Psicothema

Depression and aggressive behaviour in adolescents offenders and non-offenders

Anna Llorca Mestre, Elisabeth Malonda Vidal and Paula Samper García
Universitat de València

Abstract

Background: Adolescent behaviour is strongly linked to emotions. The aim of this study is 1) analyse the differences between young offenders and non-offenders in emotional instability, anger, aggressive behaviour, anxiety and depression, and also the differences according to sex; and 2) compare the relation between emotional instability and anxiety, depression and aggressive behaviour mediated or modulated by anger in both groups. **Method:** participants are 440 adolescents, both male and female (15-18 years old). 220 were young offenders from four different correctional centres of the Valencia Region. The other 220 participants were randomly chosen from ten public and private schools in the Valencia metropolitan area. In the Schools the instruments were applied collectively in the classroom, with a 50 minutes maximum duration. In the Youth Detention Centre the application was carried out in small groups. **Results:** The structural equation model (SEM) carried out on each group, young offenders and non-offenders show a relation between the assessed variables. Emotional instability appears strongly related with anger in both samples, but anger just predicts depression and aggressive behaviour in the offender population. **Conclusions:** The results give relevant information for treatment and prevention of aggressive behaviour and delinquency in teenagers through emotional regulation.

Keywords: offenders, adolescence, emotions, aggressive behaviour, depression.

Resumen

Depresión y agresividad en adolescentes delincuentes y no delincuentes.
Antecedentes: la conducta adolescente está fuertemente determinada por las emociones. El objetivo es: 1) analizar las diferencias entre los jóvenes infractores y los no infractores en inestabilidad emocional, ira, comportamiento agresivo, ansiedad y depresión, así como las diferencias según el sexo; y 2) comparar la relación entre inestabilidad emocional y ansiedad, depresión y comportamiento agresivo mediado o modulado por la ira en ambos grupos. **Método:** participaron 440 varones y mujeres (15-18 años), 220 adolescentes delincuentes procedentes de cuatro Centros de Menores de la Comunidad Valenciana. Los 220 restantes fueron seleccionados aleatoriamente de diez centros públicos y concertados de Valencia. En los centros escolares los instrumentos se aplicaron colectivamente en el aula. En el Centro de Detención Juvenil, la aplicación se realizó en pequeños grupos. **Resultados:** los Modelos de Ecuaciones Estructurales realizados para cada uno de los grupos muestran que la inestabilidad emocional aparece fuertemente relacionada con la ira en ambas muestras, pero la ira únicamente predice la depresión y la agresividad en la población delincuente. **Conclusiones:** los resultados aportan información relevante para el tratamiento y la prevención de la agresividad y la delincuencia en la adolescencia a través de la regulación emocional, especialmente el de la ira.

Palabras clave: delincuentes, adolescentes, emociones, agresión, depresión.

A whole series of studies have repeatedly shown that adolescent behaviour is highly determined by emotions (del Barrio & Carrasco, 2014; Domes, Hollerbach, Vohs, Mokros, & Habermeyer, 2013; Llorca, Malonda, & Samper, 2016); for this reason it is necessary to know the emotional framework of a young person to try and predict their reaction capabilities in a given situation and to be able to help them choose the better option.

Despite having widely studied the different emotions, their interaction and mutual interdependency has still not been pinpointed and this is essential knowledge needed when selecting an answer, as their different combinations result in different consequences.

In the case of personalities with aggressive or delinquent behaviour, the research shows the importance of several family and social variables (Catrín, Gómez-Fraguela, & Luengo, 2015; Gázquez et al., 2016), although the social factor of aggressive behaviour only explains 30% of the variance, which justifies the study of the internal variables of the subject and the emotion in particular (del Barrio & Roa, 2006; Rodríguez, del Barrio, & Carrasco, 2009; Herrero, Ordóñez, Salas, & Colom, 2002).

On a revision of delinquent behaviour (Redondo & Andrés-Pueyo, 2007) a risk factor survey of these behaviours is carried out, and amongst them appear impulsiveness, irritability and aggressive behaviour as relevant elements in the appearance of social maladjustment. It could even be said that, as in a chemical reaction, the sequence of its different factors is crucial, in the case of emotional behaviour it is also important the movement and sequence of the different elements they are made of.

In particular, it is known that anger, which is a decisive factor in the appearance of aggressive behaviour (del Barrio &

Roa, 2006), is strongly related to other variables amongst which we find emotional instability, depression and anxiety, given the comorbidity the latter ones have with each other (Brown, Meiser-Stedman, Woods, & Lester, 2016; del Barrio & Carrasco, 2014; Kerth, Tilman, & Luby, 2015; Poirier et al., 2015). In this respect, different investigations have concluded that impulsiveness, the lack of emotional control appear as anger predictors which, moreover, determines aggressive behaviour (Mestre, Samper, & Frías, 2002; Mestre, Samper, Tur, Richaud, & Mesurado, 2012). To all of this it is added that emotional instability predicts the appearance of depression in the long tern, as demonstrated by recent longitudinal studies (Llorca et al., 2016). Therefore, a complex framework formed by all the emotions is observed.

On the other hand, different studies provide data about the relation between delinquency and depression (Ibabe, Arnoso, & Elgorriaga, 2014; Lalayants & Prince, 2014). Some studies point out that young offenders experience depression in a high percentage (Teplin, Abram, McClelland, Dulcan, & Mericle, 2002). But it is more difficult to find results about the causal link between them. There are investigations that consider that the problems in behaviour precede depression, although there are others that defend the opposite premise (Vahl et al., 2016).

Along the same lines, there are different studies that deal with teenage delinquency and emotions (Domes et al., 2013; Herrero et al., 2002; Lalayants & Prince, 2014; Redondo & Andrés-Pueyo, 2007) however there are a lot less studies about the specific interaction of those emotions. The relevance of our study consists in analysing how the negative emotions behave and their relation to the maladapted behaviour in the young offenders population and if it follows the same pattern as the general population. The obtained results can give a more precise orientation for the intervention with young offenders and the prevention of delinquency in the general population.

Following the theoretical premise given and the investigation in this area, the aims of the study are as follows: 1) analyse the differences between young offenders and non-offenders in the evaluated variables (emotional instability, anger, aggressive behaviour, anxiety and depression) and also the differences according to sex; and 2) compare the relation between emotional instability and anxiety, depression and aggressive behaviour mediated or modulated by anger in both groups.

To this end, two samples have been selected: one of adolescents from general population and another one from young offenders, as it has been demonstrated that young offenders groups present a higher frequency of high aggressive behaviour and anger (Andrés-Pueyo & Echeburúa, 2010).

The analysis of the differences in how emotions work in both young offenders and non-offenders can help to better understand the process that triggers aggressive behaviour and how to manage it as it has been tried in other cases of parallel violence (Echeburúa, Amor, Loinaz, & de Corral, 2010).

Method

Participants

440 adolescents have taken part, 220 were young offenders who were selected from different correctional centres of the Valencia Region, who where carrying out different court sentences. Amongst the crimes for which these adolescents where carrying out different court sentences violence against their parents, damage against property, crime against public health and bodily harm are highlighted. The rest of the sample was selected randomly from public and private schools in the Valencia metropolitan area. The selection was made equating both subgroups in age, sex and controlling the representation of the social status, verifying that there aren't significant differences between the two groups related to these socio demographic variables.

The subgroup of young offenders includes 148 boys (67.3%) and 72 girls (32.7%); amongst the participants selected from the general population we find 145 boys (65.9%) and 75 girls (34.1%). The ages are between 15-18 years. The mean age of the institutionalised boys and girls is 16.22 and a standard deviation of 1.25.

If we take into consideration de reason for the placement in the youth detention centre, it is established that the main crime is child to parent violence (60.7%) followed by aggravated robbery (33.7%) and in a lesser degree other crimes are attempt against authority (2.6%), breach of parole (2%) and bodily harm (1%).

With regards to social status, the representation is similar in both groups, although not identical. The young offenders are situated mainly in a lower middle class (51.4%), followed by middle class (23.2%); and to a lesser degree we find families that belong to an upper class (3.2%) and lower class (6.8%).

As for the non-offenders group, the percentage of adolescents in lower middle class diminishes (37.7%) and there is a slightly higher percentage of families that belong to a middle class (35.9%). We find less middle upper class families (11.8%) and lower class (8.2%).

Instruments

Physical and Verbal Aggression Scale (Caprara & Pastorelli, 1993; del Barrio, Moreno, & López, 2001). It evaluates behaviours that harm others physically or verbally. This instrument uses 20 items with three possible answers (*often, sometimes or never*). Example of item: "I speak badly of my classmates". Cronbach's Alpha in the adaptation of del Barrio et al. (2001) was .84. Cronbach's Alpha for this study is .89 (offenders) and .86 (non-offenders).

Emotional Instability Scale (Caprara & Pastorelli, 1993; del Barrio et al., 2001). It describes the behaviour that indicates a lack of self-control in social situations as a result of the scarce ability to curb impulsiveness and emotionality. Example of item: "I am impatient", "I interrupt others when they talk". Cronbach's Alpha of del barrio et al. (2001) was .74. Cronbach's alpha for this study is .82 (offenders) and .82 (non-offenders)

State and Trait Anger Scale (STAXI-N, del Barrio, Aluja, & Spielberger, 2003). It evaluates the anger as a state (feeling, expression and total score of anger) and as a trait (disposition, reaction and total score). Example of item: "I am furious", "I want to shout". Cronbach's alpha of the authors is .81 for anger-state and .71 for anger-trait. Cronbach's alpha for this study is .90 at anger-state and .78 at anger-trait (offenders) and .88 at anger-state and .75 at anger-state (non-offenders).

Center for Epidemiologic Studies -Depression Scale (CES-D; Eaton, 2004; Radloff, 1977). Evaluates the frequency and severity of experiencing negative emotions, depressive symptoms in the previous week. Example of item: "I was upset by things that don't normally upset me". In addition to internal consistency, CES-D scores have demonstrated acceptable reliability, with cronbach's

alphas from .70 to .90 in others studies (Edwards, Cheavens, Heiy, & Cukrowicz, 2010; Rusell, Crockett, Shen, & Lee, 2008). The Cronbach's alpha of this study is .85 (offenders) and .83 (non-offenders).

Anxiety and Stress Scales (DASS, Norton, 2007). It evaluates possible anxiety symptoms and stress during the previous week. Example of item: "I realised my mouth was dry". Cronbach's alpha of the author for the anxiety scale was .78. Cronbach's alpha is .77 (offenders) and .74 (non-offenders).

Procedure

In the Secondary Schools the instruments were applied collectively in the classroom, with a 50 minutes maximum duration. In the Youth Detention Centre the application of the questionnaires was carried out in small groups made out of two or three and when necessary it was carried out individually. The research project was presented to the school management teams and teachers of the selected schools and to the management of the youth detention centres in the Valencia Region that took part in the study. The cooperation of the centres and the evaluation carried out had the authorisation of the Valencian Government and also had parental permission. The participation of the adolescents was voluntary and anonymous, taking into consideration all ethical principles pertaining to research with human beings included in the Helsinki Declaration, under the current regulations.

Data analysis

In the first place, analyses of variance (ANOVA) have been carried out to calculate the differences of measurements between young offenders and non-offenders, for each of the variables (anxiety, depression, physical and verbal aggression, anger trait and emotional instability). In the second place, Pearson's Correlation Analysis have been carried out between the variables being studied to observe the degree of relation and the relation trends amongst them, as well as to observe possible problems with correlation amongst them for each subgroup. Finally, it has been tested how fitting the theoretical model designed through the Structural Equation Models (SEM) is, for each of the groups of adolescents, offenders and non-offenders.

The following strong predictors have been used to determine the goodness of fit: chi square compared to the degrees of freedom (χ^2/d. f.), the root mean square error of approximation (RMSEA), a robust comparative fit index (CFI), the goodness of fit index (GFI), the adjusted goodness of fit index (AGFI) and the root mean residual (RMR) (Bollen, 1989).

Results

Analysis of variance

If we take into consideration the differences between both groups, young offenders and non-offenders, the analysis of variance show significant differences in all evaluated variables: anxiety, depression, aggressive behaviour, anger and emotional instability, with the young offenders group reaching the highest levels in all of them (see Table 1)

If we take into consideration de differences between both groups taking sex into account (see Table 2) we find that there are no differences between boys and girls in any of the groups in the variables of anxiety, anger trait or emotional instability. However, we find that depression is higher in girls, in both the young offenders and non-offenders groups (see Table 2). Aggressive behaviour behaves differently as there are differences between boys and girls, but only in the non-offenders group, meaning it is established that a higher level of physical and verbal abuse in boys in the general population, while in the young offenders group

Table 1
ANOVAs. Measurement and standard deviations

		T1			
		M	**DT**	**F**	η^2_p
Anxiety	Offenders	1.73	.36	11.10**	.02
	Non offenders	1.63	.26		
Depression	Offenders	2.26	.44	19.69***	.04
	Non offenders	2.08	.40		
Aggressive	Offenders	1.64	.39	91.87***	.17
Behaviour	Non offenders	1.32	.30		
Anger trait	Offenders	1.99	.44	28.19***	.06
	Non offenders	1.78	.38		
Emotional instability	Offenders	1.93	.36	60.77***	.12
	Non offenders	1.67	.35		

Note: *F*, statistics based on one-way ANOVAs; η^2_p Partial Eta squared, effect size measure (.01 = small effect; .06 = medium effect; .13 = large effect; Cohen, 1988)
** *p*<.01; *** *p*<.001

Table 2
Differences in measurements according to sex in the offenders and non-offenders group

			M	**DT**	**F**	η^2_p
Anxiety	Offenders	Boys	1.71	.32	1.37	.00
		Girls	1.77	.42		
	Non-offenders	Boys	1.61	.22	1.67	.00
		Girls	1.66	.33		
Depression	Offenders	Boys	2.15	.41	27.72***	.11
		Girls	2.47	.43		
	Non-offenders	Boys	2.01	.35	14.25***	.06
		Girls	2.22	.44		
Aggressive behaviour	Offenders	Boys	1.65	.36	.09	.00
		Girls	1.63	.44		
	Non-offenders	Boys	1.36	.30	6.31*	.03
		Girls	1.25	.29		
Anger Trait	Offenders	Boys	1.97	.43	1.25	.00
		Girls	2.04	.47		
	Non-offenders	Boys	1.77	.38	.23	.00
		Girls	1.80	.38		
Emotional instability	Offenders	Boys	1.92	.34	.42	.00
		Girls	1.96	.40		
	Non-offenders	Boys	1.70	.31	2.90	.01
		Girls	1.61	.40		

Note: *F*, statistics based on one-way ANOVAs; η^2_p, Partial Eta squared, effect size measure (.01 = small effect; .06 = medium effect; .13 = large effect; Cohen, 1988)
* *p*<.05; ** *p*<.01; *** *p*<.001

there are no differences reaching both sexes higher scores than the adolescents that have not committed a crime. Seeing as there are no differences based on sex in most of the evaluated variables, except depression, this variable (sex) has not been taken into consideration in the rest of the analysis.

Correlation analysis

The correlation analysis shows that in both groups, the relation between emotional instability, anger trait and aggressive behaviour is direct and significant. As related to depression and anxiety, in the non-offenders group correlates significantly with all the other variables while in the offenders group depression only correlates with anger trait; as for anxiety we find that in the offenders group, it correlates with depression and anger trait, while in the non-offenders group it only correlates with depression (see Table 3).

Structural equation model

The Structural equation model presents a good fit. The indexes of fit related to the multi-group structural model carried out are the following: χ^2/d. f. = 105.11/58 = 1.81; CFI = .95; GFI = .95; AGFI = .91; RMR = .01; RMSEA = .04 (.03, .05).

Having seen that in the correlations, emotional instability appeared as one of the strongest variables, we have used it to analyse its predictor power in both groups.

As we can see (see Figure 1), in the young offenders group all the variables are directly or indirectly related.

Emotional instability directly predicts both anger trait and aggressive behaviour. Anger trait also mediates anxiety and depression and anxiety is also directly related to depression.

Conversely, in the non-offenders group, the structure is different. Emotional instability directly relates to anger trait as well as aggressive behaviour and depression.

Finally, anxiety relates in a direct way with depression but not as strongly as in the offenders group. Anger trait, differing from

Table 3 Correlations					
Offenders					
	1	**2**	**3**	**4**	**5**
1. Anxiety	1				
2. Depression	.416**	1			
3. Aggressive behaviour	.050	.079	1		
4. Anger trait	.198**	.220**	.442**	1	
5. Emotional instability	.115	.071	.696**	.530**	1
Non-offenders					
	1	**2**	**3**	**4**	**5**
1. Axiety	1				
2. Depression	.224**	1			
3. Aggressive behaviour	.041	.185**	1		
4. Anger trait	.070	.215**	.418**	1	
5. Emotional instability	.021	.215**	.627**	.551**	1

*Note: * p<.05; ** p<.01; *** p<.001*

the young offenders group, has no relation with either anxiety or depression.

Discussion

As already indicated, the aims of the study were, first of all, to analyse the differences between young offenders and non-offenders in the evaluated variables (emotional instability, anger, aggressive behaviour, anxiety and depression), and analyse the differences depending on sex, and on the second place, compare the relation between emotional instability and anxiety, depression
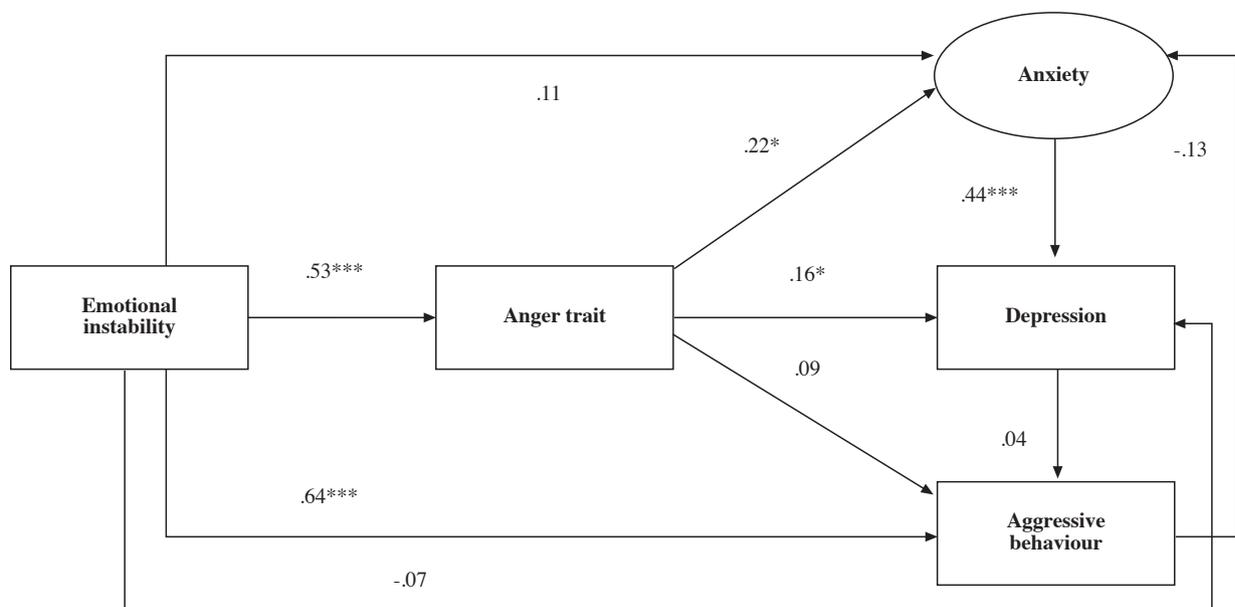

Figure 1. Multiple-group Structural Equation Model: Offenders. Standardised values
Note: *** p<.001, ** p<.01, * p<.05

and aggressive behaviour mediated or modulated by anger in both groups.

In relation to the first aim, the obtained results show differences between young offenders and no-offenders in the evaluated emotions (anger, anxiety) as well as the behaviours (physical and verbal aggression), being the young offenders the ones to reach higher scores. Likewise, this group shows a higher impulsiveness and lack of self control and at the same time more depressive symptoms. These results are coherent with the research on the subject that establishes the importance of emotions and lack of control over them in aggressive behaviour and crime (Andrés-Pueyo & Echeburúa, 2010; Cutrín, Gómez-Fraguela, Maneiro, Sobral, & Luengo, 2016; Herrero et al., 2002; Ibabe et al., 2014; Lalayants & Prince, 2014; Mestre et al., 2002; Mestre et al., 2012). However, the differences in each of the groups depending on sex are not present in all evaluated variables; only depression symptoms are higher in adolescent girls in both groups adolescents offenders and non-offenders. This data is also coherent with the research that establishes a higher level of depression in the female sex (del Barrio & Carrasco, 2014). In relation to the physical and verbal aggression evaluated, it is established that the young non-offender boys are the ones to reach higher levels of aggressive behaviour when compared with the girls in the same group, whereas the young offender boys and girls do not show significant differences in physical an verbal aggression. This allows us to conclude that aggressive behaviour crossed with sex is a discriminating criteria between both samples, as the data confirms a higher aggressive behaviour in the young offenders group, independently of the sex of the adolescent who has committed a crime, as the women of this group reach levels of aggressive behaviour as high as the men (Andrés-Pueyo & Echeburúa, 2010).

As for the second aim, the results of the correlation analysis allows us to conclude that the emotional framework of both groups differs much more in relation to the interiorised disorders (anxiety and depression) than in relation to the exteriorised ones (physical and verbal aggression) being anger the emotional variable that maintains a direct and significant relation to anxiety and depression while in the adolescent general population, the map of the relations between the emotions is wider and emotional instability and physical and verbal aggression also intervene (Brown et al., 2016; del Barrio et al., 2001).

The data of the structural equation confirm and enrich this knowledge as it becomes obvious that the emotional framework of the non-offender subjects if much more simple and linear, while in the young offender subjects each and everyone of the emotions are interacting with the others in a much more complex way.

A relation between physical and verbal aggression and depressive symptoms is not established in the structural equations in the young offenders or non-offenders. This result does not coincide with other research that concludes a co-occurrence of the aggressive behaviour and depression symptoms in adolescence.

Even though this studies show that aggressive behaviour predicts depression symptoms, but depression does not predict aggressive behaviour (Van der Giessen et al., 2013) this can be explained by the cross-sectional design of the study as it does not give a time sequence.

To summarise, we could say that in the offender subjects, all the emotions are closely related to each other, as well as the important role played by anger in regards to anxiety and depression.

This data makes obvious the need to act on the young offenders group to improve their emotional situation. The target emotions would be those discussed in the initial explanation and these are emotional instability and anger trait.

The present study provides relevant results about the emotional profile of young offenders and non-offenders. As we already indicated, our study provides information about how negative emotions behave and their relation to maladapted behaviour in the young offender and non-offender population and, on the other hand, if said emotions follow the same pattern as in the general population. The results widen the knowledge of the different role of anger in both groups of adolescents.
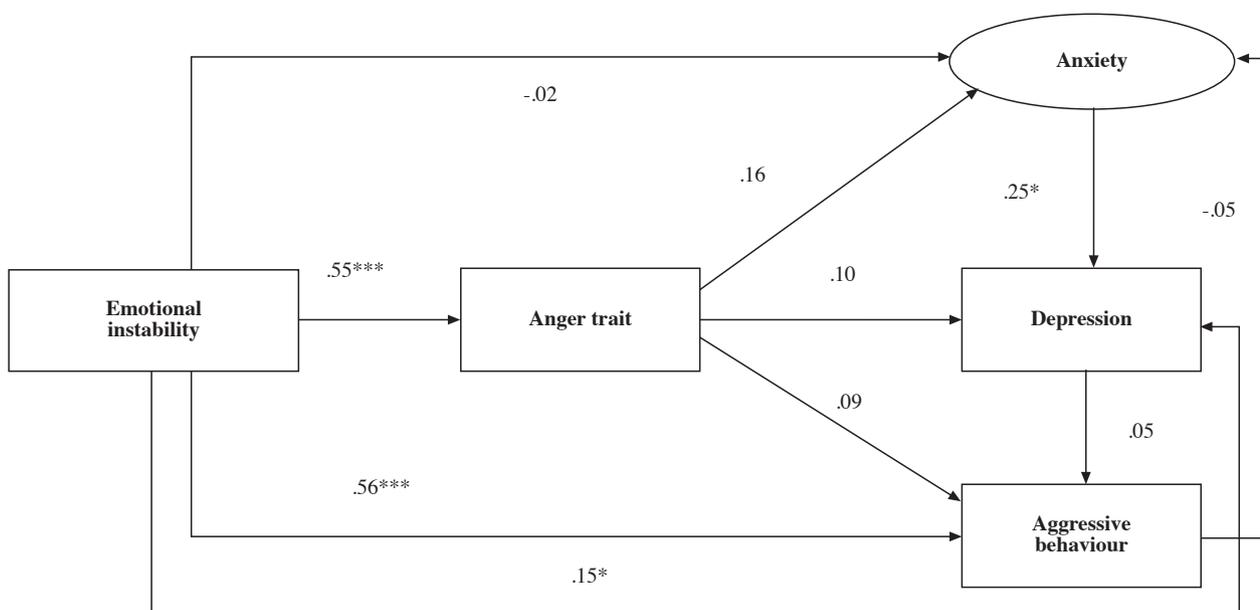

Figure 2. Multiple-group Structural Equation Model: Non-Offenders. Standardised values
Note. *** p<.001, ** p<.01, * p<.05

This takes us to a series of consequences related to prevention. Even though it is true that it is important to take into account the temperamental dimension of emotional instability and to consider the importance of emotional control of impulsive children, it is essential the intervention in the in the management of the regulation of anger as an emotion when it rises as an response to adverse or frustrating situations. It is essential to include in intervention programs, strategies that promote the ability to self regulate these negative emotional states allowing us to avoid being overwhelmed by anger and irritability. The research shows that emotion regulation strategies contribute to regulate impulsive tendencies (Eisenberg, Fabes, Guthrie, & Reiser, 2000), as well as to low levels of anxiety and depression (Eisenberg et al., 2001; Garnefski, Teerds, Kraaij, Legerstee, & Van den Kommer, 2004).

The present study has some limitations namely that of having carried out the evaluation solely through self-assessments. On the other hand, a transversal design has been followed and, finally, the sample only comes from the Valencian Region.

Acknowledgements

References

Andrés-Pueyo, A., & Echeburúa, E. (2010). Valoración del riesgo de violencia: instrumentos disponibles e indicaciones de aplicación [Violence risk assessment available instruments and application notes]. *Psicothema, 22*, 403-409.

Bollen, K. A. (1989). *Structural Equations with Latent Variables*. New York: John Wiley & Sons, Inc.

Brown, H. M., Meiser-Stedman, R., Woods, H., & Lester, K. J. (2016). Cognitive vulnerabilities for depression and anxiety in childhood: Specificity of anxiety sensibility and rumination. *Behavioral and Cognitive Psychotherapy, 44*, 30-42.

Caprara, G. V., & Pastorelli, C. (1993). Early emotional instability, prosocial behavior, and aggression: Some methodological aspects. *European Journal of Personality, 7*, 19-36.

Cutrín, O., Gómez-Fraguela, J. A., & Luengo, M. A. (2015). Peer-group mediation in the relationship between family and juvenile antisocial behavior. *The European Journal of Psychology Applied to Legal Context, 7*, 59-65.

Cutrín, O., Gómez-Fraguela, J. A., Maneiro, L., Sobral, J., & Luengo, M. A. (2016). Psychopathic traits mediate the effects of neighbourhood risk on juvenile antisocial behaviour. *Psicothema, 28*, 428-434.

Del Barrio, M. V., & Carrasco, M. A. (2014). *Depresión Infantil y adolescente* [Child and Adolescent Depression]. Madrid: Síntesis.

Del Barrio, M. V., Moreno, C., & López, R. (2001). Evaluación de la agresión e inestabilidad emocional en niños españoles y su relación con la depresión [Assessment of aggression and emotional instability in Spanish children and their relationship with depression]. *Clínica y Salud, 12*, 33-50.

Del Barrio, V., & Roa, L. (2006). Factores de riesgo y protección en agresión infantil [Risk and protection factors in childhood aggression]. *Acción Psicológica, 4*, 39-65.

Del Barrio,V., Aluja, A., & Spielberguer. C. (2004). Anger assessment with the STAXI-CA: Psychometric properties of a new instrument for children and adolescents. *Personality and Individual Differences, 37*, 227-244.

Domes, G., Hollerbach, P., Vohs, K., Mokros, A., & Habermeyer, E. (2013). Emotional empathy and psychopathy in offenders: An experimental study. *Journal of Personality Disorders, 27*, 67-84.

Eaton, W. W., Smith, C., Ybarra, M., Muntaner, C., & Tien, A. (2004). Center for Epidemiologic Studies Depression Scale: Review and revision (CESD and CESD-R). In M. E. Maruish (Ed.), *The Use of Psychological Testing for Treatment Planning and Outcomes Assessment*. 3rd ed. (pp. 363-377). Mahwah, NJ: Lawrence Erlbaum.

Echeburúa, E., Amor, P. J., Loinaz, I., & de Corral, P. (2010). Escala de Predicción del Riesgo de Violencia Grave contra la pareja, Revisada-(EPV-R) [Risk Prediction of Grave Violence against intimate partners Scale, Revised- (EPV-R)]. *Psicothema, 22*, 1054-1060.

Edwards, M. C., Cheavens, J. S., Heiy, J. E., & Cukrowicz, K. C. (2010). A reexamination of the factor structure of the Center for Epidemiologic studies Depression Scale: Is a one-factor model plausible? *Psychological Assessment, 22*, 711-715.

Gázquez, J. J., Pérez-Fuentes, M. C., Moler, M. M., Barragán, A. B., Martos, A., & Sánchez-Marchán, C. (2016). Drug use in adolescents in relation to social support and reactive and proactive aggressive behavior. *Psicothema, 28*, 318-322.

Herrero, O., Ordóñez, F., Salas, A., & Colom, R. (2002). Adolescencia y comportamiento antisocial [Adolescence and antisocial behavior]. *Psicothema, 14*, 340-343

Ibabe, I., Arnoso, A., & Elgorriaga, E. (2014). Behavioral problems and depressive symptomatology as predictors of child-to-parent violence. *The European Journal of Psychology Applied to Legal Context, 6*, 53-61.

Kertz, S. J., Tilman, R., & Luby, J. (2016). Cognitive control deficits in shifting and inhibition in preschool age children are associated with increased depression and anxiety over 7.5 years of development. *Journal of Abnormal Child Psychology, 44*, 1185-1196.

Lalayants, M., & Prince J. D. (2014). Delinquency, depression, and substance use disorder among child welfare-involved adolescent females. *Child Abuse & Neglect, 38*, 797-807.

Llorca, A., Malonda, E., & Samper, P. (2016). The role of emotions in depression and aggression. *Medicina Oral Patología Oral y Cirugía Bucal, 21*, 559-564.

Mestre, V., Samper, P., & Frías, D. (2002). Procesos cognitivos y emocionales predictores de la conducta prosocial y agresiva: la empatía como factor modulador [Cognitive and emotional processes predictors of prosocial and aggressive behavior: empathy as a modulator factor]. *Psicothema, 14*, 227-232.

Mestre, V., Samper, P., Tur, A. M., Richaud, M. C., & Mesurado, B. (2012). Emociones, estilos de afrontamiento y agresividad en la adolescencia [Emotions, coping styles and aggressiveness in adolescence]. *Universitas Psychologica, 11*, 1263-1275.

Norton, P. J. (2007). Depression Anxiety and Stress Scales (DASS-21): Psychometric analysis across four racial groups. *Anxiety, Stress, and Coping, 20*, 253-265.

Poirier, M., Déry, M., Toupin, J., Verlaan, P. Lemelin, J. P., & Jagiellowicz, J. (2015). Correlates of conduct problems and depression comorbidity in elementary school boys and girls receiving special educational services. *Psychology in Schools, 54*, 403-418.

Radloff, L. S. (1977). CES-D scale: A self-report depression scale for research on the general population. *Applied Psychological Measurement, 1*, 385-401.

Redondo, S., & Andrés-Pueyo, A. (2007). La psicología de la delincuencia [The psychology of delinquency]. *Papeles del Psicólogo, 28*, 147-156.

Rodríguez, M. A., del Barrio, V., & Carrasco, M. A. (2009). Consistencia interparental y su relación con la agresión y la sintomatología depresiva en niños y adolescentes [Interparental consistency and its relation to aggression and depressive symptoms in children and adolescents]. *Revista de Psicopatología y Psicología Clínica, 14*, 51-60.

Rusell, S. T., Crockett, L. J., Shen, Y. L., & Lee, S. A. (2008). Cross-ethnic invariance of self-steem and depression measures for Chinese, Filipino, and European American adolescents. *Journal of Youth Adolescence, 37,* 50-61.

Teplin, L. A., Abram, K. M., McClelland, G. M., Dulcan, M. K., & Mericle, A. A. (2002). Psychiatric disorders in youth in juvenile detention. *Archives of General Psychiatry, 59*, 1133-1143.

Vahl, P., Colins, O. F., Lodewijks, H. P., Lindauer, R., Markus, M. T., Doreleijers, T. A., & Vermeiren, R. R. (2016). Psychopathic traits and maltreatment: Relations with aggression and mental health problems in detained boys. *International Journal of Law and Psychiatry, 46*, 129-136.

Van der Giessen, D., Branje, S., Overbeek, G., Frijns, T., Van Lier, P. A. C., Koot, H. M., & Meeus, W. (2013). Co-occurrence of aggressive behavior and depressive symptoms in early adolescence: A longitudinal multi-informant study. *Revue Européenne de Psychologie Appliquée, 63,* 193-201.

Vrieze, S. I., & Grove, W. M. (2010). Multidimensional assessment of criminal recidivism: Problems, pitfalls, and proposed solutions. *Psychological Assessment, 2*, 382-395.