

Research Article

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Exploring Attention Deficient and Hyper Activity Disorder and Social Stigma: An Associational Perspective

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Abstract

Background and Objective. Attention Deficient and Hyper Activity Disorder (ADHD) is a behavioral disorder prevailed among child (below 18 years) is confined to children affect child in all aspects of life including developmental, social, educational and cognition. The present endeavor was designed to explore the association between social stigma (independent variable) and ADHD (dependent variable) patients in Peshawar city through quantitative methods i.e. Chi square test statistics through cross tabulation and indexation.

Method. This study was conducted in three major hospitals of Peshawar city. Data was collected through a well-structured interviewed schedule from 127 sampled respondents. Further the collected data was analyzed through descriptive and inferential statistics.

Results. A highly significant ($p=.00$) association was found between ADHD and social stigma attributes i.e. sampled respondents were highly stigmatized due to the prevalence of ADHD; normal interaction with own family members were prevailed in terms of eating, however, Parents give ADHD patient less concentration than normal kids were explored from the study findings through associational (chi-square) test statistics.

Implications. It could be concluded from the study findings that, a social repercussions of ADHD was considered as stigma-provoking agent of inferiority complex with prone personality disorder resulting into a state of social exclusion of ADHD patients from all walk of life.

Keywords. ADHD, children's, social stigma, chi-square, peshawar.



Introduction

Attention Deficient Hyperactivity Disorder (ADHD) refers to a behavioral disorder which could easily be identified by an observer by tracing child who suffering from it. According to the Convention on the Rights of the Child (CRC) as “who ever comes under the range of 18 years of age to be called as a child unless the state’s law interprets him or her above the prescribed age range of child.” ADHD is confined to children and such symptoms are prominently associated with disorder such as deficient in attention, mood swing, increase muscle-and-nerve acts and high impulsiveness. ADHD in very early age severely effects child’s all aspect of life particularly cognitive, educational, emotional, social and developmental perspectives (Rader, McCauley & Callen, 2009). It is believed that ADHD is prevalent in general population with the range of 5% to 20% depending on the environment they are living in. Similarly, it is prevalent among children only and their functional deficient may persist till their adulthood (Barbaresi et al., 2002; Polanczyk et al., 2014).

The concept of Attention Deficient Hyperactivity Disorder (ADHD) was used by Dr. Heinrich Hoffman in 1845. He was firmly interested in elaborating the psyche of children. His prior intent was to understand his own 3 years old son. The interesting turn came in his contribution when he collected books regarding poems pertaining with children particularly which eventually led him to do comprehensive work on the psyche problems or disorders related to children as the very area of psychiatry was untouched. This was his son whose problem turned Dr. Heinrich Hoffman to work more extensively on ADHD. Since there are thousands of scientific-based papers have been published on ADHD which have empirical understanding (Still, 1902).

From the start of 20th century, the main scientific metaphor of ADHD and its symptoms are believed to be existing in children. It is believed that ADHD is confined to children only. Similarly, another study depicts that it is not necessarily accepted that those children who are intellectually sound are not vulnerable to be identified with ADHD while several studies revealed that these children with normal intellectual grasping capacity could also be caught with ADHD as in very early age it is often difficult to be diagnosed before any clinical sitting (Still, 1902). It has been noted that early age head injury could trace or lead to hyperactivity in children as severe damage to the brain which results ADHD.

Contemporary scenario of World Health Organization (WHO) estimated in its report that 3% to 4% of adults worldwide have ADHD, out of which 4.5% in the United State only. All of those who are caught by this psychiatric disorder, among them a large proportion of patients, almost 8 million to 10 million are not going through any clinical sitting or testing for systematic diagnosis. Very sadly round about millions of ADHD patients did not seek any quality of treatment due to their ignorance or low level of awareness in initial phase of occurrence of the very disorder (Barkley, Murphy, & Fischer, 2008). The WHO study also reported that large portion of adults with ADHD are usually absent from organization where they serve their respective duties. The Centers for Disease Control and Prevention (2009) reports that their absence from workplace leads to break the plane environment or cycle of profits although in a result organization face losses about \$ 3.7 billion.

The commonness of ADHD has been noticed in Pakistan about 2.49% (Karim et al., 1998). Boys has significantly higher ratio with ADHD than girls, but ratio varies remarkably from 2:1 to 9:1. Gender difference is less distinct and prominent for being not attentive type of ADHD. Boys are more exposed to hostile and antagonistic behavioral problems (Gaub & Carlson, 1997). Children with ADHD contribute 30-40% of consultation to child mental health physicians (Barkley, 1998).

It is believed that ADHD has is frequently diagnosed disorder in child and adulthood with a high impact affecting multi facets of social life. Patients diagnosed with ADHD are usually are at vulnerable position to be stigmatized, prejudice and discrimination in their sphere of social interaction. The contribution of stigma attached with ADHD can be conceptualized as an misjudged risk factor, affecting the course of treatment, effectiveness, symptom aggravation, life satisfaction and psychologically soundness of individuals suffered from ADHD. General public and health professionals’ idea about ADHD are highly heterogeneous and dissimilar (Brakley et al., 2008).

Children with ADHD may experience significant social troubles. It is guessed that approximately 50%-60% of ADHD children prone to be socially excluded by their friends, colleagues and sometime by their family members due to stigma associated with ADHD.

Whereas, only 13% to 16% of children in primary schoolclassrooms are discarded (Terry & Coie, 1991). Similarly, many children with ADHD are distasted or averted within minutes in their initial social interaction with others (Pelham & Bender, 1982) and then denied further opportunities to exhibit social skills (Landau et al., 1998). Unluckily they are labeled being authoritarian, disturbing, inflexible, agitating, explosive, disputed, disappointed and discontented not attentive during organized sports/games, and breaking the rules of game (Taylor, 1994; Whalen & Henker, 1985). Classmates feel uncomfortable with such children irrespective of knowing the fact. They do not like to make embrace as their friend and stigmatized as disruptive, lazy, dirty, and unable to adjust with changing circumstances.

From last recent 10 years numbers of studies pertaining to stigma associated with ADHD have considerably increased chiefly focus on the diagnosis and the risk of stigma which strengthen the probability of hatred and discriminating behavior on the mental health well-being of individual with ADHD (Brohan et al., 2010). Stigma gives exposure to stereotypical attitude from public and determines group as favorable or unfavorable on the basis of attribute they attach with ADHD is the form of social stigma (Demaio, 2006). Stigma is socially constructed label attached with different diseases or disorders i.e. ADHD, AIDs etc. The roots of social stigma lie within the frame of every culture but its degree considerably vary from culture to culture (Corrigan & Shapiro, 2010). Stigma utilization and stigma sight can be demonstrated as an intricate interplay of affective, cognitive and as well as behavioral characteristics primary noticed and expressed in social interaction (Goffman, 1997).

Basically there are some features of stigma among which are public stigma, self-stigma (Corrigan & Shapiro, 2010) and courtesy stigma (Goffman, 1963). Amongst these above mentioned qualities of stigma, the most life threatening is public stigma where one may confront discrediting/unreliable and there is a chance of social exclusion in the form of alienating from social group. Similarly, due to public stigma people are being advised to have no more social interaction with those who are victim of such disorders which seem unbearable and uncomfortable (Corrigan & Shapiro, 2010).

Methods

A cross sectional study design was conducted in three major hospitals in district Peshawar namely-Lady Reading, Khyber Teaching and Hayatabad Medical Complex. ADHA patients at psychiatric wards of the aforementioned hospitals were the key respondents of the study (where every sampled respondents consent was there at the time of data collection). The overall population of ADHD patients at aforementioned three hospitals was 185 resulting a sample size of 127 was selected as per Sekeran (2003) criteria. The sample size was further proportionally assigned to each single unit (hospital) by adopting proportion allocation method as given in table 1 (Chaudry & Kamel, 1996). Further, by adopting direct and face-to-face interaction a well-structured interview schedule was used. The primary data collection was coded in SPSS (20 version) to analyze the data into descriptive (frequency and percentage distribution) and inferential statistics (chi square test statistics through indexation and cross tabulation method) were applied.

Table 1

Proportional Allocation of the Sample taken from each Hospital (N=127)

| Name of the Hospital | Population Size(Patients)(N) | Sample Size (n) |
|---------------------------|------------------------------|-----------------|
| Lady Reading Hospital | 46 | 31 |
| Khyber Teaching Hospital | 74 | 51 |
| Hayatabad Medical Complex | 65 | 45 |
| GRAND TOTAL | 185 | 127 |

Note: Lady Reading Hospital (LRH), Medical Ward, Khyber Teaching Hospital (KTH), and Hayatabad Medical Complex (HMC) Peshawar.

Results and Discussions

Perceptions of the respondents regarding ADHD

Attention Deficient Hyperactivity Disorder (ADHD) refers to a behavioral disorder, which could easily be identified by an observer by tracing child who suffering from it. ADHD is confined to children and such symptoms are prominently associated with disorder such as deficient in attention, mood swing, increase muscle-and-nerve acts and high impulsiveness. ADHD in very early age severely affects child's all aspects of life particularly cognitive, educational, emotional, social and developmental perspectives.

Table 2 describes frequency and percentage distribution of ADHD. Majority 80.3% of the respondents agreed that ADHD is behavioral disorder with particularly be found in children. Followed by 19.7% were not sure about the statement. Similarly, 81.1% of the respondents confessed that in initial phase of ADHD are very hard to be diagnosed. Whereas, 18.9% were uncertain about the initial phase of ADHD. Likewise, majority 79.5% of the respondents agreed that ADHD has affected their cognitive and emotional capacitive strength. While 20.5% negated from the statement. Early age explanation over activities of a child is difficult to be monitored. Any act deviance on non-participation also either be situational or personal. However, frequency of occurrence of such acts through proper monitoring is not being owned by the concerned family, rather treated it occasional. Rader, McCauley and Callen (2009) acknowledged that ADHD is actually behavioral disorder and it seems difficult the child to be identified with disorder in its initial surge. Being ADHD patients children are more prone to be destabilized emotionally.

Moreover, majority 80.3% of the respondents agreed that ADHD is also prevalent in adults as well. While 19.7% negated from the statement. Similarly, majority 80.3% of the respondents had the opinion that symptoms of ADHD changes as child grow up whereas 19.7% of the respondents showed disagreement with the statement. These findings of the study are supported by Barbaresi et al. (2002) and Polanczyk et al. (2014) that it is prevalent among children only and their functional deficient may persist till their adulthood.

Similarly, majority 59.8% of the respondents exposed that the impact of ADHD is alarming and challenging. While 20.5% of the respondents were not sure that whether ADHD is alarming or easily curable. Followed by 19.7% of the respondents who negated from the statement. Similarly, majority 69.3% of the respondents had the view that ADHD is a familial disorder, having signs of spreading to others. Whereas, 20.5% of the respondents disagreed with the same statement. Followed by 10.2% of the respondents had no clue. It is either biological or social, yet to be ascertained. However in some of the cases, it is treated as transferable. These findings of the study are in consonance with the study of Baria (2013) who revealed that ADHD is very challenging and familial disorder and sometimes it is noticed that it often spread from one person to another. Likewise, majority 80.3% of the respondents urged that coping patients with ADHD is a social and psychological challenge. While 19.7% of the respondents had the opinion that coping ADHD patients has no serious concerns both socially and psychologically. These findings of the study are supported by Kaidar et al (2003) who explained that for both parents and counseling professionals it is quite perplexing and problematic to cope ADHD psychologically and socially.

Table 2

Frequency and Percentage distribution on the basis of ADHD (N=127)

| Characteristics | Yes | No | Uncertain |
|---|-----------|----------|-----------|
| ADHD is behavioral disorder with particularly be found in children | 102(80.3) | 00(00.0) | 25(19.7) |
| In initial phase of ADHD is very hard to be diagnosed | 103(81.1) | 00(00.0) | 24(18.9) |
| ADHD effects the cognitive and emotional capacitive of child | 101(79.5) | 26(20.5) | 00(00.0) |
| ADHD is also prevalent in adults as well | 102(80.3) | 25(19.7) | 00(00.0) |
| The symptoms of ADHD changes as child grow up | 102(80.3) | 25(19.7) | 00(00.0) |
| The impact of ADHD is alarming and challenging | 76(59.8) | 25(19.7) | 26(20.5) |
| ADHD is a social dys-functionalism | 90(70.9) | 37(29.1) | 00(00.0) |
| ADHD is a familial disorder, having signs of spreading to others | 88(69.3) | 26(20.5) | 13(10.2) |
| ADHD is a psychological disorder, with signs of readdressed after particular period of time | 101(79.5) | 13(10.2) | 13(10.2) |
| Coping patients with ADHD is a social and psychological challenge | 102(80.3) | 25(19.7) | 00(00.0) |

Note. *Values in the table represent frequencies while values in the parentheses present percentage

Association between Social Stigma and Attention Deficient Hyperactivity Disorder (ADHD).

Social stigma is mark of infamy or feeling of disrespect and Shame, usually associated with the observance of any prescribed norms. However attaching such feeling to the disease like HIV, AIDS, and mental illness like ADHD as also virtually to additional situation. It is believed that ADHD has is frequently diagnosed disorder in child and adulthood with a high impact affecting multi facets of social life. Patients diagnosed with ADHD are usually at vulnerable position to be stigmatized, some unexplained prejudice and discrimination in their spheres of social interaction during social group participation.

Table 3 showed the association between social stigma and Attention Deficient Hyperactivity Disorder (ADHD) and disclosed a highly significant ($p=.00$) association between ADHD and patients are highly stigmatized due to having ADHD. Similarly, highly significant ($p=.00$) association was found between ADHD and patients having normal social interaction with your family members. These finding shows a fear of social isolation and from family affair participation and treatment of exclusion from their friends. These findings of the study have consonance with the finding of Terry & Coie (1991) who claimed that children with ADHD might experience significant social troubles. It is guessed that approximately 50%-60% of ADHD children prone to be socially excluded by their friends, colleagues and sometime by their family members due to stigma associated with ADHD and secondly, they are also excluded from sphere of social interaction.

In addition, a highly significant ($p=.00$) association was found between ADHD and their family members allow eating with them. It could be deduced from their finding that family treat their children with normal. The obvious reason of such treatment is embodied and teaching of Islam, which is ensured with equality in treatment to all human being. Furthermore, a highly significant ($p=.00$) association was found between ADHD and peer play with you without any hesitation. Similarly, a highly significant ($p=.00$) association was found between ADHD and people treat you as usual as they were before when you were not identified with ADHD. These findings were in negative to the work of Corrigan and Calabrese (2001) who revealed that while having ADHD status peer are very hesitant and people also treat them differently due to the stigma associated with ADHD.

A significant ($p=.00$) association was found between ADHD and teachers treat you as they treat the rest of your class fellows. Likewise, significant ($p=.00$) association between ADHD and you are not socially excluded from daily social events/activities. However, Clarke (1997) in his study revealed that children with ADHD are usually treated very differently by their teachers and have given no such eager attention which eventually leads to alienation from social gathering. Furthermore, significant ($p=0.006$) association was found between ADHD and you don't feel depressed due to suffering from ADHD. Similarly, a significant ($p=0.006$) association was found between ADHD and parents give you second priority in comparison to others normal kids. These finding shows a visible difference in treatment between normal ADHD affected kids. These results were also in line with Sandberg (2002) who thinks that sense of deprivation and low self-esteem among ADHD children is the result of parent discriminatory attitudes with their children.

Table 3*Association between Social Stigma and ADHD (N=127)*

| Social Stigma | Perception | ADHD | | | P-value(χ^2) |
|--|------------------|------------|----------|-----------|--------------------------------------|
| | | Yes | No | Uncertain | |
| You are highly stigmatized due to having ADHD | <i>Yes</i> | 26(66.7) | 13(33.3) | 00(00.0) | $\chi^2=32.678$ (<i>p</i> =.00) |
| | <i>No</i> | 88(100.0) | 00(00.0) | 00(00.0) | |
| | <i>Uncertain</i> | 00(00.0) | 00(00.0) | 00(00.0) | |
| You have normal social interaction with your family members | <i>Yes</i> | 52(80.0) | 13(20.0) | 00(00.0) | $\chi^2=13.814$ (<i>p</i> =.00) |
| | <i>No</i> | 62(100.0) | 00(00.0) | 00(00.0) | |
| | <i>Uncertain</i> | 00(00.0) | 00(00.0) | 00(00.0) | |
| Your family allow you to eat with them | <i>Yes</i> | 101(100.0) | 00(00.0) | 00(00.0) | $\chi^2=56.259$ (<i>p</i> =.00) |
| | <i>No</i> | 13(50.0) | 13(50.0) | 00(00.0) | |
| | <i>Uncertain</i> | 00(00.0) | 00(00.0) | 00(00.0) | |
| Your peer play with you without any hesitation | <i>Yes</i> | 65(100.0) | 00(00.0) | 00(00.0) | $\chi^2=15.183$ (<i>p</i> =.00) |
| | <i>No</i> | 49(79.0) | 13(21.0) | 00(00.0) | |
| | <i>Uncertain</i> | 00(00.0) | 00(00.0) | 00(00.0) | |
| People treat you as usual as they were before when you were not identified with ADHD | <i>Yes</i> | 75(100.0) | 00(00.0) | 00(00.0) | $\chi^2=20.888$ (<i>p</i> =.00) |
| | <i>No</i> | 39(75.0) | 13(25.0) | 00(00.0) | |
| | <i>Uncertain</i> | 00(00.0) | 00(00.0) | 00(00.0) | |
| Your teachers treat you as they treat the rest of your class fellows | <i>Yes</i> | 51(100.0) | 00(00.0) | 00(00.0) | $\chi^2=9.718$ (<i>p</i> =.00) |
| | <i>No</i> | 63(82.9) | 13(17.1) | 00(00.0) | |
| | <i>Uncertain</i> | 00(00.0) | 00(00.0) | 00(00.0) | |
| You are not socially excluded from daily social events/activities | <i>Yes</i> | 52(100.0) | 00(00.0) | 00(00.0) | $\chi^2=10.041$ (<i>p</i> =.00) |
| | <i>No</i> | 62(82.7) | 13(17.3) | 00(00.0) | |
| | <i>Uncertain</i> | 00(00.0) | 00(00.0) | 00(00.0) | |
| You don't feel depressed due to suffering from ADHD | <i>Yes</i> | 39(100.0) | 00(00.0) | 00(00.0) | $\chi^2=6.418$ (<i>P</i> =0.006) |
| | <i>No</i> | 75(85.2) | 13(14.8) | 00(00.0) | |
| | <i>Uncertain</i> | 00(00.0) | 00(00.0) | 00(00.0) | |
| Parents give you second priority in comparison to others normal kids | <i>Yes</i> | 75(85.2) | 13(14.8) | 00(00.0) | $\chi^2=6.418$ (<i>P</i> =0.006) |
| | <i>No</i> | 39(100.0) | 00(00.0) | 00(00.0) | |
| | <i>Uncertain</i> | 00(00.0) | 00(00.0) | 00(00.0) | |

Note. *Number in table represent frequencies and number in parenthesis represent percentage proportion of respondents and in the last columns number in the parenthesis represent p-Value

Conclusion

A cross sectional based study was conducted with the sole aim to assess the social stigma among ADHD patient in Peshawar. Primary data was collected through structured questionnaire from 127 patients in 3 major hospitals of Peshawar for quantitative analysis in i.e., descriptive and inferential statistics. Thus the study concluded based on the study findings that ADHD patients are highly stigmatized, having lack of normal social interaction with family members and others. Moreover, social repercussions of ADHD was associated with stigma which further led to inferiority complex with prone personality disorders resulting into state of social exclusion of the ADHD patients. Children with ADHD need to be considered and treated as normal being by adopting socially allowable behavior towards them in order to remove sense of social stigma associated to them at family and community level. Parents are often facing the lacking of adequate knowledge about ADHD.

Declaration

Authors' Contribution. All authors contributed to the conceptualizations of the formulation of research design, literature review, scale translation, data collection and data analysis.

Conflict of Interest. Authors declare that they have no conflict of interest.

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Availability of the Data . Authors may provide data on request.

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