

Relationship Between Personality Traits and Violence Involvement - a Study of High School Students in Northern Iraq

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ABSTRACT

Background: violence is considered to be a global phenomenon; committing violence significantly impacts individuals physical and psychological states. There are several risk factors for increasing violence, of which personality traits represent the most substantial risk. **Objective:** the current research aims to examine the association among the 'big five' risk factors and involvement in violence among high school students in the *north of Iraq*. **Methods:** The sample comprised 468 students, 242 boys, and 226 girls aged 16 to 20. Two self-report instruments were used for data collection. Firstly, we divided the Maudsly Violence Questionnaire into two factors: acceptance of violence and machismo. Secondly, we used the Big Five Inventory, which includes questions on extraversion, neuroticism, agreeableness, conscientiousness, and openness. **Result:** the result showed a significant positive correlation between extraversion, neuroticism, and violence involvement. Agreeableness, openness, and conscientiousness were negatively correlated. In terms of demographic variables, the findings suggest that boys are more likely to be involved in violence than girls. The results indicated that personality traits neuroticism, extraversion, agreeableness, openness, and conscientiousness predicted violence. **Conclusion:** personality traits significantly impact individuals' behaviors that reflect their lives. The potential for violence is a predictor for detecting and preventing violent actions and could be used in many justices and governmental systems.

Keywords: Acceptance to violence, Big Five, Personality Traits, Machismo, and Violence.

1. BACKGROUND

In recent decades, violence has been increasingly recognized as a severe public health concern (1–3) published by the World Health Organization (WHO). This is an exciting subject for those in the psychological and mental health, criminal justice, and forensic fields (4). Specifically, most research on criminal behaviour primarily focuses on adults (5). Nearly one million deaths worldwide have been recorded as a consequence of self-inflicted, interpersonal, domestic, and intimate partners in a year (1). Understanding the causes of violent behaviour is essential if we are to prevent the development of violence (6).

The definition of violence remains controversial among scientific researchers (7) and the inclusion of behaviors such as child abuse, sexual offenses,

and manslaughter. Violence research has produced numerous and sometimes conflicting definitions of violence that can be organized into 4 general camps: the exemplars approach, the social psychology approach, the public health approach, and the animal research approach. Each approach has strengths and limitations, but to fully distinguish violence from other behaviors requires incorporating elements from all of them. A comprehensive definition of violence includes 4 essential elements: behavior that is (a. However, compiling all definitions, violence refers to intentional, harmful, and undesirable physical force and aggressive behaviour from one person toward others (2,7,8) which provides a comprehensive and integrative social-cognitive framework for understanding aggression and violence. After providing a brief descrip-

tion of the basic components of GAM, we discuss how it can be used to better understand 4 topics related to phenomena that occur primarily outside the laboratory and apply to a broad range of people. Specifically, we apply GAM to better understand intimate partner violence, intergroup violence, global climate change effects on violence, and suicide. We also explain how the tenets of GAM can be used to inform interventions aimed at reducing these forms of violence. Finally, we show how GAM can explain why people do not behave violently, such as in societies where violence is exceedingly rare. Applying GAM to violent behavior that occurs outside the laboratory adds to its explanatory power and enhances the external validity of its predictions. Because the 4 topics apply to such a broad range of people, GAM may have broader influence in fostering understanding of aggression in these domains. By increasing our understanding of the causes of violent behavior, GAM may help reduce it. (PsycInfo Database Record (c. This violence can have physical, psychological, and emotional consequences (9). While all types of violence are considered to be aggressive, all aggression is not necessarily violence (4). Additionally, violence originates from violent thoughts, which reveals that violence interacts with criminal activity as a learned behaviour (10) much research into violence has focussed on risk factors rather than on perpetrators' perspectives on their violent acts and the powerful psychological influences on those individuals' violent behaviour. In forensic settings, the most popular model for working with violence has been anger management, which uses a cognitive behavioural approach to explain how triggers may cause anger and violence via a series of information processing biases. Interestingly, an area that receives less attention in the cognitive behavioural literature on violence and anger is the role of embarrassment and humiliation ('disrespect

The literature review showed that personality traits, specifically the 'big five' factors associated with aggression and violent offending (11). This association might be a fundamental way to discriminate between perpetrators and potentially violent people depending on an individual's attitude, interpersonal beliefs, emotional control, and motivation for committing violence. Personality traits could be used to identify people with a tendency for criminal behavior (12,13) the five-factor model (FFM). The 'Five Factor Model' (FFM), is widely used to clarify personality structures and characteristics (14). Researchers agree that FFM is one of the most essential personality taxonomies. The five factors consist of (extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience) (12,15) I will briefly review the evidence for the universality of the structure of personality traits. I will also address two other ways in which the Five-Factor Model may provide a useful framework for studies in personality and culture: as the structure of national character stereotypes, and—perhaps—as the structure of ethos. (PsycINFO Database Record (c. Almost all theories of personality use these traits in creating measurements (16)

These traits are remarkably universal, according to (17), as they found that 50 different cultures use the big five factors to describe personality. This research found all the mentioned traits differ from one person to others regarding their characteristics and role in society, which directly and indirectly influence individual Behaviour (18) "page": "278-295", "

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According to personality theorists, personality traits are the most predictive variable for violence and aggressive behavior (19) including the discovery of the five dimensions (extraversion, agreeableness, conscientiousness, neuroticism, and openness. For example, some characteristics put individual at high risk of dealing with drug dealers, which may indirectly lead them to violence (20,21). Accordingly, extraversion reflects directly on a person's life, and mean they are thus easily motivated to abuse drugs and alcohol and commit violent acts (22–25). In addition, study results found that agreeableness, neuroticism, and openness predict violence, particularly physical violence and aggression. They also suggested that agreeableness and conscientiousness are negatively associated with violence. On the other hand, neuroticism is positively correlated with violence (26) no work has tested whether that relation is direct or indirect through aggressive attitudes and aggressive emotions. Data from two large samples that used different Big 5 measures examined these effects. Overall, results showed that the paths from Big 5 traits to aggressive behavior depends on both the specific type of aggressive behavior and the Big 5 traits measured. For example, Openness and Agreeableness were both directly and indirectly related to physical aggression, but were only indirectly related (through aggressive attitudes, 27)

2. OBJECTIVE

This research aims to understand the association between personality traits and involvement in violence using a sample of Kurdish people.

3. MATERIALS AND METHODS

3.1. Participants

The sample comprised of school students randomly chosen from seven public and private high-schools. A total of 546 students took part, of which 242 were boys, and 226 were girls, all of whom contributed to this study on a volunteer basis. The sample ranged from 16 to 20 years ($M = 17.5$; $SD = 1.2$). During the assessment period, 5 participants refused to participate in the study, and 8 students did not complete the questionnaire. The 70 remaining questionnaires can not be analyzed due to missing data in responses for certain items. The final sample consisted of 463 participants who were contacted and received information about the aim of the study.

3.2. Measures

The samples completed the following two scales:

3.2.1. Maudsly Violence Questionnaire (28):

The Maudsly Violence Questionnaire (MVQ) is a 56-items questionnaire that covers various cognitions (beliefs, norms, distortions, and attributions) that might offer support, justification, or injunctions for violence. The items include two subscales. Machismo comprises 42 items, while acceptance of violence consists of 14 items. Each item was rated from (0) for false and (1) for true. The alpha reliability

	1	2	3	4	5	6	7	
Extraversion	1							
Agreeableness	-0.005	1						
Conscientiousness	0.019	.508**	1					
Openness	0.161**	0.324**	.392**	1				
Neuroticism	0.003	-.251**	-.371**	-.122**	1			
Violence	0.22**	-0.259**	-.219**	-.140**	0.30**	1		
Acceptance	0.20**	-0.190**	-.204**	-.131**	0.24**	.787**	1	
Machismo	0.21**	-0.259**	-.206**	-.131**	0.29**	.983**	.659**	1

* p < 0.05

** p < 0.01

Table 1: Association between personality traits and violence

	Violence			Acceptance			Aggression		
	M(SD)	t / F	p- Value	M(SD)	t / F	p- Value	M(SD)	t / F	p- Value
Gender		7.7	< 0.01		7.5	< 0.01		7.1	< 0.01
Male	26.6 (9.8)			7.4 (2.3)			19.2 (8.1)		
Female	20.04 (8.5)			5.8 (2.2)			14.1 (7.02)		
Age		0.54	0.70		0.751	0.55		0.703	0.59
16	22.5 (8.1)			6.5 (2.08)			15.9 (6.8)		
17	23.3 (9.8)			6.8 (2.08)			16.4 (8.3)		
18	24.3 (10.1)			6.8 (2.8)			17.5 (7.8)		
19	24 (11.8)			6.5 (2.5)			17.4 (9.3)		
20	23.8 (11.7)			6.1 (2.5)			16.8 (8.7)		
Class		0.25	0.77		0.84	0.84		0.704	0.70
10	22.9 (8.05)			6.7 (2.1)			16.2 (6.7)		
11	23.8 (10.3)			6.7 (2.4)			17.06 (8.5)		
12	23.5 (10.2)			6.6 (2.5)			16.8 (8.3)		

Table 2: Descriptive and mean difference between study variables for violence.

for the MVQ is 0.88. Machismo is the subscales most predictive of violence for meals, but female violence somewhat contributes to the acceptance of violence (4). Violent thinking refers to a high score on machismo subscales, which also illustrates statements about masculinity, such as involvement in violence (e.g., “I expect real men to be violent”). Another example might be that leaving a violent situation is particularly shameful for men (e.g., “It is shameful to walk away from a fight”). Items relating to the acceptance of violence (e.g., “I enjoy watching violence on TV or in films”) and justifications (e.g., “I tend to just react physically without thinking”) are linked to the acceptance of violence subscales (28).

3.2.2. The Big Five Inventory : (29)1990

The Big Five Inventory (BFI) is a self report measure comprising 44 items. Participants were asked to rate each statement in relation to themselves with five response options (1= agree strongly to 5= disagree strongly). Items assessing extraversion included ‘I have an assertive personality, while agreeableness included ‘I have a forgiving nature. ‘Conscientiousness (was assessed via ‘I make plans and follow through with them, whereas openness was investigated using ‘I am original, and come up with new ideas). Finally, neuroticism was covered with questions such as ‘I get nervous easily. The internal

consistency for the scale of the Kurdish sample was 0.87.

3.3. Procedure and research ethics

The directorate of the city of Soran Department of Education approved this study. The participants were high school students randomly selected and distributed over three different stages. Permission was received from the school directors and the students to participate in the research. The students were given instructions on answering the questions through the consent form. In regards to research ethics, all participants were informed that all the information they provided would be kept securely and that their participation was entirely voluntary. Furthermore, students were told that they were free to leave if they felt uncomfortable at any point during the study. After accepting all the conditions mentioned above, participants were questioned to fill a checklist of the MQV scale and then complete a checklist of the BFI scale. Participants answered the questionnaires independently and anonymously with the help of the principal investigator. The data collection process was completed in the school during the 2021- 2022 academic year.

3.4. Data analysis

Once missing data were eliminated, several statistical measures were conducted. The data were analyzed using SPSS

	Violence					Acceptance					Aggression				
	B	β	R2	t	p	B	β	R2	t	p	B	β	R2	t	p
Extraversion	0.44	0.22	0.05	4.94	< 0.01	0.09	0.20	0.04	4.43	< 0.01	0.34	0.21	0.04	4.67	< 0.01
Agreeableness	-0.44	-0.25	0.067	-5.79	< 0.01	-0.45	-0.19	0.036	-4.18	< 0.01	-0.18	-0.25	0.067	-5.78	< 0.01
Conscientiousness	-0.36	-0.21	0.048	-4.85	< 0.01	-0.504	-0.204	0.042	-4.49	< 0.01	-0.27	-0.206	0.043	-4.55	< 0.01
Openness	0.45	0.24	0.06	5.45	< 0.01	-0.33	-0.13	0.017	-2.85	< 0.01	-0.17	-0.13	0.017	-2.84	< 0.01
Neuroticism	0.54	0.30	0.09	6.81	< 0.01	0.10	0.24	0.05	5.40	< 0.01	0.43	0.29	0.08	6.64	< 0.01

Table 3: Regression analysis for the association between personality traits and violence:

software. The Pearson-correlation-coefficient was implemented to identify the association between big-five personality traits and involvement in violence. Multiple-regression-analysis was applied to predict the degree to which personality traits are the most predictive variable for violence. An independent-sample t.test was used to understand the differences among genders' tendencies toward involvement in violence.

4. RESULTS

The association between Five-factor models and violence

The results presented a significant correlation between violence and all of the big-five personality traits. Extraversion $R=0.22, p < 0.01$; Agreeableness $R=-0.259, p < 0.01$ Conscientiousness; $R=-0.21, p < 0.01$; Openness $R=-0.14, p < 0.01$ and Neuroticism $R=0.30, p < 0.01$. Concerning violence factors, we found a statistically significant relationship between acceptance of violence and personality traits. Extraversion $R=0.20, p < 0.01$; Agreeableness $R=-0.19, p < 0.01$; Conscientiousness $R=-0.20, p < 0.01$ Openness $R=-0.13, p < 0.01$; Neuroticism $R=0.24, p < 0.01$. Similar results for machismo were identified. Extraversion $R=0.21, p < 0.01$; Agreeableness $R=-0.25, p < 0.01$; Conscientiousness; $R=-0.20, p < 0.01$; Openness $R=-0.13, p < 0.01$ and Neuroticism $R=0.29, p < 0.01$. (Table 1).

Differences in violence according to various demographic variables:

There was a significant mean difference between males and females in regards to violence, $t=7.7, P < 0.01$; acceptance, $t=7.5, P < 0.01$ and machismo $t=7.1, P < 0.01$. However, there was not any significant mean differences in violence with regards to age: $F=0.54, P > 0.05$; acceptance $F=0.75, P > 0.05$ and machismo $F=0.70, P > 0.05$. In addition, significant mean differences between classes and violence were not found, Violence $F=0.25, P > 0.05$; acceptance $F=0.84, P > 0.05$ and for machismo $F=0.70, P > 0.05$ (Table 2).

Regression analysis for the association between personality traits and violence:

Our results indicated that the big five personality traits predicted for violence (% 17.4) variance. Extraversion $\beta=0.22, t=4.94, p < 0.01$, Agreeableness $\beta=-0.25, t=-5.79, p < 0.01$, Conscientiousness $\beta=-0.21, t=-4.85, p < 0.01$, Openness $\beta=0.24, t=5.45, p < 0.01$, neuroticism $\beta=0.30, t=6.81, p < 0.01$. According to these results, personality traits were a predictable variable for violence factors (acceptance to violence and machismo). The prediction for acceptance to violence, Extraversion $\beta=0.20, t=4.43, p < 0.01$. agreeableness $\beta=-0.19, t=-4.18, p < 0.01$ conscientiousness $\beta=-0.20, t=-$

4.49, $p < 0.01$ neuroticism $\beta=0.24, t=5.40, p < 0.01$ The prediction of outcomes was recorded to machismo, extraversion $\beta=0.21, t=4.67, p < 0.01$ agreeableness $\beta=-0.25, t=-5.78, p < 0.01$ conscientiousness $\beta=-0.20, t=-4.55, p < 0.01$ neuroticism $\beta=0.29, t=6.64, p < 0.01$. Results for acceptance to violence and machismo recorded identical for openness, $\beta=-0.13, t=-2.85, p < 0.01$ respectively. (Table 3).

5. DISCUSSION

The present research aimed to examine the relationship between the big-five major personality traits and violence among Kurdish students. This chapter will discuss the results. The data was collected and analyzed using a statistical method to quantify the participants' behavior, attitudes, and opinions. Quantitative methods will also be used to understand the association between the dependent and independent variables (30).

5.1. Illustrating significant correlation

The findings reveal that violence involvement in all predictable personality traits variance (% 17.4). Also, there was a significant relationship between extraversion, neuroticism and involvement in violence. This implies that participants with high-levels of extraversion and neuroticism are more likely to become involved in violence. At the same time, reduced participation in violence contributed to participants who had an increased degree of agreeableness, consciousness, and openness. Our results support research by (31, 32) which found that extraversion is related to violence and alcohol use in males and females, whereas neurotic individuals record high levels of stress and violent acts. (33) support our finding that people possessing neurotic traits are prone to cruelty and violent behaviour. This could be because people with neurotic traits are characterized by emotional and mood instability; individual with neurotic therefore expected to commit acts of violence and behave aggressively (34, 35) general personality traits, and specific impairments, including impairments in interpersonal functioning. The data included responses to structured and semistructured interviews, self-reports of interpersonal problems, and reports of interpersonal problems from significant others. Clinical ratings of axis I and II symptoms and of impairment were made by using the LEAD (i.e., longitudinal, expert, all data. That causes them to be susceptible to negative emotions such as anger, hostility, anxiety, and self-doubt in various circumstances (36) trait anxiety, and trait fear of missing out with phubbing via state fear of missing out and problematic Instagram use. A total of 423 adolescents and emerging adults aged between 14 and 21 years (53% female).

Lower tendencies towards violence and aggressive behavior

were found for agreeableness, conscientiousness, and openness. The probability of lower movements in violence involvement could be due to positive personality characteristics. Our results support (37) and (31). This paper's results are inconsistent with the studies of (38), which found that openness does not contribute to violence. That might be due to positive thinking and openness to new ideas (17). People with a high score in conscientiousness are generally successful in many aspects of their lives, including job performance (39), spousal strength, and marital stability (40). It is the best predictor of obtaining high academic qualifications (41).

That being said, it is essential to note that everyone has all five personality traits at some level. The level of difference may depend on cultural variation and factors such as genetics and the environment (multifactorial) (42,43). These factors evidently affect the stability of personality traits. The stability of personality traits and risk-taking behaviour is consistent over time (44, 45). Specifically, people with high levels of extraversion and openness are more inclined to participate in risky behaviour to obtain pleasant emotional experiences (46). Extraverted individuals are characterized by (impulsiveness, sociability, interpersonal dominance, interest in being a leader, and high activity levels, which are predicted to be risky behavior (47,17, 48, 49). They are thus more liable to become angry and react violently. In contrast, introverts can control their actions, especially in violent circumstances (50).

5.2. Demographic variables & Personality traits as a predictor variable for violence

We found significant differences between the genders, as boys were more likely to be perpetrators and act aggressively. Using the same scales as the MVQ, violence achieved similar results to the study conducted by (51, 28, 4). One possible explanation for this result is differences in socialization between boys and girls (52). Boys are taught to display behaviour related to violence instead of acting emotionally (51). Additionally, educational opportunities, academic level, economic state, and health-related issues increase gender differences in personality (53). It is essential to highlight that childhood experiences, such as learning about positive and negative behaviour, will reflect their later life. The idea of learned behaviour comes from Bandura's (1969) social learning theory. It is further supported by the theory of differential association, which states that a person can learn attitudes and techniques that motivate a person to commit violence (54). However, findings suggest that men are more likely to be an abuser of sexual violence, coercive control, and stalking (55, 56). Mainly, males with personality traits had more tendencies for violent acts than females (33). On the other hand, evidence from a study does not support our results, which reveals the unusual concept of men's victimization by different types of violence (57).

6. LIMITATIONS AND FURTHER WORK

The questionnaires discussed above could be an appropriate measure for the current sample because they are clear and easy to understand. However, the present study has several limitations that should be addressed in future research.

Firstly, the most apparent limitation is that the scales were too long, which may have bored participants and made them regret participating. Secondly, the sample size was insufficient due to COVID-19. An appropriate sampling technique must

be used to obtain a truly representative sample and reach an accurate conclusion (58). Thirdly, the participants were all at the same academic level. Collecting data from different cultures using cross-cultural methods would be better to generalize results to the whole population. Fourth, the current study did not investigate the relationship between different types of violence and personality traits. Future research thus needs to assess different scales to measure violence and personality traits. Finally, the social desirability phenomenon is another drawback of the self-reported measure (59) of violence and the big-five factors. In the questionnaire, participants will tend to give a positive view of themselves. Because of this, future research should explore the use of different methods, such as qualitative face-to-face interviews.

7. CONCLUSION

Our findings suggest that personality traits could be used to identify people with a tendency for violence and criminal behavior. Research on personality traits can also help to determine how people differ from each other and how personal differences affect their lives. Extraversion and introversion are not the only personality traits; each trait influences the brain differently. It is the way brains make choices that ultimately determines individual behavior, which could significantly impact society. Clinically, this concept could be applied in different situations, including forensic settings, prisons, counseling psychology, and the criminal justice system.

Further work in this area should focus on evaluating the personalities of high school students. Research must examine not only ordinary people but also people in correctional prisons. Such studies help assess whether convicted violent offenders who have completed their sentence are not likely to repeat their offenses, indicating lower levels of violence acceptance and machismo factors. These levels will be further reduced if violent offenders are imprisoned. Working cognitively and using cognitive therapy approaches may also reduce the risk of committing violent acts (28).

- **Patient Consent Form:** Not applicable.
- **Authors contribution:** All authors had been participated in all parts of the research (Conceptualization; Data curation; Formal analysis; Methodology; Project administration; Supervision; Validation; original draft; Writing-review & editing) except the data collection which was done by the principal investigator AF.
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