people in his world. My aunt, prior to visiting this family, had never heard of autism before and I imagine many others like her as well (Tayo, 2012).*

Families of autistic children may need help in understanding their children's condition and in learning how to work effectively with them (Obiyo, 2011). Tayo (2012) stated that there is need to make people aware that autism is not witchcraft and to show love to these children and their families. Furthermore, because of the repetitive and narrow interests of some children with autism, families may miss opportunities for social engagement because their child is not able to tolerate the environment. For example, families that undertake restaurant outings can be limited because of noise, smells, restrictive diets, and food preferences of the child. Besides, Bakare, Agomuo, Ebigbo & Onyema (2009) opined that the repetitive and aggressive behaviors that can be socially stigmatizing in public often prevent families from participating in community activities. Consequently, Lee et al., (2009), stated that family activities may have to be planned in line with the restricted activities that suit the child and make it possible for the caregivers to be always with him/her. The ability to understand that human behaviors represent the thinking process and inner mental state of an individual seems to be completely missing in the severely affected child with autism and may account for such children treating people as objects and their lack of understanding of basic social interactions (Knapp, Romeo & Beecham, 2010).

There is no definitive cause of ASD though measles, mumps and rubella vaccine has earlier been implicated in its etiology. There is however, no clear evidence to support this according to Sileo et al (2007).

Parenting children with ASD in view of their various characteristics can be stressful. For example, caring for a person with autism not only require more financial resources, commitments, and time but also that these supports are in place over extended periods of time, often for the life span of the individual (Brobst et al., 2009; Lee et al., 2009). Serrata

(2012) in a study on the psychosocial aspects of parenting found that financial stress is also common as treatments for autism are typically expensive. In another study by Baker and colleagues (2003), using a sample of toddlers and their parents, they found a transactional relationship between parenting stress and behavior problems in children with developmental delays. Lounds and colleagues (2007) however, found that maternal distress lessened as the child transitioned from adolescence into young adulthood, while Smith et al (2008) demonstrated no difference in depressive symptoms between mothers of toddlers and adolescents with ASD.

Few studies have examined parenting stress longitudinally across early and middle childhood. In one nationally representative sample, younger child-age (under 6 years of age) was associated with higher levels of parent aggravation (Schieve et al 2011). The only study examining stress across the toddler to preschool years (approximately 28 to 52 months) found no significant change in parental stress or maternal depression (Carter, Martomez-Pedraza & Gray, 2009 Green & Carter, 2011). A longitudinal study by Haisley, (2014) reported that when children were in middle childhood, parents were on the average, experiencing clinically significant level of parenting stress which appeared to be most related to adaptive skills. Green and Carter (2011) found that a positive change in children's daily living skills was related to a decrease in parenting stress after accounting for the age, developmental level, autism severity and problem behaviors.

Epidemiological studies indicate that a substantial minority of all young children, with or without developmental disorders, exhibit problem behaviors at some time that might benefit from intervention (McDougal & Hiralall, 1998; Emerson, 1995). Young children with poor social skills or limited communication, including children with autistic spectrum disorders, are especially at risk for such problems (Borthwick-Duffy, 1996; Koegel et al., 1992). An analysis of five reviews of intervention approaches for the general population of individuals with developmental disabilities, conducted between 1976 and 2000, found that the target behaviors most often addressed in intervention studies were aggression, destruction of property, disruption of activities, self-injury, stereotypic behavior, and inappropriate verbal behavior (Horner et al., 2000). Horner and colleagues' review of applied behavior analysis studies that were published since 1990 and restricted to children with autism between birth and age 8 found that the behavior problems most frequently addressed were tantrums, including crying and shouting; aggression; stereotypic behavior; and self-injury. In autistic spectrum disorders, the intensity, frequency, duration, or persistence of the behaviors distinguish them from similar behaviors of normally developing young children. For example, several studies have shown that self-injurious and stereotyped behaviors occur in normal infants and then decrease, although they do not necessarily disappear, as locomotion develops in these children during the first and second years of life (Thelen, 1979; Werry et al., 1983). Body-rocking occurred in 19 percent and head-banging in 5 percent

of one sample of typical children ages 3 to 6 years (Sallustro & Atwell, 1978). Similar levels of body-rocking have also been reported in normal college students (Berkson et al., 1999; Rafaeli-Mor et al., 1999).

These repetitive movements and potentially self-injurious behaviors are presumed to serve some function in normal development (Berkson & Tupa, 2000). The authors found that about 5 percent of toddlers with developmental disabilities (including autistic spectrum disorders) engaged in head-banging, about the same percentage as reported for typically developing children. The incidence of head-banging with actual injuries in the group with developmental disabilities is presumably greater: between 1.3 and 3.3 percent, depending on the type of measurement. This rate is similar to the prevalence rates reported for older, noninstitutionalized populations of children and adults with developmental disabilities (Rojahn, 1986; Griffin et al., 1987).

A 2011 study in Pediatrics reported by Carey (2012) suggested that autism risk might be higher for siblings born within a few years of an older sibling, with the risk falling as the spacing between pregnancies increased (Closely spaced pregnancies are associated with increased odds of autism in California sibling births). This suggests prenatal environment would be involved in such a risk factor. In a study published on November 30, 2012 in PLoS One, researchers look at the characteristics of autistics born after a first sibling with autism such as measures of intelligence (both verbal and nonverbal), repetitive behaviors and social response and found that younger autistic siblings scored lower on these scales than their older autistic siblings. In other words, the challenges associated with autism tend to be higher for autistic younger siblings.

The fraction of individuals who the researchers deemed “untestable” increased for younger siblings, when about 20% of first autistic siblings were “untestable”, this increased to about 40% for second and third autistic siblings.

Factors that contribute to elevated stress in parents of children with autism include the child’s behavioral problems, lack of adequate professional support, and social attitudes towards individuals with autism. A study conducted by Werner (2006) revealed that lives of persons in families that have children with autism often revolve around dealing with the child’s unusual behaviors. These behaviors may adversely impact on family function. Stigma, which is a social construct defined as a mark of shame or discredit and characterized by guilt and disgrace according to Bristol, Schopler- Schopler and Mesibov (1983) is one of the most difficult aspects of public encounters experienced by parents of children with a disability according to Benson (2006). Parents equally face the problem of poor prognosis, and negative public attitude (Boyd, 2002; Gray, 2002). Other challenges according to Konstatareas and Homatidis (1992); Trigonanki (2002) include increased financial burdens, misconception of the nature of autism and low levels of social support. Availability of services for treatment is limited, even when a proper diagnosis is done (Brown, Ouellette-Kuntz, Hunter, Kelley,

Cobigo and Lam (2011). The question then is, what is the stress of caring for a child with autism on the family and how are the parents coping with the stress?

The stress of living with a child with autism can affect the psychological and emotional wellbeing of parents and generate conflict between them according to McCubbin, Patterson (1983). Specifically, when a member of a family has autism, according to Fein and Dunn (2007), the disability impacts the entire family; parents and siblings. Parents may be impacted emotionally, that is, they go through a grief cycle, marital stress, and social pressure. For siblings, the influence may include negative feelings in terms of resentment toward their sibling, shouldering care-giving responsibility, or a sense of being ignored by their parents.

In a study on the effects of birth order and birth interval on the phenotypic expression of autism spectrum disorder’ by Carey (2012), social and cognitive measures of behavior between over 300 first and second affected siblings within multiplex autism families obtained from the Autism Genetic Resource Exchange dataset were compared. The results indicated that females, especially first affected siblings, were more severely impacted by ASD than males. In addition, Social Responsive Scale results demonstrated a significant increase in autism severity between first and second affected siblings consistent with an overall decline in function as indicated by the IQ data. The SRS scores were however, found to be significant only when the age difference between siblings was less than 2 years.

On the issue of marital stress, Hodapp & Krasner, (1995) reported that parents of children with disabilities had a higher divorce rate, but a study by Urbano and Hodapp (2007) show that this is not always the case. Meadan et al. (2010) reviewed 57 studies concerning the impact of children or youth with autism on their families and found either a negative influence or no difference on the marital subsystem. Brobst et al. (2009) had stated that when couples have a good relationship, dealing with a child’s disability may strengthen and enrich the relationship.

Although awareness about autism has increased in resource rich countries, autism still remains poorly understood by most Kenyans and other people in sub-Saharan according to Africa Network for Prevention and Protection against Child Abuse and Neglect (2007) and Autism Society of Kenya (2007). This is also true in Nigeria according to Bakare, Ebigbo, Agomoh & Menkiti (2008). Martins (2007) stated that in Nigeria, awareness about unseen disabilities such as autism, is nearly non-existent. According to the author, autism is regarded as an unseen disability because it has no physical features (which is a big challenge) and as such, millions of Nigerians living with it are undiagnosed, and there is barely provision for them. Martins further said that there is not a single government owned center for learning for people with autism and those that are set up by individuals are in cities such as Lagos, Abuja, and Port Harcourt. Recently, more privately owned centers have sprang up in Enugu state. The only response by the Government was a proposal that six zonal

autism centers will be established for early detection and treatment of autism as part of federal government's effort to address issues of autism and the training of the regular classroom teachers on methods and techniques of handling children with autism in an inclusive classroom setting. How then do parents cope with the stress of caring for an autistic child?

### **Coping strategies adopted by parents of autistic children**

In a study by Tway, Connolly and Novak (2007) on coping strategies used by parents of children with autism, they found that overall, the level of adaptation was within the normal limits with coping scores similar to the norm scores of the F-COPES with males scoring slightly higher than females in the coping scale. Subscale scores of the F-COPES indicated that the parents sought encouragement and support from friends, informal support from other families who faced similar problems, and formal support from agencies and programs. The authors further stated that reframing revealed similar results as the norm with less use of spiritual support, and more passive appraisals were noted from the parents of children with ASD. Within internal comparisons, there were no statistical differences among gender and amount of time a member spent in coordination of services.

In a study to investigate coping skills of parents of children with disabilities and its implications for service providers, Hughes (1999) used ethnographic methods to evaluate the coping mechanisms of parents of children with disabilities and found that families who were active in church received ministry from the church, which enabled them to cope with stress and have a positive outlook for their child. The authors conclude that service providers who use family-centered planning can utilize and encourage the religious practices of the family as a resource.

In addition to the strategies listed by authors, the office on Women's Health, U.S. Department of Health and Human Services (2009) suggests that parents should become experts on their child's disability, locate resources or programs to assist the child, communicate with family and co-parent about how they are feeling. Parents should also communicate and reach out to other parents of children with similar disabilities (social support), consider joining a support group (on- or offline), try to stick with a daily routine, take one moment at a time and take care of themselves. Parents can be taught standard operant learning procedures such as cueing, prompting, positively reinforcing and extinguishing behavior. An early study using these techniques by Lovass, Koegel, Simond and King (1973) reported that 13 children who learned these skills either as in or outpatients who after the treatment went to another school where those skills were not used, lost most of the skills but those whose parents were also trained maintained some skills and in some cases, continued to make progress. A more recent report by Smith, Groen and Wynn (2000) assigning 28 children to either parent training in behavioural techniques or to intensive behavioural treatment

by student therapist found that intensive treatment group scored higher in IQ test, visual-spatial skills and some aspects of language.

Teaching parents to understand the nature of autism, providing both specific and general approach skill development and behavior management, identifying and facilitating individualized interventions for each family and introducing parents to supportive welcoming network of professional and other parents who understand and appreciate ASD and the difficulties can help parents cope well (Marcus, 1977). This of course, should be the intervention by counsellors and special education professionals.

### **METHODOLOGY**

Self-report questionnaires which included biography of the respondents were completed by the parents of 34 families whose children attended a special school for persons with special needs in Nsukka and Enugu city in Enugu State, Nigeria. Interview schedule was also used to elicit information on sources of stress and coping strategies.

The study investigated challenges faced by parents and how they cope with those challenges. A purposive-convenience sampling procedure was used in selecting 34 parents from the special school in Nsukka and Enugu city in Enugu state of Nigeria. A digital recorder was used to record all the interviews. Transcriptions were done in English. Data collected were analyzed using mean and standard deviation while Analysis of Variance (ANOVA) was used to test the null hypotheses at 0.05 level of significance.

The main purpose of the study was to investigate

1. The extent of stress experienced by parents of children with autism based on age of the child
2. The extent of stress experienced by parents of children with autism based on the birth order of the child
3. The extent parents cope with parenting stress based on age and birth order of the child.

The following research questions guided the study.

1. To what extent does caring for children with autism stress their parents based on birth order?
2. To what extent does caring for children with autism stress their parents based on age of the child?
3. To what extent do parents cope with the stress of parenting children with autism based on age and birth order?

### **Hypotheses.**

1. Birth order will not influence the extent of parental stress significantly.
2. Age of children will not significantly influence the extent of parental stress.
3. Age and birth order will not significantly influence the parents' coping strategy

**RESULTS**

**Table I.** Mean responses on sources of stress for parents of children with autism based on age

AGEOFTHECHILD	SOURCESOFSTRESS	
1-3YEARS	Mean	3.26
	N	17
	Std. Deviation	.41
4-6YEARS	Mean	3.44
	N	13
	Std. Deviation	.30
7-9YEARS	Mean	3.36
	N	3
	Std. Deviation	.32
10YEARS AND ABOVE	Mean	3.26
	N	6
	Std. Deviation	.31
Total	Mean	3.33
	N	39
	Std. Deviation	.35

Result on table 1 shows that mean scores are; 3.26, 3.44, 3.36, and 3.26 for 1-3 years, 4-6years, 7-9 years and 10 years above. This shows that there is not much difference between age of child and extent of stress for parents.

**Table II.** Anova table on extent of stress of parents of children with autism based on age

			Sum of Squares	df	Mean Square	F	Sig.
SOURCESOFSTRESS	* Between Groups	(Combined)	.258	3	.086	.685	.567
AGEOFTHECHILD	Within Groups		4.400	35	.126		
	Total		4.658	38			

The result on table II shows that an F ratio of .685 with an associated significance value of .567 is higher than the bench mark of 0.05. This implies that age of child does not significantly influence the extent of parental stress.

**Table III:** Mean responses on extent of stress based on birth order.

BIRTHORDEROFTHECHILD	EXTENTOFSTRESS
Mean	3.26
N	20
Std. Deviation	.41
Mean	3.26
N	7
Std. Deviation	.31
Mean	3.51
N	8
Std. Deviation	.13
Mean	3.40
N	4

Std. Deviation	.36
Mean	3.33
N	39
Std. Deviation	.35

Result in table III show that the mean scores are; 3.26, 3.26, 3.51 and 3.40 for the 1st, 2<sup>nd</sup>, 3<sup>rd</sup> and last child respectively. This shows that all parents experience high level of stress with the 3<sup>rd</sup> child being the most stressful. The overall mean score of 3.33 confirms high level of parental stress.

		Sum of Squares	df	Mean Square	F	Sig.
SOURCESOFSTRESS	* Between Groups	(Combined) .401	3	.134	1.099	.363
BIRTHORDEROFTHECHILD	Within Groups	4.257	35	.122		
	Total	4.658	38			

**Anova table on extent of stress based on birth order of the child.**

**Table IV;** Anova table on extent of stress based on birth order

Result in table IV shows that an F ratio of 1.09 with an associated significance value of .363 is higher than the bench mark of 0.05. This implies that birth order does not significantly influence the extent of parental stress.

AGEOFTHECHILD		Extent OFSTRESS	COPING
1-3YEARS	Mean	3.2598	3.4647
	N	17	17
	Std. Deviation	.40492	.36045
4-6YEARS	Mean	3.4359	3.3231
	N	13	13
	Std. Deviation	.30268	.45121
7-9YEARS	Mean	3.3611	3.5000
	N	3	3
	Std. Deviation	.31549	.17321
10YEARS AND ABOVE	Mean	3.2639	3.2667
	N	6	6
	Std. Deviation	.30920	.45019
Total	Mean	3.3269	3.3897
	N	39	39
	Std. Deviation	.35012	.39323

Result in Table V shows that parents of children 1-3 years of age have a mean score of 3.26 indicating very great extent of stress and 3.46 on coping which shows that they cope to a very great extent. Parents of children between 4-6 years have mean scores of 3.44 on the extent of stress and 3.32 on coping. Parents whose children are 7-9 years have mean scores of 3.36, on extent of stress and 3.50 on coping. Parents of children 10 years and above have mean scores of 3.26 and 3.27 on extent of stress and coping respectively.

**Table VI . ANOVA Table on extent of stress and coping based on age of the child.**

			Sum of Squares	Df	Mean Square	F	Sig.
EXTENT OFSTRESS * AGEOFTHECHILD	Between Groups	(Combined)	.258	3	.086	.685	.567
	Within Groups		4.400	35	.126		
	Total		4.658	38			
COPINGSTRATEGIES * AGEOFTHECHILD	Between Groups	(Combined)	.281	3	.094	.585	.629
	Within Groups		5.595	35	.160		
	Total		5.876	38			

Result in table V shows that the F ratio values and associated significance value are; .685 and .567 for extent of stress, .585 and .629 for coping. These values are above the benchmark of 0.05 implying that age of the child does not influence the extent of stress and coping.

**TABLE VI: Extent of stress and coping based on birth order of the child.**

BIRTHORDEROFTHECHILD		EXTENTOFSTRESS	COPING
1 <sup>ST</sup>	Mean	3.2625	3.3750
	N	20	20
	Std. Deviation	.40939	.41533
2 <sup>ND</sup>	Mean	3.2619	3.5143
	N	7	7
	Std. Deviation	.30968	.42984
3 <sup>RD</sup>	Mean	3.5104	3.2500
	N	8	8
	Std. Deviation	.12939	.37796
LAST	Mean	3.3958	3.5250
	N	4	4
	Std. Deviation	.35600	.22174
Total	Mean	3.3269	3.3897
	N	39	39
	Std. Deviation	.35012	.39323

Result on table VI show that from the child's birth order, extent of parental stress has mean scores of 3.26, 3.26, 3.51, 3.40 for the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and last child respectively. Coping has mean scores 3.38, 3.51, 3.25, 3.53 for the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and last child respectively.

**Table VII. ANOVA Table on extent of stress and coping based on birth order of the child.**

			Sum of Squares	df	Mean Square	F	Sig.
SOURCESOFSTRESS * BIRTHORDEROFTHECHILD	Between Groups	(Combined)	.401	3	.134	1.099	.363
	Within Groups		4.257	35	.122		
	Total		4.658	38			
COPINGSTRATEGIES * BIRTHORDEROFTHECHILD	Between Groups	(Combined)	.342	3	.114	.722	.546
	Within Groups		5.534	35	.158		
	Total		5.876	38			

Result in table VII shows that F ratio and associated significance values for extent of stress and coping are; 1.099 and .363, .722 and .546, respectively. All the associated significant values are above the bench mark of 0.05. In effect, Birth order of the child does not significantly influence the extent of stress and coping of parents of children with autism.

## DISCUSSION OF FINDINGS

The study set out to investigate the extent of stress experienced by parents of children with autism and the extent of coping with the stress. Age and birth order of the child were investigated as intervening variables.

Result on table 1 on the extent of stress experienced by parents of children with autism shows that mean scores are; 3.26, 3.44, 3.36, and 3.26 for 1-3 years, 4-6 years, 7-9 years and 10 years above. The families all experience stress to a very great extent. The hypothesis testing however shows that an F ratio of .685 with an associated significance value of .567 is higher than the bench mark of 0.05 implying that age of child does not significantly influence the extent of parental stress. This finding lends credence to the report of a study by Baker and colleagues (2003), using a sample of toddlers and their parents, that there is a transactional relationship between parenting stress and behavior problems in children with developmental delays. In other words, child behavior problems predicted higher levels of stress which in turn contributed to increasing child behavior problems. Lounds and colleagues (2007) however, found that maternal distress reduced as the child transitioned from adolescence into young adulthood, while Smith et al (2008) demonstrated no difference in depressive symptoms between mothers of toddlers and adolescents with ASD. Result of longitudinal study of parenting stress across early and middle childhood using a nationally representative sample, revealed that younger child-age (under 6 years of age) was associated with higher levels of parent aggravation (Schieve et al 2011). A longitudinal study by Haisley (2014) reported that when children were in middle childhood, parents were on the average, experiencing clinically significant level of parenting stress which appeared to be most related to adaptive skills.

The data in Table 7, present analysis of variance on the basis of the age of the children with Autism Spectrum Disorder. The findings indicate that for stress level of parents, the F value is 45.83, which is significant at .000 level, indicating that for parents, the level of stress was higher when dealing with adolescent children in comparison with pre- adolescent children. Bristol and Schopler [1983] also found that family impacts increase in severity as the child reaches adolescence, primarily attributable to the realization of the permanency of the child's handicaps and the emergence of deep worries about the child's future and the services that will be needed. Although parents of children with autism experience elevated levels of distress, their parenting stresses appear to increase and intensify after the child reaches adolescence. Green and Carter (2011) found that a positive change in children's daily living skills was related to a decrease in parenting stress after accounting for the age, developmental level, autism severity and problem behaviors.

When birth order is considered, result in table III shows that the mean scores are; 3.26, 3.26, 3.51 and 3.40 for the 1st, 2nd, 3<sup>rd</sup> and last child respectively. This implies that parents experience stress to a very great extent when the child is the third and great extent with the other children. Hypothesis testing shows that an F ratio of 1.09 with an associated significant value of .363 is higher than the bench mark of 0.05

implying that birth order does not significantly influence the level of parental stress. This finding supports the report of a study on the effects of birth order and birth interval on the phenotypic expression of autism spectrum disorder by Carey (2012). The study compared the social and cognitive measures of behavior between over 300 first and second affected siblings within multiplex autism families obtained from the Autism Genetic Resource Exchange dataset and found that females, especially first affected siblings, were more severely impacted by ASD than males. In addition, Social Responsive Scale (SRS) results demonstrated a significant increase in autism severity between first and second affected siblings consistent with an overall decline in function as indicated by the IQ data. The SRS scores were however, found to be only when the age difference between siblings was less than 2 years. The fact that there is a difference in the severity of autism between the first and second affected siblings and overall decline in function is enough to increase the stress level of the parents. Having to cope with an autistic child is enough hassle and when they are two or more, the stress may be greater.

On coping with the stress of parenting children with autism, result in Table IV shows that parents of children 1-3 years of age have a mean score of 3.46, Parents with children 4-6 years of age have mean a score of 3.32 while Parents whose children are 7-9 years have a mean score of 3.50 and Parents of children 10 years and above have a mean score 3.27. The result tends to show that parents of children 7-9 years of age appear to cope to a very great extent with the stress of parenting their autistic children. This is in line with the report of a study published in PLoS One, where researchers looked at the characteristics of autistics born after a first sibling with autism such as measures of intelligence (both verbal and nonverbal), repetitive behaviors and social response and found that younger autistic siblings scored lower on these scales than their older autistic siblings. In other words, the challenges associated with autism tend to be higher for autistic younger siblings. For parents of autistic children aged 10 years above to have stress to a great extent may be as a result of the report that when parents grow older, their stress comes from thoughts of the future of their growing autistic children and the services they need.

Hypothesis testing result in table V shows that the F ratio values and associated significance value of 585 and .629 for coping strategies is above the benchmark of 0.05 implying that age of the child does not influence the extent of coping significantly. This may be due to the fact that all the parents coped with the stress to a great extent with only parents whose children are 7-9 years that coped to a very great extent. In a study by Bristol and Schopler [1983], it was revealed that family impacts increase in severity as the child reaches adolescence, primarily attributable to the realization of the permanency of the child's handicaps and the emergence of deep worries about the child's future and the services that will be needed. This may influence their extent of coping.

Result in table VI shows that according to the child's birth order, coping has mean scores 3.38, 3.51, 3.25, 3.53 for the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and last child respectively. Hypothesis testing result in table vi shows that the F ratio and associated significance

values for coping is .722 and .546, which are above the benchmark of 0.05. In effect, birth order of the child does not significantly influence the extent of coping of parents with autistic children.

## CONCLUSION

Although parents of children with autism experience elevated levels of distress, their parenting stress appears to increase and intensify after the child reaches adolescence. This from literature is a result of the worry about the future of the child and the services that will be needed coupled with the fact that their parents are equally aging and may not be able to care for them as they used to do at a younger age. Parents cope to some extent, with the situation. Age of the child and birth order do not significantly influence parents' level of stress and coping strategy.

## Implication for practice.

There is need for professionals in Counselling and special education to be in constant contact with the parents of children with autism to enable them cope better with the stress of caring for these children. This may involve constant review of the behavior pattern of the children to enable parents understand autism better, teach basic operant behavior management techniques like prompting, cueing and reinforcement among others, organizing parents into self-support groups in their locality to enable them share their experiences and support each other for their wellbeing and that of their children. The counsellor can also link parents with special schools and other supporting agencies to alleviate their caring burden.

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