

Study of the Relationship between Gender and Aggression among Ivorian Secondary School Students

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ABSTRACT: This study examines the relationship between gender and aggression among Ivorian secondary school students. A cross-sectional study included a sample of 133 participants (79 girls and 54 boys, aged 12 to 18).

Participants were divided into two groups based on gender (female and male). The Aggression Questionnaire-Short Form (AQ-SF) was used to determine their level of aggression. Participants completed a gender identification form to collect sociodemographic data. An interview guide was used to gather additional information to further explore the relationship between gender and aggression. The results indicate that boys tend to be more aggressive than girls. This study offers added value in strengthening the impact of behavioral and psychosocial theories on the development of girls and boys.

KEYWORDS: Gender, Aggression, Adolescents, Students.

INTRODUCTION

Humans evolve through various stages of growth, including adolescence. This stage of development marks a significant turning point, a vital transition between childhood and maturity (Bee, 1989). It is fascinating, compelling, unsettling, and complex, with a number of alterations on the physical, psychological, social, and cognitive levels. Puberty, the birth of abstract cognition, the search for identity, hormonal upheavals, and a reorganization of the relationship with authority and social standards are among its characteristics (Piaget, 1964; Sisk & Zehr, 2005; Somerville et al., 2010)."

From a neurobiological point of view, the work of Crone and Dahl (2012) and Spear (2000) states that this period is characterized by a desynchronized growth of the different brain regions and functions. While the limbic system (seat of emotions) reaches a certain maturity early, the prefrontal cortex (involved in impulse control) is still developing. This discordance partly explains the typical behaviors of this age group, such as impulsivity, risk-taking, emotional hypersensitivity, and antisocial behavior. Adolescence is thus a time of fragility but also a time of intense potential. Erickson (1969) defined it as a crucial stage in the construction of identity, where the individual is often tossed between conflicting social expectations, leading to role confusion. Cognitive development becomes more sophisticated, as Piaget (1964) emphasized, with the emergence of formal thought and hypothetic-deductive reasoning.

These global transformations affect the relationship between adolescents and their environment (Claes, 1983). The central institution of socialization, school, plays an important role in this dynamic. However, far from being solely a space for the transmission of knowledge, it sometimes becomes the scene of conflicting expressions.

Violence in schools in Côte d'Ivoire is a worrying phenomenon. A joint study by UNICEF and the Ministry of National Education (2022) reveals that nearly 80% of students are exposed to verbal or psychological violence. Physical assaults targeted 1.7 million of these victims. Data from the DSPS/MENA (Directorate of Studies, Strategies, Planning and Statistics of the Ministry of National Education and Literacy) for the 2020-2021 academic year confirm this trend, with more than 14,000 cases of physical violence and more than 9,000 cases of verbal violence recorded in schools.

These alarming figures highlight the rise of an often-trivialized phenomenon with serious consequences: aggression in adolescence. Far from being a simple personality trait, aggression is a multidimensional behavior that can be expressed in various forms: verbal, physical, relational, emotional, or even cognitive (Bouchard, 2007; Buss, 1961; Fraisse, 1968). Generally speaking, aggression refers to any conduct directed toward others with the intention of harming them, whether physically or psychologically (Spielberger & al., 1995). Although definitions vary slightly depending on the approach, there is a consensus on its intentional and destructive nature. Thus, whether hostile (an impulsive reaction to a provocation) or instrumental (a means of achieving an objective), aggression is part of a complex dynamic, influenced by individual, contextual, and social factors.

Among these factors, gender is particularly relevant. Indeed, the concept of "gender," understood as a social construct differentiating the roles, behaviors, and expectations associated with men and women, profoundly influences the ways in which

Study of the Relationship between Gender and Aggression among Ivorian Secondary School Students

aggression is expressed (Löwy & Rouch, 2003). While boys are generally socialized to be confrontational and assertive, girls are often taught to restrain and internalize their emotions (Bouchard & Saint-Amant, 2002). These gendered constructs are rooted in dominant cultural representations and impact adolescent behavior, particularly in the school context.

Numerous studies, primarily conducted in Western countries, have highlighted significant differences in forms of aggression according to gender. Boys tend to express more direct and physical aggression, while girls prefer subtler forms, such as relational aggression (Björkqvist & al., 1992; Crick & Grotpeter, 1995; Olweus, 1984). Other studies have also highlighted a higher frequency of aggressive acts in boys, although indirect forms in girls are sometimes underestimated in traditional assessments (Archer, 2004; Kéita 2013,2014; Verlaan, 1994; Underwood, 2003).

In the Ivorian context, this question of the link between gender and aggression remains largely underexplored, even though social norms relating to masculinity and femininity are strongly defined. Boys are often encouraged to express their dominance or authority through sometimes aggressive behavior, while girls are socially encouraged to adopt more conciliatory or passive postures. These differentiated expectations potentially influence the way aggression manifests and is perceived in schools.

Faced with this observation, a central question emerges: How does gender influence the forms and intensity of aggression among Ivorian middle school students? This question is all the more crucial as it concerns both the prevention of school violence and the understanding of the social and psychological dynamics specific to adolescence.

This study therefore has a dual purpose. Scientifically, it seeks to fill a gap in the literature by empirically analyzing the relationship between gender and aggression in Ivorian schools, considering the specific dimensions of the latter: physical and verbal aggression, anger, and hostility (Buss, op. cit.). Practically, it aims to provide useful benchmarks for educational stakeholders and mental health professionals to better understand risky behaviors in schools by integrating the gender variable into intervention strategies.

Thus, the purpose of this research goes beyond the simple description of problematic behaviors: it involves an in-depth examination of the relationships that adolescent girls and boys have with aggression in a specific social, educational, and cultural context in order to better understand, prevent, and act.

METHODOLOGY

1- Participants

Using purposive, homogeneous sampling, a sample of 133 students (79 girls and 54 boys), aged 12 to 18, was created.

2- Measurement Instruments

This study required the use of an identification questionnaire, an aggression measurement scale, and an interview grid.

a- Identification Questionnaire

It includes 16 items grouped into four (4) categories: identity, the individual's educational level, type of family of origin, sibling size, and socioeconomic background.

b- Aggression Measurement Scale

The measurement instrument used in this study to assess aggression is derived from the Buss- Perry Aggression Questionnaire (29 items), abbreviated as BPAQ, by Buss and Perry (1995). This is the Aggression Questionnaire-Short Form (AQ-SF), developed by Bryant and Smith (2001) and translated into French by Genoud and Zimmermann (2009). It was validated with 364 participants and confirmed with 197 participants. The questionnaire demonstrated good reliability and fidelity, with acceptable to excellent Cronbach's alpha values for the different subscales: physical aggression: $\alpha = 0.80$; verbal aggression: $\alpha = 0.69$ to 0.75 ; anger: $\alpha = 0.72$ to 0.79 ; hostility: $\alpha = 0.77$; and for the global scale, $\alpha_{\text{global}} = 0.84$ to 0.89 , depending on the samples (Bryant & Smith 2001). The psychometric qualities of this measurement instrument are satisfactory. It includes a total of 12 items assessed on four original dimensions of the BPAQ, measuring overall aggression but also physical aggression, verbal aggression, anger, and hostility. Each dimension includes 3 items. The following items measure physical aggression: "If I am provoked, I can hit," "There are people who annoy me so much that it can come to blows," and "I have already threatened someone." The following items measure verbal aggression: "I very often express my disagreement with others," "I cannot help but enter into conflict when others do not agree with me," and "My friends say that I am sometimes argumentative." The items measuring anger are: "I lose my temper quickly," "I lose my temper for no reason," and "I have difficulty controlling my temper." The items measuring hostility are "Sometimes I feel that life hasn't given me the same blessings as other people," "I sometimes wonder why I get so angry about things," and "Other people always seem to have more luck than me." The answers to the AQ-SF questions are placed on a 5-point Likert-type scale (ranging from "not at all like me" to "completely like me," "rather not like me," "neutral," and "rather like me"). They are rated respectively 1, 2, 3, 4, and 5 points. The scores are totaled by subscale and overall. The AQ-SF is administered to participants after the identification questionnaire.

Study of the Relationship between Gender and Aggression among Ivorian Secondary School Students

c- Interview Guide

A semi-structured interview was conducted. An interview guide, provided to some participants, was used to collect qualitative data to further explore the information provided during the questionnaires.

3- Procedure

The survey for this study took place at the Eulalie Blah 1 secondary school in Abobo, Abidjan. This is a semi-private secondary school. Given its semi-private status, it accepts students assigned by the state and those with non-assigned status. It should be noted that the survey was conducted in three phases. First, discussions took place between us and the administration to obtain consent for the student survey. Second, after receiving approval from the administration, the students who agreed to participate in the study were gathered in a large room and instructed on the various procedures. Finally, they were then collectively administered the various questionnaires and interview guides. It should be noted that ten participants took part in the interview.

RESULTS

1- Relationship between gender and level of aggression

Statistical analysis reveals the existence of a relationship between gender and level of aggression ($\chi^2(1) = 6.289, p \leq .05$). In other words, adolescent boys tend to display a high level of aggression, unlike their female peers, who display a low level of aggression (Figure 1). The general hypothesis is confirmed.

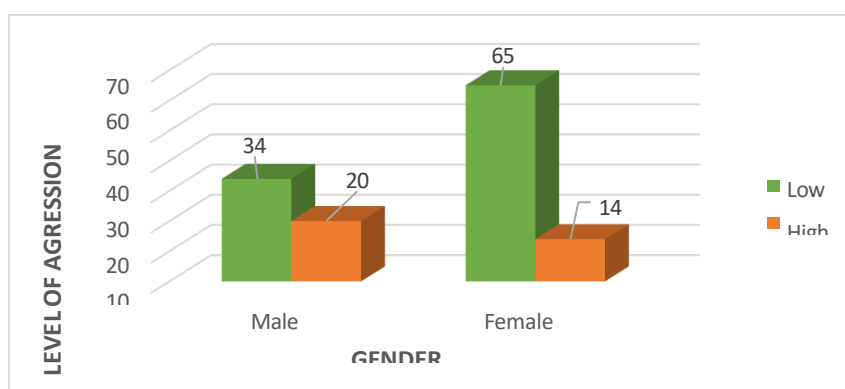


Figure 1: Distribution of participants according to gender and level of aggression

Table 1. Distribution of participants by gender and level of aggression

LEVEL OF AGGRESSION			
		Low	High
GENDER	Male	34(25.56%)	20(15.04%)
	Female	65(48.87%)	14(10.53%)
Total		99(74.43)	34(25.56)

2- Influence of Gender on Aggression

Univariate analysis of variance reveals differences between girls and boys when we first consider aggression and then each of its different forms, namely physical aggression, verbal aggression, anger, and hostility. Operational Hypothesis 2 is thus confirmed.

Statistical analysis of the data reveals a significant difference between boys and girls based on aggression [$F(1,131) = 18.240, p \leq .001$]. (Table 2). In other words, gender influences aggression. Our second operational hypothesis is confirmed.

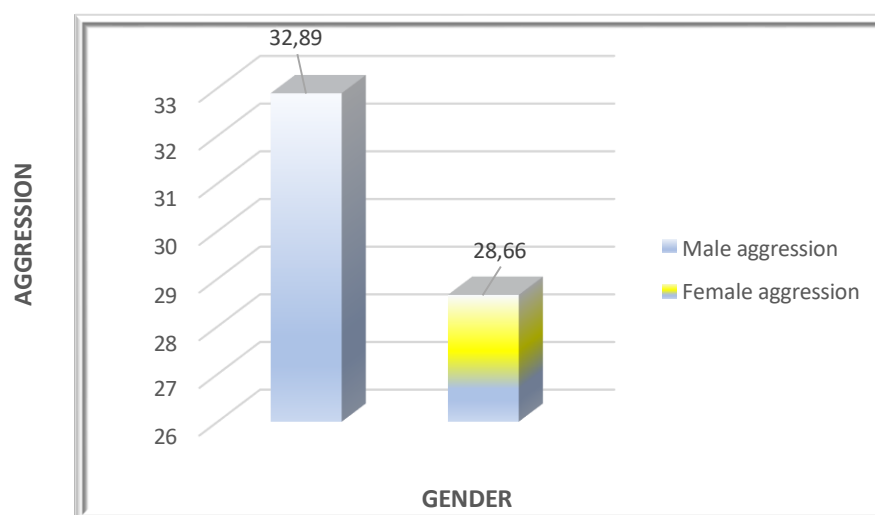


Figure 2 : Participants' aggression presented according to gender

Table 2. Summary of Data Analysis (ANOVA)

	Type III sum of squares	df	Mean Squares	F	Significance
Intergroup	574,098	1	574,098	18,240	.001
Intragroup	4123,105	131	31,474		
Total	4697,203	132			

DISCUSSION OF RESULTS

The objective we set ourselves in this study was to examine the relationship between gender and displays of aggression in adolescents. To this end, two specific hypotheses were formulated. The first operational hypothesis, which states that there is a relationship between gender and aggression, was confirmed. In other words, the proportion of boys with a high level of aggression is higher than that of girls with a high level of aggression. The second operational hypothesis predicts that the aggression displayed by boys is higher than that of girls. This hypothesis was confirmed by statistical analysis, which implies that gender influences aggression among the students who participated in the survey. Clearly, the statistical data analysis indicates that boys are more aggressive than girls. This link is reflected in the fact that there is a relationship and an influence between gender and aggression.

The interpretation of the results can be clarified in light of the social role model proposed by Eagly (1987). According to this model, the behavioral differences observed between the sexes are not primarily due to biological factors, but rather are explained by differentiated socialization processes. In other words, it is cultural expectations and social norms related to gender that shape the behaviors adopted by individuals. From adolescence onwards, these gender norms become particularly salient. Boys, for example, are frequently encouraged – explicitly or implicitly – to demonstrate dominance, competitiveness, and self-assertion. This encouragement pushes them to adopt aggressive behaviors. As for girls, they are, from a very young age, socialized into roles more focused on emotional expressiveness, social support, and self-control. Aggression is much less tolerated, particularly when it is expressed directly. Thus, girls tend to resort to more indirect or relational forms of aggression, such as looks, hurtful words or even social exclusion.

These results corroborate those of Maccoby and Jacklin (1980). In fact, these authors reached the conclusion in their work that boys are more aggressive than girls. However, it should be noted that Maccoby and Jacklin (op. cit.) conducted a meta-analysis of more than 1,400 empirical studies. However, the present study, which was cross-sectional and mixed, involved 133 students. The results of the work of Fries et al. (2013) do not seem to agree with those of the present study. These authors found that girls reported slightly higher levels of physical aggression than boys. This difference could be at several levels. First, in the present study, interest was focused on the general level of aggression while considering its different forms.

But the study by Fries et al. (op. cit.) focused only on physical aggression, a form of aggression. Then, a difference is observed in the sample size of the two studies. While ours involved 133 participants, that of Fries et al. (op. cit.) interviewed 975 adolescents. The results of our work are consistent with those of Kumari, Kang, and Kumari (2016), who showed that boys exhibit higher levels of physical aggression (attack behavior) and verbal aggression than girls. Although the results are convergent, it should be noted that the present work was conducted on 133 adolescents, while that of Kumari et al. (op. cit.) involved 400 participants. In addition, for the assessment of aggression in participants, we used the Aggression Questionnaire-

Study of the Relationship between Gender and Aggression among Ivorian Secondary School Students

Short Form (AQ-SF) developed by Bryant and Smith (2001), unlike Kumari et al. (op. cit.), who opted for the Buss-Durkee aggression scale (1957) adapted by Sultania (2006).

Our results are also in line with those of Lindeman, Harakka, and Keltikangas-Järvinen (1997). These studies report that boys engage in more aggressive behavior than girls. However, there are differences between the two studies, mainly at the methodological level. Indeed, while the sample of the research carried out by Lindeman et al. (1997) consisted of 2,594 participants, ours involved 133 people. There is a convergence between the results of the study by Endendijk et al. (2017) and those of the present work. Indeed, the results from the work of Endendijk et al. (op. cit.) indicate that boys displayed on average more aggressive behavior than girls. However, methodological differences were observed between our work and that of these researchers.

These authors, using a longitudinal approach, interviewed and observed 299 two-parent families with a 3-year-old child over a period of one year. In contrast, the present research took a cross-sectional approach. It involved 133 adolescent participants. Our work reached results that corroborate those of the study carried out by Kaur (2015), which suggests that boys express their aggression more obviously than girls.

However, it should be noted that methodologically, differences are observed between our work and that of Kaur (op. cit.). This author constituted a sample of 200 students, while we interviewed 133 people. Regarding the measurement of aggression, the author used the aggression scale developed by Agarwal (1983), while we used the Aggression Questionnaire-Short Form (AQ-SF), developed by Bryant and Smith (2001).

In summary, the analysis of the research results, overall, reveals differences between individuals in the manifestation of aggression. This can be seen as the main point of convergence with the present study. However, it is clear that there are differences between this research and ours. These differences could be explained broadly by methodological issues.

CONCLUSION

In this study, we highlighted the relationship between gender and aggression among Ivorian secondary school students. It emerged from this study that boys tend to be more aggressive than girls. The results of this research will enable the implementation of prevention and intervention programs that will significantly reduce aggression among adolescents. On a practical level, it aims to provide avenues for intervention for education and mental health professionals to better prevent and manage aggressive behavior in schools, taking into account the students' gender. It thus helps to promote a healthy school climate with less aggression, while creating a better framework for learning, cooperation, and academic success.

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Study of the Relationship between Gender and Aggression among Ivorian Secondary School Students

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