



Cross-Cultural Differences in Sources and Expressions of Anger: Evidence from Pakistani and Somalian University Students

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ABSTRACT

The study was intended to find the sources and expressions of anger between Pakistani and Somalian university students. A sample of 761 undergraduate students (378 Pakistani, mean age of 20.7, and 383 Somalian with mean age of 21.8) were selected using stratified random sampling techniques. The study used self-developed and pilot tested scales of Sources of Anger Scale (SAS) and Expressions of Anger Scale (EAS). Independent sample t-test was used to identify mean differences between Pakistani and Somalian participants on the sources and expressions of anger. The finding indicated that there was a significant mean difference in the Threat factor, with Pakistani participants ($M = 66.34$, $SD = 16.66$) reporting higher scores than Somalian participants ($M = 60.44$, $SD = 15.03$), $t(758) = 5.13$, $p < .001$. This suggests that Pakistani students experienced threat as a source of anger threats compared to their Somalian counterparts. In relation to gender, female students reported greater anger related to perceived threats ($n = 178$; $M = 69.37$, $SD = 15.84$) compared to male participants ($n = 200$; $M = 63.65$, $SD = 16.94$), $t(376) = -3.38$, $p = .001$. In regards to anger expression, Pakistani participants reported significantly higher levels of outward anger expression (Anger out) ($M = 8.12$, $SD = 5.85$) compared to their Somalian counterparts ($M = 6.81$, $SD = 4.99$), $t(758) = 3.32$, $p = .001$. On the other hand, females in both countries express anger less directly as compared to males. These findings highlight a culturally tailored counseling intervention that is flexible and can be adapted to the culturally specific experiences of various cultural groups and gender is advocated for. This will help in addressing the specific needs of male and female students in managing anger and other forms of emotional regulation.

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1. Introduction

Throughout history the nature and importance of emotion including anger was central topic to understand human psyche. The topic of emotion attracted many scientists with different discipline that make more controversial and yet little is known about it. Anger is one of the emotions that create the age-old challenges to understand as it has both positive and negative outcome. However, literature indicates that anger is central to human survival as it stands to protect from danger. It alerts individuals when danger is there and activates the body for giving energy in order to contest the threat. It also helps people to communicate their feelings to each

other through changing facial muscles. To fulfill the function of anger, there is a system that contains physiology, psychology and social components, which monitors the activation, intensity, and termination of anger (Sheu, Liu, & Yeh, 2025). Starting with physiology of anger, several parts of the brain regulate anger. As a person faces the angry situation, it stimulates temporal cortex and evokes related memories to form perceptions about it. After perception forms, it activates amygdala for mediating the process by sending signals to the prefrontal cortex. Consequently, prefrontal context combines the initial appraisal of angry event; anticipated punishment; and empathy with the offender, so as to make decision about the way the person responds to the situation (Daikoku, Minatoya, & Tanaka, 2026). Further, there are some neurotransmitters including serotonin and noradrenaline that helps the process by allowing these parts to communicate with each other (Bond & Wingrove, 2010; Ward, 1998).

After a decision takes place, amygdala activates sympathetic nervous system and as a result heartbeat, blood pressure and breathing increase in order to allow more oxygen to enter the body to prepare the needed energy. As well as, more blood follow toward the limbs and extremities to provide glucose and oxygen to muscles. With the purpose of getting enough energy, more glucose is broken; as a result muscles become tense on the way to prepare the body to take actions. Meanwhile, attention narrows down, and the person only focuses the object that causes anger. Because of high arousal, it hinders memory and concentration that cause a person not to remember things that happen in an angry outburst. Additional neurotransmitters can be released, for instance, to precipitating the action, and in turn can cause delay recovery after the stimulus that trigger the anger terminated. In the period of recovery, the chance of becoming angry again is simple as the threshold is lower (Stemmler, 2010; Ward, 1998). Other than physiology, there are three components of anger including thinking, feeling, and action. Conversely, psychologists disagree the way these three components interact with each other. According to cognitive psychologists, the primary component of anger is thought that influence the feeling and behavior. As a person faces the angry situation, the mental representation of that situation activates which elicits the person to feel angry and, as a result, the person takes action to normalize the situation. Because of past experiences the individuals form a mental representation of each situation they faced before. Consequently, same situation may apply to a number of people yet they can respond differently based on their past experiences. In other words, the event that happens is not what makes the person angry, rather the way the individual interpret it. Thus, it provides evidence for believing that the actual trigger of anger is the way the individual think (Faupel, Herrick, & Sharp, 2010; Martin & Dahlen, 2004; Wright, 2025).

On the other hand, the psychodynamic psychologists believed that the basis of anger is the way individual's feelings were managed during the childhood experiences. According to Freud (1856-1939) people repressed childhood aversive experiences such as bad feelings into the unconscious mind. Consequently, these repressed feelings control the person's thinking and action on later similar situations. In order to monitor later situations, the person develops strategies that use to safe from any threat. These strategies then detect similar situations and respond in ways that save the person from the threat. Hence, anger is one of these strategies that individuals develop, in order to identify the possible threat and make shield its possible danger (Faupel, Herrick, & Sharp, 2010). Contrary to cognitive and psychodynamic psychologist, behaviorist believed that the human behavior is the result of reward and punishment. The behaviors followed by rewarding consequences strengthened and continued to happen, whereas behaviors followed by adverse or punishing consequences weakened and gradually reduce intensity up till eventually stop. Likewise, anger develops through rewarding and punishment for the behavior in which the person uses to protect himself. As the person exhibits the behavior that intend to protect, if it successfully normalized the situation then the person forms a mental representation of that behavior and later will repeat similar situations. Likewise, the individuals avoid using in future the behavior that does not fulfill the purpose that intended. For that, the behavior controls the thought and feelings (Faupel, Herrick, & Sharp, 2010; Tejay & Winkfield, 2025). On a social level, anger facilitates individuals to communicate with each other. Conversely, this is the part of anger in which gender differences can be observed. Social role theory Eagly and Wood (1999) proposed that gender differences in expression of anger results from a social role that men and women are playing. Man is considered as need provider to the family while women take care of children and homes. The role creates man and woman to have different emotional regulation in order to meet the social expectation from them. As a result, men express their anger more directly in public, whereas women express at homes. Also, there are gender differences on a modum of expressing anger directly. Women express less harm way of their

anger than men, such as demanding, arguing, and shouting. In addition, negative social appraisal and anticipating retaliation govern expressing anger in a direct way, and that's why women who live in traditional society suppress more their anger (Fischer & Manstead, 2008; Hyde, 2014).

Unlike other emotions it can be constructive or destructive, that depends on the outcome of angry event. It is positive when the focus of anger is on the future and directs the person to reach his/her goals. In addition to that, when it is escorted with appraisal of control of the situation and has rewarding outcomes, which does not violate other's rights. In summary, it is an inborn capacity that serves for protection of the individual for any threat that a person can face. However, it can be against the needs of the person or the society at large when the anger becomes exaggerated (Litvak et al., 2010). According to social strain theory Merton (1968) conflicts and crimes are the results of prejudice and unequal access to societal resources. For the reason to restore one's needs, the individuals use aggression against the target. Thus, looking at the situation of today, the destructive anger is at its peak and the entire world is suffering its adverse impact. It is the motive behind all violence observed today, including terrorism, wars, murders, and many more. As mentioned above, some of the causes of anger are either the deprivation of basic needs or security threat to the person. Firstly, deprivation of basic needs is common today as the population is increasing and wealth is not equitably distributed, which in turn increases to fight for limited resources. Secondly, the fight for basic needs create a security threat for individual and society as well. As a result, retaliation and revenge increase that causes much violence including terrorism, one of the biggest problems that the world is facing today (Koellhoffer, 2009). Frustration Aggression Hypothesis Dubois et al. (2026) believes that anger is the result of one's goal to reach his/her needs. It is one of the responses that people use at the time they are undergoing fear. Fear may in turn be related to a sense of loss, deprivation of basic needs, embarrassment, disgust, harm, and many other negative feelings. Thus, all these feelings are showing the presence of some form of threat to personal needs. According to Maslow (1943) individual has a variety of needs such as food, water, sex, security, belongings, prestige, and self-respect. Threat to any of these needs can cause fear that in turn makes the individual angry in order to protect personal needs (Potegal & Novaco, 2010).

Grecucci et al. (2024) believed that human express their anger in three different ways, 'anger control', 'anger-in', and 'anger out'. In 'anger control situations', the individuals calm down from their arousal of anger and assertively express their needs. This is the healthy ways of expressing anger that keeps the person to meet his /her needs without harming himself/herself or others. The second way of expressing anger is 'anger-in', in which individuals suppress their anger and hide that from other people. Individuals who use 'anger-in' as a coping mechanism, tends to harm themselves via turning inward for intense energy, which later interferes with the normal body functioning. They may in turn, develop several physical problems including cardiovascular diseases (al'Absi & Bongard, 2006), hypertension (Schum et al., 2003), diabetic (Yi et al., 2008). As well as, they can develop psychological problems, such as depression (Balsamo, 2010; Painuly, Sharan, & Mattoo, 2005), conversion (Kozłowska & Williams, 2009) or drug addict (Burns, 2009). The third way of expression of anger is through 'aggression' that primarily involves harming or violating the rights of others' either verbally or physically. These individuals express their anger out which allow them to release their energy. They have fewer physical problems, as compared to anger in. However; they additionally experience more interpersonal difficulties including peer rejections, marital conflicts, and many more. These people later, may further develop antisocial tendency or higher hostility towards others (Lochman et al., 2010).

Apart from function of anger, there are controversies the origin of emotion including anger. According to Darwin (1872) anger is like other emotions in which human inherit from their ancestors in order to defend their survival. He argued that there are same facial expressions and physiological changes of anger throughout human. In contrast, the social constructive view believing that, though there is a biological basis of emotion, yet emotion develops from a social interaction and can be only explained in terms of social level. Adult humans are socially derived by cognitive schemas that mediate between stimuli and emotional reactions. On the other hand, according to Matsumoto and Willingham (2009) emotions such as anger are transient, bio-psycho-social reactions designed to aid individuals in adapting to and coping with events that have implications for survival and well-being. He believes that anger is originated from evolutionary, but environment in which the person lives shapes anger experiences. Therefore,

biopsychosocial components are equally important to consider for anger experience. Further, the ecology of the area in which individuals are living has contribution to the nature of anger experience. Simister and Cooper (2005) consider violence to be more common if temperatures are more than 24°C. They suggest an increase of violence in hot weather is the side-effects of increase secretion of adrenaline, as part of a thermal control mechanism in humans. Likewise, living in urban area has high chances to experience anger than living in rural area. Urban individuals face more stress than rural adolescents. The society expects for the individuals to obtaining high qualification on education, having job, and so on. To fulfill society expectations, the individuals always remain in pressure and stress. Experiencing more stress gives chances a person to either lowering the anger threshold or causing directly by experience frustration (Dey et al., 2014). Additionally, most of urban areas are more populated that is related to high rate of violence and anger. In density populated area, the individual's rights and freedom are restricted and controlled by others that can make the person experience frustration.

Although the anger is a basic emotion that needed for the individuals to survive, it becomes problematic when exaggerated. Therefore, in order to maintain social order, every society made certain rules govern by the expressions of anger. As a result, it is observed that different ways of expressing anger on a different society and it's because of differences in ecology, history, resource availability, type and size of a community, and knowledge. In addition to that, there are two broad cultural dimensions including individualistic and collectivistic. In an individualistic culture emphasizes personal freedom and achievement. Individualist culture, therefore, awards social status to personal accomplishments such as important discoveries, innovations, great artistic or humanitarian achievements and all actions that make an individual stand out. Collectivism, in contrast, emphasizes the connection of individuals in a larger group. It encourages conformity and discourages individuals from dissenting and standing out (Ford & Mauss, 2015; Gorodnichenko & Roland, 2012; Quansah et al., 2026). The aim of this study is to find the differences of sources and expressions of anger between Pakistani and Somalian university students. In addition to that, the role of gender on sources and expressions of anger is considered.

1.1. Significance of the Study

This study is important because it investigates the influence of culture and gender on the sources and manifestations of anger among Pakistani and Somali university students. Even if anger is a universal emotion, its sources and expressions can differ from one culture to another. Analyzing these differences enhances our knowledge of cross-cultural psychology. In addition to that, the results have important effects on mental health care initiatives in the higher education environment. Moreover, improves counseling, conflict resolution, and student welfare programs as it clarifies culturally specific expressions of anger. Finally, this study helps with comparative research in areas of psychology that aren't often studied, which helps us understand how people around the world deal with their emotions.

1.2. Research Objectives

1. To examine cross-national differences in sources of anger between Pakistani and Somalian university students.
2. To analyze variations in expressions of anger between Pakistani and Somalian university students.
3. To investigate the role of gender in shaping sources and expressions of anger within each national context.

2. Methods

A cross-sectional survey was conducted among Pakistani and Somalian. Pakistan is a country in South Asian with a population exceeding 199 million people. Pakistan has a border with India on the east side, Iran to the southwest, Afghanistan on the west side, while China is on the far northeast side. About 97% of Pakistanis are Muslims and the rest 3% comprise Christian, Hindus, and Sikh. For Pakistani side, the study was taken place in Lahore the second largest city in Pakistan and the capital of Punjab province. Somalia situated in the East Africa especially in the Horn of Africa and has a border with Ethiopia on the west side, Djibouti to the northwest side, and Kenya to the southwest side. The population is around 10.8 million, and all Sunni Muslim with 85% are ethnic Somalis. On Somalian side, the study was done Hargeisa (the second largest city and the capital of autonomous region called Somaliland) and Borama (a town of the Northwest from Hargeisa).

2.1. Participants

Data were collected from undergraduate university students using simple random sampling techniques. There were 760 participants (382 Pakistani and 378 Somalian), aged between 17-25 years old. The mean age of Pakistani was (M , 20.70; SD , 1.63), and Somalian (M , 21.83; SD , 2.08). Genders had nearly equal representations in both countries, in which (53%) male and (47%) female. A setting in which the research was conducted included public and private Pakistani and Somalian universities. The faculties of all the universities cooperated and facilitated in collecting data and screening participants for the study

2.2. Measures

Demographic Characteristics: First, participants filled demographic sheet that included age, gender and nationality.

2.2.1. Sources of Anger Scale (SAS)

This is a self-developed scale that consisted of 49 items. A 4-point rating scale ("not at all, somewhat, moderately so, and very much so") was used to rate each item. Briefly, the scale was developed by following three phases, which start with phenomenological exploration in a form of asking open-end question to 80 undergraduate university students (40 Pakistani and 40 Somalian). A list of 57 items was generated based upon the responses of the participants on the sources of anger. The list that generated from first phase was given to 40 students ($n=20$ Pakistani students and $n=20$ Somalian students). Lastly, Principal Component Factor Analysis was run that showed two-factor solutions comprising experience threat and frustration. The first factor was labeled "threat" because the items were displaying in a form of attack to the personal security. It consisted 32 items that include, "making feel inferior", "insulting", "hurting physically", "saying something bad about one's family", "forcefully taking something" and "saying something against one's religion". The second factor contained 17 items that categorized feeling frustration which come in a form of blocking one's needs. Examples of items include "disturbance of one's sleeping", "not giving importance", "jealousy", "not meeting one's expectation", "refusal to give one's needs", and "not accepting one's view point". Eight items were discarded because of not meeting the required factor loading. The scale finally screened scale had Cronbach Alpha was 0.91.

2.2.2. Expressions of Anger Scale (EAS)

Expressions of Anger Scale (CAS) is also a self-developed scale that comprised 26 items in the different ways of expressing anger. It is formed in Likert scale answer format of "almost never, sometimes, often, and almost always". Concisely, three phase were adapted to develop the scale that includes a phenomenological exploration by asking open-end question to 80 university students that include both Pakistan and Somalian with an equal proportion of gender. A list was generated based on the participant's response that consisted of 26 items. At the end, Principal Component Factor Analysis was run that revealed four-factor solutions which include Anger Out, Anger In, Anger Coping, and Break Up. The first factor one of EAS was named "Anger Out" which means expressing anger with a violation of other's rights. It contains eight items such as "fighting with others physically", "shout to others", "hurting others physically", "insulting others", and "breaking things". The second factor consisted of six items that were exhibiting a form of suppressing anger.

It named "anger-in" because the anger that experienced by the person is expressed internally by hiding from others. The items of this factor including "keeping quiet", "liking to be alone", "decreasing communication to the other person", and "crying". The items that compressed in third factor are eight items that entitled anger coping. Anger coping is the only positive way to express one's anger, that the person deals his/her anger in a health way, without violating his rights or other's rights. Examples of the items of this factor including "talk to the person who make angry", "share with trusted person", "say my prayers", "becoming busy in other activities", and "shaming the other person". The fourth factor consisted four items that showed terminating relationships. Items were less to form separate factor, but they articulated distinct domain that do not match any other factor of the EAS. The items of this factor including "leaving the person permanently", "ignoring the person", "warning the person", and "stop talking to the person. The scale was found to have acceptable psychometric properties, in which Cronbach Alpha (0.78), split half reliability $r=0.64$, and concurrent validity with STAXI $r=0.58$.

2.3. Methods of Data Analysis

Data were analyzed using independent samples t-tests to examine mean differences between Pakistani and Somalian participants on the sources and expressions of anger. Demographic information was organized and presented using diagrams to provide a clear visual representation of participant characteristics. This combination of statistical analysis and visual presentation ensured both rigor and clarity in interpreting cross-cultural and gender-based differences.

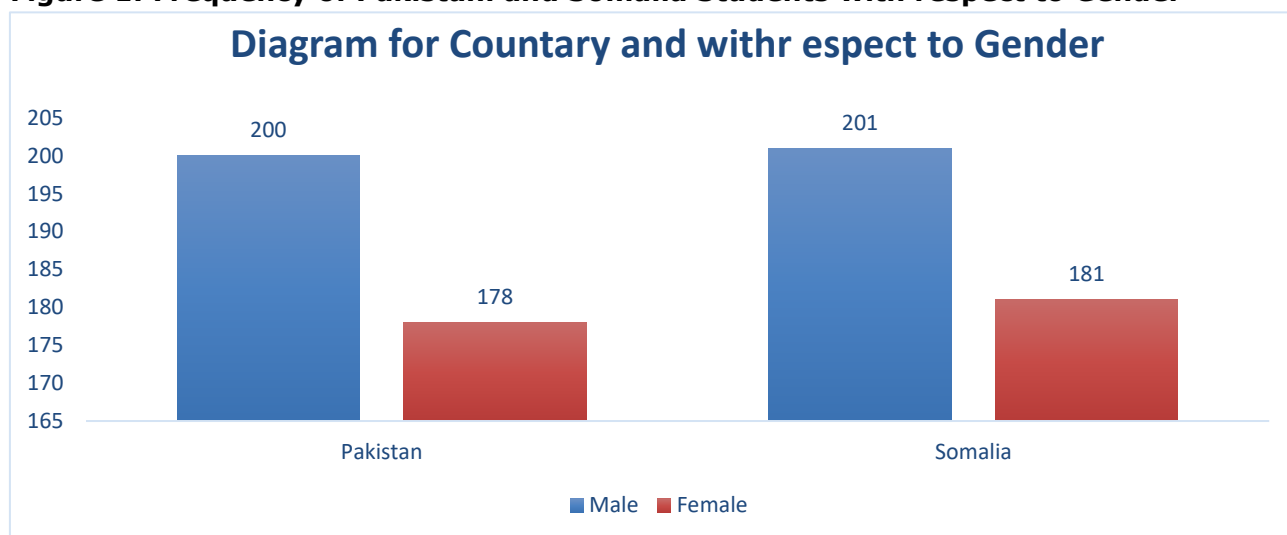
2.4. Procedure

Throughout the study, ethics was the guidance for steps that done for the completion of the study. First, it was taken permission from the university administrations in order to collect data from the university students. Second, after the permission granted, the participants were approached, and inform consent was taken from them before they participate the study. They were told that, they have a freedom to leave the study whenever they wanted, and no strict rules were applied to them. For the data collection, the participants were told the aims and objectives of the study. They were requested to fill the questionnaires based on their feasibilities, starting from the demographic sheet and followed by the other four scales. After taking permission from university administrations and the consent from participants, data collection was taken place that started from Pakistani participants. It took one month to finish data collection from Pakistan. The participants cooperated and eagerly took part in the study. However, some participants complained that the questionnaire was long while some others were not serious for filling the questionnaire, so they were discarded. After completed the data collection from Pakistan, Somalian students were reached, and they cooperated and participated well in the study. Along with the data collection for both of countries, the data entry was also in the process. In analysis, it was used t test to compare between the responses from Pakistan and Somalian that followed by comparing gender within each culture.

3. Result

After data collection, all data was recorded properly with special considerations given to privacy and confidentiality of the research participants. The subscales of self-developed Sources of Anger Scale (SAS) and Expressions of Anger Scale (EAS) were used to compare the two cultures and gender. A total of 760 university students (49.7% Pakistani and 50.3% of Somalian university students participated in the study. The gender mix of participants is indicated in Diagram one below.

Figure 1: Frequency of Pakistani and Somalia Students with respect to Gender



3.1. Cross-cultural Differences in Sources and Expression of Anger

In order to find the differences on experience and expressions of anger in Pakistani and Somalian university students, independent sample t-test was carried out. Table 1 below described the results.

Table 1: T-test Comparing Pakistani and Somalian Students on Sources and Expressions of Anger (N = 760)

Factors	Country		t-value	p-value
	Pakistan (n = 378)	Somalia (n = 382)		
	Mean $\pm$ SD	Mean $\pm$ SD		
Threat	66.34 $\pm$ 16.66	60.44 $\pm$ 15.03	5.13	.001***
Frustration	28.12 $\pm$ 8.97	27.12 $\pm$ 7.49	1.68	0.093
Anger Out	8.12 $\pm$ 5.85	6.81 $\pm$ 4.99	3.32	.001***
Anger In	10.03 $\pm$ 3.71	8.93 $\pm$ 3.56	4.17	.001***
Anger Coping	12.36 $\pm$ 4.12	12.58 $\pm$ 4.23	-0.71	0.481
Backup	6.44 $\pm$ 2.81	6.14 $\pm$ 2.7	1.5	0.133

df 758, *** p <0.001

The table 1 shows that Pakistani participants were higher on experiencing Threat than Somalian participants. However, there were no significant differences between Pakistani and Somalian participants on experiencing frustration. On the other hand, the Pakistani participants had significantly higher on anger out and anger in expressions as compared to Somalian participants. Contrary to this, there were no significant differences between the Pakistani and Somalian participants on anger coping and break up expressions.

3.2. Gender Differences in Sources and Expression of Anger

Independent sample t -test was employed to compare gender differences of both nations (Pakistani and Somalian) on the sources and expression of anger.

Table 2: T-test Comparing Pakistani and Somalian Students on Sources and Expressions of Anger by Gender (Males n=201, Females n=181)

Factors	Country	Gender		t-value	p-value
		Male	Female		
		Mean $\pm$ SD	Mean $\pm$ SD		
Threat	Pakistani	63.65 $\pm$ 16.94	69.37 $\pm$ 15.84	-3.38	.001***
	Somalian	60.78 $\pm$ 15.15	60.06 $\pm$ 14.93	.471	.638
Frustration	Pakistani	25.75 $\pm$ 8.55	30.79 $\pm$ 8.70	-5.68	.001***
	Somalian	26.64 $\pm$ 7.81	27.64 $\pm$ 7.10	-1.30	.193
Anger Out	Pakistani	7.75 $\pm$ 5.60	8.53 $\pm$ 6.12	-1.29	.198
	Somalian	7.30 $\pm$ 5.09	6.25 $\pm$ 4.83	2.06	.040*
Anger In	Pakistani	8.99 $\pm$ 3.34	11.20 $\pm$ 3.76	-6.06	.001***
	Somalian	8.37 $\pm$ 3.55	9.54 $\pm$ 3.49	-3.24	.001***
Anger Coping	Pakistani	11.26 $\pm$ 3.71	13.61 $\pm$ 4.21	-5.77	.001***
	Somalian	12.25 $\pm$ 4.12	12.93 $\pm$ 4.33	-1.57	.117
Break Up	Pakistani	6.15 $\pm$ 2.78	6.76 $\pm$ 2.82	-2.11	.036*
	Somalian	6.27 $\pm$ 2.81	5.98 $\pm$ 2.57	1.05	.294

Pakistani df =376, Somalian df =380 * p <0.5, *** p <0.001

The Table 2 indicates that, females in Pakistani participants had significantly higher than males on experiencing Threat and Frustration, whereas no gender differences found in experiencing Threat or Frustration among Somalian participants. On the other hand, females in Pakistani participants had significantly higher than males on Anger In, Anger coping, and Break Up expressions of anger, whereas, no significant gender differences were found on Anger Out expressions for Pakistani participants. Conversely, males had significantly higher on Anger Out expression of anger as compared to females in Somalian participants, whereas females had significantly higher on Anger In expression of anger than males. However, there were no significant gender differences found on anger coping and break up anger expression among Somalian participants.

4. Discussion

Anger is an emotional response that developed through evolution for the purpose to protect the survival of the person or group. It gives the individuals to respond and defend from any threat to their security or needs. It allows individuals to reach maximum potential to confront or achieve their desired goals (Berkowitz, 1989). However, the reaction to these situations can be positive or negative depends on the outcome of the angry situations. It is called positive (constructive) when the outcome of angry situation does not violate the rights of anyone. Nevertheless, most of the angry situations results in a negative outcome, and that is why anger

sees as a bad thing (Potegal & Novaco, 2010; Wranik & Scherer, 2010). Although anger is a basic emotion that essential for the individuals to survive, it needs to control when exaggerated. Therefore, in order to maintain social order, every society made certain rules govern by the expressions of anger. As a result, it is observed that the ways of experiencing and expressing anger is different from culture to culture, and it's because of differences in ecology, history, resource availability, type and size of a community, and education level. There are two broad cultural dimensions that named individualistic and collectivistic culture. In an individualistic culture emphasizes personal freedom and achievement. Individualist culture, therefore, awards social status to personal accomplishments such as important discoveries, innovations, great artistic or humanitarian achievements and all actions that make an individual stand out. Collectivism, in contrast, emphasizes the connection of individuals in a larger group. It encourages conformity and discourages individuals from dissenting and standing out (Ford & Mauss, 2015; Gorodnichenko & Roland, 2012).

Not surprisingly, the individualist and collectivistic dimension of cultures are not static, but it is flexible and dynamic (Komisarof & Akaliyski, 2025). Every society can move towards collectivism or individualism, but the difference is the degree to which a culture to be more collectivistic or individualistic. The extent to which any culture can be more individualist or collectivistic depends on many factors. Factors that increase the need for people to depend on each other (nomadic and agricultural society, living in rural area, joint family system, less resources, crises or security threats, and lower social status) encourage collectivistic culture. On the other hand, factors that allow individuals to live independent from others (hunters, living in urban, nuclear family system, more resources, less crises, and higher status) promote individualistic culture (Douarin & Hinks, 2024). Therefore, the objective of the current study is to find the difference of experience and expression of anger between two cultures (Pakistan and Somalia) that are different the extent to which they are towards individualistic culture. In order to find the difference, it was developed two scales (Sources of Anger Scale and Expression of Anger Scale) that were validated by 761 participants from these two countries. Many studies supported that, the culture has an important contribution for the shaping of human behavior (Draguns & Tanaka-Matsumi, 2003; Rice & Steele, 2004). So as most of the scales were developed in Western cultures, it was important to have culturally sensitive scales, with the reason to find the differences of experience and expression of anger between these two Eastern cultures.

In addition to that, the Pakistani population density (240 people per sq. km) is far more than the Somalian population density (17 people per sq. km). In density populated area, the individual's rights and freedom are restricted and controlled by others that can make the person experience frustration. Also, many problems are associated with density area that likely make the person to be angry including, traffic jam, more noises, mismanagement, and many more. Likewise, the study took place in the urban area of both of the countries, and it was noticed that Pakistan is more urbanize than Somalia. This could be another factor that cause Pakistanis to experience and express more anger. In an urban area the competition is more, daily livings are not well predicted, and a presence of more demands for fulfilling one's needs. All of these inconsistencies increase the chances that the person can become angry (Dey et al., 2014). Further, another factor can be the climate differences between the two countries, in which Pakistan (mean 41 °C) is hotter in summer than Somalia (Zahid & Rasul, 2010). Simister and Cooper (2005) proposed that hot weather enhances the release of the adrenaline hormone, which increase the likelihood the person to experience anger. Similarly, in hot weather, the stress tolerance level decreased because of the frustration that caused by the weather. Looking the difference of sources and expressions of anger within each culture, the study found that Pakistani females were higher on experiencing Threats and Frustration than Pakistani males. The Global Gender Gap Report (2015) of World Economic Forum ranked Pakistan second last country on gender inequality index. The women in Pakistan are facing many problems, and it is the case for reporting more threat and frustration than males. On the other hand, the females in both countries scored high on expressing their anger in indirectly, such as suppression of anger, coping, or breaking the relation, whereas, the Somalian males score high on expressing their anger more on outwardly. The result supported the social role theory (Eagly & Wood, 1999) that says man and women play different social role that needs different behavior and emotion regulations. Woman tends to be a homemaker and take care of children, whereas males provide family income. This role is more prominent in collectivistic cultures like Pakistani and Somalian, in which expect both of the gender to behave in a certain way. For this reason, women in

traditional relationship contexts would express their anger less directly and would suppress their anger more, due to expected negative social appraisals and retaliation. However, study found contradicted to the traditional role of gender in Pakistani participants that no gender differences found in expressing anger directly. As mentioned in above, Pakistani culture especially urban area is moving toward individualistic culture, and this may be the case of lack of gender differences in expressing anger directly (Bachkirov, Razzak, & Palalić, 2025; Fischer & Manstead, 2008).

References

- al'Absi, M., & Bongard, S. (2006). Neuroendocrine and Behavioral Mechanisms Mediating the Relationship between Anger Expression and Cardiovascular Risk: Assessment Considerations and Improvements. *Journal of Behavioral Medicine*, 29(6), 573-591. <https://doi.org/10.1007/s10865-006-9077-0>
- Bachkirov, A. A., Razzak, M. R., & Palalić, R. (2025). A friend or a foe? Exploring the paradoxes of entrepreneurial anger from a decision-making perspective. *Journal of Enterprising Communities: People and Places in the Global Economy*, 19(4), 792-815. <https://doi.org/10.1108/JEC-08-2024-0161>
- Balsamo, M. (2010). Anger and Depression: Evidence of a Possible Mediating Role for Rumination. *Psychological Reports*, 106(1), 3-12. <https://doi.org/10.2466/PRO.106.1.3-12>
- Berkowitz, L. (1989). Frustration-aggression hypothesis: Examination and reformulation. *Psychological Bulletin*, 106(1), 59-73. <https://doi.org/10.1037/0033-2909.106.1.59>
- Bond, A. J., & Wingrove, J. (2010). The Neurochemistry and Psychopharmacology of Anger. In M. Potegal, G. Stemmler, & C. Spielberger (Eds.), *International Handbook of Anger* (pp. 79-102). Springer New York.
- Burns, D. (2009). Experience and expression of anger and aggression in dating relationships for male college athletes in contact and non-contact sports.
- Daikoku, T., Minatoya, M., & Tanaka, M. (2026). Mapping emotional feeling in the body: A tripartite framework for understanding the embodied mind. *Neuroscience & Biobehavioral Reviews*, 180, 106469. <https://doi.org/10.1016/j.neubiorev.2025.106469>
- Darwin, C. (1872). *The expression of the emotions in man and animals*. John Murray.
- Dey, B. K., Rahman, A., Bairagi, A., & Roy, K. (2014). Stress and Anger of Rural and Urban Adolescents. *Psychology*, 05(03), 177-184. <https://doi.org/10.4236/psych.2014.53028>
- Douarin, E., & Hinks, T. (2024). Individualism, universalism and climate change. *Journal of Institutional Economics*, 20, e17. <https://doi.org/10.1017/S174413742400002X>
- Draguns, J. G., & Tanaka-Matsumi, J. (2003). Assessment of psychopathology across and within cultures: issues and findings. *Behaviour Research and Therapy*, 41(7), 755-776. [https://doi.org/10.1016/S0005-7967\(02\)00190-0](https://doi.org/10.1016/S0005-7967(02)00190-0)
- Dubois, A.-C., Mallien, Z., Lahaye, M., & Aujoulat, I. (2026). Being Afraid of and for One's Parents: The Lived Experience of Children Exposed to Parental Burnout. *Social Sciences*, 15(1), 28. <https://doi.org/10.3390/socsci15010028>
- Eagly, A. H., & Wood, W. (1999). The origins of sex differences in human behavior: Evolved dispositions versus social roles. *American Psychologist*, 54(6), 408-423. <https://doi.org/10.1037/0003-066X.54.6.408>
- Faupel, A., Herrick, E., & Sharp, P. M. (2010). *Anger Management* (0 ed.). Routledge.
- Fischer, A. H., & Manstead, A. S. (2008). Social functions of emotion. *Handbook of emotions*, 3, 456-468.
- Ford, B. Q., & Mauss, I. B. (2015). Culture and emotion regulation. *Current Opinion in Psychology*, 3, 1-5. <https://doi.org/10.1016/j.copsyc.2014.12.004>
- Gorodnichenko, Y., & Roland, G. (2012). Understanding the Individualism-Collectivism Cleavage and Its Effects: Lessons from Cultural Psychology. In M. Aoki, T. Kuran, & G. Roland (Eds.), *Institutions and Comparative Economic Development* (pp. 213-236). Palgrave Macmillan UK.
- Grecucci, A., Graci, F., Munari, E., Yi, X., Salvato, G., & Messina, I. (2024). A fronto-insular network underlies individual variations in anger expression and control. *Imaging Neuroscience*, 2, imag-2-00348. https://doi.org/10.1162/imag_a_00348
- Hyde, J. S. (2014). Gender Similarities and Differences. *Annual Review of Psychology*, 65(1), 373-398. <https://doi.org/10.1146/annurev-psych-010213-115057>
- Koellhoffer, T. (2009). *Dealing with frustration and anger*. Infobase Publishing.

- Komisarof, A., & Akaliyski, P. (2025). New developments in Hofstede's Individualism-Collectivism: A guide for scholars, educators, trainers, and other practitioners. *International Journal of Intercultural Relations*, 107, 102200. <https://doi.org/10.1016/j.ijintrel.2025.102200>
- Kozłowska, K., & Williams, L. M. (2009). Self-protective organization in children with conversion and somatoform disorders. *Journal of Psychosomatic Research*, 67(3), 223-233. <https://doi.org/10.1016/j.jpsychores.2009.03.016>
- Litvak, P. M., Lerner, J. S., Tiedens, L. Z., & Shonk, K. (2010). Fuel in the Fire: How Anger Impacts Judgment and Decision-Making. In M. Potegal, G. Stemmler, & C. Spielberger (Eds.), *International Handbook of Anger* (pp. 287-310). Springer New York.
- Lochman, J. E., Barry, T., Powell, N., & Young, L. (2010). Anger and Aggression. In D. W. Nangle, D. J. Hansen, C. A. Erdley, & P. J. Norton (Eds.), *Practitioner's Guide to Empirically Based Measures of Social Skills* (pp. 155-166). Springer New York.
- Martin, R. C., & Dahlen, E. R. (2004). Irrational Beliefs and the Experience and Expression of Anger. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, 22(1), 3-20. <https://doi.org/10.1023/B:JORE.0000011574.44362.8f>
- Maslow, A. H. (1943). A theory of human motivation. *Psychological review*, 50(4), 370. <https://doi.org/https://doi.org/10.1037/h0054346>
- Matsumoto, D., & Willingham, B. (2009). The origin of universal human emotions. *San Francisco: San Francisco State University*, 24.
- Merton, R. K. (1968). *Social theory and social structure*. Simon and Schuster.
- Painuly, N., Sharan, P., & Mattoo, S. K. (2005). Relationship of anger and anger attacks with depression: A brief review. *European Archives of Psychiatry and Clinical Neuroscience*, 255(4), 215-222. <https://doi.org/10.1007/s00406-004-0539-5>
- Potegal, M., & Novaco, R. W. (2010). A Brief History of Anger. In M. Potegal, G. Stemmler, & C. Spielberger (Eds.), *International Handbook of Anger* (pp. 9-24). Springer New York.
- Quansah, N., Ankoma-Sey, V. R., Dadzie, E., Apagya-Quayson, A., Aikins, P., Forson, K. E., & Cobbinah, J. (2026). Motivation Beyond Wages: Profiling Employee Motivation Through Self-Determination Theory in a Collectivist Culture. *International Journal of Applied Research in Business and Management*, 7(1). <https://doi.org/10.51137/wrp.ijarbm.481>
- Rice, T. W., & Steele, B. J. (2004). Subjective Well-Being and Culture Across Time and Space. *Journal of Cross-Cultural Psychology*, 35(6), 633-647. <https://doi.org/10.1177/0022022104270107>
- Schum, J. L., Jorgensen, R. S., Verhaeghen, P., Sauro, M., & Thibodeau, R. (2003). Trait Anger, Anger Expression, and Ambulatory Blood Pressure: A Meta-Analytic Review. *Journal of Behavioral Medicine*, 26(5), 395-415. <https://doi.org/10.1023/A:1025767900757>
- Sheu, J.-H., Liu, I.-C., & Yeh, Z.-T. (2025). Exploring Emotional Recovery From Anger in Individuals With Borderline Personality Disorder: The Role of Respiratory Sinus Arrhythmia as a Potential Physiological Mechanism. *Journal of Personality Disorders*, 39(5), 418-435. <https://doi.org/10.1521/pedi.2025.39.5.418>
- Simister, J., & Cooper, C. (2005). Thermal stress in the U.S.A.: effects on violence and on employee behaviour. *Stress and Health*, 21(1), 3-15. <https://doi.org/10.1002/smi.1029>
- Stemmler, G. (2010). Somatovisceral Activation During Anger. In M. Potegal, G. Stemmler, & C. Spielberger (Eds.), *International Handbook of Anger* (pp. 103-121). Springer New York.
- Tejay, G. P. S., & Winkfield, M. (2025). Does Leadership Approach Matter? Examining Behavioral Influences of Leaders on Employees' Information Security Compliance. *Information Systems Frontiers*. <https://doi.org/10.1007/s10796-025-10592-4>
- The Global Gender Gap Report, G. (2015). The Global Gender Gap Index 2015 ranks 145. <http://reports.weforum.org/global-gender-gap-report-2015/>
- Ward, A. (1998). Anger and Addiction: Breaking the Relapse Cycle: A Teaching Guide for Professionals. *Psychiatric Services*, 49(4), 543-544.
- Wranik, T., & Scherer, K. R. (2010). Why Do I Get Angry? A Componential Appraisal Approach. In M. Potegal, G. Stemmler, & C. Spielberger (Eds.), *International Handbook of Anger* (pp. 243-266). Springer New York.
- Wright, M. F. (2025). Emotional and cognitive mechanisms of cyber-displaced aggression: exploring the impact of young adults' victimization. *BMC Public Health*, 25(1), 2209. <https://doi.org/10.1186/s12889-025-23450-4>
- Yi, J. P., Yi, J. C., Vitaliano, P. P., & Weinger, K. (2008). How does anger coping style affect glycemic control in diabetes patients? *International Journal of Behavioral Medicine*, 15(3), 167-172. <https://doi.org/10.1080/10705500802219481>
- Zahid, M., & Rasul, G. (2010). Rise in summer heat index over Pakistan. *Pakistan Journal of Meteorology*, 6(12), 85-96.