

Wellbeing, Aggression among Hypertensive and Healthy Adults

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ABSTRACT

Background: Hypertension has turned into one of the most common chronic diseases among people of India. The objective of this research was to assess psychological variables related with hypertension. The relationship between Aggression and Psychological Well Being among Hypertensive and Non-Hypertensive Adults was studied. **Aims:** It was hypothesised that there will be no significant relationship between Aggression and Psychological wellbeing among Hypertensive and Non-Hypertensive Adults. **Method:** 50 hypertensive and 50 non hypertensive people were selected. Buss and Perry Aggression Questionnaire and Ryff's Psychological Well Being scale were used to assess the aggression and well-being among the participants. Data was analysed by calculating correlation and t test. **Results:** It was observed a significant negative correlation among domains of aggression and domains of Well-being among both hypertensive and healthy adults. Especially among healthy adults Hostility shares a strong negative correlation with Positive Relations. In regards to hypertensive individuals, Purpose of Life and anger share a negative strong negative correlation with each other. Similarly, Personal Growth and Physical Relation also share a negative correlation. A significant difference exists among both the groups for aggression and Well-being $p < 0.01$. From these results it can be inferred hypertensive individuals do experience higher levels of aggression which impacts their overall Well Being.

Keywords: Blood pressure, Agonistic behaviour, Contentment

One of the most common disease which is prevalent among Indians is Hypertension. A disease which used to manifest earlier among people in their 50s is now rampant amongst the younger generation too. The fourth National Family Health Survey (2017) stated hypertension is found to be in 13.8% men vs. 8.8% among women with general percentage being 11.3% of age range being starting from 15 till 49 years and from 15 till 54 years individually in India [1][2].

Hypertension

Correspondingly referred as increased or ambulated pressure of blood. It is an ailment in which the arteries and veins have stubbornly elevated pressure. Blood is transported from the organ heart to every cell of the body via arteries and veins World Health Organisation

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Received: July 12, 2022; Revision Received: December 25, 2022; Accepted: December 31, 2022

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(2011)[3]. Ambulated blood pressure is said to cause various physiological and psychological changes in a person which further aggravates the condition [4].

Causal Factors:

- 1) **Biological:** Various lifestyle diseases such as Diabetes and Hypertension impact the functioning of organs which can cause hypertension.
- 2) **Psychological:** Psychological factors when present for longer duration can create emotional stress and provoke a physiological response. [5]

Aggression:

The word aggression denotes to diverse behavioural activities which might create both psychological trauma and physical damage to himself/herself, other people. It centres on inflicting harm on someone either bodily or emotionally. It consists of Physical, Verbal, Emotional aspects. [6]

Factors Influencing

- **Biological factors:** Females are prone towards verbal aggression while males towards physical aggression.[7]
- **Environmental factors:** Child rearing practises and early childhood experiences do play a role in aggressive behaviour.[8]
- **Physical factors:** Injuries to the brain caused by some accident can impact the functioning of the brain[9]

Well Being:

It implies healthy relations with others, personal mastery, autonomy, a feeling of purpose and meaning in life Ryff (2004). **Ryff's model(1989)** explained well-being via six factors, they are[10] :

1. *Self-Acceptance:* It represents the individual's positive attitude about his/her own self.
2. *Autonomy:* This indicates that the person is independent and enjoys performing his tasks himself rather than depending on other for it.
3. *Environmental Mastery:* It depicts that the person makes an effort to work on the opportunities present in his life and upholds a mastery in dealing with environmental stressors.
4. *Personal Growth:* It delineates the person continues to seek novel experiences, and understands the need for improvement in behaviour and self over time.
5. *Positive Relations with Others:* As the word suggests, it refers to a person's ability to maintain long term, healthy and committed relations with other people in their environment.
6. *Purpose in Life:* It denotes a person's goal direction in addition to opinion that life is meaningful.

The symptoms of Hypertension are very similar to certain psychological symptoms. If it continuous for a prolonged time, productivity, efficiency and health of the people will be hampered. It can further give rise to more serious complications. In the western countries many health professionals are adopting holistic approach, in which psychosocial factors are also studied to manage a disease effectively. Such approach is still lacking in India.

METHODOLOGY

The objective of this research was to assess the relationship between Aggression and Psychological wellbeing among Hypertensive and Non-Hypertensive Adults. It was hypothesised that there will be no significant relationship between Aggression and Psychological wellbeing among Hypertensive and Non-Hypertensive Adults. Ex Post Facto research design was used.

Sample

The study consists of 100 participants, 50 Non-Hypertensive adults, 50 adults with Hypertension were made part of the study. Purposive sampling was done. Age range of the population was 30 -50 years of age. Inclusion criteria regarding the population selection was Individuals should be educated till Class 10th with age falling under the range of 30-50 years of age. The individuals who were experiencing hypertension since last 2 years and the blood pressure of Hypertensive individuals was $\geq 140/90$ mm Hg. Also, Hypertensive individuals who were consuming medicines to control their blood pressure were made part of the study.

Tools used

The tools used in the study were **Ryff's Psychological Well Being Scale-18 and Buss and Perry Aggression Questionnaire** [11]. Psychological Well Being scale was developed by psychologist Carol Ryff in the year 2007, the 18-item scale consists of six domains of well-being. They are autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. The test-retest reliability coefficient of the test was 0.82.

Whereas, Buss and Perry Aggression Questionnaire was developed by Arnold H. Buss and Mark Perry in 1992. It comprises of 29-items. Participants had to rank certain statements along a 5-point likert scale from "extremely uncharacteristic of me" to "extremely characteristic of me". The internal consistency coefficients were as follows: Physical Aggression, $\alpha = .85$.

Procedure

100 participants were made part of the study by using purposive sampling. Further, dividing the sample into two groups of healthy adults and hypertensive adults. Each group consisted of 50 participants. Inclusion and exclusion criteria were followed for selecting the people. The participants were asked to fill the Socio demographic sheet, Clinical data sheet. Then they were asked to fill the above-mentioned Questionnaires of Well Being, Anxiety and Aggression. Statistical analysis was performed on the collected data.

Data Analysis

The data analysis was done using the IBM Statistical Package of Social Sciences (SPSS-20.0) software. t -test and Correlational analysis were conducted on the data collected.

RESULTS

Demographics: Out of 100 participants, 55 males (55%) and 45 females (45 %). Out 100 participants 42 participants were of age range 30-35 (42%); 22 participants of age 36-40 (22%); 26 participants of age range 41-45 (26%); 10 participants of age range 46-50(10%).

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Table 1: Showing Correlation of Well-Being, Aggression Among Healthy Individuals

	P A	V A	ANG ER	HOSTI LITY	AUT NMY	ENV MST RY	PER S GR WTH	POS TV RLT NS	PU RP OF LI FE	SE LF AC CP
PA	-	-	-	-	-	-	-	-	-	-
VA	.654**	-	-	-	-	-	-	-	-	-
ANGE R	.741**	.762**	-	-	-	-	-	-	-	-
HOSTI LITY	.590**	.464**	.675**	-	-	-	-	-	-	-
AUTN MY	-.604**	-.259	-.462**	-.496**	-	-	-	-	-	-
ENV MAST RY	-.474**	-.131	-.384**	-.386**	.527**	-	-	-	-	-
PERS GRWT H	-.290*	-.098	-.250	-.320*	.387**	.225	-	-	-	-
POSTV RLTNS	-.576**	-.465**	-.558**	-.615**	.473**	.427**	.366**	-	-	-
PURP OF LIFE	-.358*	-.242	-.300*	-.412**	.349*	.417**	.454**	.460**	-	-
SELF ACCP	-.591**	-.481**	-.533**	-.340*	.386**	.412**	.076	.375**	.286*	-

Table 2: Showing Correlation of Well-Being, Aggression Among Hypertensive Individuals

	P A	V A	ANG ER	HOSTI LITY	AUT NMY	ENV MST RY	PER S GR WTH	POS TV RLT NS	PU RP OF LI FE	SE LF AC CP
PA	-	-	-	-	-	-	-	-	-	-
VA	.352*	-	-	-	-	-	-	-	-	-

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ANGER	.678**	.454**	-	-	-	-	-	-	-	-
HOSTILITY	.491**	.285*	.709**	-	-	-	-	-	-	-
AUTONOMY	-.280*	-.170	-.124	.084	-	-	-	-	-	-
ENV MASTERY	-.066	.073	-.067	.104	.088	-	-	-	-	-
PERS GRWTH	-.295*	.034	-.262	-.306*	.095	.448**	-	-	-	-
POSTV RLTNS	-.075	.085	-.229	-.378**	-.088	.313*	.445**	-	-	-
PURP OF LIFE	-.220	-.196	-.308*	-.288*	.089	.016	.146	.419**	-	-
SELF ACCP	-.012	-.010	-.109	-.130	-.020	.516**	.400**	.590**	.202	-

Table 3: Showing the T Test Results of Healthy & Hypertensive Individuals

	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
PA	.934	.336	-7.704	98	.000	-13.160	1.708
ANGER	.069	.794	-4.152	98	.000	-7.680	1.850
VA	5.733	.019	-8.712	98	.000	-9.580	1.100
HOSTILITY	1.171	.282	-4.917	98	.000	-9.020	1.834
AUTONOMY	1.624	.206	5.434	98	.000	3.080	.567
ENV MASTERY	.533	.467	6.358	98	.000	3.440	.541
PERSONAL GROWTH	.727	.396	6.864	98	.000	4.180	.609
POSITIVE RELATIONS	.028	.867	5.853	98	.000	3.820	.653
PURPOSE OF LIFE	.005	.944	7.536	98	.000	4.580	.608
SELF ACCEP	.346	.558	6.920	98	.000	4.360	.630

Relationship between Aggression and Well Being:

Table 1 shows a noteworthy negative correlation among domains of aggression in addition to domains of Well-being. Table 2 shows a substantial negative correlation amidst domains of aggression and domains of Well-being. Whereas, Table 3 shows a significant difference exists among the both groups among the variable aggression as well as Well-being $p < 0.05$.

DISCUSSION

In past few decades major lifestyle changes have occurred in our society. These changes have brought about significant deviations in our lives. The most common ways in which

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these changes manifest in our lives is through development of chronic diseases. Hypertension has become a leading cause of death in our nation.

Hypertension affects an individual not just physically but psychologically too, there is need to look beyond just the physiological factors involved in this disease. With the advent of holistic health practise, the symptoms-based model of treatment is giving way for bio psycho social model. In the current study various psychological variables have been studied to understand how the Hypertensive individuals are influenced psychologically by their disease. The current study adds to the increasing literature regarding Hypertensive individuals and their mental health.

The present study was Ex Post Facto research. The aim of the research was to examine Well Being, Aggression among Hypertensive and Healthy Adults. The present study was done on 50 hypertensive individuals and 50 Healthy individuals. Hypertensive individuals were experiencing High Blood Pressure in last 2 consecutive years and were consuming medications to control it. The participants were selected using purposive sampling.

The socio demographic information collected during the research process was analysed. From the Table 1 it can be inferred that out of 100 participants, 55 were males and 45 were females. More males were part of the study as compared to females. In regards to the age of the participants, out 100 participants 42 participants were of age range 30-35 (42%); 22 participants of age 36-40 (22%); 26 participants of age range 41-45 (26%); 10 participants of age range 46-50(10%).

The **objective** of the research was to assess the association amongst Aggression and Psychological Well-Being among Hypertensive and Healthy adults.

Among healthy individuals it was observed from the table 1 that a negative correlation exists between Aggression and Well Being. By inferring the correlation values of sub domains of aggression which were Physical Aggression, Verbal Aggression, Anger and Hostility with sub domains of Well Being it can be stated that a significant negative correlation($p < 0.01$) was observed.

This means that higher scores on aggression will lead to lower scores on all domains of Well Being. Various domains of Well-Being cover major aspects of our life, this result is supported by **Crane (1999)** that people high on aggression will experience a lower sense of Well Being in their life. [12]

It is quite acknowledged in order to live functionally; sense of Well-being is vital. Well-being has both emotional and cognitive concepts. To support this finding **Gupta (2018) and Sharma (2012)** has stated that the emotional concept consists of positive and negative affect, although the cognitive factor is linked to a person's state of gratification with natural life, as well as their occupation, healthiness, and additional influences [13][14].

On the other hand, in case of Hypertensive Individuals, from table 2 it can be inferred significant negative relation was found among all the domains of well-being and aggression. Especially a strong negative relation was found between Physical aggression and Personal Growth. **Steyn& Roux (2007)** stated the self-concept might be improved by the attainment of a novel proficiency in a task thus hostility hampers the personal growth of a person [15].

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Among Hypertensive Individuals from Table 2 it can be inferred, Anger and Hostility correlated negatively with Personal growth and Purpose of life domains of well-being. It explains that aggression hampers an individual personal growth and his/her life purpose. Hostile behaviour of individual doesn't allow them to express their true self accurately. It also impedes their growth in life. People high on hostile behaviour will find difficult to work on themselves and their future. This is in line with previous research done by Houston & Vavak (1991) [16]. They stated frequent episodes of anger expression might be linked with lower self-concept. Earlier studies have stated that persons scoring greater on hostility or anger have lower self-esteem as well as higher levels of insecurity.

Hence, it can be concluded that among both healthy adults and hypertensive individuals Aggression impacts Well-Being negatively. Aggressive patterns of behaviour do not contribute to greater well-being.

t test was conducted on the data collected to analyse this relationship among the variables. From table 3 results indicated, a significantly higher Physical Aggression among Hypertensive individuals ($t=7.704$, $p<0.01$) as compared to healthy adults. The participants with hypertension also reported higher levels on other domains of aggression like on verbal aggression, anger in addition to Hostility ($p<0.01$). To verify this finding **Lowe & Bernd (2004)** have reported at least 17.7% of hypertensives do experience certain kind of mental health issues which affects their normal functioning [17].

In regards to Well Being, it can be observed that hypertensive individuals scored low scores on every sub domain of Well Being as compared to the healthy individuals ($p<0.01$). To support these results **Katri (2001) and Diong (1999)** has stated that an increased level of anxiety, an amplification in the levels of feelings of anger, and a reduction in the sense of communal care during the follow-up were major indicators of hypertension occurrence [18][19]

Hence, we can infer from the results that a significant difference exists between Hypertensive individuals and healthy individuals on all the domains of Well-being, aggression and Well Being. These comprehensive results throw a light on the emotional functioning of hypertensive individuals. Their ambulated blood pressure is being affected by high aggression ultimately leading to lower sense of well-being.

Summary

To summarize this research, it can be stated that a substantial negative relationship was found between Aggression and Well Being. Also, sub domains of Aggression i.e. Anger and Hostility associated negatively with Personal growth and Purpose of life domains of Well-Being. A major difference exists between Hypertensives and Healthy adults among Well-Being and Aggression.

It can be concluded from the results that a variation exists in the scores of aggression among the hypertensive besides healthy individuals. The well-being scores were found to be lower among Hypertensives as compared to the healthy individuals. This leads to lower sense of well-being among hypertensive too. This indicates that hypertensives do experience certain psychological issues which go unnoticed. It gradually manifests as ambulated blood pressure. Further, the disposing influences are advanced by the present life circumstances.

Limitations

The current study has following limitations which might affect its generalizability. Unequal number of men and women were part of the study. The age range of the sample was broad. People experiencing hypertension in past 2 years were included in the study but no maximum limit of hypertension experience was defined.

Future Implications

There are various ways in which this study can be further expanded in future. Gender differences can be studied among hypertensive patients. Regression analysis can also be conducted to study the relationship between variables in depth. Intervention based studies can be planned to test the validity of psychosocial management in hypertension. Psychosocial interventions will be helpful in managing hypertension better. Researching on such diseases with Indian population will help us gauge what is actually predisposing the Indian citizens to such chronic lifestyle diseases.

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Acknowledgement

The author appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author declared no conflict of interest.

How to cite this article: Sharma, S., Srivastava, K. & Dubey, A. (2022). Wellbeing, Aggression among Hypertensive and Healthy Adults. *International Journal of Indian Psychology*, 10(4), 1756-1764. DIP:18.01.167.20221004, DOI:10.25215/1004.167