International Journal of Studies in Psychology
E-ISSN: 2710-2327, P-ISSN: 2710-2319
Vol 1, No. 1, pp 16-22. https://doi.org/10.38140/ijspsy.v1i1.614.
GERPSY Publishing 2021

Gender, age and grade level differences in psychological factors among immigrant francophone adolescent learners in the South African school setting

Kananga Robert Mukuna*
Psychology of Education, University of Free State, South Africa
*Corresponding author: mukunakr@ufs.ac.za

***Abstract*—** Psychological factors are important for boys or girls, depending on age and grade level. This study examines emotional regulation, aggressiveness, empathy, and sympathy, as psychological factors to peer interaction, manifest in adolescence. Eighty-three participants were conveniently and purposively selected at South African schools (N= 83, 52 girls and 31 boys, aged between 14 and 19 years). A psychological factors scale was purposively employed as a data collection instrument. The chi-square results partially confirmed previous results, namely, aggressiveness and sympathy, by gender and age. However, this did not apply to emotional regulation. This study recommended that the South African education system consider aggressiveness a psychological factor, playing a critical role in violence at schools among young adolescents.

Keywords: Adolescent Learners, Aggressiveness, Emotional Regulation, Empathy, Immigrant Francophone, Psychological Factors

To cite this article (APA): Mukuna, K. R. (2021). Gender, age and grade level differences in psychological factors among immigrant francophone adolescent learners in the South African school setting. *International Journal of Studies in Psychology, 1*(1), 16-22. https://doi.org/10.38140/ijspsy.v1i1.614.

I. INTRODUCTION

IN South African schools, adolescent learners from African countries experience challenges emanating from psychosocial factors (Vandeyar, 2010; Mahembe, 2012). The new instruction medium, curriculum strategy that disregards their cultural and linguistic backgrounds, and insufficient support from teachers, parents, and peers, could impede their relationship in the new community (Saravia-Shore & Garcia, 2008). Additionally, the host country and setting discriminate against them (McCarthy, 1998; Ginsberg & Lemire, 2003).

With the growing interest in psychological factors in developmental, social, and educational psychology, Moletsane and Mukuna (2016) recognised emotional regulation, aggressiveness, empathy, and sympathy, as appropriate elements for successful interpersonal relationships, among immigrant francophone adolescent learners, in school settings. Emotional regulation refers to monitoring, evaluating, and modulating emotional reactions to achieve individual goals and facilitate adaptive social functioning (Thompson, 1994). Depending on the context, these processes can be intrinsic or extrinsic (Lewis, Haviland-Jones, & Barrett, 2010; Gross, Sheppes, & Urry, 2011). Intrinsic emotion regulation encompasses how the emotion regulatory goal activates from an individual's self -regulatory efforts, while extrinsic emotion regulation depends on other persons' regulatory influences. Extrinsic influences directly influence emotion and facilitate the social integration that impacts the effectiveness of an individual's efforts to direct emotion (Thompson, 2011).

Hedonic emotion regulation and instrumental emotion regulation inspire emotion regulation (Tamir, 2009; Von Scheve, 2012). The hedonic emotion regulation facilitates more positive than negative feelings in the short term, whereas instrumental emotion regulation enables long-term goals. Contributing factors to success are explicit or implicit emotion regulatory goals (Gross et al., 2011; Mauss, Bunge, & Gross, 2007; Bargh & Williams, 2007; Braunstein et al., 2017). Explicit emotion regulation occurs when the goal is deliberate and consciously perceived. Implicit emotion regulation suggests that the goal is activated beyond the individual's awareness.

Roberton, Daffern, and Bucks (2012) regard aggression as behaviour directed at an individual with the immediate intention to harm. Besides, aggression is behaviour with the intent to injure someone physically or psychologically (Berkowitz, 1993). As an intention, aggression can be impulsive, reactive behaviour, driven by anger (hostile) or premeditated, proactive behaviour driven by a goal (tangible). Aggressive behaviour comprises direct physical and indirect verbal aggression (Kruti & Melonashi, 2015; Sameer & Jamia, 2007; Stickle, Kirkpatrick, & Brush, 2009). Direct physical aggression stems from individual frustration and the inability to cope with stress and engage in reasonable decisions to solve problems. It is hostile aggression, aimed at bodily harm, characterised by hitting, slapping, pushing, pulling, raping, and feeling anger. Indirect verbal aggression refers to aggressive acts like insulting others with abusive language or endangering them to cause emotional distress (Sameer & Jamia, 2007). Additionally, verbal aggression includes intimidation, teasing, and name-calling (Onukwufor, 2013).

Previous studies highlight gender differences in physical aggression, suggesting that boys are more aggressive than girls in western developed countries (Björkqvist, Österman, Oommen, & Lagerspetz, 2001; Sharma & Marimuthu, 2014). However, Onukwufor (2013) investigated verbal aggression prevalence among adolescents and observed that females were verbally more aggressive than males, probably because females are physically weaker than males. Females are likely to employ verbal aggression to reach successful conflict resolutions among peers (Björkqvist, 2018).

Empathy is the capacity to understand individuals' emotions in distressing situations (De Waal, 2009; Eisenberg & Eggum, 2009),

expressed as affective empathy and cognitive empathy, especially in adolescents, using parent ratings (Dadds et al., 2008). Affective empathy concerns emotional sharing, being the response that individuals experience on a visceral level. Cognitive empathy refers to identifying and understanding others' emotions and why they feel the way they do (Dadds et al., 2008). Scholars have investigated age and gender differences to understand empathetic feelings during adolescence (Michalska et al., 2013). These authors observed that gender and age could influence empathy, concluding that females experience greater empathic arousal, and the higher the empathy, the lower the age.

Unlike empathy, sympathy is an emotional response, stemming from the comprehension of another's emotional condition, which differs from the others, and involves feelings of sorrow or concern for the afflicted (Eisenberg & Eggum, 2009). Sympathy is a felt concern for others and greatly regulates human social interaction. Researchers and psychologists across social sciences conceptualise and use the terms empathy and sympathy in diverse contexts, with ascribed meanings that are vast and complex (Starkweather, & Moske, 2011; Buchholz, 2014; Mitschke, 2015; Mudiyanselage, 2016). Empathy and sympathy are not identical, although sympathy is the common consequence of empathy (Björkqvist, Österman, & Kaukiainen, 2000; Bandura, Caprara, Barbaranelli, Pastorelli, & Regalia, 2001). Empathy increases feelings of distress for another, while sympathy might prevent an individual from engaging in aggressive behaviour. Consequently, sympathy and empathy are similar, as they involve either pro-social behaviour, like helping and cooperation, or anti-social behaviour, like aggression.

II. HYPOTHESES OF THE STUDY

The hypotheses of this current study are manifold. This study assumed that there is a statistically significant difference between:

(1) Emotional regulation and demographical characteristics (gender, age, and grade levels) among immigrant francophone adolescent learners at selected South African high schools.

(2) Aggressiveness and demographical characteristics (gender, age, and grade levels) among the learners mentioned above.

(3) Empathy and demographical characteristics (gender, age, and grade levels) among the learners mentioned above.

(4) Sympathy and demographical characteristics (gender, age, and grade levels) among the learners mentioned above.

III. OBJECTIVE OF THE STUDY

This study aimed at investigating the extent to which gender, age, and grade level could strongly predict the psychological factors such as emotional regulation, aggressiveness, sympathy, and empathy, especially among the learners mentioned above.

IV. METHODS

Participants and settings

The study setting was high schools in the Metro- North district of the Western Cape Province, South Africa. The participants were eighty-three (N=83) immigrant francophone adolescent learners (52 girls and 31 boys) living in South Africa, selected by convenience and purposive strategies. They originated from French-speaking African countries and were aged between 14 and 19 years. The participants were enrolled in 8th to 12th grades at public high schools in the Western Cape and voluntarily agreed to participate in this study (see Table 1).

Table 1: Frequency Distribution of Demographical Characteristics of Participants

Groups	*Sub-groups*	*Frequency*	*Percentage*
Gender	Male	31	37.3
	Female	52	62.7
Age	14-16	54	65.1
	17-19	29	34.9
Grade level	Grade 8	27	30.1
	Grade 9	33	42.2
	Grade 10	4	4.8
	Grade 11	13	15.7
	Grade 12	6	7.2
Total		83	100

Instrument

Psychological Factors Scale

The psychological factors questionnaire included eighteen items with a 5-point Likert scale (*1=totally disagree to 5= totally agree*) to assess 4 variables (the 4 psychological factors). These items measured emotional regulation (*I feel comfortable when interacting with other learners*), aggressive behaviour (*I felt angry towards learners who rolled their eyes at me in class, I reprimand my peers when they tell me slap*), empathy (*I feel accepted by other learners (peers) when interacting with them*) and sympathy (*I feel pity towards other learners when they are unhappy*). The participants were requested to provide their views on the suggested statements that could influence peer interaction and behaviours, in normal, socially accepted ways and situations. The subscale's reliability analysis was considered, and the internal consistency scores (Cronbach's Alpha Coefficient) of each component were acceptable, ranging from .71 to .79. The confirmatory factor analysis revealed three factors, explaining 55.02 % of the variance (emotional regulation, aggressiveness, empathy, and sympathy).

Data analysis

Chi-square (χ^2) and multinomial logistic regression analyses were conducted to test the hypotheses of the independent variables and dependent variables, using the Statistical Package for Social Sciences (SPSS), version 23. The χ^2 analysis was used as a non-parametric statistical test to measure the bivariate significances of the relationship of age, gender, and grade level, with the 4 psychological factors. According to Starkweather and Moske (2011), the multinomial logistic regression aimed to predict the categorical placement in, or the probability of category membership on a dependent variable, based on multiple independent variables. This analysis was done to assess the main effect of the demographical characteristics on the 4 psychological factors. This technique provides an effective and reliable way of obtaining the estimated probability of belonging to a specific population (immigrant francophone adolescent learners), and the estimated odds ratio of adolescents' characteristics on the 4 psychological factors. This model involves one categorical dependent variable (stable emotion, unstable emotion), and categorical or ordinal independent variables (Peng & Nichols, 2003). Starkweather and Moske (2011) highlight that this model is beneficial because it does not require assumptions, such as normality, linearity, or homoscedasticity. In this current study, the assumptions encompassed both independent and dependent variables, which are categorical data. In the 5-point Likert scale, values were summarised into two categories: totally agree and agree as category 1 and disagree and totally disagree as category 2. The 4 psychological factors were divided into stable and unstable emotions, aggressive and non-aggressive emotions, empathetic and non-empathetic emotions, and sympathetic and non-sympathetic emotions.

Ethical considerations

Before data collection, the researcher obtained ethical clearance from the University of the Western Cape and permission to research schools from the Western Cape Education Department. Permission was granted from the school principals to access the selected high schools. Individual consent forms were signed by participants, and their parents or guardians, confirming their participation in the study. The participants were selected according to predetermined criteria. The researcher assured that participants' identities and responses were extremely confidential, and pseudo-names were used to ensure the participants' confidentiality. Participants were informed about their right to withdraw from participating at any given time, should they feel uncomfortable.

V. RESULTS

Evidence of the Chi-Square Test (χ^2) Results

The chi-square test (χ^2) calculated the statistically significant differences in relationships between the demographical characteristics and psychological factors.

Gender, age and grade level differences, and emotional regulation

The data presented in Table 2 indicated that the result of the Chi-square determines the association between emotional regulation and gender suggests χ^2 (1, N = 83) = 1.352, p < .05 (see Yates continuity correction). The descriptive scores revealed that the sample frequency for stable emotional regulation was 94.2 % for males, while unstable emotional regulation was 16.1 % for females. This revealed that males were more stable for emotional regulation than females. Furthermore, the data illustrated that the Chi-square to determine the association between emotional regulation and age resulted in χ^2 (2, N = 83) = .441, p < .005. The descriptive scores indicated that the frequency of distribution for stable emotional regulation was 93.1 % in 17–19-year-olds and that unstable emotional regulation was 11.1 % in 14–16-year-olds. This suggested higher emotional regulation for lower ages. For the grade level variable, the data revealed that the result of the Chi-square to determine the association between emotional regulation and grade level was χ^2 (4, N = 83) = 9.896, p < .05. The descriptive statistics indicated that the frequency of distribution for stable emotional regulation was 92 % in grade 10 and 12.1 % for unstable emotional regulation in grade 8. This suggests higher emotional regulation for lower grade levels. The above results revealed that gender, age, and grade levels influenced emotional regulation. Therefore, null hypothesis 1, which stated a significant difference between emotional regulation and demographical characteristics, was confirmed. This hypothesis was accepted, whereas an alternative hypothesis was rejected.

Gender, age and grade level differences, and aggressiveness

The data in Table 2 revealed that the result of the Chi-square determines the relationship between aggressiveness and gender was χ^2 (1, N = 83) = .861, p < .05. The descriptive measures indicated that the frequency of aggressiveness distribution was 44.1 % for males and 75.5 % for non-aggressive females. This suggested that males were more aggressive than females. In addition, the data indicated that the result of the Chi-square to determine the relationship between aggressiveness and age was χ^2 (2, N = 83) = 2.290, p < .005. The descriptive scores indicated that the frequency of sample for aggressiveness was 33.3 % in 14–16-year-olds, followed by 68.9 % non-aggressiveness in 17–19-year-olds. This suggests higher aggressiveness for the lower age. As for the variable grade level, the data indicated that the result of the Chi-square to determine the relationship between aggressiveness and grade level was χ^2 (4, N = 83) = 6.851, p > .05. These results indicated that both gender and age influenced aggressiveness, while grade level had no significant influence. The implication is that null hypothesis 2, which stated a significant difference between aggressiveness and demographical characteristics, was partially confirmed.

Gender, age and grade level differences, and empathy

The data in Table 2 indicated that chi-square results determine the relationship between empathy and gender were χ^2 (1, N = 83) = .000, p > .05. Additionally, the data revealed that the results of the Chi-square to determine the relationship between empathy and age was χ^2 (1, N = 83) = 19.992, p < .05, and the frequency distribution was 96.3 % in 14–16-year-olds for empathetic. The frequency distribution for non-empathetic was 6.9 % in 17–19-year-olds. This implies that there was higher empathy for the lower age. Regarding grade level, the data indicated that the result of the Chi-square to determine the relationship between empathy and grade level was χ^2 (4, N = 83) = 2.576, p > .05. As seen, both gender and grade levels had an insignificant impact on empathy, while age was significant.

This implies that hypothesis 3, which stated a statistically significant difference between empathy and demographical characteristics, was partially confirmed. The null hypothesis was partially rejected, while the alternative hypothesis was partially accepted.

Gender, age and grade level differences, and sympathy

The data presented in Table 2 revealed that the results of the Chi-square are used to determine the relationship between sympathy and gender was χ^2 (1, N = 83) = 1.000, p < .005. The frequency distribution was 94.2 % sympathetic for females, while non-sympathetic was 6.5 % for males. Drawing from this distribution, females were more sympathetic than males. The data also indicated that the results of the Chi-square to determine the relationship between sympathy and age was, χ^2 (2, N = 83) = .544, p > .05. Regarding the relationship of sympathy and grade level, the result of the Chi-square was χ^2 (4, N = 83) = 6.188, p > .05. Consequently, the only gender had a significant difference for sympathy, whereas age and grade level were insignificant. Therefore, hypothesis 4, which stated a statistically significant different relationship between sympathy and the demographical characteristics, was partially confirmed. The null hypothesis was partially accepted, and the alternative hypothesis was partially rejected.

Evidence of multinomial logical regression results

A multinomial logistic regression model of the main effect was used to assess which predictor variables (gender, age, and grade levels) are strongly predictive of psychological factors (emotional regulation, aggressiveness, sympathy, and empathy). The results are presented in Table 3. Columns show the influence of independent variables (predictor variables) on dependent variables (psychological factors). The figures in parentheses represent Standard Errors (SE). As indicated in Table 3, the findings were partially significant. Gender, age, and grade level significantly predicted emotional regulation (p < .05). Gender and grade level were significant predictors of aggressiveness (p < .05). Whereas empathy was more significantly predicted by gender and age (p<.05). The above-mentioned multinomial logistic regression model, showing predictor variables of psychological factors, explained 24% (adjusted R^2 = 24 %) of the variance in psychological factors scores. Therefore, variables, gender, age, and grade levels were accumulated for their contribution to psychological factors.

VI. DISCUSSION

This study demonstrated a statistically significant difference in emotional regulation in association with gender, age, and grade level. The results suggested that gender differences affected emotional regulation, as males were emotionally more stable than females. These results validated the null hypothesis, which states that there is a statistically significant difference between emotional regulation and gender, among immigrant francophone adolescent learners in South African high schools, in the Western Cape. The alternative hypothesis was rejected.

These findings concurred with previous empirical studies, in which gender differences were observed to influence emotional regulation among adolescents (Gross et al., 1997; Garnefski et al., 2004; Van Middendorp et al., 2005; McRae, Ochsner, Mauss, Gabrieli, & Gross, 2008; Gullone, Hughes, King, & Tonge, 2010).

Additionally, the results revealed a statistically significant difference in the relationship between emotional regulation and age, implying that age differences influenced emotional regulation. Therefore, older respondents displayed a more stable emotional regulation than their younger counterparts. These results approved the null hypothesis, which stated that a statistically significant difference exists between emotional regulation and age among immigrant francophone adolescent learners. Empirical studies revealed that, at certain ages, some specific patterns of emotional regulation, such as stable or unstable (anger, happiness), is caused by age (Gullone et al., 2010; Zimmermann & Iwanski, 2014), individual degree of emotionality (Eisenberg & Spinrad, 2004), and circumstances in which individuals are situated (Von Scheve, 2012). This inconsistency might be due to data being collected in cross-sectional studies, while the behaviour might

have been different in a longitudinal design. Blanchard- Fields et al. (2004) concurred that the influence of age differences on emotional regulation enabled the finding of solutions to some social issues, as younger children solved their problems differently from adults. Finally, the results revealed a statistically significant difference in the correlation between emotional regulation and grade levels, indicating that grade level difference influences emotional regulation. Higher-grade levels reported more stable emotional regulation than lower grade levels. Therefore, they validated the null hypothesis, which stated a statistically significant difference between emotional regulation and grade levels. This concurred with Öngen's (2010) findings that revealed consistency of grade-level differences on emotional regulation.

The results indicated a partial statistically significant difference for the correlation between aggressiveness, gender, and age, except between aggressiveness and grade level. A statistically significant difference between aggressiveness and gender approved the null hypothesis that there is a statistically significant difference between aggressiveness and gender among immigrant francophone adolescent learners. These results invalidated the alternative hypothesis, suggesting that gender differences influenced aggressiveness and that males reacted more aggressively than females. These results concurred with previous literature related to the applicability of gender differences as predictors of aggressiveness (Estévez, Povedano, Jiménez, & Musitu, 2012; Fares, Ramirez, J. M., Cabrera, Lozano, & Salas, 2011; Oberst, Charles, & Chamarro, 2005; Meichenbaum, 2006). These studies revealed that male aggressors employed more direct, physical, and verbal aggression, while female aggressors use indirect, verbal aggression (Archer, 2000; Anderson & Bushman, 2002; Toldos, 2005; Lee, Baillargeon, Vermunt, Wu, & Tremblay, 2007; la Paz Toldos Romero, 2011).

In contrast, Zhou (2012) reported insignificant differences between aggression and gender. These conflicting results could be due to cultural reasons, as researchers have revealed that studies in anthropology have a limit because cultural backgrounds may influence gender differences in aggression (Fry, 1992; Cook, 1992; Burbank, 1987; Björkqvist, 2018). A statistically significant difference in the relationship between aggressiveness and age was reported, revealing that age differences influence aggression and that younger respondents were more aggressive than older ones. This confirmed the null hypothesis that a statistically significant difference exists between aggressiveness and age. The alternative hypothesis was rejected. This study concurred with previous studies, which demonstrated that children justified aggressive behaviours easier than older adolescents in various circumstances (Kellam, Ling, Merisca, Brown, & Ialongo, 2000; Deb & Modak, 2010; Fares et al., 2011; Sharma & Marimuthu, 2014). Factors such as media, existing lifestyles, families' setup, school atmosphere, nature of school discipline, and classroom code of conduct might be the causes (Shaikh, Viveki, & Halappanavar, 2014). The findings demonstrated a statistically insignificant difference between aggressiveness and grade levels. Grade level differences did not justify aggressiveness. This observation is not in concordance with the null hypothesis that a statistically significant difference exists between aggressiveness and grade levels; therefore, it accepts the alternative hypothesis. Previous studies have revealed that school grade level differences influence adolescents' aggressiveness at schools (Kellam et al., 2000; Seals & Young, 2003). These studies confirmed that first-grade levels behaved more aggressively than higher school grade levels, while the inconsistency between them and the current study could be due to the sample size.

The study findings revealed a partially statistically insignificant difference for the relationship between empathy, gender, and grade level, but not age. The statistically significant difference in the relationship between empathy and age confirmed that age differences influenced empathy and suggested that the younger aged expressed more empathetic behaviours than the older ones. Therefore, the higher the empathy, the lower the age. These results rejected the null hypothesis that a statistically significant difference exists between empathy and age among immigrant francophone adolescent learners in the South African high school in the Western Cape. The results confirmed the alternative hypothesis and concurred with previous studies, which demonstrated that age differences influenced empathy (Grühn, Rebucal, Diehl, Lumley, & Labouvie-Vief, 2008). According to literature, empathetic individuals with higher

empathetic behaviour, reported more satisfaction in their lives than less empathetic individuals did; therefore, they interacted positively with their peers (Cooper, 2004; Morelli, Ong, Makati, Jackson, & Zaki, 2017). This suggested that empathetic individuals value the importance of the development of social interaction.

Between empathy and gender, a statistically insignificant difference was reported. Gender differences did not justify empathy, which endorsed the null hypothesis that a statistically significant difference exists between empathy and gender. The alternative hypothesis was rejected. This differs from previous studies that have revealed a significant difference between gender and empathy (Guevara, Cabrera, Gonzalez, & Devis, 2015; Michalska et al., 2013; Rueckert, Branch, & Doan, 2011; Garaigordobil, Maganto, Perez, & Sansinenea, 2009). These studies revealed that females were more inclined to report empathic experiences than males in most circumstances relating to themselves or other friends. These gender differences in empathetic feelings could be due to their natural emotional sensitivity toward others (Rueckert et al., 2011). The inconsistent results could be due to methodological consideration differences and dependent on cultural contexts, since various types of empathy, under research, were specified by previous scholars.

A statistically insignificant difference in the correlation between empathy and grade level was demonstrated. In this current study, grade level differences influenced empathy, which confirmed the null hypothesis that no statistically significant difference exists between empathy and gender, therefore rejecting the alternative hypothesis.

The findings indicated a partially statistically significant difference for sympathy to gender, except age and grade level. Therefore, gender differences influenced sympathy and revealed that female adolescents are more sympathetic than males. These results support the null hypothesis that a statistically significant difference exists between sympathy and gender among francophone adolescent learners. Therefore, the alternative hypothesis was rejected. This concurs with previous studies, which revealed that sympathy traits are directed differently for females than males, although they differed from their goals and objectives under research conditions (Kienbaum, Volland, & Ulich, 2001; Goldstein & Winner, 2012).

A statistically insignificant difference existed in the relationship between sympathy and age. These results do not support the null hypothesis that a statistically significant difference exists between sympathy and age. Therefore, the alternative hypothesis was accepted. Previous scholars also found that differences existed between sympathy and age among adolescents (Vaish, Carpenter, & Tomasello, 2009; Hepach, Vaish, & Tomasello, 2013). Literature suggested that under harmful and neutral circumstances, younger children can sympathise with a victim, even in the absence of emotional indications, by diverse affectivity forms.

Additionally, older adolescents were influenced more by sympathetic situations than younger ones were. Finally, a statistically insignificant effect was reported between sympathy and grade level, implying that grade levels cannot predict learners' sympathetic disposition. These findings disagree with the sympathy factor and do not support the null hypothesis that a statistically significant difference existed between sympathy and grade levels. Therefore, the alternative hypothesis was rejected. Concerning the methodological consequences, this study used purposeful and convenient samplings. Therefore, the findings are limited to this scope, and they cannot allow the researchers

to generalise the findings.

VII. CONCLUSION

This study provided evidence of gender, age, and grade level differences in psychological factors among immigrant francophone adolescent learners in South African schools. The females were more emotional, sympathetic, and empathetic than the males, while the males were more aggressive than the females (Kienbaum et al., 2001; Goldstein & Winner, 2012). Additional empirical evidence is provided on gender and age, which influenced aggressiveness (Estévez et al., 2012; Fares et al., 2011; Oberst et al., 2005; Meichenbaum, 2006; Kellam et al., 2000; Deb & Modak, 2010; Sharma & Marimuthu, 2014).

This study believed that this study could help psychologists, researchers, and educators develop appropriate intervention programmes for immigrant adolescent learners to reduce and prevent psychological problems affecting their adult life in the community. Emotional regulation stimulates new understanding regarding the development of emotional experience in adolescence. However, further research should be conducted in this area.

As emotional regulation, aggressiveness, empathy, and sympathy become current in education psychology, aggressiveness should be regarded as a psychological factor, which plays a critical role in gender, age, and grade levels, as adolescents can direct their aggression towards peers, and teachers. Adolescence is a critical developmental stage; therefore, the school, family, and community should reinforce positive social behaviour in the youth to discourage negative consequences.
discussion

REFERENCES

Anderson, C. A., & Bushman, B. J. (2002). The effects of media violence on society. *Science*, *295*(5564), 2377-2379. https://doi.org/10.1126/science.1070765.

Archer, J. (2000). Sex differences in physical aggression to partners: A reply to Frieze (2000), O'Leary (2000), and White, Smith, Koss, and Figueredo (2000). *Psychological Bulletin*, *126*(5), 697–702. https://doi.org/10.1037/0033-2909.126.5.697.

Bandura, A., Caprara, G.V., Barbaranelli, C., Pastorelli, C., & Regalia, C. (2001). Sociocognitive self-regulatory mechanisms governing transgressive behavior. *Journal of personality and social psychology*, *80*(1), 125-135. https://doi.org/10.1037/0022-3514.80.1.125.

Bargh, J. A., & Williams, L. E. (2007). The nonconscious regulation of emotion. In J. J. Gross (Ed.). *Handbook of emotion regulation,* (pp. 429-445). New York, NY: Guilford Press.

Berkowitz, L. (1993). *Aggression: Its causes, consequences, and control*. New York, Mcgraw-Hill Book Company.

Björkqvist, K. (2018). Gender differences in aggression. *Current opinion in psychology*, *19*, 39-42. https://doi.org/10.1016/j.copsyc.2017.03.030.

Björkqvist, K., Österman, K., & Kaukiainen, A. (2000). Social intelligence− empathy= aggression? *Aggression and violent behavior*, *5*(2), 191-200. https://doi.org/10.1016/S1359-1789(98)00029-9.

Björkqvist, K., Österman, K., Oommen, T. K., & Lagerspetz, K. M. (2001). Physical, verbal, and indirect aggression among Hindu, Muslim, and Sikh adolescents in India. In *Prevention and control of aggression and the impact on its victims* (pp. 367-376). Boston: Springer.

Blanchard-Fields, F., Stein, R., & Watson, T. L. (2004). Age differences in emotion-regulation strategies in handling everyday problems. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *59*(6), 261-269. https://doi.org/10.1093/geronb/59.6.P261.

Buchholz, M. B. (2014). Patterns of empathy as embodied practice in clinical conversation—a musical dimension. *Frontiers in Psychology*, *5*(349), 1-20. https://doi.org/10.3389/fpsyg.2014.00349.

Burbank, V. (1987). Female aggression in cross-cultural perspective. *Behaviour Science Research*, *21*(1-4), 70-100. https://doi.org/10.1177/106939718702100103.

Cook, V. J. (1992). Evidence for multicompetence. *Language learning*, *42*(4), 557-591. https://doi.org/10.1111/j.1467-1770.1992.tb01044.x.

Cooper, B. (2004). Empathy, interaction and caring: Teachers' roles in a constrained environment. *Pastoral Care in Education*, *22*(3), 12-21. https://doi.org/10.1111/j.0264-3944.2004.00299.x.

Dadds, M. R., Hunter, K., Hawes, D. J., Frost, A. D., Vassallo, S., Bunn, P., & Masry, Y. E. (2008). A measure of cognitive and affective empathy in children using parent ratings. *Child Psychiatry & Human Development*, *39*(2), 111-122. https://doi.org/10.1007/s10578-007-0075-4.

De Waal, F. (2009). *The age of empathy: nature's lessons for a kinder society*. New York: Harmony Books.

Deb, S., & Modak, S. (2010). Prevalence of violence against children in families in Tripura and its relationship with socio-economic factors. *Journal of Injury and Violence Research*, *2*(1), 5-18. https://doi.org/10.5249/jivr.v2i1.31.

Eisenberg, N., & Eggum, N. D. (2009). Empathic responding: Sympathy and personal distress. In J. Decety & W. Ickes (Eds.), *The social neuroscience of empathy* (pp. 71-83). Cambridge, MA: MIT Press.

Eisenberg, N., & Spinrad, T. L. (2004). Emotion-related regulation: Sharpening the definition. *Child development*, *75*(2), 334-339. https://doi.org/10.1111/j.1467-8624.2004.00674.x.

Estévez, E., Povedano, A., Jiménez, T. I., & Musitu, G. (2012). Aggression in adolescence: A gender perspective. In F. Columbus (Ed.), *Psychology Aggression: New Research* (pp. 37-57). New York: Nova Science Publishers.

Fares, N., Ramirez, J. M., Cabrera, J. M., Lozano, F., & Salas, F. (2011). Justification of physical and verbal aggression in Uruguayan children and adolescents. *The Open Psychology Journal*, *4*, 45-54. http://www.um.edu.uy/cee/investigaciones.

Fry, D. (1992). Female aggression among the Zapotec of Oaxaca, Mexico. In K. Bjorkqvist & P. Niemeli (Eds.), *Of mice and women: Aspects of female aggression*. San Diego, CA: Academic Press.

Garaigordobil, M., Maganto, C., Perez, J. I., & Sansinenea, E. (2009). Gender difference in socioemotional factors during adolescence and effects of a violence prevention program. *Journal of Adolescent Health*, *44*(5), 468-477. https://doi.org/10.1016/j.jadohealth.2008.09.014.

Garnefski, N., Teerds, J., Kraaij, V., Legerstee, J., & van Den Kommer, T. (2004). Cognitive emotion regulation strategies and depressive symptoms: Differences between males and females. *Personality and Individual Differences*, *36*(2), 267-276. https://doi.org/10.1016/S0191-8869(03)00083-7.

Ginsberg, P. E., & Lemire, D. (2003). *Six Adolescents, Six Patterns; Bosnian Refugees in Upstate New York*. Paper presented at the Annual Conference of the American Psychological Association (111th, Toronto, ON, Canada, August 7-10, 2003.

Goldstein, T. R., & Winner, E. (2012). Sympathy for a Character's Plight: Sex Differences in Response to Theatre. *Empirical Studies of the Arts*, *30*(2), 129-141. https://doi.org/10.2190/EM.30.2.b.

Gross, J. J., Carstensen, L. L., Pasupathi, M., Tsai, J., Götestam Skorpen, C., & Hsu, A. Y. (1997). Emotion and aging: experience, expression, and control. *Psychology and aging*, *12*(4), 590-599. https://doi.org/10.1037/0882-7974.12.4.590.

Gross, J. J., Sheppes, G., & Urry, H. L. (2011). Emotion generation and emotion regulation: A distinction we should make (carefully). *Cognition and emotion*, *25*(5), 765-781. https://doi.org/10.1080/02699931.2011.555753.

Grühn, D., Rebucal, K., Diehl, M., Lumley, M. & Labouvie-Vief, G. (2008). Empathy across the adult lifespan: Longitudinal and experience-sampling findings. *Emotion*, *8*(6), 753-765. https://doi.org/10.1037/a0014123.

Guevara, I. P., Cabrera, V. E., Gonzalez, M. R., & Devis, J. V. (2015). Empathy and sympathy as mediators between parental inductive discipline and prosocial behaviour in Colombian families. *International Journal of Psychological Research*, *8*(2), 34-48. https://doi.org/10.21500/20112084.1508.

Gullone, E., Hughes, E. K., King, N. J., & Tonge, B. (2010). The normative development of emotion regulation strategy use in children and

adolescents: A 2-year follow-up study. *Journal of Child Psychology and Psychiatry*, *51*(5), 567-574. https://doi.org/10.1111/j.1469-7610.2009.02183.x.

Hepach, R., Vaish, A., & Tomasello, M. (2013). A new look at children's prosocial motivation. *Infancy*, *18*(1), 67-90. https://doi.org/10.1111/j.1532-7078.2012.00130.x.

Kellam, S. G., Ling, X., Merisca, R., Brown, C. H. & Ialongo, N. (2000). Erratum: The effect of the level of aggression in the first-grade classroom on the course and malleability of aggressive behaviour into middle school. *Development and Psychopathology*, *10*(2), 165-185. https://doi.org/10.1017/S0954579498001564.

Kienbaum, J., Volland, C. & Ulich, D. (2001). Sympathy in the context of mother-child and teacher-child relationships. *International Journal of Behavioral Development*, *25*(4), 302-309. https://doi.org/10.1080/01650250143000076.

Kruti, I., & Melonashi, E. (2015). Aggression among Albanian Adolescents. *International Journal of Academic Research & Reflection*, *3*(6), 16-24. Retrieved from www.idpublications.org.

la Paz Toldos Romero, M. D. (2011). Adolescents' predictions of aggressive behavioral patterns in different settings. *The Open Psychology Journal*, *4*(1), 55-63. https://doi.org/10.2174/1874350101104010055.

Lee, K. H., Baillargeon, R. H., Vermunt, J. K., Wu, H. X., & Tremblay, R. E. (2007). Age differences in the prevalence of physical aggression among 5-11-year-old Canadian boys and girls. *Aggressive Behaviour*, *33*(1), 26-37. https://doi.org/10.1002/ab.20164.

Lewis, M., Haviland-Jones, J. M., & Barrett, L. F. (Eds.). (2010). *Handbook of emotions*. New York: Guilford Press.

Mahembe, M. (2012). *The psychosocial experiences of immigrant learners at a primary school in the Western Cape* (Unpublished doctoral dissertation). Stellenbosch University, Stellenbosch, South Africa.

Mauss, I. B., Bunge, S. A., & Gross, J. J. (2007). Automatic emotion regulation. *Social and Personality Psychology Compass*, *1*(1), 146-167. https://doi.org/10.1111/j.1751-9004.2007.00005.x.

McCarthy, K. (1998). Adaptation of immigrant children to the United States: A review of the literature. *Center for Research on Child Wellbeing*, *98*(3), 1-61. Retrieved from https://www.researchgate.net/publication/24117033.

McRae, K., Ochsner, K. N., Mauss, I. B., Gabrieli, J. J., & Gross, J. J. (2008). Gender differences in emotion regulation: An fMRI study of cognitive reappraisal. *Group processes & intergroup relations*, *11*(2), 143-162. https://doi.org/10.1177/1368430207088035.

Meichenbaum, D. (2006). *Comparison of aggression in boys and girls: A case for gender-specific interventions*. Retrieved from http://www.melissainstitute.org/documents/2006/Meich_06_genderdifferences.PDF.

Michalska, K. J., Kinzler, K. D., & Decety, J. (2013). Age- related sex differences in explicit measures of empathy do not predict brain responses across childhood and adolescence. *Developmental cognitive neuroscience*, *3*, 22-32. https://doi.org/10.1016/j.dcn.2012.08.001.

Mitschke, S. (2015). *Empathy effects: Towards an understanding of empathy in British and American Holocaust theatre* (Unpublished doctoral dissertation). University of Birmingham, Birmingham, United Kingdom.

Moletsane, M., & Mukuna, R. K. (2016). Psychometric properties of a measure of psychological factors among francophone adolescent learners in a South African setting. *Journal of Psychology in Africa*, *26*(2), 172-175. https://doi.org/10.1080/14330237.2016.1163910.

Morelli, S. A., Ong, D. C., Makati, R., Jackson, M. O., & Zaki, J. (2017). Empathy and well-being correlate with centrality in different social networks. *Proceedings of the National Academy of Sciences*, 114(37), 9843-9847. https://doi.org/10.1073/pnas.1702155114.

Mudiyanselage, K. (2016). *The role of picture books in developing an empathic response towards cultural difference* (Unpublished doctoral dissertation), Queensland University of Technology, Brisbane, Australia.

Oberst, U., Charles, C., & Chamarro, A. (2005). Influence of gender and age in aggressive dream content of Spanish children and adolescents. *Dreaming*, *15*(3), 170-177. https://doi.org/10.1037/1053-0797.15.3.170.

Öngen, D. E. (2010). Cognitive emotion regulation in the prediction of depression and submissive behavior: Gender and grade level differences in Turkish adolescents. *Procedia-Social and Behavioral Sciences*, *9*, 1516-1523. https://doi.org/10.1016/j.sbspro.2010.12.358.

Onukwufor, J. N. (2013). The roles of counselling psychologists toward the improvement of intellectual functioning of secondary school students. *Psychology*, *4*(16), 181-186. Retrieved from https://core.ac.uk/download/pdf/234634655.pdf.

Peng, C. Y. J., & Nichols, R. N. (2003). Using multinomial logistic models to predict adolescent behavioral risk. *Journal of Modern Applied Statistical Methods*, *2*(1), 177-188. https://doi.org/10.22237/jmasm/1051748160.

Roberton, T., Daffern, M., & Bucks, R. S. (2012). Emotion regulation and aggression. *Aggression and violent behavior*, *17*(1), 72-82. https://doi.org/10.1016/j.avb.2011.09.006.

Rueckert, L., Branch, B., & Doan, T. (2011). Are gender differences in empathy due to differences in emotional reactivity? *Psychology*, *2*(06), 574-578. http://doi.org/10.4236/psych.2011.26088.

Sameer, B. M., & Jamia, M. I. (2007). *Social intelligence and aggression among senior secondary school students: A comparative sketch*. https://files.eric.ed.gov/fulltext/ED500484.pdf.

Saravia-Shore, M., & Garcia, E. (2008). Diverse teaching strategies for diverse learners. In R. W. Cole (Ed.). *Educating everybody's children: Diverse teaching strategies for diverse learners. What research and practice say about improving achievement* (pp. 47-74). Alexandria, VA: Association of Supervision and Curriculum Development.

Seals, D., & Young, J. (2003). Bullying and victimization: Prevalence and relationship to gender, grade level, ethnicity, self-esteem, and depression. *Adolescence*, *38*(152), 735-747. https://content.ebscohost.com/cds/retrieve?content.

Shaikh, F., Viveki, R. G., & Halappanavar, A. B. (2014). Physical and Verbal Aggressive Behaviour Pattern Among School Children in Urban Area of North Karnataka: A Cross Sectional Study. *Journal of Krishna Institute of Medical Sciences*, *3*(2), 55-62. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=97289268&site=ehost-live&scope=site.

Sharma, M. K., & Marimuthu, P. (2014). Prevalence and psychosocial factors of aggression among youth. *Indian journal of psychological medicine*, *36*(1), 48-53. http://doi.org/10.4103/0253-7176.127249.

Starkweather, J., & Moske, A. K. (2011). Multinomial logistic regression. *Consulted page at September 10th:* http://www.unt.edu/rss/class/Jon/Benchmarks/MLR_JDS_Aug2011.pdf.

Stickle, T. R., Kirkpatrick, N. M., & Brush, L. N. (2009). Callous-unemotional traits and social information processing: Multiple risk-factor models for understanding aggressive behavior in antisocial youth. *Law and Human Behavior*, *33*(6), 515-529. https://doi.org/10.1007/s10979-008-9171-7.

Tamir, M. (2009). What do people want to feel and why? Pleasure and utility in emotion regulation. *Current Directions in Psychological Science*, *18*(2), 101-105. https://doi.org/10.1111/j.1467-8721.2009.01617.x.

Thompson, R. A. (1994). Emotion regulation: A theme in search of definition. *Monographs of the Society for Research in Child Development*, *59*(2/3), 25-52. https://doi.org/10.2307/1166137.

Thompson, R. A. (2011). Emotion and emotion regulation: Two sides of the developing coin. *Emotion Review*, *3*(1), 53-61. https://doi.org/10.1177/1754073910380969.

Toldos, M. P. (2005). Sex and age differences in self-estimated physical, verbal and indirect aggression in Spanish adolescents. *Aggressive Behavior*, *31*(1), 13-23. https://doi.org/10.1002/ab.20034.

Vaish, A., Carpenter, M., & Tomasello, M. (2009). Sympathy through affective perspective taking and its relation to prosocial behaviour in toddlers. *Developmental psychology*, *45*(2), 534-543. https://doi.org/10.1037/a0014322.

van Middendorp, H., Geenen, R., Sorbi, M. J., Hox, J. J., Vingerhoets, A. J., van Doornen, L. J., & Bijlsma, J. W. (2005). Gender differences in emotion regulation and relationships with perceived health in patients with rheumatoid arthritis. *Women & health*, *42*(1), 75-97. https://doi.org/10.1300/J013v42n01_05.

Vandeyar, S. (2010). Educational and socio-cultural experiences of immigrant students in South African schools. *Education Inquiry*, *1*(4), 347-365. https://doi.org/10.3402/edui.v1i4.21950.

Von Scheve, C. (2012). Emotion regulation and emotion work: two sides of the same coin?. *Frontiers in psychology*, *3*(496), 1-10. https://doi.org/10.3389/fpsyg.2012.00496.

Zhou, Z. (2012). *Gender differences in subtypes of workplace aggression* (Unpublished masters thesis), University of South Florida, Tampa, Florida.

Zimmermann, P., & Iwanski, A. (2014). Emotion regulation from early adolescence to emerging adulthood and middle adulthood: Age differences, gender differences, and emotion-specific developmental variations. *International journal of behavioral development*, *38*(2), 182-194. https://doi.org/10.1177/0165025413515405.

Table 3: Multinomial Logical Regression Analysis Predicting Psychological Factors from Demographical Details among Immigrant Francophone Adolescent Learners (N=83)

Predictors	Emotional regulation		Aggressiveness		Sympathy		Empathy	
	B (Std. Error)	Sig.	B (Std. Error)	Sig.	B (Std. Error)	Sig.	B (Std. Error)	Sig.
Gender	-1.922(.603)	.001*	-.991(.351)	.005*	-19.313(.000)	-	-2.108(.869)	.015*
Age	.219 (.656)	.738	-.208(.402)	.605	-17.891(.000)	-	1.740(.891)	.041*
Grade level	-.428(.313)	.171	.460(.173)	.008*	-.077(.933)	-	-.004(.445)	.993

Table 2: Gender, Age, Grade level differences regarding Psychological Factors (Emotional Regulation, Aggressiveness, Empathy, Sympathy)

Psychological factors		Gender n (%) Male	Female	χ^2	Age n (%) 14-16	17-19	χ^2	Grade level n (%) Grade 8	Grade 9	Grade 10	χ^2
Emotional regulation	**Unstable emotion**	3(5.8)	5(16.1)	1.352*	6 (11.1)	2(6.9)	.441*	4(12.1)	2(8.7)	2(7.4)	9.896*
	Stable emotion	49(94.2)	26(83.9)		48(88.9)	27(93.1)		29(87.9)	21(91.3)	25(92.0)	
Aggressiveness	**Non-Aggressive**	19(55.9)	37(75.5)	.861*	36(66.7)	20(68.9)	2.29*	21(77.8)	21(63.6)	14(60.9)	6.851
	Aggressive	15(44.1)	12(24.5)		18(33.3)	9(31.1)		6(22.2)	12(36.4)	9(39.3)	
Empathy	**Non-empathetic**	2(6.5)	2(3.8)	.000	2(3.7)	2(6.9)	19.992**	1(3.7)	1(3)	2(8.7)	2.576
	Empathetic	29(93.5)	50(96.2)		52(96.3)	27(93.1)		26(96.3)	32(97)	21(91.3)	
Sympathy	**Non-sympathetic**	3(6.5)	2(5.8)	1.00*	4(7.4)	1(3.5)	.544	0(.00)	4(12.1)	1(4.3)	6.188
	Sympathetic	29(93.5)	49(94.2)		1(3.5)	28(96.5)		27(100)	29(95.7)	22(95.7)	

* Correlation is significant at the 95 % level. ($p < 0.05$), at **99 % level ($p \leq 0.01$).