

# CASUAL COMPARATIVE STUDY: PARENTERAL STRESS, MENTAL HEALTH & RESILIENCE AMONG CHILDREN'S WITH ATTENTION DEFICIT HYPERACTIVE DISORDER & NORMAL CHILDREN & ROLE OF PSYCHIATRIC SOCIAL WORKER

## **Dr. M. R. NAYAK, MD**

Associate Professor, Department of Psychiatry, SCB MCH.

## **Dr. A. B. JENA, MD**

Associate Professor, Designate, Department of Emergency Medicine, SCB MCH.

## **S. K. DASH**

M. Phil, Psychiatric Social Worker.

## **Dr. M. DASH**

Phd, Assistant Professor, Psychology, JKBK Govt. College, Cuttack, Affiliated to Utkal University.

### **Abstract:**

Raising a child with ADHD is challenging because ADHD symptoms are linked to dysfunctional behaviors (e.g. non-compliance to a parent's instructions, distractibility that prevents task completion) yielding high levels of friction for family life (Gupta et al, 2007). Some aspects of this tension can be conceptualized as parenting stress, which has been defined as the demands, consequences, responsibilities, and difficulties related to caring for a child with special needs (Brannan et al, 1997). In general, stress has been defined as "an external load or demand on a biological, social, or psychological system" (Lazarus et al, 1993). In order to achieve homeostasis, people utilize coping mechanisms to either change the stressor or the interpretation of the stressful situation. Parenting stress can motivate parents to use various resources to support their parenting (Mash et al, 1990). Without proper coping resources, the stress of raising a child with ADHD can cause strain on the parent's mental health. Identifying candidate moderators that exacerbate or diminish parenting stress and strain, in order to improve psycho educational and other treatment interventions to favor family well-being and reduce parental distress, is potentially beneficial for both parents and their offspring.

**Keywords:** Parenteral Stress, Psychiatric Social Work, Mental Health, Adhd, I,li,lii, Dsm, Icd, Icd-10-Cm Adhd, F90 – F98, Z80-Z87, Working Diagnosis, Defect Of Moral Control, Hyperkinetic Disease Of Infancy, Hyperkinetic Reaction Of Child Hood, Dsm-iii-R, Dsm-iv, Dsm-iv-Tr, Resilience, Psi, Resilience Scale,Cd0risc, Medicinae Doctor, Doctor Of Medicine, Neuro Psychiatry, Emergency Medicine, Trauma Care, Emergency Psychiatry

### **Theoretical background**

Attention deficit hyperactivity disorder (ADHD) is a common childhood neurodevelopment condition. A child is recognized as having ADHD when inattention, impulsivity, and hyperactivity behaviors cause a disruption of successful functioning in daily activities. Due to these main features of the disorder, children with ADHD are usually at greater risk of

poorly managing life's domains, including self-care (e.g., the performance of morning routines) productivity (e.g., low academic achievement) and leisure (e.g., developmentally inappropriate playing skills) . Hence, ADHD disrupts a child's everyday life, including play, which is the child's medium through which he/she develops and interacts with the surrounding environment. (Jasem et al., 2019)

### **According American Psychiatric Association:**

The American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) provides standardized diagnostic criteria and clinical guidelines for use in the comprehensive evaluation for ADHD. The DSM-5 describes the essential feature of ADHD as a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development. In DSM-5, ADHD is determined based on the patient's age, the number and severity of symptoms, the duration of symptoms, the presence of symptoms in two or more settings (i.e., home, school, work), and evidence of symptoms interfering with or reducing the quality of life, social, academic, or occupational functioning. Also, clinicians must be able to determine whether the symptoms are caused by other conditions or are influenced by co-existing conditions.

### **According to DSM-5**

The DSM-5 edition, released in 2013, incorporated ADHD diagnostic criteria updates, which resulted in more age-appropriate and slightly broadened diagnostic criteria that affects how the disorder is diagnosed in older adolescents and adults.

Noteworthy DSM-5 ADHD diagnostic criteria updates in this area include:

- ADHD was moved to the neurodevelopment disorders chapter to better reflect how brain development correlates with ADHD. Thus, with the introduction of DSM-5, ADHD is no longer classified as a childhood disorder but as a chronic lifelong disorder.
- Adult symptom examples have been added to the diagnostic criteria to facilitate diagnosing ADHD across the life span rather than just in childhood.
- The age of onset was updated from "symptoms that caused impairment were present before age 7 years" to "several inattentive or hyperactive-impulsive symptoms were present prior to age 12"
- DSM-5 classifies ADHD in three presentations:
  - Predominantly Inattentive Presentation
  - Predominantly Hyperactive-Impulsive Presentation
  - Predominately Combined Presentation

In addition to the ADHD presentation, DSM-5 further classifies the ADHD severity of the present symptoms as “mild,” “moderate,” or “severe.”

### **According ICD-10**

ICD-10-CM ADHD codes are classified in Chapter 5: Mental, Behavioral and Neurodevelopment disorders. This chapter provides a coding note which states, “Codes within categories F90-F98 may be used regardless of the age of a patient. These disorders generally have onset within the childhood or adolescent years, but may continue throughout life or not be diagnosed until adulthood.”

ICD-10-CM codes for ADHD include:

- F90.0, Attention-deficit hyperactivity disorder, predominantly inattentive type
- F90.1, Attention-deficit hyperactivity disorder, predominantly hyperactive type
- F90.2, Attention-deficit hyperactivity disorder, combined type
- F90.8, Attention-deficit hyperactivity disorder, other type
- F90.9, Attention-deficit hyperactivity disorder, unspecified type

The ADHD diagnosis is not established at the time of the initial physician office visit. Therefore, it may take two or more visits before the diagnosis is confirmed or ruled out. ICD-10-CM outpatient coding guidelines specify not to assign a diagnosis code when documented as “rule out,” “working diagnosis,” or other similar terms indicating uncertainty. Instead, the outpatient coding guidelines specify to code the condition(s) to the highest degree of certainty for that encounter/visit, which may require using symptoms, signs, or another reason for the visit.

Also, outpatient coding guidelines state that history codes (categories Z80 – Z87) may be used as secondary codes if the historical condition or family history has an impact on current care or influences treatment. Personal and family history of ADHD has an impact on the clinical assessment of an individual for this disorder; the ICD-10-CM codes to report the history of ADHD in an individual include:

- Z86.59, Personal history of other mental and behavioral disorders
- Z81.8, Family history of other mental and behavioral disorders

### **The history of attention deficit hyperactivity disorder**

However, an analysis of historical literature suggests that children presenting with symptoms of inattention, hyperactivity, and impulsivity have previously been described by several authors during the last 200 years. The clinical characterizations, underlying concepts, and nomenclature of the described dysfunctions have changed over the time. Many of the historical descriptions are, however, consistent with the modern diagnostic criteria for ADHD, are follows below.

- **The incapacity of attending with a necessary degree of constancy to any one object (Sir Alexander Crichton, 1763–1856)**

The first example of a disorder that appears to be similar to ADHD was given by Sir Alexander Crichton in 1798. Crichton was a Scottish physician who was born in Edinburgh in 1763. In 1785, he received his M.D. from the University of Leiden, The Netherlands (Palmer et al, 2001).

Crichton emphasizes that the intensity of healthy attention varies within a normal range both between individuals and even within a person at different times .A distraction of attention does not necessarily have to be pathological, e.g. mental stimuli, volition, or education can have a great impact on healthy attention. Crichton distinguishes two possibilities of abnormal inattention as the oppositional poles of pathologically increased or decreased “sensibility of the nerves” (Crichton et al, 1798):

The morbid alterations, to which attention is subject, may all be reduced under the two following heads:

- First. The incapacity of attending with a necessary degree of constancy to any one object.
- Second. A total suspension of its effects on the brain.

The incapacity of attending with a necessary degree of constancy to any one object, almost always arises from an unnatural or morbid sensibility of the nerves, by which means this faculty is incessantly withdrawn from one impression to another. It may be either born with a person, or it may be the effect of accidental diseases.

When born with a person it becomes evident at a very early period of life, and has a very bad effect, inasmuch as it renders him incapable of attending with constancy to any one object of education. But it seldom is in so great a degree as totally to impede all instruction; and what is very fortunate, it is generally diminished with age. (Crichton et al, 1798)

- **Fidgety Phil (Heinrich Hoffmann 1809-1894)**

In 1844, the German physician Heinrich Hoffmann created some illustrated children’s stories including “Fidgety Phil”, who is nowadays a popular allegory for children with ADHD. Hoffmann’s script is an illustrated children’s book and he is therefore unlikely to have intended to address a broad medical readership and to describe a pathological condition. Since at his time the symptoms of inattention and hyperactivity were not established as a psychiatric disorder, Hoffmann may have presented observations of conspicuous behavior without considering describing a disorder. One cannot conclude whether or not Hoffmann’s described a case of ADHD in the early nineteenth century, since the story of Fidgety Phil is too short and the depicted behavioral features are not

sufficient to establish the diagnostic criteria of ADHD. Fidgety Phil has nevertheless become a commonly used allegory for ADHD.

- **Defect of moral control (Sir George Frederic Still,1868-1941)**

The Goulstonian Lectures of Sir George Frederic Still in 1902 are by many authors considered to be the scientific starting point of the history of ADHD (Barkley et al,2006). Still was a British pediatrician who was born in Highbury, London, in 1868. He became involved in research into childhood diseases and wrote several medical textbooks about his findings (Farrow et al, 2006). Still argued that a “lack of moral control may be shown in many ways” (Still et al, 1902). The symptoms listed are:

(1) passionateness (2) spitefulness – cruelty (3) jealousy (4) lawlessness; (5) dishonesty; (6) wanton mischievousness – destructiveness; (7) shamelessness – immodesty; (8) sexual immorality; and (9) viciousness. The keynote of these qualities is self-gratification, the immediate gratification of self without regard either to the good of others or to the larger and more remote good of self. (Still et al., 1902).

Still’s demonstration of a connection between brain damage and deviant behavior in children was highly influential regarding the further conceptualization of ADHD.

- **Hyperkinetic disease of infancy (Franz Kramer 1878-1967,and Hans Pollnow 1902-1943)**

In 1932, the German physicians Franz Kramer and Hans Pollnow reported “On a hyperkinetic disease of infancy” .The most characteristic symptom of affected children was a marked motor restlessness. The authors point out that the symptoms of this “hyperkinetic disease” had previously been observed and described by several authors, but the disorder had not been distinguished from other diseases with similar symptoms, such as the residual effects of the encephalitis lethargic epidemic. In their cases, the authors observed no bodily symptoms, sleep disturbances, or nocturnal agitation, which were specific to the post encephalitic behavior disorder .In contrast to the post encephalitic motor drive, the restlessness observed in the cases of Kramer and Pollnow could be observed only by day (Kramer et al.,1932). The main symptoms of the “hyperkinetic disease” as described by Kramer and Pollnow are very similar to the current concept of ADHD.

- **Hyperkinetic reaction of childhood(1968,second edition of the diagnostic and statistical manual of mental disorder:DSM-11)**

In addition, DSM-III introduced “an explicit numerical cutoff score for symptoms, specific guidelines for age of onset and duration of symptoms, and the requirement of exclusion of other childhood psychiatric conditions” (Barkley et al.,2006).

- **Attention deficit hyperactivity disorder (1987, revision of the third edition of the diagnostic and statistical manual of mental disorder: DSM-III-R)**

In order to further improve the criteria, in particular with respect to empirical validation, the revision of the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R) in 1987 removed the concept of two subtypes and renamed the disorder “Attention deficit-Hyperactivity Disorder (ADHD)”. The symptoms of inattention, impulsivity, and hyperactivity were combined into a single list of symptoms with a single cutoff score. The symptoms were empirically derived by rating scales and a field trial (Barkley et al, 2000). The subtype “ADD without hyperactivity” was removed and assigned to a residual category named “undifferentiated ADD” (Rothenberger et al, 2005).

- **Attention deficit hyperactivity disorder (1994, fourth edition of the diagnostic and statistical manual of mental disorder: DSM-IV)**

The American Psychiatric Association accredited the diagnosis of ADHD in adulthood by including examples of workplace difficulties in the depiction of symptoms. “Based on a much larger field trial than any of their predecessors, the DSM-IV criteria for ADHD are the most empirically based in the history of this disorder” (Barkley et al., 2006).

- **Attention deficit hyperactivity disorder (2000, text revision of the fourth edition of the diagnostic and statistical manual of mental disorder: DSM-IV-TR)**

In order to bridge the span between DSM-IV and DSM-V, a text revision of the fourth edition of the DSM was undertaken in 2000 (American Psychiatric Association 2000). The main goals were to “maintain the currency of the DSM-IV text” (American Psychiatric Association 2009) and to correct any errors identified in the DSM-IV text. “Thus, most of the major changes in DSM-IV-TR were confined to the descriptive text” (American Psychiatric Association 2009). The definition of ADHD has therefore not been changed. A new edition of the DSM is in progress. Critics have called for a validation of ADHD in adults (Fischer et al, 2007). Since the DSM-IV field trials for ADHD included only children and adolescents up to the age of 17 (Lahey et al. 1994), the utility of the DSM-IV criteria in the diagnosis of adults with ADHD has been challenged (Fischer et al, 2007). The publication of the fifth edition of the DSM is not scheduled until 2012.

Parenting stress has been shown to be higher in parents raising a child with ADHD compared to parents raising a child with another disorder/illness or a healthy child (Fischer et al, 1990). Compared to the normative data, parents with children with ADHD demonstrated elevated levels of parenting stress (Anastopoulos et al., 1992). Low-income and ethnically diverse parents raising a child with ADHD or with a developmental disability also had greater overall stress than parents raising a child with HIV or asthma (Gupta et al, 2007). Furthermore, middle-class mothers raising a child with ADHD reported significantly greater parenting stress related to child characteristics than mothers raising a child with a learning disability or a child without any handicapping condition (Baker et al, 1995). When compared to mothers of healthy children, mothers of “hyperactive” children reported more stress on the Parenting Stress Index (Theule et al., 2013).

## Parental Stress and ADHD

Parental stress is a complex construct involving behavioral, cognitive and affective components that manifest into a tense child-parent relationship (Kadesjö et al 2002). For example, the child's behavior and the parent's reaction to this behavior cause negative thoughts and emotions. Stress and poor parent-child interaction increases when the parent tries to deal with the child's behavior unsuccessfully. 6 For parents, the challenges that accompany an ADHD child's condition are various: for instance, financial strain might result from expensive medications being prescribed and from special schooling being required if functional impairment is within the realm of learning and academic achievement; social stress might result from trying to gain acceptance, or avoid blame, in a society that stigmatizes any form of abnormal behavior; relationship stress might result from difficulties associated with imposing a daily routine and discipline on the ADHD child (Austin et al,2008). These stressors can result in mental health difficulties for parents. In a family where one of the primary caregivers is morbidly depressed as a consequence of ADHD-related stress and he or she is not able to complete childcare tasks, the children's basic daily needs might be neglected. Clearly, it is of extreme importance that researchers and clinicians recognize and address parental stress as a way to go about developing interventions that might minimize the strain on these families. Empirical studies investigating parental stress in families of an ADHD child have generally found that parents are extremely stressed, may have difficulty accepting their child's disability, and may experience more difficulties in the marital relationship than in non-ADHD families. Researcher investigated how mothers of children with ADHD perceived their situation and whether these perceptions affected their stress levels. Two groups of mothers of 3-7 year-olds (one group with an ADHD child, n = 131, and the other without an ADHD child, n = 131) filled out self-report questionnaires designed to assess their levels of stress, their evaluation of the child-rearing situation, attributions surrounding childrearing outcomes, and perceptions and expectations of support and resources (Kadesjö et al. 2002). The researchers found that mothers of ADHD children scored significantly higher than mothers of healthy children on all measures of perceived stress. For example, they tended to experience many more difficulties coping with and accepting their child, and often perceived their child as a burden. Importantly, the authors emphasized that stress may not have been exclusively due to the child's problems or functioning. Situational factors such as education level, financial support and how the mothers perceived their position and resources all need to be taken into account when analyzing overall stress (Cheesman et al., 2011).

Parenting stress can be described as stress that arises when a parent's perceptions of the demands of parenting exceed their resources to deal with them (Deater et al.,1998). Increased parenting stress is associated with numerous negative outcomes for children with ADHD and their parents, including:

- The worsening of a child's ADHD symptoms,

- Reduced response to intervention,
- Reduced quality of the parent-child relationship
- And decreased parental psychological well-being (Johnston et al, 2013).

ADHD causes children to be more distractible, hyperactive, and impulsive than is normal for their age. ADHD makes it harder for children to develop the skills that control attention, behavior, emotions, and activity. As a result, they often act in ways that are difficult for parents manage.

For example, because they are **distractible**, children with ADHD may:

- seem not to listen
- have trouble paying attention
- not follow directions well
- need many reminders to do things
- show poor effort in schoolwork

Because they are **hyperactive**, children with ADHD may:

1. climb, jump, or roughhouse when it's time to play quietly
2. be disorganized or messy
3. fidget and seem unable to sit still
4. rush instead of take their time
5. make careless mistakes

Because they are **impulsive**, children with ADHD may:

- interrupt a lot
- do things without thinking
- do things they shouldn't, even though they know better
- have trouble waiting, taking turns, or sharing
- have emotional outbursts, lose their temper, or lack self-control

At first, parents might not realize that these behaviors are part of ADHD. It may seem like a child is just misbehaving. ADHD can leave parents feeling stressed, frustrated, or disrespected. Parents may feel embarrassed about what others think of their child's behavior. They may wonder if they did something to cause it. But for kids with ADHD, the skills that control attention, behavior, and activity don't come naturally. When parents



learn about ADHD and which parenting approaches work best, they can help kids improve and do well.

### **Prevalence of attention-deficit hyperactivity disorder in India**

Currently, there are no nationwide data with regard to the prevalence of ADHD among children and adolescents in India. This systematic review and meta-analysis conducted to review the cross-sectional studies done in the past for 10 years (2009–2019). Very few studies could be added in the systematic review and meta-analysis due to the scarcity of the resources. The review included 14 studies comprising of 20143 people (children and adolescents).

The pooled prevalence of ADHD among children and adolescents is 7.1% (95% CI: 5.1% to 9.8%). The prevalence calculated by the current review is consistent with another review done in the neighboring country China. According to Wang et al. the point prevalence of ADHD reported in the included studies ranged from 0.73% to 14.40% with a pooled prevalence of 6.26% (95% CI: 5.36-7.22%). According to another study the overall mean of worldwide prevalence of ADHD is 2.2% (range: 0.1-8.1%) has been estimated in children and adolescents (aged < 18 years). According to the overall worldwide prevalence of ADHD among individual below 18 yearsof age is 5.29%. The summarized prevalence of ADHD is observed more among males 9.40% (95% CI 6.50% to 13.30%;  $I^2 = 96.07\%$   $P < 0.001$ ) than females 5.20% (95% CI 3.40% to 7.70%;  $I^2 = 94.17\%$   $P < 0.001$ ). This is consistent with the finding of another study by Ramtekkar et al. which also explains the prevalence of ADHD among males (12.58%) is more than that among the females (5.52%). The age of prevalence of ADHD among children and adolescents ranges from 8 to 15 years among male children and 7.6–15 years among female. Further, it was also observed that the differences in the instrument and diagnostic criteria of ADHD among children and adolescents by various researchers also influenced the result of the study. The prevalence of ADHD among children and adolescents in different epidemiological studies may be overestimated or underestimated as the researchers used different scales and instruments to observe the phenomena. The geographical location of the study is also a major factor in the determination of the prevalence of ADHD among children and adolescents and in this review only few studies from selected Indian States were included due to the limited availability of quality scientific studies (Joseph et al, 2019).

### **Resilience**

Resilience is used to refer to general coping skills and mechanisms that help with the common challenges of everyday life. However, in both academic and practice contexts, the key feature of resilience are usually a capacity to deal with severe adversity, so that two crucial conditions need to be present (Luthar et al., 2000).

- A significant threat or difficult circumstances

- Positive adaptation.

It is this analysis of differentiated responses to adversity that offers something over and above conventional developmental psychology, attachment theory and assessments of children's needs. Definitions of resilience include the following, with different emphases and elements: ...

- Normal development under difficult circumstances. (Fonagy et al., 1994)
- The ability of some individuals to maintain healthy functioning in spite of a background of disadvantage commonly associated with poor outcomes. (Ghate et al., 2002)
- Developing well despite risk status or exposure to adversity. (Masten et al., 2003)
- When, against common expectancies, children maintain development within, or accelerate markedly after, adverse situations. (Clarke and Clarke et al., 2003)

## REVIEW OF LITERATURE

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### 4. Brief Description of Studies Assessing the Parental stress of ADHD children

#### 4.1 Brief Description of Studies Assessing the Resilience of ADHD children

## 1. INTRODUCTION

Raising a child with ADHD is challenging because ADHD symptoms are linked to dysfunctional behaviors (e.g. non-compliance to a parent's instructions, distractibility that prevents task completion) yielding high levels of friction for family life (Gupta et al, 2007). Some aspects of this tension can be conceptualized as parenting stress, which has been defined as the demands, consequences, responsibilities, and difficulties related to caring for a child with special needs (Brannan et al, 1997). In general, stress has been defined as "an external load or demand on a biological, social, or psychological system" (Lazarus et al, 1993). In order to achieve homeostasis, people utilize coping mechanisms to either

change the stressor or the interpretation of the stressful situation. Parenting stress can motivate parents to use various resources to support their parenting (Mash et al, 1990). Without proper coping resources, the stress of raising a child with ADHD can cause strain on the parent's mental health. Identifying candidate moderators that exacerbate or diminish parenting stress and strain, in order to improve psycho educational and other treatment interventions to favor family well-being and reduce parental distress, is potentially beneficial for both parents and their offspring.

## 2. Parenting

Parenting is influenced by, and influences several parent, child, and contextual factors. Belsky (1984) offers a process model of the determinants of parenting that suggests that parenting is impacted by the parent's own developmental history, the parent's personality, marital relations, parental work, the parent's social network, and the child's characteristics. In turn, parenting is proposed to affect child development. Belsky's model focuses on parenting behavior, as opposed to internal cognitive or affective aspects of parenting. The determinants of parenting in his model include both external constructs, such as work, and internal constructs, such as personality. In Belsky's examples he links cognitive constructs (e.g. mother's esteem for their husbands) to their behavioural outcomes in parenting (praise for children). The outcome of Belsky's model of parenting is child development, mainly defined in terms of child competence. Belsky's description of child characteristics is less developed than his detailing of parent characteristics, but one major child characteristic he addresses is temperament (Belsky, 1984), suggesting that difficult child temperaments negatively impact parenting. He is careful to note, however, that child characteristics are not sufficient for poor outcomes. In terms of contextual factors, Belsky lists social and spousal support and parental work as determinants of parenting.

Belsky's definition of parenting subsumes such concepts as parental sensitivity, parental negativity, and parental role performance. These terms differ in their positive/negative valence, but also in the degree to which they refer to internal cognitive or affective constructs, or external behavioural constructs. Parental sensitivity refers both to a parents' attunement to their children's needs, and to their contingent, consistent, responses (Belsky, 1984; Farrell Erickson & Kurz Reimer, 1999). Parental negativity refers to the negative perceptions parents have of their children and to the ensuing negative, hostile behaviours parents engages in (Anderson, Hinshaw, & Simmel, 1994; Johnston & Mash, 2001). Although the previous two terms combined internal and external manifestations of the constructs, parental role performance refers solely to the external, behavioural manifestation of a parent' behaviours in their role as parents (McCleary, 2002).

Belsky (1984) does not specifically address parenting stress, but his model would seem to subsume parenting stress under general parental psychological well-being. The

assumption underlying the current research is that parenting stress is an internal construct that impacts the external (behavioural) outcome of “parenting.” This assumption leads to the question of how parenting stress and parenting are linked.

## 2.1 Impact of parenting stress

Parenting stress may impact children via a number of pathways, including poor monitoring of children’s activities and whereabouts, and increased use of corporal punishment and controlling rather than supportive parenting strategies (Deater et al, 2004). Challenging child ADHD behaviors have also been suggested to interfere with the development of attachment security among children with ADHD (Clarke et al,2002).

## 2.2 Theories of Parenting Stress

Four major theories of parenting stress in families of children with ADHD have been proposed (McCleary, 2002). Three of these theories feature a strong focus on the mechanism through which parenting stress becomes elevated in parents of children with ADHD and other disruptive behaviour disorders. These three theories all identify cognitive factors in the parent as at least one of the mechanisms through which child factors influence parenting stress. These theories feature transactional effects, such that parenting stress is the result of the other factors suggested, and also contributes to the system over time.

**The first theory**, the Parent-Child Interactive Stress Model, proposed by Mash and Johnston (1990), holds that child characteristics are the primary contributors to parent-child stress, but that environmental factors also have direct influences on stress. This theory also suggests that parent-child stress affects child, parent, and environmental characteristics (see Figure 1). Unlike the other theories of parenting stress that will be discussed, this theory addresses “parent-child interactive stress” rather than parenting stress more generally. The authors describe parent-child interactive stress as one aspect of parenting stress; it is defined as the stress which manifests itself in parent-child conflict (Mash & Johnston, 1990). In this model, the effects of child and environmental stressors are mediated by parental characteristics, which notably include parental cognitions, and more specifically, attributions for child behaviour. Other parent characteristics that Mash and Johnston suggest mediate child and environmental characteristics include affective states, personality, behavioural repertoires, and health. Cognitions are characterized in this theory by their affect-generating and motivational properties. As such, they are presumed to be able to exacerbate, reduce, or prevent parent-child stress. In addition to attributions for child behaviour, perceptions of the severity of child behaviour and parenting efficacy (one’s sense of one’s ability to manage the demands of parenting) are highlighted as parenting cognitions mediating parent-child stress. Other parent cognitive factors such as intellectual ability, values, and behavioural intentions are also posited as affecting parent child stress.

**The second theory**, proposed by Webster-Stratton (1990), suggests that extra familial stressors, interpersonal stressors, and child stressors affect parenting. Extra familial stressors in this theory include unemployment and low socioeconomic status, and interpersonal stressors include marital distress and divorce. Child stressors refer most significantly to behaviour problems. Negative parent-child interactions also increase parenting stress, such that children's behaviour problems are both a contributor to and a product of increased parenting stress. These negative interactions are posited to explain the cycle of parenting stress and child behaviour problems in families of children with ADHD and other conduct problems. Webster-Stratton further proposes that the impact of extrafamilial, interpersonal, and child stressors on parenting stress are mediated by a variety of parental characteristics, including cognitive factors, such as appraisal of the stressor. Other parent factors that mediate the effect of stressors on parenting stress include parents' psychological well-being, quality of social support, gender, and drug use.

**McCleary (2002) proposed a third theory** to conceptualize parenting stress in families of adolescents with ADHD. This theory uses Lazarus and Folkman's (1984) theory of stress, appraisal, and coping as its starting point; as such cognitive factors are at the centre of this theory. McCleary proposes that stress results from the parent's cognitive appraisal of the child's needs or behaviours as taxing or exceeding the parent's resources. What each parent appraises as stressful differs based on the parent's own resources and characteristics, including their values, beliefs, and commitments, and situational characteristics including outside stressors such as finances. When child behaviours are appraised as stressful, coping, which refers to the parent's efforts to manage the stressors, occurs. In addition, social support, and cognitive variables such as self-efficacy and attributions for the child's behaviour affect a parent's appraisals. Adaptation, which can be negative or positive, occurs as a result of coping. In the case of parenting stress, adaptation refers to parent's role performance. Parental role performance refers to the behaviours a parent engages in. Parental role performance is then posited to impact the child's behaviour, thus forming a loop similar to Webster-Stratton's (1990) theory.

**The fourth theory** of parenting stress was proposed by Abidin in 1976 (as cited in Abidin, 1995). Abidin is also the creator of the leading measure of parenting stress, The Parenting Stress Index (PSI; 1983/1995). Although this theory is the oldest, it still dominates the literature. Rather than a theory that explains the mechanism or "how" of parenting stress, this ecological theory more carefully elucidates potential mediators and moderators of parenting stress. Abidin proposes that parenting stress is determined by parent factors, child factors, and situational factors. In this theory parent factors are defined as parental attachment, sense of competence, and depression; child factors as adaptability, acceptability, demandingness, mood, hyperactivity, and being reinforcing to parent; and situational factors as role restriction (the impact of parenthood on the parent's other life roles), parental health, social support/isolation, and spousal relationship (support and relational conflict). Outside life stressors are seen as global factors that can exacerbate

parenting stress without having any direct effects on parenting stress. In this theory, parenting stress is proposed to negatively affect parenting (behaviours), which then affects child outcomes.

Abidin's theory has several commonalities with Belsky's (1984) process model of parenting. These include the delineation of factors affecting parenting or parenting stress and the reciprocal interactions between these factors. There are some differences between these two models. The first of two substantive differences are that in Belsky's model, the parent, child, and situational factors are presumed to determine parenting, while in Abidin's theory, they are presumed to determine parenting stress, which then leads to dysfunctional parenting. The second difference is that Belsky is more clear about the effects of parenting on child outcomes. Abidin implies that parenting impacts child outcomes in his writings (e.g., Abidin, Jenkins, & McGaughey, 1992), but does not elaborate on this relationship when discussing his theory (Abidin, 1995); he does; however, reference the applicability of Belsky's model to his work (Abidin et al., 1992). The differences between these models thus amount to the inclusion of the affective concept through which parent, child, and situational factors affect parenting practices, and the clarity with which they link parenting to child outcomes. One other minor difference bears consideration. Belsky (1984) assumes that the same processes are in effect in both "dysfunctional" and "normal" families, while Abidin's theory is one solely of dysfunction. The current research, in its inclusion of both families of children with ADHD and families of children without ADHD sits balanced in the middle of the continuum between these two theories.

### **2.3 Parenting Stress in the Developmental Literature**

Predictors of parenting stress in parents of typically-developing children with no past or present identified health, medical, sensory, or perinatal issues fall into three main categories (Abidin, 1995; Bendell, Stone, Field, & Goldstein, 1989; McIntire, 1991; Ostberg & Hagekull, 2000): child factors, parent factors, and contextual factors. Child factors are by the far the most extensively studied. Parent factors, on the other hand, have received relatively little attention. There is a great deal of variability among contextual factors, with variables such as social and marital support, socioeconomic status (SES), and culture receiving a great deal of attention, while other variables such as work stress, family composition, and negative life events receiving comparatively little. Child factors studied in typically-developing children include internalizing (Gutermuth Anthony et al., 2005) and externalizing behaviours (Bendell et al., 1989; Deater-Deckard, Pinkerton, & Scarr, 1996; Guternuth Anthony et al., 2005), which have both been found to be positively associated with parenting stress. Children's social competence or sociability and self-esteem (Deater-Deckard et al., 1996; Gutermuth Anthony et al., 2005; McBride, Schoppe, & Rane, 2002; Bendell et al., 1989) have also been investigated as predictors of parenting stress and been found to be inversely related. Because many studies of parenting stress in the developmental literature focus on very young children,

the relationship between child temperament and parenting stress has been studied extensively, showing that parents of children categorized as “difficult” or “fussy” are more likely to experience increased levels of parenting stress (Gelfand, Teti, & Fox, 1992; McBride et al., 2002; Mulsow, Caldera, Pursley, Reifman, & Huston, 2002; Ostberg & Hagekull, 2000).

### **3. Resilience of mothers of children with attention deficit hyperactivity disorder**

According to the definition of the American Psychological Association, resilience is the process of adapting well in the face significant sources of stress in an individual’s life. Resilience does not mean that the person has not experienced any distresses, but it means, she/he has been able to adapt to the stressful situations, based on his/her experience. Some of the factors influencing the resilience of the family of a child with ADHD syndrome are having appropriate social and family support. Appropriate resilience can bring many benefits to the parents of these children to improve mental health. Not only the complications of ADHD affect the child, but also cause the parents of the child to face with many problems. The results of a review study in 2010 showed that mothers of children with ADHD syndrome experience greater stress than other parents. The families of these children usually endure many physical and psychological problems and required to be addressed with appropriate coping mechanisms. One of these mechanisms is known as “resilience” (Karimirad et al 2019).

#### **3.1 Factors in Resilience**

A combination of factors contributes to resilience. Many studies show that the primary factor in resilience is having caring and supportive relationships within and outside the family. Relationships that create love and trust, provide role models and offer encouragement and reassurance help bolster a person's resilience. Several additional factors are associated with resilience, including: The capacity to make realistic plans and take steps to carry them out. A positive view of yourself and confidence in your strengths and abilities. Skills in communication and problem solving. The capacity to manage strong feelings and impulses. All of these are factors that people can develop in themselves.

#### **3.2 Strategies for Building Resilience**

Developing resilience is a personal journey. People do not all react the same to traumatic and stressful life events. An approach to building resilience that works for one person might not work for another. People use varying strategies. Some variation may reflect cultural differences. A person's culture might have an impact on how he or she communicates feelings and deals with adversity — for example, whether and how a person connects with significant others, including extended family members and community resources. With growing cultural diversity, the public has greater access to a number of different approaches to building resilience. Some or many of the ways to build resilience in the following pages may be appropriate to consider in developing

your personal strategy. There are various ways to build resilience: Make connections. Good relationships with close family members, friends or others are important. Accepting help and support from those who care about you and will listen to you strengthens resilience. Some people find that being active in civic groups, faith-based organizations, or other local groups provides social support and can help with reclaiming hope. Assisting others in their time of need also can benefit the helper. Avoid seeing crises as insurmountable problems. You can't change the fact that highly stressful events happen, but you can change how you interpret and respond to these events. Try looking beyond the present to how future circumstances may be a little better. Note any subtle ways in which you might already feel somewhat better as you deal with difficult situations. Accept that change is a part of living. Certain goals may no longer be attainable as a result of adverse situations. Accepting circumstances that cannot be changed can help you focus on circumstances that you can alter. Move toward your goals. Develop some realistic goals. Do something regularly — even if it seems like a small accomplishment — that enables you to move toward your goals. Instead of focusing on tasks that seem unachievable, ask yourself, "What's one thing I know I can accomplish today that helps me move in the direction I want to go?" Take decisive actions. Act on adverse situations as much as you can. Take decisive actions, rather than detaching completely from problems and stresses and wishing they would just go away. Look for opportunities for self-discovery. People often learn something about themselves and may find that they have grown in some respect as a result of their struggle with loss. Many people who have experienced tragedies and hardship have reported better relationships, greater sense of strength even while feeling vulnerable, increased sense of self-worth, a more developed spirituality and heightened appreciation for life.

## **METHODOLOGY**

1. Aim of the Study
2. Objectives of the Study
3. Null Hypotheses
4. Materials and Methods
  - 4.1 Research design
  - 4.2 Universe
  - 4.3 Study design
  - 4.4 Sample technique
  - 4.5 Sample size
  - 4.6 Inclusion criteria & exclusion criteria of ADHD children



#### 4.7 Inclusion criteria & exclusion criteria of Normal children

### 5. Tools Used for Data Collection:

#### 5.1 Informed Consent Form

#### 5.2 Socio Demographic Data Sheet

#### 5.3 Parental stress index (PSI) Abidin et.al (1995).

#### 5.4. Resilience Scale (Conner Davidson)

### 6. Brief Description of the Tools Used for Data Collection:

#### 6.1 Informed Consent Form

#### 6.2 Socio-Demographic Data Sheet

#### 6.3 Parental stress index (PSI) Abidin et.al (1995).

#### 6.4 Connor-Davidson Resilience Scale (CD-RISC)

### 7. Procedure

### 8. Statistical Analysis

#### 1. AIM:

The aim of the study is to Predicting parental stress, mental health and resilience among mothers of children with ADHD and mothers of normal children. This study was carried out on the outdoor patient of mental health Institute and SCB School. Normal children from 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> standards were chosen for the Study.

#### 2. OBJECTIVES:

- To know demographic profile of the Mother as well as Children.
- To compare parental stress of Mother of ADHD with mother of normal Children.
- To compare the resilience of Mother of ADHD with mother of normal Children.
- To evaluate the depth between Predicting parental stress, mental health and resilience among mothers of children with ADHD and mothers of normal children.

#### 3. HYPOTHESIS:

- There will be a significant difference between Mother of children with ADHD and normal Children in parental stress.
- There will be a significant difference between Mother of children with ADHD and normal Children in resilience.
- There will be no correlation between resilience and parental stress.

#### **4. RESEARCH DESIGN AND METHODOLOGY:**

**4.1 Research Design:** It was purely quantitative type of research design

**4.2 Universe:** Out Patient Department & indoor patient department of M.H.I. (COE) SCBMCH, Cuttack, Odisha and SCB public School, Cuttack.

**4.3 Study Design:** Hospital based cross-sectional study.

**4.4 Sampling Technique:** Purposive sampling

**4.5 Sample Size:** Sample size was 60 respondents, from which 30 was Mother of ADHD and 30 was mother of normal children.

#### **4.6 Inclusion criteria for the children with ADHD**

- Child who diagnosis with Attention deficit hyper activity disorder.
- Child age range 5-12
- Both genders

#### **Exclusion criteria for the children with ADHD.**

- Child having any other co-morbidity psychiatric & physical illness.
- Child age range less than 5 and more than 12

#### **4.7 Inclusion criteria for the Normal Children**

- Child age range – 5-12
- Child who was studying from 1<sup>st</sup> std to 7<sup>th</sup> std.
- Both genders.

#### **Inclusion criteria for the Parent:**

- Parents (mother) who gave inform consent.
- Age group ranging from 25 to 55 years.
- At least studied should be matriculate.
- General health questionnaire score obtained less than 3 or equal to 3 (GHQ-12)

#### **Exclusion criteria for the Parent:**

- Parent (mother) those who are not willing to give inform consent.
- Parents having any longstanding illness.
- Age group ranging below 25 or above 55.
- Education below matriculate.

## **METHOD OF DATA COLLECTION:**

The researcher was adopted interview method because it is the most effective and important method of data collection.

## **5. TOOLS:**

- 5.1 Socio-demographic & clinical data sheet
- 5.2 General Health Questionnaire (GHQ-12) (Goldberg & William, 1988)
- 5.3 Parental stress index (PSI) Abidin et.al (1995).
- 5.4 Connor-Davidson Resilience Scale (CD-RISC).

## **6. BRIEF DESCRIPTION OF ASSESSMENT TOOLS**

### **6.1 Written Informed Consent Form:**

A form was developed specifically to get the written informed consent from the subjects those were selected from the universe of the study.

### **6.2 Socio-demographic & clinical data sheet:**

It is self-structured Performa which contains information regarding socio-demographic profile of Mother of ADHD children and Normal children. Variables like age, sex, religion, education, marital status, domicile, occupation & clinical details like diagnosis, age of onset, total duration of illness, no of hospitalization etc.

### **6.3 General Health Questionnaire (GHQ-12) (Goldberg & William, 1988):**

Goldberg and William developed the General Health Questionnaire-12. It is used to screen any psychiatric morbidity in healthy persons. General Health Questionnaire-12 is the short version of the original General Health Questionnaire containing 60 items for the detection of the psychiatric illness. Internal consistency of GHQ-12 was excellent. A higher degree of internal consistency was observed for each of the 12 items with Cronbach's alpha value of 0.37-0.79, while total score was 0.70 in the population study. Test-retest correlation coefficients for the 12 items score were highly significant. It is widely used to screen for the presence of psychiatric distress. Cut of score is  $\leq 3$ .

### **6.4 Parental stress index (PSI) by Abidin et.al (1995):**

The PSI/SF (Abidin, 1995) is a 36-item self-report measure evaluating parenting stress in parents of children under 13 years. The PSI-SF includes three subscales: PD, PCDI, & Difficult Child (DC), each containing 12 items. The PD subscale is intended to measure the distress a parent feels due to personal factors related to parenting, such as lack of social support or parental depression. The PCDI subscale is intended to assess whether the parent perceives his or her interactions with the child as either positive (i.e. rewarding)

or negative (i.e. unsatisfying). The DC subscale is intended to measure behavioural characteristics of the child that make him or her easy or difficult to manage, due to either temperament or noncompliant, defiant, or demanding behaviour. The total PSI-SF score is seen as an indicator of the parent's over all experience of parenting stress. Parents rate each of the 36 items on a 5-point scale ranging from strongly disagree (1) to strongly agree (5). The 90th percentile of the total PSI-SF score represents a 'clinically significant' level of parenting stress<sup>8</sup> and is meant to be used as an indicator that counselling or other supports are required. Test-retest reliability coefficients of the total stress score have been reported to be 0.84, for the PD sub-scale 0.85, for the PCDI sub-scale 0.68 & for the DC 0.78. For the internal consistency of the PSI-SF, reports for total stress have been 0.91, for PD 0.87, for PCDI 0.80 & for the DC sub-scale 0.85.

### **6.5 Connor-Davidson Resilience Scale (CD-RISC):**

The Connor-Davidson Resilience Scale (CD-RISC) was created to address aspects of resilience and for use in clinical practice. Resilience is considered as the capacity to overcome adversity. The CD-RISC is a 25 item scale that has been studied in a variety of populations such as, members of different ethnic groups and cultures, Alzheimer's caregivers, adolescents, elders, patients in treatment for PTSD, military medical personnel, medical students, college students, survivors of various traumas, social workers, and even select professional or athletic groups. Although the means scores vary with settings, the psychometric properties of the RISC hold up in almost all studies. There are two more brief versions of the 25-item Connor-Davidson Resilience Scale, there is a 10-item (CDRISC 10). The CD-RISC 10 can range in score from 0-40 and is made of questions 1, 4, 6, 7, 8, 11, 14, 16, 17, and 19 from the original 25-item scale. This scale was developed by Dr. Laura Cambells-Sills and Dr. Murray Stein at the University of California, San Diego. The second version is the CD-RISC 2, this is based on items 1 and 8 from the original scale and can score from 0-8. This scale was developed by the original authors and made to measure "bounce-back" and adaptability.

## **7. PROCEDURE:**

Initially mothers of children with ADHD were selected from Out Patient Department & indoor patient department of M.H.I. (COE) SCBMCH, Cuttack, Odisha. In accordance with the inclusion and exclusion criteria of the study. Thereafter, the selected respondent was thoroughly explained about the aims & objectives of the study & their role excepted role in the data collection process. After selection of mothers of children with ADHD then 30 numbers of mother with normal children were selected randomly accordance with the inclusion and exclusion criteria of the study from SCB public School, Cuttack. The respondent those who was ready to give the informed consent and matched the inclusion criteria for the study, they were included in the study. After that GHQ-12 was administered on respondents; those who was scored less than 3 or =3 they only included in the study; further assessment tools was administered on mothers. After completion of the data

collection data were coded and encoded according to the need. Finally data were analyzed by using appropriate statistical methods.

## 8. STATISTICAL ANALYSIS:

the collected data were entered into Statistical Package for Social Sciences version-20.0 (IBM-SPSS version 20.0) and appropriate statistical tests were used. Both descriptive and inferential statistics were used in the study for analyzing the data. All the discrete variables were analyzed using the Chi-square test and continuous variables were analyzed by Independent Samples't' Test, (for comparing the parental stress and resilience of children with ADHD and Normal children).

## Results

### Contents:

- Socio-Demographic Profile of the selected Both Mother of Children (Descriptive Statistics: Number & Percentage) (Table 1)
- Comparison of the socio-demographic profile of Mother of ADHD children with Normal children (Chi-Square/Fisher's Exact Test)(N=60) (Table 2)
- Comparison of Age between Mother of ADHD children and Normal children (Table 3)
- Comparison of parental stress between Mother of ADHD children and Normal children (Table 4)
- Comparison of resilience between Mother of ADHD and normal Children(Table 5)
- Co-relation between resilience and parental stress of Mother of ADHD children and Normal children (Table 6)

Table 1 showed the descriptive of the socio-demographic profiles of the selected both mother of ADHD and normal children. Majority of the children were found to be males (n=48; 80%); in terms of religious background, majority of them were Hindu (n=47: 78.33%), followed by Islam (n=5: 8.33%) and remaining 13.33% of them were Christian (n=8). In terms of caste category, break up suggesting 15%, 3.33%, 36.66% and 45% of the Children were from Scheduled Caste, Scheduled Tribe, Other Backward Class and Unreserved (General) Class respectively.

**Table-1: Socio-Demographic Profile of the selected Both Mother of Children  
(Descriptive Statistics: Number & Percentage)**

Variables	Sub-groups	Frequency	Percentage	Total
Sex	Male	48	80	60 ( 100% )
	Female	12	20	
Religion	Hindu	47	78.33	60 ( 100% )
	Islam	05	8.33	
	Christian	08	13.33	
Education	Lower Primary	37	61.66	60 ( 100% )
	Middle Primary	16	26.66	
	Upper Primary	07	11.66	
Caste category	SC	09	15	60 ( 100% )
	ST	02	3.33	
	OBC	22	36.66	
	General	27	45	
Types of Family	Nuclear	20	30.33	60 ( 100% )
	Joint	31	51.66	
	Extended	09	15	
Mother Education	Up to 10 <sup>th</sup>	12	20	60 ( 100% )
	Intermediate	23	38.33	
	Graduation	22	36.66	
	PG	03	05	
Habitat	Rural	02	3.33	60 ( 100% )
	Sub-urban	17	28.33	
	Urban	41	68.33	
Father Occupation	Service	35	58.33	60 ( 100% )
	Business	25	41.66	
Mother Occupation	House wife	30	50	60 ( 100% )
	Service	30	50	
Socio Economic Status	Upper lower	15	25	60 ( 100% )
	Lower Middle	19	31.66	
	Upper Middle	07	11.66	

Highest numbers of children were from the General Category, followed by Other Backward Class (OBC) Category (36.66%) and Schedule caste (ST) Categories. Least number of students was from the Scheduled Tribe (3.33%). In case of habitat, the majority of children belongs to urban areas (n-41, 68.33%) and followed by Sub-urban (n-17, 28.33%), Rural (n-2, 3.33%) respectively. In relation to children's educational qualification, it was noted that most of the children were belongs to lower primary school (n-37, 61.66) followed by Middle primary school (n-16, 26.66%) and Upper primary (n-7, 11.66%). In relation to mother's education, it was noted that an overwhelming majority of the mothers were having Intermediate education (38.33%), followed by Graduation level (36.66%), Post-Graduation (5%), Educated up to 10<sup>th</sup> (20%), With regards to fathers' occupation, break ups were observed to be 'Service Holders' (58.33%), 'Business/Self-employed' (41.66%). In case of mothers' occupation, the picture was, the respondents

were same in both 'Service Holder' (50%) and 'House wife (50%)'. Majority of the respondents were belongs to joint family (n-31, 51.66%), followed by Nuclear family (n-20, 30.33%) and Extended (n-9, 15%) respectively. In terms of Socio economic status Majority of respondents was lower middle class i.e. 31.66% and less respondents are found in upper middle class i.e. 11.66% and others i.e. 25% belongs to Upper lower class.

**Table-2: Comparison of the socio-demographic profile of Mother of ADHD children with Normal children (Chi-Square/Fisher's Exact Test)**

Variables	Subgroup	Groups		df	$\chi^2$ /Fisher's Exact Test (#)	p
		ADHD (N=30) n (%)	Normal (N=30) n (%)			
<b>Sex (child)</b>	Male	28 (93.33%)	20(66.66%)	1	6.667	0.021*
	Female	02(6.66%)	10(33.33%)			
<b>Religion</b>	Hindu	25(83.33%)	22(73.33%)	2	2.3503#	0.352
	Islam	03(10%)	02(6.66%)			
	Christian	02(6.66%)	06(20%)			
<b>Education</b>	Lower Primary	23(76.66%)	14(46.66%)	2	6.296 #	0.038*
	Middle Primary	04(13.33%)	12(40%)			
	Upper Primary	03(10%)	04(13.33%)			
<b>Caste category</b>	SC	06(20%)	03(10%)	3	3.707#	0.337
	ST	01(3.33%)	01 (3.33%)			
	OBC	13(43.33%)	9(30%)			
	General	10(33.33%)	17(56.66%)			
<b>Types of Family</b>	Nuclear	09(30%)	11(36.66%)	2	0.410#	0.882
	Joint	16(53.33%)	15(50%)			
	Extended	05(16.66%)	04(13.33%)			
<b>Mother Education</b>	Up to 10 <sup>th</sup>	06(20%)	06(20%)	3	0.705#	0.955
	Intermediate	11(36.66%)	12(40%)			
	Graduation	12(40%)	10(33.33%)			
	PG	01(3.33%)	02(6.66%)			
<b>Habitat</b>	Rural	02(6.66%)	0(0%)	2	1.740#	0.618
	Sub-urban	08(26.66%)	09(30%)			
	Urban	20(66.66%)	21(70%)			
<b>Father Occupation</b>	Service	12(40%)	23(76.66%)	1	8.297	0.008*
	Business	18(60%)	07(23.33%)			
<b>Mother Occupation</b>	House wife	23(76.66%)	07(23.33%)	1	6.944	0.017*
	Service	13(43.33%)	17(56.66%)			
<b>Socio Economic Status</b>	Upper lower	11(36.66%)	4(13.33%)	2	4.830	0.088
	Lower Middle	17(56.66%)	02(6.66%)			
	Upper Middle	02(6.66%)	05(16.66%)			

Sig \*\*\*P<0.001; \*\*P<0.01

Table 2 showed the comparison between the Mother of ADHD children and normal mother of children in various socio demographic parameters. The Chi-Square/Fisher's Exact Test was applied to compare these two groups in various parameters. The socio-

demographic parameters included in this comparison were Gender, Religion, and Category, types of family, Habitat, Father's Education, Mother's Education, Mother's Occupation, father's occupation and socio economic status. Significant difference was noted in the parameters like sex, education and father's occupation.

Discussion: Present studies revealed that majority of respondents were males 93.33% and 66.66% in both groups. While 6.66% and 33.33% females were in children of ADHD and normal children respectively and there were significant differences between the groups.

Regarding father's occupation Service holder 40 % and 76.66 % were found in ADHD and normal children groups respectively. While Business/self-employment found lower i.e. 60% and 23.33 %. There were significant differences found between the groups.

Regarding mother's occupation majority of the respondents found house wife (76.66%) in ADHD group while comparison to normal children (56.66%) were found service holder. Significant differences were found in this area.

Regarding mother's education highest no of respondents studied up to intermediate i.e. 36.66% and 40% in both group while less no of respondents studied up to post graduation i.e. 3.33% and 6.66% in both groups. Not significant difference was found between these two groups.

Also in domicile most of them belonged to urban area 66.66% and 70% were found in both groups and while lowest number of respondents was from rural areas i.e. 6.66% in normal children group and there is no significant difference in between the groups.

Regarding religion most of them Hindu were found 83.33% and 73.33%, islams were 10% and 6.66% & Christians 6.66% and 20% in ADHD and normal children groups respectively. There is also no significant difference was found between these groups.

Regarding Caste category highest no of ADHD children found in OBC category i.e. 43.33% while 30% only found in normal children. Very lowest no of children found in ST category i.e. 3.33% in both groups. No significant difference was found.

In terms of socio economic status majority of the family belongs to Lower middle status (56.66%) in ADHD group while comparison to normal group that very less no of family belongs to in the same status i.e. 6.66%.there is no significant group difference was found.



**Table-3: Comparison of Age between Mother of ADHD children and Normal children. (Independent Samples t Test)**

Variables	Groups		t-value (df=58)	P
	ADHD N=30 Mean±SD	Normal N=30 Mean±SD		
Age	7.83±1.72	8.40±2.07	-1.150	0.255

Table no. 3 describes the comparison of Age between ADHD and normal children. The mean score and SD of resilience was 7.83±1.72with ADHD and 8.40±2.07in normal control. Not Significant difference was found of Age between ADHD children and normal children (t=-1.150, p=0.255).

**Table-4: Comparison of parental stress between Mother of ADHD children and Normal children. (Independent Samples t Test)**

Variables	Group		t-value (df=58)	P
	ADHD N=30 Mean±SD	Normal N=30 Mean±SD		
Parental distress	43.30±5.81	39.76±5.99	2.318	0.024*
Parent Child Dysfunction	44.20±6.22	40.66±5.98	2.242	0.029*
Difficult Child	50.76±5.13	42.76±6.60	5.239	0.000*

As we can see in Table no. 4 describes the comparison of parental stress between ADHD and normal children. The mean score and SD of domain Parental distress were 43.30±5.81 with ADHD and 39.76±5.99 in normal control means the ADHD children have more score than Normal children on the test of parental stress and the difference enough to be statistically significant (t=2.318, p=.024. on the test of parent child dysfunction we also see The mean score and SD of Children with ADHD was significant higher than normal children 40.66±5.98, (t=2.242, p=0.029) respectively. The domain of difficult child's mean score and SD of children with ADHD and normal children were 50.76±5.13 & 42.76±6.60 it means The significant difference were found in ADHD children and Normal children ( t=5.293, p=0.000)

**Table-5: Comparison of resilience between Mother of ADHD and normal Children (Independent Samples t Test)**

Variables	Groups		t-value (df=58)	P
	ADHD N=30 Mean±SD	Normal N=30 Mean±SD		
Resilience	59.13±12.52	65.53±11.10	-2.094	0.041*

Table no. 5 describes the comparison of resilience between ADHD and normal children. The mean score and SD of resilience was 59.13+12.52 with ADHD and 65.53+11.10 in

normal control. Normal children have more score than ADHD children. So Significant difference was noted of resilience between ADHD children and normal children ( $t=-2.094$ ,  $p=0.041$ ) It means mother of normal children have more resilience comparative to Mother of ADHD children.

**Table-6: Co-relation between resilience and parental stress of Mother of ADHD children and Normal children**

Scale	Resilience	Parental Distress	Parent Child Dysfunction	Difficult Child
<b>Resilience</b>	1	0.117(r value) 0.375 (P value)	0.112 (r value) 0.395 (P value)	-0.165 (r value) 0.209 (P value)
<b>Parental Distress</b>	0.117 (r value) 0.375 (P value)	1	0.085 (r value) 0.571 (P value)	0.042 (r value) 0.758 (P value)
<b>Parent Child Dysfunction</b>	0.112 (r value) 0.395 (P value)	0.085 (r value) 0.517 (P value)	1	0.553** (r value) 000 ( P value )
<b>Difficult Child</b>	-0.165 (r value) 0.209 (P value)	0.042 (r value) 0.751 (P value)	0.553** (r value) 000 ( P value )	1

Table no 6 shows the correlation between parental stress and resilience. The participant's correlation was calculated to see the relation among variables of resilience, parental distress, parent child dysfunction and difficult child. The finding reveals the relationship was statistically significant at the 0.01 level means positive correlation was found (  $r=0.553$  ) between parent child dysfunction and difficult child so here we can say that when parent child dysfunction score is high at the same time difficult child score is also went up.

## DISCUSSION

1. Introduction
2. Explaining Issues and Findings Related to Methodology and Description of the Samples'
  - 2.1 Justifying the Aim and Objectives of the Study
  - 2.2 Socio-Demographic Profile of the mother of children with ADHD and Normal Children
  - 2.3 Research Design and Tools Used for Data Collection
3. Interpretation of the Findings Related to Hypotheses as well as Focus of the Study

### 1. Introduction

The current study was an Endeavour to conduct a comparative assessment of ADHD and normal children. On parental stress and resilience. This study aimed to see the

difference between the parental stress and resilience on Case-Group (ADHD) and Control-Group (Normal). Although not hypothesized, the central finding of this study was that child factors did not predict parental distress (parent domain parenting stress) over and above parent and contextual factors. Furthermore, parental ADHD symptomatology was the strongest predictor of parental distress considered. The second major finding of this study relates to its use of teacher reports of child ADHD Symptoms and oppositionality. Using teachers as independent reporters clarified the relationships studied by eliminating the potential of reporter bias, whereby parents would report both on the child's ADHD symptomatology and oppositionality and their perceived parenting stress. One interesting difference was found between the model using teacher reports of child ADHD symptomatology and oppositionality and one using parent reports. Child oppositionality was a significant predictor of parental distress only in the parent-report model. All other predictors retained similar levels of significance. This teacher report model also stands in contrast to many other published studies, as these other studies, which used parent reports, have shown that oppositionality is predictive of parenting stress in families of children with ADHD (e.g., Anastopoulos et al., 1992; Podolowski & Nigg, 2001.)

## **2. Explaining issues and findings related to methodology and description of the samples'**

The current study is a cross sectional descriptive study aiming to examine the Parental stress and resilience of Mother of ADHD children and normal children. Mothers of children with ADHD were selected from Out Patient Department & indoor patient department of M.H.I. (COE) SCBMCH, Cuttack, Odisha. In accordance with the inclusion and exclusion criteria of the study. Thereafter, the selected respondent was thoroughly explained about the aims & objectives of the study & their role excepted role in the data collection process. After selection of mothers of children with ADHD then 30 numbers of mother with normal children were selected randomly accordance with the inclusion and exclusion criteria of the study from SCB public School, Cuttack.

### **2.1 justifying the aim and objectives of the study:**

This study has been proved to be advancement in the existing literatures on "mothers' stress and resilience"; because, in this study outpatient of ADHD and normal children were taken. The current study has also been carried out with a specific objective of seeing the difference between children on stress and resilience. The rationale for contemplating this objective was to see, whether mother of study could make any difference in parental stress and resilience. In past literature review highlights several important findings that led to the decision to study parenting stress as it relates to child ADHD. First, there are several negative consequences from the elevated parenting stress characteristic of families of children with ADHD. It is associated with poorer treatment outcomes (Kazdin, 1995; Kazdin et al., 1997; Kazdin & Wassell, 1999; Osborne et al., 2008), affects child

development (Anthony et al., 2005; Crnic et al., 2005), and affects parent well-being (Abidin, 1992; Crnic & Greenberg, 1990; Kwok & Wong, 2000; Wolf et al., 1989).

The parenting stress was studied as it relates to child ADHD was that little attention has been given to the parent and contextual factors that impact parenting stress as a function of child ADHD symptomatology, although Abidin's (1995) theory of parenting stress (and the other theories as well) posited that these classes of factors have predictive power. We also know from the developmental literature that these factors have significant effects. To this end, Study 1 is a meta-analysis of the literature on parenting stress in parents of children with ADHD and Study 2 examines parent and contextual predictors of parenting stress in this population. One Study is entitled "Predicting Parenting Stress in Families of Children with ADHD: Consideration of Informants, and The Role of Parental ADHD Symptoms, and Other Parent and Contextual Factors." It addressed the second major objective of this study, investigating parent and contextual predictors of parenting stress as a function of child ADHD symptomatology. Many of the questions addressed in this study were informed by the meta-analysis conducted in Parental ADHD symptoms, parental education, social support, and marital status were investigated as a function of teacher-reported child ADHD symptoms in a sample of children with and without clinical levels of ADHD symptomatology. However, all those studies had been carried out either in the context of parental stress or resilience separately; none of them had tried to compare the stress and resilience of ADHD with normal children. Feizi et al (201) studied on parenting stress among mothers of children with different physical, mental, and psychological problems. Results shown that, Mothers of children with sensory-motor mental and chronic physical problems experience more stress than mothers of children with psychological disorders.

## **2.2 socio-demographic profile of the mother of children with ADHD and normal children**

The socio-demographic parameters included in this comparison were Gender, Religion, and Category, types of family, Habitat, Father's Education, Mother's Education, Mother's Occupation, father's occupation and socio economic status. Significant difference was noted in the parameters like sex, education and father's occupation.

Highest numbers of children were from the General Category (n=27:45%) of two group while highest no of ADHD children found in OBC category i.e. 43.33% while 30% only found in normal children. Very lowest no of children found in ST category i.e. 3.33% in both groups. No significant difference was found.

In case of habitat, the majority of children belong to urban areas (n=41, 68.33%) in total groups. Also in domicile most of them belonged to urban area 66.66% and 70% were found in both groups and while lowest number of respondents was from rural areas i.e. 6.66% in normal children group and there is no significant difference in between the groups.

In current study it was seen that Majority of the children were found to be males (n=48; 80%); comparison to another study the majority of participating parents were mothers (n= 82, 86.3%), and the majority of participating children were boys (n = 70, 73.7%). Roughly half of the participating children (n= 50, 52.6%) had been previously diagnosed with ADHD. Of the children with ADHD, 24 (48%) were currently taking psycho stimulant medication. ADHD was more prevalent in the males than in the females. Total no. of males selected were 324, 48 of them had ADHD. Prevalence of ADHD in the males was 14.81%. Total no of females selected were 311, 24 among them had ADHD. Prevalence of ADHD in the females was 7.71%. Among the 72 children identified as having ADHD, 66.7% (48) were males and 33.3% (24) were females. Jyothsna Akam Venkata and Anuja S. Panicker(2013).

Attention-deficit/hyperactivity disorder (ADHD) is associated with poor grades, poor reading and math standardized test scores, and increased grade retention. ADHD is also associated with increased use of school-based services, increased rates of detention and expulsion, and ultimately with relatively 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 show poor academic and educational outcomes. In relation to children's educational qualification, it was noted that most of the children were belongs to lower primary school (n-37, 61.66),

There was a maximum prevalence of ADHD in the children aged 9 and 10 years. This finding is not consistent with the several previous studies which have identified a higher prevalence of ADHD among children aged lesser than seven years (Jyothsna Akam Venkata and Anuja S. Panicker, 2013). The ages of participating children ranged from 8 to 12 years (M= 10.10, SD= 1.41), and the ages of the parents ranged from 27 to 54 years (M= 41.64, SD= 5.88). The majority of participating parents were in partnered relationships (married or living with an adult partner; n= 75, 78.9%). Biederman et al., 1995; Grigoriou Serbanescu, Christodorescu, Magureanu, & Jipescu, 1991. Distribution of the study population according to gender showed that 511 (51.1%) were males and 489 (48.9%) were females. The shows the distribution of the student in each age group, 199 students (19.9%) were in the age group (6–8) year, 380 students (38.0%) in the age group (9–11) year, while 421 students (42.1%) were in the age group (12–14) year. Sudan J Paediatr. (2015). the study differs from the other Indian studies [4–6] with respect to inclusion of young children. One fifth of the children with ADHD in our study belonged to less than 3 years of age which shows that ADHD is widely prevalent even in preschool children and toddlers. Similar observations have been made by Palfrey and co-authors in their prospective longitudinal study in which 13% of children aged 14 to 29 months had definite features suggesting the possibility of ADHD. Preschool children with developmental delay or attention deficit disorder or both have high risk of symptoms continuity (Indian journal of psychological medicine, 2012). Among 24 school going

children 15(62.5%) were girls and 9(37.5%) were boys which shows 2:1 male and female ratio. (K. Kiranmayi et al, 2012)

This study has also identified a significant difference in the prevalence of ADHD between the children from lower and those from the middle socio-economic status. This strengthens the fact that the poor socio-economic background is one of the important risk factors for the development of ADHD. In terms of Socio economic status Majority of respondents was lower middle class i.e. 31.66%. While Indian studies also quote that ADHD is highly prevalent in lower and middle socio-economic class. We also find that though children with ADHD frequently belonged to middle and lower socio-economic class; the significance was not maintained when individual social classes were taken for risk factor analysis. Behavioral problems have been reported to be high in Indian children belonging to nuclear families (Indian journal of psychological medicine, 2012). This needs to be analyzed in population-based studies as our study group may not be representative of the society. There was no significant association between type of ADHD and socio-economic class, prematurity, or perinatal adversity in our study. There was a significant difference in the prevalence of ADHD between the children belonging to lower and middle socio-economic status. Out of 300 children selected from the lower socio-economic status, 49 had ADHD (16.33%) and 335 children were selected from the middle socio-economic status of which 23 had ADHD (6.86%). (Jyothsna Akam Venkata and Anuja S. Panicker, 2013)

Majority of the respondents were belongs to joint family (n=31, 51.66%), similarly, in other study too we found ADHD to be more common in children belonging to nuclear families. In a nuclear family, a child can be affected by anxiety and tension between parents which can result in increased behavioral problems in them. (Indian journal of psychological medicine, 2012). With regard to type of family, 15(62.5%) subjects belong to nuclear family and 9 (37.5%) subjects belong to joint family. (K. Kiranmayi et al, 2012)

With regards to fathers' occupation, break ups were observed to be 'Service Holders' (58.33%), In case of mothers' occupation, the picture was, the respondents were same in both 'Service Holder' (50%) and 'House wife (50%).while in other study With regard to occupation of the father 1(4.2%) member was government employee, 12(50%) members were private employees and 11(45.8%) members were business men. With regard to occupation of the mother 2(8.4%) members were government employees, 1(4.2%) member was private employee and rest 21(87.5%) members were house wives. (K. Kiranmayi et al, 2012)

In terms of religious background, majority of them were Hindu (n=47: 78.33%) while in other study Sample of 17(70.8%) subjects were Hindus, 3(12.5%) subjects were Christians and 4(16.7%) subjects were Muslims. (K. Kiranmayi et al, 2012)

**2.3 research design and tools used for data collection:** This study was carried out on 60 children of both groups. Initially mothers of children with ADHD were selected from

Out Patient Department & indoor patient department of M.H.I. (COE) SCBMCH, Cuttack, Odisha. Sample size was 60 respondents, from which 30 will be Mother of ADHD and 30 will be mother of normal children. Mothers of children with ADHD and normal children were selected randomly accordance with the inclusion and exclusion criteria of the study from SCB public School, Cuttack. The respondent those who was ready to give the informed consent and matched the inclusion criteria for the study, they were included in the study. After that GHQ-12 was administered on respondents; those who was scored less than 3 or =3 they only included in the study; further assessment tools was administered on mothers. It was purely quantitative type of research design and cross sectional study design. Similar another study by T. Golden Catherine et al (2019) Quantitative research approach with cross-sectional research design was adopted. The study was conducted in selected state board and CBSE schools in Kancheepuram district. The population of the study comprised schoolchildren between 8 and 11 years' age groups, and the sample included those who fulfill the inclusion criteria at the selected settings. The cross-sectional study involved 3253 schoolchildren aged 8–11 years who gave consensus for the study. A study was conducted by Leitch et al (2016) on Experience of stress in parents of children with ADHD: A qualitative study and methodology was thirteen parents of children with ADHD participated in two focus groups. Open-ended questions explored parents' experiences of stress. Focus groups were recorded, transcribed, and coded using thematic analysis. Parents also completed the Parenting Stress Index–Short Form. Another study on “Relationships among parenting stress, parenting practices, and conduct problems in African American mothers of children with and without ADHD” Participants in this study included 76 African American mothers and their children, who either had ADHD or did not have Comparison group or COMP). Parks et al (2018)

In spite of studies showing elevated rates of ADHD in the parents of children with ADHD, adult ADHD has yet to be considered as a possible contributing factor to parenting stress in these families. Parental ADHD, however, has significant effects on family functioning. Mothers with ADHD have been shown to be poorer at monitoring the behavior of their children with ADHD and provide less consistent discipline than mothers without ADHD (Murray & Johnson, 2006). Parental stress index was applied by Shakila Yousefia et al (2012) on study Parenting stress and parenting styles in mothers of ADHD with mothers of normal children. Another study was examined parenting stress among mothers of children and adolescents with ADHD with objectives of elevated levels of stress may affect the parent–child relationships and parenting practices. This is especially the case of families where children have special needs conditions or disorders, like Attention Deficit Hyperactivity Disorder (ADHD). The sample included 126 mothers of children/adolescents diagnosed with ADHD aged 6–17 years Alicia Muñoz-Silva, 2011.

A study was conducted by Mohammad Khademloo et al, (2011) on Mental Health and Resilience among Mothers of Children with ADHD and Mothers of Normal Children: A Casual-Comparative Study. Statistical society consisted of all mothers of children in

all primary school in Sari (Mazandaran Province, Iran) during 2016-2017. One hundred fifty two mothers of children with ADHD and mothers with normal children were chosen via Cluster Random Sampling in two stages. Data were obtained via Connors Parents Questionnaire, SCL-90-R and Connor Davidson Resilience Scale (CD-RISC). A study was conducted on Comparison of Parental Stress and Resilience of Mothers of Normal Children and Mothers of Children with Autism in Isfahan, The sample size for the study, 50 normal children and 50 mothers of children with autism for autistic children from two centers were selected by convenience sampling. To obtain data from questionnaires NEO resilient Connor and Davidson, the scale of parental stress was used. (Foroshani et al, 2019). Another study by Karimirad et al, 2019. The sample of the study consists of mothers of children with ADHD. The sample size was 110 mothers. Connor and Davidson's resiliency scale was used in the present study. Khademloo et al 2016, studied on "Mental Health and Resilience among Mothers of Children with ADHD and Mothers of Normal Children: A Casual-Comparative Study" he was used Connor-Davidson Resilience Scale (CD-RISC). Another a cross-sectional study was done where we assessed the participants using the Parental stress scale, Parenting styles questionnaire and The Connor-Davidson Resilience Scale. Sinha et al, 2016. Another study on Iranian children with ADHD and mental health of their mothers: The role of stress. Materials and Methods was The Child Symptom Inventory-4 (CSI-4), the child behavior checklist (CBCL) and the parental stress index-short form (PSI/SF) was completed. Babakhanian et al (2016).

### **3. Interpretations of the findings related to hypotheses as well as focus of the study:**

The aim of the study is to assess the aim of the study is to Predicting parental stress, mental health and resilience among mothers of children with ADHD and mothers of normal children. This study was carried out on the outdoor patient of mental health Institute and SCB School. Normal children from 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> standards were chosen for the Study. This study was conducted keeping with the view of following.

#### **Hypotheses:**

- H: There will be a significant difference between Mother of children with ADHD and normal Children in parental stress.
- H: There will be a significant difference between Mother of children with ADHD and normal Children in resilience.
- H0: There will be no correlation between resilience and parental stress.

In the study both Descriptive and Inferential Statistics were used to analyze the Data For the purpose of illustrating the socio-demographic background of the selected mother of children with ADHD and normal children. Descriptive statistics like number, percentage,



mean and standard deviation were used. Inferential statistics like Independent Samples t Test, chi square test.

In current study, significant difference was noted between the Mother of ADHD children and normal children on Parental stress ( $p < 0.05^*$ ; Table-4). It was observed that in all domain of parental stress, there is high stress of Mother with ADHD then normal mother of children. It might be due to Parents attributed their high levels of stress to their children's behaviour and social difficulties, their unmet needs for support. Four primary themes were identified: The child's behavior feels like a "wrecking ball"; Coping with the "war at home"; A divided family: "relationships don't survive"; and Craving support: "it's goddamn hard work", Sophie Leitch et al (2006). It was also seen that main determinants of mental health literacy have been found to be education, age, employment status and income (Emma Sciberras et al, 2008) and the normal mother Group had been noted to significantly ahead than that of Mother with ADHD Group with regards to 'monthly income of the family', 'parental education' and 'Fathers' occupation'. Those factors might as have some indirect impact on developing the stress on mother with ADHD. Screening for maternal inattention, hyperactivity and depression symptoms, and mental health services for these mothers are warranted based on these findings. (Chen et al, 2014). Theule et al (2013) on study "Parenting Stress in Families of Children With ADHD: A Meta-Analysis observed that Parents of children with ADHD experienced no more parenting stress than parents of other clinically referred children. Little difference in parenting stress was found between mothers and fathers, but child gender was a significant moderator of parenting stress, with lower stress levels in samples with higher proportions of girls. Moghaddam et al (2013) study on "comparing parenting styles of children with ADHD and normal children". Observed the authoritative score has no significant difference between the two groups. In addition, age, gender, and parent's education affected the parenting styles. Yousefia et al, 2011 study on Parenting stress and parenting styles in mothers of ADHD with mothers of normal children. Results showed that there was a significant difference between parenting stress in Mothers of ADHD children and mother of normal children .And there was a significant difference between parenting styles among Mothers of ADHD children and mother of normal children. Parental ADHD symptomatology was the strongest predictor of parental distress considered. The large effect for parental ADHD symptomatology in the prediction of parental distress is consistent with the meta-analysis in Study 1, which showed large effects for parental depressive symptoms in the prediction of parent domain parenting stress. Given the familial link between ADHD and depression (Biederman, Faraone, Keenan et al., 1992).

This study is one of the first to include an inspection of child functional severity and problems associated with ADHD into an examination of parental stress. In the current sample, there was a significant association between the types of problems the ADHD child displayed and mothers' reported stress levels. This is congruent previous research by Jessica Cheesman, 2014.

Describes the comparison of resilience between ADHD and normal children. The mean score and SD of resilience was 59.13+12.52 with ADHD and 65.53+11.10 in normal control. Normal children have more score than ADHD children. So Significant difference was noted of resilience between ADHD children and normal children. It means mother of normal children have more resilience comparative to Mother of ADHD children. This result suggests that ADHD itself is largely associated with lower resilience levels, since familial factors (parenting, environment, schooling, etc.) were shared by probands with ADHD and their siblings. Trends Psychiatry Psychother. 2019 investigated socioeconomic differences, which can contribute to different resilience levels; our groups belonged to the same strata according to Brazilian standards. In addition, intelligence levels, which are strongly related to resilience, were similar among the groups. A study was conducted by Ilias et al, 2018 on Parenting Stress and Resilience in Parents of Children with Autism Spectrum Disorder (ASD) in Southeast Asia: A Systematic Review". **Results shown that** across the studies, six main factors were found to be associated with parenting stress: social support, severity of autism symptoms, financial difficulty, parents' perception and understanding toward ASD, parents' anxiety and worries about their child's future, and religious beliefs. Another study on "Mental Health and Resilience among Mothers of Children with ADHD and Mothers of Normal Children: A Casual-Comparative Study" was done by Khademloo et al, 2016. Results showed that there is a meaningful difference between mental health of mothers with ADHD children and mothers with normal children. Commented by Babakhanian et al, 2013 on study Iranian children with ADHD and mental health of their mothers: The role of stress, With the exception of mood, ADHD children had more problems in attention compared with normal children. As a result, mothers of ADHD children had more stress compared with the controls. Santhos, 2016 described extra-familial stress was a negative predictor of resilience in the parents of the intellectually disabled children. Results further indicated that the parents who were in a late part of the young adulthood period and old were relatively more resilient than the parents who were in the earlier part of the young adulthood period.

Table 6 shows the correlation between parental stress and resilience. The participant's correlation was calculated to see the relation among variables of resilience, parental distress, parent child dysfunction and difficult child. The finding reveals the relationship was statistically significant at the 0.01 level means positive correlation was found (  $r = 0.553$  ) between parent child dysfunction and difficult child so here we can say that when parent child dysfunction score is high at the same time difficult child score is also went up. In other side we cannot find any correlation between parental stress and resilience. In other study Alicia Muñoz-Silva (2017). Study on Child/Adolescent's ADHD and Parenting Stress: The Mediating Role of Family Impact and Conduct Problems. The findings of study show that parental stress is correlated to child/adolescent ADHD severity, emotional problems, conduct problems, impact on marriage and social life, and perceived social support. On the other hand, results support the development of family-oriented interventions programs to reduce parental stress, for example, promoting resilient behavior among parents facing social limitations to reach an active social life.

## SUMMARY

The present study was conducted on 60 children of ADHD and normal children. The study was carried out with the aim to access the parental stress and resilience of Mother of ADHD children and normal mother. This study was carried out on the mothers of children with ADHD and normal mother. They were selected from Out Patient Department & indoor patient department of M.H.I. (COE) SCBMCH, Cuttack, Odisha. In accordance with the inclusion and exclusion criteria of the study. Thereafter, the selected respondent was thoroughly explained about the aims & objectives of the study & their role excepted role in the data collection process. After selection of mothers of children with ADHD then 30 numbers of mother with normal children were selected randomly accordance with the inclusion and exclusion criteria of the study from SCB public School, Cuttack. Thereafter, selected students were given the "Written Informed Consent Form" for securing their formal affirmation to be the subjects of the study. Whosoever did not give his/her consent was dropped from the study. Data collection was done by applying the Socio-Demographic Data Sheet, Parental stress index scale (PSI) and Conner Davidson Resilience scale (CD-RISC). The collected data were analyzed by using the SPSS-20 Windows version. Significant difference was found in numbers of variables of Socio-demographic details and parental stress of Mother of ADHD children and normal mother.

Majority of the children were found to be male, Hindu religion, lower primary education of children, general category, belongs to urban habitat, mother's occupation were almost equally divided into service holder and house wife. The age range of the children of both groups was 05-12 years and mean age was  $7.83 \pm 1.72$  &  $8.40 \pm 2.07$  year. There is significant difference was noted on Parental stress between mother of ADHD children and normal mother, means mother of ADHD children have more stress then normal mother of children. Significant difference was noted between ADHD children and normal children on resilience means there is lesser resilience of mother with ADHD children than

normal mother of children. The finding reveals the correlation between parental stress and resilience was statistically significant at the 0.01 level means positive correlation was found (  $r = 0.553$  ) between parent child dysfunction and difficult child so here we can say that when parent child dysfunction score is high at the same time difficult child score is also went up.

## **IMPLICATION**

Reducing parenting stress is important for parents and for children. Although moderate stress is adaptive, high stress has negative implications for both physical and mental health. Parents experiencing high levels of parenting stress are also less likely to be capable of implementing interventions that change children's behavior (Kazdin, 1995). Consequently, clinicians, school personnel, and policy makers need to be aware of the high parenting stress of parents of children with ADHD and take necessary steps to reduce this stress. The identification of child, parent, and contextual factors that predict parenting stress in the present research suggests possible directions that should be implemented and evaluated.

## **FUTURE DIRECTIONS**

- In future Multi-centered studies should be carried out. Future studies should include Government school, special school of Intellectual disability, and rural areas school.
- More Schools and Study Disciplines should be included.
- Future studies are needed which should include multiple sites across the country, encompassing both urban and rural settings with a larger sample size and a control group.
- Future Research can be done with other children Groups like Opposite deviant disorder, conduct disorder, Autism spectrum disorder, Intellectual disability disorder etc to know their parental stress and resilience.
- Study can be conducted to see the impact of Rural-Urban differences; Impact of Gender, Class, Caste and Ethnicity on influencing perceive stress and resilience towards child's behavior

## **LIMITATIONS**

1. This study was a cross sectional design hence patients were assessed only once.
2. This study was done on small sample size, so it might not be generalizable, but Resilience already present in the caregivers but they could work positively on patient care and treatment adherence.
3. Lack of comparison group of fathers as well.
4. In present study important factors associated with family resilience were not assessed like 'daily activities & routines of the family', 'community support', 'positive & affirming communication patterns', social support from the immediate & distant social network during the crisis', 'spirituality & religion', 'cultural beliefs associated with illness & treatment' & 'illness-belief pattern' .
5. Ideally, such kind of study should be multicenter in nature; it should have been carried out in several places at a time for extracting proper information.
6. This kind of study should also give adequate importance to qualitative measures while collecting the data. There should be quantitative vis-a-vis qualitative approach in research design.

## CONCLUSION

Overall, the study in this dissertation pointed to the significant effects of child, Parent, and contextual factors on parenting stress. The study contributed to the literature by summarizing and clarifying findings on parenting stress in families of children with ADHD and also indicated areas requiring further study. The results suggested that parent factors are critically important in parenting stress. Earlier research, in its focus on the behaviors associated with child ADHD, to some extent lost sight of the nature of the construct of parenting stress and the familiarity of ADHD. Future research should be directed at exploring parent factors further and evaluating interventions directed at reducing parenting stress in parents of children with ADHD. The current study had shown significant differences in the parental stress and resilience between mother of ADHD children and normal children. Though it is not very wise to draw conclusion from this much samples, that group of study has got implication in shaping the stress and resilience of both children.

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