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Relationship between Panic Attacks and Aggression with Respect to Age and Gender

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The present study intended to explore the relationship between panic attacks and aggression with respect to age and gender. It was hypothesized that there would be a positive relationship between aggression and panic attacks with distinct pattern of gender differences. The sample comprised of 150 individuals with equal number of men and women with an age rang of 17 to 45 years. Mehrabian's Panic scale and aggression subscale of Edwards Personal Preference Schedule were administered for measuring the panic and aggression level in both genders. Findings indicated non-significant relationship between panic attacks and aggression. Subject's mean scores belonging to different age groups were not statistically different in panic and aggression level. The study further indicated non significant gender differences in panic attacks.

***Keywords*:** Aggression, Panic Attack

Aggression (the "fight" response), as well as escape (the "flight" response), are viewed as the behavioral responses to a perceived threat. Even Sigmund Freud emphasized the correlation between anxiety disorders and aggression. Thus, a careful eye must be kept on patients who suffer from panic attack, because the increased inclinations toward aggression enhance the risk of suicide as a means of easing the pain (Kaplan, Sadock & Grebb, 1994).In a discussion of panic attack from an evolutionary perspective, Nesse (1988) described the hyperarousal state in panic as the "fight or flight" reaction. A study by Korn, Plutchik and Praag (1997) examined the relationship between aggressive behavior and suicide attempts in 19 patients with pure panikers and 28 patients with comorbid panikers and major depression. The researchers were seeking to add definition to the exact temporal relationship between suicidal symptoms and panic symptoms. They found that approximately one in 10 patients with pure panic symptoms reported attempting suicide during the panic state owing to the self-directed aggression. There were high correlations in the panic cohort between psychometric measures of impulsivity, suicide risk and violence risk, and panic-associated inwardly and outwardly directed aggression.

Anger is like an attack when person's heart began to race, and hands become sweat and tremble. As person's chest begins to hurt and he realize that he cannot take deep breaths. He becomes afraid of loosing control and cannot remember how this started. Anger attack and panic attacks symptoms are very much similar and that is why it seems to be reasonable to suppose that the anger attack can in future leads to panic attack. Fava and Rosenbaum (1999) during their years of anger attack research conducted a number of studies on the prevalence of anger attack in relation with panic disorder.

The main conclusion of theses ongoing studies is that 30 to 40 percent of panic patients experience anger attack. Research participants without panic disorder did not experience anger attack. Leslie (2005) argued that a person who is aggressive in his earlier ages might have panic attacks in his late age. It might be true because high aggression level may lead to many physiological problems in late ages, one of which may be the panic attack.

Panic attack is classified as an anxiety disorder consisting of repeated and unexpected attacks. Data from large scale epidemiological surveys conducted in America suggest that panic attack is more common in women than in men (Reed & Wittchen, 1998; Katerndahl & Realini, 1993; Joyce, Bushnell & Browne, 1989). Based on Survey in America, researchers found that panic attack is 2.5 times more common among women than men. In past many studies found panic attack to be almost as common in men as in women, but the results of epidemiological study conducted in America suggest this is not so, panic attack is about twice as common in women as in men (Eaton, Kessler, Wittchen & Magee, 1994).

There seems to be an interaction between gender and age as far as the prevalence of panic disorder is concerned. For example, the rate of panic disorder for women ages 15 to 24 was 2.5%, compared to 1.3% of same-age men. For older women and men, the overall rates drop, but the difference between genders appears to grow. Among women ages 35 to 44, the rate of panic disorder was 2.1%, compared to the 0.6% rate among same-age men (Maier & Buller, 1988). Data from various epidemiological samples have yielded conflicting results concerning the average age of onset of panic disorder in women and men. Using data collected from the National Comorbidity Survey in America, Wittchen and Essau in 1993 reported that panic disorder was most prevalent in women between the ages of 25 and 34 years, whereas it was found to be most prevalent in men between the ages of 30 and 44 years.

Researchers on the basis of their researches reported gender differences of specific panic-related symptoms using empirical data drawn from the research in America. Specifically, the frequency of 18 panic symptoms was examined according to the gender of patients of panic disorder (n = 274) and patients with panic attacks only, but without meeting criteria for panic disorder (n = 335). Findings from this study suggested that heart pounding was the most frequently endorsed panic symptom for both genders and both diagnostic groups. However, in the panic disorder group, a significantly greater proportion of women than men endorsed shortness of breath (72% versus 50%), feeling faint (59% versus 45%) and feeling smothered (60% versus 43%). In the panic attack only group, women were more likely to complain of shortness of breath (65% versus 50%), choking or difficulty swallowing (37% versus 25%), and feeling smothered (50% versus 38%). Using logistical regression, three symptoms predicted female gender: shortness of breath, nausea and feeling smothered. Two symptoms predicted male gender: sweating and pain in the stomach (Sheikh, Leskin & Klein, 2002).

The age of onset of panic disorder in not common in all individuals. For example, Kessler, McGonagle, Zhao, Nelson, Hughes, Esleman, Wittchen and Kendler (1994) in America found approximately 3.5 percent of the adult population had panic disorder at some time in their life. The age onset of panic disorder is most common between 15 and 24, especially for men, it can also begin when people, especially women, are in their 30s and 40s (Hirshfeld, 1996; Eaton, Kessler, Wittchen & Magee, 1994). Once it begins, it tends to have a chronic course, although the

intensity of symptoms often waxes and wanes over time (Ehlers, 1995; Wolfe & Maser, 1994).

A person with panic disorder can also be worried about the cause of attack (fear of some severe physical problem such as pending heart attack or stroke is very common) and as a result he or she can exhibit many behavioral changes in response to fear . Some even become 'aggressive panickers' in self-defense. They refuse to do anything that might bring on a panic, which can cause great deal of family unhappiness (McNally & Lubach, 1992).

Not all individuals are equally aggressive. It is true that some people are more aggressive than other people. In fact, evidence exists that individual differences in aggression behavior are quite stable over time, particularly among men (Huessmann, Lagerspetz & Eron, 1984; Olweus, 1984, 1979). Eagly and Steffen (1986) have also reported that men are more aggressive than women but differences found in social psychological research same and not always constant. Gender differences are greater when the issue is physical aggression than when verbal and other types of psychological harm are considered.

Toldos (2005) in his study took the data of 653 adults in order to examine gender and age differences in aggression. The results showed that, compared with women, men reported a more frequent use of physical and verbal aggression. However, for indirect aggression no differences were found between men and women. A specific examination of gender differences on individual items of the DIAS showed that men used physical, verbal and indirect aggression more often than women. The findings also indicated that, as expected, men in middle adulthood rated higher in all types of violence than men in their late adulthood. He also found that men used physical and verbal aggression more often than women did in all age groups studied.

In lieu with the aforementioned literature, the present study proposed a direct relationship between aggression and panic attacks. The study also hypothesized gender and age differences in panic attacks as well as aggression levels as men were hypothesized to be higher in aggression which may result in a finding that they may be more likely to be a prey to panic attacks as compared to women.

Method

Sample:

The sample of present study consisted of 150 individuals with equal number of men and women (*n = 75*), belonging to general population of Sargodha. The age range of the sample was 18 to 45 years with a minimum educational qualification of intermediate (12 years of education).

Instruments:

Panic scale (Mehrabian, 1994) was designed for use with individuals aged 13 and older. It requires 5-10 minutes for administration. It consists of 11 items. The response for all items are numerical; expect item 6 and 7.Prticipant response 6 and 7 (the true and false) are scored true =1 and false = 0.Respones to item 1 and 2 are number of panic attacks a person can have. Responses to item 8 through 11 ranged from -4 to +4. When panic scores are correlated with other variables, there is no need of norms. However, when the participant's scores compares with rest of the population, then norms would be used.

Aggression subscale of EPPS (Edwards, 1959) is personality inventory which consists of a set of statements relating to aggression that are to be answered by encircling one statement out of two. Response indicates that the subject believes the statement is characteristics of him. There

are 15 items to measure the variable aggression. Each item consists of two statements and the participant has to check one statement. The percentiles are computed for the raw score of men and women on the scale. The percentile corresponding to given score is a measure of the score's relative position in the complete distribution of scores for normative group. A score that falls at the 87th percentile is one that is exceeded by only 13 per cent of the scores in the normative group. The percentiles are interpreted in following way. If the percentile falls between 17 and 84, then a person's aggression level would be considered as average. On the other hand if a person's percentile falls between 97 and above then he would be considered as highly aggressive person.

Results and Discussion

In order to find out the age differences in panic disorder, ANOVA was applied. Data analysis indicated non-significant age differences in panic disorder {F (2, 147) = 0.75, *p = n.s*}. These results are not supporting the hypothesis of present study i.e. There will be significant age differences in panic disorder. It is difficult to know age differences in panic disorder, for that purpose Singer (2003), conducted a number of surveys looking at the rate of panic disorder with respect to the age of men and women. For getting results they had conducted 2000 morbidity surveys. The analysis of their results indicated that there are non significant age differences in the occurrence of panic disorder in men and women. The results of this study are supporting the results of present study i.e., there will be non significant age differences in panic disorder.

In order to find out gender differences in panic attacks, t-test showed that there was non significant gender differences in the Panic disorder {t (148) = .87, p = n.s}. These results are not supporting the hypothesis of present study i.e. there will be significant gender differences in panic disorder.

Table 1 Mean, SD and t-value for panic disorder of male(n=75) and female (n = 75).

	Male		Female		
Scale	M	SD	M	SD	t value
Panic scale	-3.10	15.28	-5.42	0.60	.87

df = 148, p=n.s

Analysis of data revealed that there are non-significant gender differences in the panic disorder. These results are contrary to the hypothesis of present study i.e; there will be significant gender differences in panic disorder. In order to investigate gender-related differences in panic disorder, Clayton, Stewart, Fayyad and Clary (2006) interviewed one hundred and eighty-four out-patients with a principal diagnosis of Panic disorder to generate Axis I and Axis II diagnoses according to DSM-IV, to collect family history of psychiatric disorders and life events. The statistical analysis was performed comparing men and women. Results indicated that men and women showed no gender differences in Panic disorder. A family history of mood disorders characterized females. Men had higher rates of cyclothymia, body dysmorphic disorder and depersonalization disorder preceding panic disorder, while women had higher rates of bulimia nervosa. Dependent and histrionic panic disorders were more common among women, while borderline and schizoid panic disorders were more common among men, which demonstrated different etiological pattern of panic attack in men and women.

For finding differences in the aggression level between men and women, t-test indicated the non significant gender differences in aggression level {t (148) =. 87, *p = n.s*}, which is not consistent with the hypothesis of present study i.e. the aggression level will be higher in men.

Table 2 Mean, SD and t-value for EPPS of male(n=75) and female (n = 75).

	Male		Female		
Scale	M	SD	M	SD	t value
EPPS	13.24	3.54	15.10	14.64	.87

df = 148, p=n.s

Psychological explanation of aggression in men and women include differences in socialization and advanced adaptive development in people, there are however likely hormonal, anthropological and evolutionary aspects as well. Even so called indirect aggression or relational aggression likely applies more to women than men. This involves such as spreading rumors, shunning or obstructing peers, and conscripting others to "get even" physically. Criminology data indicated that men are more likely to arrest for violent crimes and women commit crimes to gain prestige and status. When women become aggressive, they mostly fight with their parents or siblings than with strangers. So the aggression level in men and women depends upon different conditions (Archer & Arias, 1987).

Other factors affecting aggression level can be early-onset of aggression behavior. Having an aggressive style of behavior and interaction may however have earlier precursors. Persistent attention seeking at age 12 months has been found to relate to non-compliance at age 18 months, which then correlates with aggression at age 24 months. This has been related to maternal reports of externalizing problem at age 36 months. The aggression is not a stable trait and is entirely influenced by situational and contextual factors. It can be because of bad social environment, poverty and weak social support and the people living in this type of society and facing such conditions have higher level of aggression as compared to others living in healthful conditions (Archer & Arias, 1987). These researches are supporting the results of present study, which showed non-significant gender differences in aggression level of men and women and rejecting the hypothesis of present study i.e. the level of aggression will be higher in the men than women. For knowing the differences in aggression level of men and women of different ages, the ANOVA was computed. The table indicated the non-significant age differences in the level of aggression in men and women {F (2, 147) = 2.05, $p = n.s$}.

These findings are consistent with the hypothesis of present study i.e. there will be non significant age difference in aggression level. Many studies showed consistent results with these findings. Arias (1987) found that people living in families characterized by social isolation, broken homes, weak social supports and poverty are much more aggressive than other people. Such findings indicated that aggression level depends upon the person's social environment and it does not depend upon age level. Such findings are supporting the results of present study. Results of the present study suggested that there was non-significant relationship between panic disorder and aggression. These results are contrary to the hypothesis of the present study i.e. panic disorder and aggression shall be correlated.

There are many researches which are consistent with the results of present study. Maria (2001) found that aggression is independent of presence of panic disorder. The patient with panic disorder did not significantly differ from those without panic disorder on the measure of aggression. In another research for finding relationship between panic disorder and aggression, Ellis (2002) used Fisher's exact test to compare the rates of panic disorder and aggression in two groups. This test indicated that the patients with panic disorder did not significantly differ from those without panic disorder on the measure of aggression. Ellis from his research concluded that aggression was independent of presence of panic

disorder.

Leslie (1992) reported through his vast research on the relationship between panic disorder and aggression that the patients with panic disorders are not aggressive. Nonetheless, epidemiological evidence points to an increased risk for aggressive behavior among individuals with panic disorder compared with general population. According to him aggressive behavior in patients with panic disorder has many possible causes. Probably the most important causes are the presence of comorbid substance abuse and dependence. Environmental factors that are associated with aggressive behavior include a chaotic or unstable home or hospital situation, which may encourage maladaptive aggressive behavior. Another study conducted by Lesile (2005) in which he interviewed carefully each patient of panic disorder using standard diagnostic criteria, the description hint at significant disturbances of mood , impulse control and aggression. The presence of substance abuse and history of trauma indicated that aggressive behavior is not due to panic disorder and it is due to presence of substance abuse and a history of trauma. All of the aforementioned researches are indicating non significant relationship between panic disorder and aggression, which is supporting the results of present study.

Conclusion

The present study confirmed that panic attacks and aggression levels are independent of each other. Gender and age also seemed to be irrelevant to this relationship. The study however showed that generally men are expected to be more vulnerable to panic attacks (as evident in the percentiles of both the gender) as compared to women, though the findings were statistically non significant. The results of the present study may be considered as preliminary findings upon the proposed relationship between aggression and panic attacks that must be further explored in greater details. The future research should be conducted on the clinical population diagnosed with panic disorder in order to have a more refined understanding of the dynamics by which aggression may contribute to panic attacks.

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