DIFFERENCES IN LEVEL OF SELF-ESTEEM AND AGGRESSION AMONG MEDICAL STUDENTS: A COMPARATIVE STUDY

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ABSTRACT
The pattern of relationship between level of self-esteem and different dimensions of aggression in adolescents and young adults is unclear. This study investigated the difference of different dimensions of aggression in medical students with different level of self-esteem. A total of 200 medical students (male medical students n=100 and female medical students n=100) with an age range of 19 – 22 were selected through convenient sampling strategy from different public and private hospitals of Lahore. ‘Buss & Perry aggression questionnaire’ and ‘Self-image profile (SIP-AD)’ was used for assessment of aggression and self-esteem respectively. The findings revealed that physical aggression was high in males with medium level of self-esteem in comparison with low and high level of self-esteem group. Moreover, anger was positively correlated with self-esteem in females. In males, there was no correlation between self-esteem and different dimensions of aggression. The study has significant implications for further studies on self-esteem and aggression in young adults.

INTRODUCTION
Over the last few years, aggression has been significantly increased among adolescents and young adults. Aggression is also a significant issue at various levels in life, and impacts negatively to both the sufferers and the offenders at societal and individual level. Aggression can be defined as any action that delivers noxious stimulation (that hurts someone)(⁴). Most social psychologists today define aggression as words or actions whose intent is to hurt another. Intention was viewed as an essential ingredient in one of the earliest, and still influential, theoretical analysis of aggression. The general trend is that, people are now becoming more aggressive. Evidence has showed that aggression has been a There is evidence that aggression may be a significant problem for many adolescents and adults and it may increase their societal and mental health needs. Aggression is primary concern throughout United States and many researchers have tried to understand how aggression manifests. Some previous researches have suggested that self-esteem plays an significant role in aggression(²). Though, the pattern of relationship is not clear and has been inconsistent. Some researches states that individuals having low self-esteem tend to have greater level of aggression(³) some states that high self-esteem is also linked with high level of aggression(⁴).

Self-esteem can be defined as an individual’s overall sense of personal value or self-worth. Self-esteem is frequently understood as personality trait that is usually stable and enduring. Self-esteem includes different patterns or beliefs about one’s own self i.e. appraising one's own appearance, opinions or beliefs, emotions or behaviors(⁵). Previous literature has suggested low self-esteem is the root cause of numerous social problems such as performing poor at school, substance abuse at early age, depression, violence, abuse, terrorism and many other mental health issues(⁶). But, now evidences have shown opposite picture suggesting high self-esteem to be associated with victimization, narcissism, exhibitionism and interpersonal aggression. Under unfavorable conditions, most of men with high self-esteem commit violent acts(⁷).

Most people think that self-esteem of men is higher than women but this is due to certain reasons i.e. having low control and status, being frequently targeted of prejudice; lower positions in social structural impacts their self-esteem negatively(⁵). Self -esteem can be influenced by our importance in our living environment, women are treated poorly and have low social support so they seemed to have low self-esteem⁷).

Terror Management Theory (TMT) pose that personal growth, psychological and mental wellbeing is stimulated by high self-esteem reducing defensive anxiety and related behavior through positive coping(⁸).

Recent evidence has presented a mixed picture of relationship among self-esteem and aggression. A few studies found relationship between aggression and low self-esteem⁹). Others have found a strong relationship.
and suggested that individuals having high self-esteem tend to have less aggression than individuals with low self-esteem\(^{(1,9)}\). So, inflated self-esteem, may be a significant cause of aggressive behavior\(^{(10)}\). Likewise, another study showed that people with low level of self-esteem tend to aggress more than individuals having high level of self-esteem\(^{(11)}\).

In addition, some research evidences demonstrated that people aggress to have positive outcomes that negative ones, for example for them, acts of aggression makes them feel good, boosted their self-esteem by avoiding negative identity\(^{(11)}\). So, high and low self-esteem both is responsible for aggressive acts, this idea suggests that both theories may be correct\(^{(12)}\). Regarding gender differences, it is found that inflated self-esteem in men strongly related to aggression than in women\(^{(12)}\). In the light of wide and diverse previous literature, it can be concluded that self-esteem and aggression in young adults need to be explored through different dimensions. Therefore, we aimed to investigate in what way self-esteem and aggression are actually related. We hypothesized that participants with moderate level of self-esteem will have lower level of aggression than participants with lower or higher level of self-esteem.

**METHODS**

Cross-sectional research design was used and data was collected through convenient sampling strategy from different public and private hospitals in Lahore. Participants were 200 medical students (100 male, 100 female) with age range between 19 – 22 years (M= 20).

**ASSESSMENT MEASURES**

**Buss & Perry Aggression Questionnaire.** Aggression was assessed through aggression questionnaires\(^{(13)}\). Buss & Perry aggression questionnaire is a self-rating scale consisting 29 items and measures four traits; hostility, anger, verbal and physical-aggression. Each item is rated on 5 point Likert scale. Reliability ranged from .72 to .75 for anger, .71 to .74 for hostility, .72 to .82 for verbal aggression and .78 to .79 for physical aggression.

**Self-Image Profile for Adults (SIP-AD).** Level of self-esteem was assessed by Self Image Profile for Adults (SIP-AD) \(^{(14)}\). SIP-AD is a brief measure comprised of 30 items for both self-esteem and self-image. This is a self-report questionnaire. Low self-esteem score ranges below 44. The medium self-esteem score ranges from 44-51. Similarly, high and very high self-esteem score ranges from 52-64 and 65-138 respectively. For the SIP-AD Cronbach’s coefficient alpha, a measure of internal consistency for self-image was .89.

**Procedure:** Prior permission from for data collection was taken from hospitals. The researcher briefed about research to participants and made them aware of their rights that they could withdraw at any time during research. Informed consent was taken from those participants who consented to take part in the study. After completing the consent, assessment measures were completed. In addition demographic information including age, gender and education were also gathered. Students were taken approximately 15 minutes to fill questionnaire. After completing assessments, participants were thanked and they were made assure that all of their data would be kept confidential. The average response was 96%.

**Statistical analysis:** Reliability analysis and descriptive statistics were calculated for the data. To find the differences of aggression in male students constituting low, medium, high and highest self-esteem, One-way analysis of variances (ANOVA) was performed. Pearson moment correlation was performed to assess the relationship between self-esteem and different dimensions of aggression in medical students.

**RESULTS**

Findings revealed that verbal aggression, anger, hostility did not differ in four groups of self-esteem in males. However, at least one group was significantly different from other in physical aggression. To check which group of self-esteem is different from other in physical aggression post hoc (LSD) was conducted. A significant difference (p<.02) between low level of self-esteem group and medium level of self-esteem group was found which show that more physical aggression was found in medium level of self-esteem group than low level of self-esteem group. A significant difference (p<.007) between very high level self-esteem group and medium level of self-esteem group was found which show that more physical aggression was found in medium self-esteem group than very high level of self-esteem group (see table 1).

Similarly, results of one-way ANOVA analysis for female medical students showed that there was no significant difference (p>0.05) between different self-esteem groups and verbal aggression, physical aggression, hostility and anger in females. It showed that self-esteem does not vary with verbal aggression, physical aggression, hostility and anger in females (see table 2).

Verbal aggression, hostility and physical aggression showed no relationship with self-esteem in both males and females. But anger showed significant positive correlation with self-esteem in females (see table 3).
Table 1: One way ANOVA for study variables for male medical students (n=100)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>Very High</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal Aggression</td>
<td>17.61(3.74)</td>
<td>17.33(3.31)</td>
<td>15.3(4.19)</td>
<td>15.44(4.19)</td>
<td>2.36</td>
<td>.10</td>
</tr>
<tr>
<td>Anger</td>
<td>17.25(4.15)</td>
<td>18.41(3.63)</td>
<td>19.16(3.73)</td>
<td>17.11(3.68)</td>
<td>1.46</td>
<td>.32</td>
</tr>
<tr>
<td>Hostility</td>
<td>23.35(5.37)</td>
<td>25.75(5.74)</td>
<td>23.56(4.79)</td>
<td>24.11(4.62)</td>
<td>1.08</td>
<td>.41</td>
</tr>
<tr>
<td>Physical Aggression</td>
<td>24.83(5.04)</td>
<td>28.08(5.02)</td>
<td>25.17(5.02)</td>
<td>24.33(4.46)</td>
<td>2.96</td>
<td>.03</td>
</tr>
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Table 2: One way ANOVA for study variables for females medical students (n=100)

<table>
<thead>
<tr>
<th>Variables</th>
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<th>Medium</th>
<th>High</th>
<th>Very High</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal Aggression</td>
<td>15.90(4.05)</td>
<td>14.41(3.26)</td>
<td>15.93(3.71)</td>
<td>15.66(3.67)</td>
<td>.91</td>
<td>.23</td>
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<tr>
<td>Anger</td>
<td>16.72(3.25)</td>
<td>17.25(3.85)</td>
<td>17.96(3.88)</td>
<td>18.05(3.48)</td>
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<td>.76</td>
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<tr>
<td>Hostility</td>
<td>24.40(8.65)</td>
<td>22.83(4.50)</td>
<td>23.38(5.70)</td>
<td>24.61(4.94)</td>
<td>.33</td>
<td>.59</td>
</tr>
<tr>
<td>Physical Aggression</td>
<td>26.04(6.20)</td>
<td>24.38(4.53)</td>
<td>23.79(4.91)</td>
<td>25.16(5.33)</td>
<td>.54</td>
<td>.53</td>
</tr>
</tbody>
</table>

Table 3: Correlation between study variables in male medical students (n=100; light face) and female medical students (n=100; bold faced).

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
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<td>1. Self-esteem</td>
<td></td>
<td>.06</td>
<td>.07</td>
<td>-.06</td>
<td>-.10</td>
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<tr>
<td>2. Verbal aggression</td>
<td></td>
<td>.06</td>
<td>.30*</td>
<td>.10</td>
<td>.07</td>
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<td>3. Anger</td>
<td></td>
<td>.30**</td>
<td>.48**</td>
<td>.48**</td>
<td></td>
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<tr>
<td>4. Hostility</td>
<td></td>
<td>.26**</td>
<td>.20**</td>
<td>.16**</td>
<td></td>
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<tr>
<td>5. Physical aggression</td>
<td></td>
<td>.43**</td>
<td>.34**</td>
<td>.09</td>
<td>.40**</td>
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</table>

DISCUSSION
The present study was conducted to assess relationship between different levels of self-esteem and different dimensions of aggression in adult students. The aggression was assessed in relation with low, medium and high level of self-esteem. It was hypothesized that students with moderate level of self-esteem will have lower level of aggression than students with lower or higher level of self-esteem. The findings of the study showed significant difference of aggression in students with medium level of self-esteem.

Some previous researches state that aggression is high in people with high level of self-esteem and some researches states that aggression is high in those people who have low self-esteem. In one of the study examining the contrasting theories that both high level and low level of self-esteem is responsible for aggression, results suggested that aggression and self-esteem are related in a curvilinear fashion meaning that individual with very low and very high level of self-esteem both can report physical aggression than individuals with medium level of self-esteem (6).

But findings of this study revealed that physical aggression was high in people with medium level of self-esteem as compared to low and high level of self-esteem groups. There might be various reasons for such results. Religion, culture, race, ethnicity and persons own mind set plays an important role. The factor of social desirability may be one of the reasons for these contradictory results of the current study. The current study also examined the differences of aggression in four groups of low, medium, high and highest self-esteem for males and females. The results demonstrate that verbal aggression, anger, hostility did not differ in four groups of self-esteem. However, medium group was different from other in physical aggression in males. For females the results demonstrated that there was no significant difference between different self-esteem groups and aggression (verbal and physical aggression, anger and hostility). It showed that
aggression does not vary with levels of self-esteem in females.

CONCLUSION
It was concluded from the current study that aggression is significantly different in medium group of self-esteem than low or high self-esteem groups. Although this research provides evidence for relationship between self-esteem and aggression in adults, but some limitations should be acknowledged to be worked upon in future research.

Random sampling techniques should be possibly incorporated apart from convenient sampling to select sample and research can be replicated with large sample size to generalize the results to population. The element of social desirability might be causing hurdles to real finding of the study so future research is needed that can trail these variables over time where causal direction can be clarified.

The important implication is that there are only a few researches that deal with different groups of self-esteem and aggression. The findings of the present study are different and researchers should study again on this topic to confirm the findings of the study. The confounding that is real cause of different results of the study should be found out.

REFERENCES