

## Quality of Life and Depression among Caregivers of Children with Attention Deficit Hyperactivity Disorder (ADHD)

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### Abstract

*The present study aims to investigate the quality of life and Depression among Caregivers of Children with ADHD. 80 Parents of ADHD children and 80 parents of children without mental illness with ages ranging from 30 to 45 years, residing in Aizawl, were sampled using a purposive random sampling method. Quality of Life (WHO Quality of Life-BREF, 1996) and Beck Depression Inventory (BDI) (Beck, Steer & Brown, 1996) were used for collecting data. Results revealed that parents of ADHD scored lower than parents of children with no mental illness on psychological quality of life whereas scores on depression were higher among parents of ADHD than parents of children with no mental illness; quality of life and depression had a negative correlation; and depression predicted quality of life among the samples. The results revealed the high need for psychological intervention among parents of ADHD which invites the urgent need to pay attention to the caregivers of mental patients as well as mental patients.*

**Keywords:** *Quality of Life, Depression, ADHD, Parent, Caregivers, Children*

### Introduction

Almost all people have a mental problem from time to time when encountering life problems becomes a mental illness when ongoing signs and symptoms cause frequent stress and affect on ability to function. Mental illness and mental health disorders are used interchangeably used refer to a wide range of mental health conditions, any mental disorders that affect your mood, thinking and behaviour. The Diagnostic and Statistical Manual of Mental Disorders (DSM), Fifth Edition include

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300 mental illnesses (Peterson, 2019), and groups the different mental disorders into five distinct categories such as neurodevelopmental disorders, internalizing disorders, externalizing disorders, neurocognitive disorders, and other disorders. Among many mental illnesses, Attention-deficit/hyperactivity disorder (ADHD) is under the neurodevelopmental disorders as per DSM V classification which was selected for the present study.

Attention-deficit/hyperactivity disorder (ADHD) is a neurobehavioral disorder characterized by inattention, impulsivity, and hyperactivity. ADHD have heterogeneous and variable impacts on functioning and daily activities for these children and their caregivers. Attention-deficit hyperactivity disorder (ADHD) is one of the mental disorders in the paediatric population with prevalence rates ranging from 5 to 7.1% (Polanczyk et al., 2007; Willcutt, 2012). ADHD symptoms included inattention, hyperactivity, and impulsivity symptoms, causing significant impairment to the patient (APA, 2013).

The concept of QoL in general terms an individual's subjective perception of physical, emotional, and social well-being (Göz et al., 2007) which covers a cognitive (satisfaction) and an emotional component (happiness). QoL can be influenced by many proximal (family and friendship) factors, distal (e.g., socioeconomic and cultural) factors, and the presence of a chronic illness has been considered the most potent risk factors for worse QoL scores (Harpin et al., 2005; Göz et al., 2007; Xiang et al., 2009; Kim et al., 2014).

Having a child with developmental disabilities creates a crisis event, how parents respond to the stresses of raising their child with special needs depends on a wide variety of factors influencing their ability to cope, such as their interpretation of the crisis event, the family's sources of support, community resources, and family structure. The personality characteristics of the family members, their financial status, educational level, problem-solving skills, and spirituality all influence a family's ability to cope. Strong marital relationships and social support also help determine parent adjustment (Thwala et al., 2015; Fazil et al., 2004). Parents of children with autism and ADHD are presented with a unique set of challenges associated with providing care for their children. Depending upon the nature and severity of the disability, the child may require significant personal care and monitoring to ensure his or her wellness and safety. Parents are usually the primary providers of this care. Given other responsibilities that parents typically have about maintaining stability for their family, the additional responsibility of providing significant levels of care for their child indefinitely may task parents' ability to maintain balance in their own lives. This may lead to stress for parents which could compromise their ability to effectively care for their child.

## **Review of Literature**

The research evaluated the QoL and depression among 202 primary caregivers of ADHD children by comparing them with a control group and found that parents of ADHD children reported poorer family QoL and higher parental depression and anxiety disorders (Cussen et al., 2012). Akvardar and colleagues compared the QoL scores between patients with psychiatric disorders and the control group, and patients with mental illness reported less satisfaction compared with patients with normal controls (Akvardar et al., 2006). Craig and colleagues (2020) did a study on a systematic review of coping strategies in parents of children with attention deficit hyperactivity disorder (ADHD).

The presence of ADHD has a deep and enormous impact not only on the patients but also on their family members in giving care to them (Harpin, 2005). Caring for a child with ADHD invites family, marital, and parental problems, reduces parenting efficacy, and increases the level of parental stress (Danckaerts et al., 2010); and also accompanied by feelings of guilt which increases vulnerability to depression (Johnston & Mash, 2001) and worse quality of life (Faraone et al., 2005; Desidério et al., 2010).

## **Statement of the Problem**

Behavioural problems of the child have a negative impact or effect on family adaptation including quality of life and psychological well-being. Parents may feel helpless, overwhelmed and frightened by this kind of behaviour and often begin to question their parental ability and will have guilt feelings associated with their inability. Parents of children with ADHD are presented with a unique set of challenges associated with providing care for their children.

In the Indian context, mothers take the sole responsibility for raising and caring for a child with a disability. Given other responsibilities that mothers typically have about maintaining stability for their family, the additional responsibility of providing significant levels of care for their child indefinitely may task parents' ability to maintain balance in their own lives. This may lead to stress for parents which could compromise their ability to effectively care for their child. Parents develop different positive and negative coping strategies to combat this psychological stress. Significant differences in coping behaviour have been reported among parents with different marital and socioeconomic status.

Many studies have evinced that QoL may be impaired due to the presence of ADHD (Harpin et al., 2005; Sawyer et al., 2002; Akvardar et al., 2006; Cussen et al., 2012). However, there are very few studies published in the literature investigating QoL in ADHD caregivers (Andrade et al., 2016). To address the research gap, the

present study was designed with the hope of exploring coping mechanisms of parents of children with ADHD to promote positive coping strategies for parents of children with ADHD, and to help such parents identify people who can support them.

### **Objectives**

The study set forth objectives based on the literature available as under:

- 1) To examine the applicability of the *Quality of Life (the subscale of the WHO Quality of Life-BREF (1996) and the Beck Depression Inventory (BDI) (Beck, Steer& Brown, 1996)* to the parents of children with ADHD, and parents of children with normal mental health.
- 2) To determine any variations between parents of children with ADHD and Normal mental health on Psychological Quality of life and Depression.
- 3) To investigate the connection between depression and Psychological Quality of Life among parents of children with ADHD.
- 4) To investigate the prediction of Psychological Quality of Life from Depression among parents with ADHD and parents of normal.

### **Hypotheses**

In consistency with the objectives of the study the following hypotheses were framed for the present study:

- 1) *WHO Quality of Life-BREF (1996) and Beck Depression Inventory (BDI) (Beck, Steer& Brown, 1996)* scales are applicable for parents of children with ADHD, and parents of children with normal mental health.
- 2) Parents of children with ADHD would show higher scores than parents of children with normal mental health on Psychological Quality of life and Depression.
- 3) There will be a positive significant correlation between Psychological Quality of life and Depression variables.
- 4) There will be a significant prediction of Depression on Psychological Quality of life among parents of children with ADHD and parents of children with normal mental health.

## Methodology

### Sample:

The sample size was 160 in total, 80 parents of ADHD, and 80 parents of children with normal children without any mental illness selected from the mental patients admitted to Dept of Psychiatry – Kulikawn Hospital, Special schools, Child Guidance Centre, District Early Intervention Centre and Private Clinic of Aizawl-Mizoram whereas parents of children with normal mental health were identified to well matched on socio-demographic variables, age range between 25 to 50 years but well matched socio-demographic variables such age ecology (urban and rural), educational level and others for comparison on Psychological Quality of life and depression.

### Tool Used

1. **Socio-Demographic Profile (Lalawmpuia, 2021):** It was specifically constructed by Lalawmpuia (2021) for screening purposes for controlling confounding demographic variables and to get true representation as per the design of the study. It consists of information about socio-demographic variables such as age, sex, religion, education, marital status, residence and occupation of the subjects.
2. **Informed Consent Form (Lalawmpuia, 2021).** It was constructed by Lalawmpuia (2021) to get consent from the samples after giving information about the present study.
3. **WHO Quality of Life-BREF (1996):** The WHO quality of life assessment was developed by the WHOQOL group and is applicable cross-culturally. It contains a total of 26 questions. The internal consistency coefficient ranged from 0.70 to 0.75 for the domains. The test-retest reliability coefficient ranged from 0.41 to 0.79 at item level.
4. **Beck Depression Inventory (BDI) (Beck, Steer & Brown, 1996):** It was developed to measure the severity of depression which contains 21 items with a 4-point rating scale, having Cronbach's alpha of 0.92 and validity of .98 (Beck et al., 1996). The test-retest reliabilities were calculated, yielding an average correlation of .93.

### Design

2 X 2 factorial designs explaining the two levels of gender (male and female) and level of mental illness (parent of children with ADHD and parent of children without ADHD); parents of children with ADHD were selected from the list of the parent of ADHD children from different hospital, homes, centres run by Government

of Mizoram and registered Private/ NGOS as per objectives of the study for comparison on Psychological Quality of life and Depression.

### Procedures

The required psychological tests were collected and made necessary preparation, and ready for use. The parents of ADHD parents' samples were randomly selected from Dept of Psychiatry – Kulikawn Hospital, different special schools, the Child Guidance Centre, a private clinic, the district early intervention centre and the education department of Aizawl-Mizoram. In contrast, parents of children without ADHD/ mental illness were selected from different parts of Aizawl to well match with the parents of children with ADHD, and also an equal representation of male and female samples. All necessary permissions were taken from the concerned authorities. Confidentialities were maintained and Informal consents were obtained from parents and participants as per the manual and APA code of ethics for research.

**Results:** The raw data does not contain missing data and outlier data, and it meets the objectives of the study and put together in the Table as under:

**Table -1:** Showing the Psychometric Properties of the Scale, t-test, Pearson's correlation and regression between independent and dependent variables among the samples.

| Independent Variables                                                           | Statistics | Dependent Variables           |            |
|---------------------------------------------------------------------------------|------------|-------------------------------|------------|
|                                                                                 |            | Psychological Quality of life | Depression |
| Parents of ADHD children                                                        | Mean       | 13.25                         | 16.78      |
|                                                                                 | SD         | 2.31                          | 2.29       |
|                                                                                 | Kurtosis   | -0.97                         | -0.96      |
|                                                                                 | Skewness   | -0.46                         | 0.69       |
| Parents of Normal Mental health children                                        | Mean       | 19.63                         | 10.25      |
|                                                                                 | SD         | 2.35                          | 2.3        |
|                                                                                 | Kurtosis   | -0.99                         | -0.97      |
|                                                                                 | Skewness   | 0.4                           | -0.68      |
| Reliability (Alpha)                                                             |            | 0.81                          | 0.83       |
| Homogeneity of Variances                                                        |            | 0.74                          | 0.69       |
| t-test between two groups                                                       |            | 3.25*                         | 2.87*      |
| Pearsons' Correlations between Psychological Quality of life and Depression     |            |                               | R=.68*     |
| Regression Analysis (prediction of depression on Psychological Quality of life) |            |                               |            |

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| Predictor                                                         | Criterion                     | R Square | F Change | df    | Sig. F<br>Change | Durbin-<br>Watson |
|-------------------------------------------------------------------|-------------------------------|----------|----------|-------|------------------|-------------------|
| Depression                                                        | Psychological Quality of life | 0.46     | 102.89   | 1/118 | 0                | 1.15              |
| * = significant at .01 levels: ** = * = significant at .05 levels |                               |          |          |       |                  |                   |

**Objective-1:** To examine the applicability of the psychological *quality of life the subscale of the WHO Quality of Life-BREF (1996) and the Beck Depression Inventory (BDI) (Beck, Steer& Brown, 1996)* to the parents of children with ADHD and normal mental health, the normality of the data was checked, and skewness values and kurtosis values were less than 1.0 (+/-) which conveyed that the data approximates normality. Cronbach's alpha showed high reliability for both tools;.81 for WHO Quality of Life-BREF and .83 for BDI. Tests of homogeneity of variance showed that psychological Quality of life and Depression were not significant indicating that variances of the three sample groups are approximately equal on both scales. The overall results showed the applicability of the tests in the target population and also highlighted the appropriateness of applying parametric tests to data. The result suggests acceptance of hypothesis no 1.

**Objective 2:** To determine any variations among parents of children with ADHD and Normal mental health on Psychological Quality of life and Depression an independent t-test was calculated. Results evinced those parents of ADHD children scored lower than (M=13.25; 16.48) and parents of children with normal mental health on Psychological Quality of life at significant .01 level (M=13.25; 19.63; t=3.35; p<.01). The reverse trend was found in Depression where parents of ADHD scored higher than parents of children with normal mental health (M=16.78; 10.25; t=3.87; p<.01) with significance at. 01 level on Depression as shown in the Table. The result has accepted hypothesis no -2.

**Objective-3:** To investigate the connection between Depression and Psychological Quality of Life among parents of children with ADHD and parents of children with normal children the Pearson Correlation was used. The results showed that the Psychological Quality of Life and Depression had a significant negative correlation (r=.68; p<.01) as shown in Table 2. The magnitude of the relationship was moderate and favoured accepting hypothesis no 3.

**Objective -4:** To investigate the prediction of Psychological Quality of Life from Depression among parents with ADHD and Autism, Regression Analysis was calculated. The simple regression analysis results showed significant predictability of Psychological Quality of life from Depression (p<.01) accounting for 46 %of the variation within the criterion variable. Durbin Watson was lower than 2.0 indicating

that there was no autocorrelation detected in the sample. The results suggest accepting hypothesis no-4.

### **Discussion and Conclusion:**

Results revealed that the parents of ADHD have a lower Psychological Quality of Life and higher depression when compared to parents of normal children/ with no mental illness which confirmed the earlier researchers' finding that parents of ADHD children reported poorer family QoL and higher parental depression and anxiety disorders (Cussen et al., 2006) as the presence of ADHD has a deep and enormous impact not only on the patients but also on their family members in giving care to them (Harpin, 2005). The burden of caretaking children with ADHD with little to no intervention may be the reason behind such poor quality of life and higher depression levels. The significant negative relationship between the Psychological Quality of Life and Depression variables throws light on the burden of being a parent of ADHD endorses depression and decreases their quality of life. The findings support earlier findings that the QoL may be impaired due to the presence of ADHD (Harpin et al., 2005; Sawyer et al., 2002; Akvardar et al., 2006; Cussen et al., 2012). The results evinced the prediction of depression on Psychological Quality of Life suggesting the importance of paying attention to the mental health of the carer of the mental patients. Several studies also evinced the same that the burdensome of caring for a child with ADHD increases stress (Danckaerts et al., 2010) and vulnerability to depression (Johnston & Mash, 2001) resulting in a worse quality of life (Faraone et al., 2005; Desidério et al., 2010). The moderate magnitude of the relationship must be put into consideration if intervention is formulated. and the result of regression analysis also strongly supports the need for formulating care and support policies for parents and caregivers. The findings show caregivers/parents of children with ADHD and Autism had a greater frequency of depression and worse quality of life which required psychological intervention and the need for developing better intervention programmes to address the mental health of the carer of mental patients.

### **Limitation**

The present study could not compare single parents, small sample used in the present study limited the generalization of present findings and limited psychological variables.

### **Significance of the study**

The study has contributed to the level of burden and anxiety for caregivers which has never been done, and highlighted the need for psychological intervention for them.

## Suggestion

Though the present study contributed significant findings but not free from limitations which invites some suggestions for the improvement of future research (i) inclusion of a bigger sample size for more information with reliability which could be used for generalizing the target group, (ii) inclusion of more types of mental patients for comparison to contribute more information about the carer's burden of the mental health patients, (iii) inclusion of more mental health symptom to understand more about the psychological problems for making prevention and intervention strategies for target group. There is a need for more research on the psychosocial well-being of the parents/caregivers of children with disability.

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