

## Original Research Article

# Application of the translated version of Buss and Perry questionnaire and to see its reliability and validity in aggression estimation in North Indian population

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### ABSTRACT

**Background:** The present study was done to translate the Buss and Perry questionnaire in Hindi and to check its validity and reliability. The questionnaire was translated as there was no translated version of the questionnaire available. The study was done to see the level of aggression in males and females with the translated version of questionnaire.

**Methods:** The study was done on 500 subjects for the estimation of aggression. The Buss and Perry questionnaire has four factors 1) Physical aggression 2) Verbal aggression 3) Anger aggression 4) Hostility aggression. The questionnaire was translated by a bilingual person and was applied on both male and female subjects of North Indian population. The questionnaire was also got filled in the English version as well and no difference was found in the results of both the versions.

**Results:** Out of 288 female subjects 77%, 15% and 8% subjects had low, medium and high level of aggression respectively while 67%, 17% and 16% male subjects were found to have low, medium and high level of aggression. The physical aggression was found more in males while the verbal aggression was found more in females.

**Conclusions:** In the present study the results found were similar to the results with the English version. So it was found that the translated version of aggression questionnaire is valid and reliable for the estimation of aggression in males and females and free from gender bias.

**Keywords:** Aggression, Reliability, Translated questionnaire, Validity

### INTRODUCTION

The Buss and Perry aggression questionnaire is the most commonly used tool for the estimation of aggression. It has four components 1) Physical 2) Anger 3) Verbal and 4) hostility.<sup>1</sup> This questionnaire is most widely used method for assessment of aggression. It can be used for self-assessment of aggression or can be applied on children and adults. There are 29 questions in this questionnaire and 5- point Likert scale is used for scoring. The rating is done for each items according to the given scales (1 = extremely not like me, 2 =

somewhat not like me, 3 = neither like nor unlike me, 4 = somewhat like me, 5 = extremely like me). Out of 29 questions different number questions represents each subscale. There are nine questions in physical aggression, whereas five questions indicate verbal aggression. Another seven questions assess anger, and eight questions represent hostility.<sup>2</sup> Aggression is an increasing problem these days. Aggression has been found associated with a number of factors. These may be genetic or environmental.<sup>3</sup> More height has also been found associated with more aggression.<sup>4</sup> A number of translation and validation studies were identified for the

AQ. Other than original English, the AQ has been translated into Chinese, Japanese, Swedish, Spanish, Dutch, Greek, German, Italian, Turkish and Malay.<sup>5-14</sup> So far the translated version of the Buss and Perry was not available for the North Indian population. In the present study the Buss and Perry questionnaire was translated in local language, Hindi, and its reliability and validity was also tested by its application on both males and females.

**METHODS**

The present study was done on the North Indian population. 500 subjects from age group 17-25 were included in the study. Out of them 288 subjects were females and 212 were males. The consent was taken from the subjects in the vernacular language, prior to the study.

**Inclusion criteria**

- Normal students with no psychiatric illness.

**Exclusion criteria**

- Subjects with any psychiatric illness.
- Subjects with any physical abnormality.

**Translation of the questionnaire**

The questionnaire was first translated in Hindi, the local language, by a bilingual individual. The translated questionnaire was again translated in English by another bilingual individual. The discrepancies during this process were sorted.<sup>13</sup>

**Procedure**

All the subjects were told to fill the translated version of Aggression Questionnaire. They were also given the original English version of the questionnaire to fill.

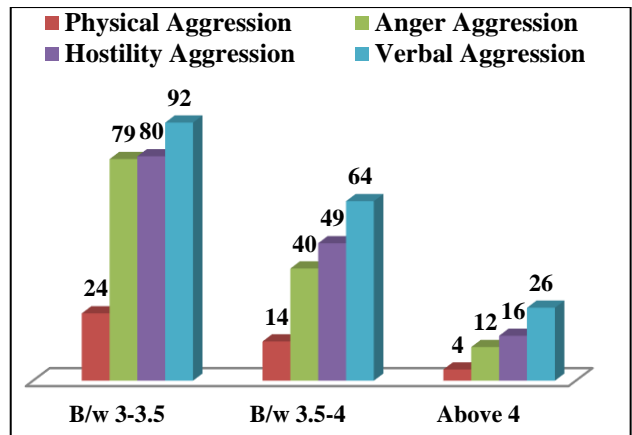
The results of both the versions were compared and no difference was found in the results. The data was further analysed to see the level of aggression in both the groups.

**RESULTS**

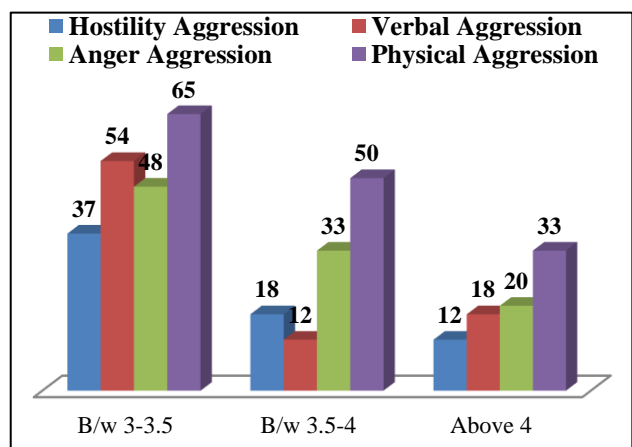
Cronbach’s alpha test was applied on all the items of the translated questionnaire and it was 8.5 with p <0.001.

This shows that the questionnaire is highly reliable. Out of 288 female subjects 77%, 15% and 8% subjects had low, medium and high level of aggression respectively while 67%, 17% and 16% male subjects were found to have low, medium and high level of aggression respectively.

When the different components of the aggression were studied Verbal aggression (<0.001) was found more in females Figure 1 while physical aggression (<0.001) was found more in males Figure 2.



**Figure 1: The levels of four factors of aggression in females.**



**Figure 2: The levels of four factors of aggression in males.**

**DISCUSSION**

So far the Aggression questionnaire was not available in the local language to study the level of aggression in the North Indian population. The present study was aimed to develop the Buss and Perry questionnaire in local vernacular language Hindi. The translated version was used to estimate the level of aggression in males and females of North Indian population. Physical aggression was found more in case of males as compared to the other components of the aggression while verbal aggression was found more in females. A similar study done with the translated version of Buss and Perry Aggression questionnaire was also reported. The study was done on the Turkish students and the males were found more aggressive than females.<sup>13</sup> Similarly a Malay-translated version of aggression questionnaire was used to see the level of aggression in female prisoners.<sup>14</sup> An Egyptian study done on the male and female students proved that the Aggression questionnaire is not gender biased and can be used freely to estimate the level of aggression in both males and females.<sup>15</sup> A correlation between aggression and height was found in a study done on the North Indian

population.<sup>4</sup> Bhatari and Rajbir also found males more aggressive than females.<sup>16</sup>

## CONCLUSION

In the present study it was concluded that the translated version of aggression questionnaire is valid and reliable for the estimation of aggression in males and females.

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## REFERENCES

1. Buss AH, Perry M. The aggression questionnaire. *Journal of Personality and Social Psychology.* 1992;63:452-9.
2. Buss AH, Perry M. The Aggression Questionnaire. *J Pers Soc Psychol.* 1992;63:452-9.
3. Tuvblad C, Baker LA. Human aggression across the lifespan: genetic propensities and environmental moderators. *Adv Genet.* 2011;75:171-214.
4. Kaur B, Patnaik VVG, Puri N. Screening of the presence of extra Y chromosome in aggressive tall males of north Indian region. *Int J Anat Res.* 2015;3(3):1432-5.
5. Maxwell JP. Development and preliminary validation of a Chinese version of the Buss-Perry Aggression Questionnaire in a population of Hong Kong Chinese. *J Pers Assess.* 2005;88(3):284-94.
6. Nakano K. Psychometric evaluation on the Japanese adaptation of the Aggression Questionnaire. *Behav Res Ther.* 2001;39:853-8.
7. Prochazka H, Agren H. Aggression in the general Swedish population, measured with a new rating inventory: The Aggression Questionnaire- Revised Swedish Version (AQ-RSV). *Nord J Psychiatry.* 2001;55(1):17-23.
8. Gallardo-Pujol D, Kramp U, García-Forero C, Pérez-Ramírez M, Andrés-Pueyo A. Assessing aggressiveness quickly and efficiently: The Spanish adaptation of Aggression Questionnaire-Refined version. *Eur Psychiatry.* 2006;21:487-94.
9. Morren M, Meesters C. Validation of the Dutch version of the Aggression Questionnaire in adolescent male offenders. *Aggressive Behav.* 2002;28:87-96.
10. Vitoratou S, Ntzoufras I, Smyrnis N, Stefanis NC. Factorial composition of the Aggression Questionnaire: a multi-sample study in Greek adults. *Psychiatry Res.* 2009;168:32-9.
11. Collani G, Werner R. Self-related and motivational constructs as determinants of aggression. An analysis and validation of a German version of the Buss-Perry Aggression Questionnaire. *Pers Indiv Differ.* 2005;38:1631-43.
12. Sommantico M, Guzmán MO, Parrello S, De Rosa B, Donizzetti AR. Local validation study of the Italian version of the Aggression Questionnaire (AQ) in Southern Italy. *Revista Electrónica de Psicología Iztacala.* 2008;11(4): 28-45.
13. Demirtaş Madran HA. [The reliability and validity of the Buss-Perry Aggression Questionnaire (BAQ)-Turkish Version]. *Türk Psikiyatri Derg.* 2013;24(2):124-9.
14. Mazan NH, Ahmad A. The Malay-Translated Version of The Aggression Questionnaire (AQ): The Validity And The Identification Of Types Of Aggression Among Female Prisoners ASEAN *Journal of Psychiatry.* 2012;13(2).
15. Abd-El-Fattah SM. Is the Aggression Questionnaire bias free? A Rasch analysis. *International Education Journal.* 2007;8(2):237-48.
16. Singh B, Mohanty R, Lalrhiatpuia, Haobam M, Saini M. Aggression and Violent Behaviour: A Critical Review. 2014;5:10-3.

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