GREATER POSITIVE FACIAL RESPONSES TO VIOLENCE IN HIGHLY-SEXIST PERPETRATORS: IMPACT ON IPVAW PREVALENCE

Javier Comes-Fayos^{1,3}, Isabel Rodríguez Moreno¹, Sara Bressanutti¹, Carolina Sarrate Costa¹, Marisol Lila Murillo², Ángel Romero-Martínez¹, & Luis Moya-Albiol¹

¹Department or Psychobiology, University of Valencia (Spain)

²Department or Social Psychology, University of Valencia (Spain)

³Faculty of Health Science, International University of Valencia (Spain)

Abstract

Facial expressions have been posited as biologically primed responses to external emotional stimuli. It has been argued that a facial response aligned with the emotions of others would evidence good empathic functioning, predisposing adaptive social interactions. Previous research suggests that intimate partner violence against women (IPVAW) perpetrators display a misaligned expression pattern when facing women suffering (increased happy expressions, reduced sad expressions). However, the influence of significant IPVAW risk factors, such as sexism, on the emotional facial response of IPVAW perpetrators, as well as their impact on IPVAW prevalence, remains unclear. Our primary objective was to examine the emotional facial responses of two groups of IPVAW perpetrators (highly-sexist vs. less-sexist) when witnessing violence against women. Furthermore, we assessed the predictive capacity of their emotional facial response on the IPVAW prevalence. The present study included 55 IPV perpetrators from the IPVAW CONTEXTO program. The Ambivalent Sexism Inventory was employed to classify the offenders based on their sexist attitudes, resulting in two groups: 28 highly-sexist perpetrators and 27 less-sexist perpetrators. For the emotional induction task, two IPVAW scenes were selected from a validated battery of emotion-eliciting videos. Facial recognition was conducted using the 'Noldus FaceReader Software,' capable of detecting Ekman's six basic emotions: sadness, anger, disgust, fear, surprise, and happiness. Finally, prevalence of IPVAW psychological aggression, physical aggression, and severe violence was obtained through the Revised-Conflict Tactic Scale. Independent t-tests were performed to compare the registered facial responses between groups. Additionally, a linear regression model was constructed with emotional facial responses as the independent variables and IPVAW prevalence as the dependent variable. As a result, a greater facial expression of happiness was registered in highly-sexist perpetrators following the IPVAW emotional induction task in comparison to less-sexist perpetrators. Remarkably, a greater facial expression of happiness during the task predicted an increased prevalence of IPVAW physical aggression and severe violence. There was no other significant outcome. Our findings suggest a greater tendency among highly-sexist perpetrators to express positive emotions in response to women's suffering. Furthermore, a happy facial response to IPVAW scenes predicted the prevalence of IPVAW severe violence across all perpetrators. This result holds particular significance, as it implies that maladjusted socio-affective response patterns may stem from hostile cognitive patterns, such as derogatory attitudes towards women. Considering this, IPVAW interventions could benefit from approaches that emphasize addressing both sexism and emotional responses.

Keywords: IPVAW, emotional response, facial expressions, sexism, violence.

1. Introduction

The affective domain has been recognized as a pivotal factor in Intimate Partner Violence Against Women (IPVAW) and its diverse manifestations. Many IPVAW perpetrators report difficulties in identifying and expressing their own and others' emotions. Notably, these difficulties in emotional processing have been associated with deficiencies in empathy, a deficit that has been linked to misadjusted behavioral regulation (Romero-Martínez et al., 2021). In this regard, the pattern of emotional facial response to the emotions of others could be of special interest for the study of IPVAW, as it plays an important role in social cognition (Hess & Fischer, 2022). Emotional facial expressions are conceived as biologically primed automatic responses to external emotional cues (Ekman, 1993). It has been

postulated that individuals emotionally mimic when engaged in others' emotions, suggesting that facial expressions may reflect individual affective response (Holland et al., 2021). Notably, the literature has suggested that individuals with a higher prevalence of violent behaviors may exhibit reduced emotional mimicry when exposed to others experiencing negative emotions (de Wied et al., 2012). Expanding on this research, Fanti et al. (2017) assessed the emotional facial response pattern among violent individuals using the FaceReader software, a facial coding program that categorizes individuals' facial expressions into six basic emotions. As a result, they observed that violent individuals displayed reduced facial reactions of sadness in response to violent films. These authors linked the restricted display of negative facial responses to a low concern towards the negative feelings of victims. However, to the best of our knowledge, no study has addressed emotional facial expressions in IPVAW perpetrators in the context of witnessing women's suffering. In this regard, the influence of significant risk factors for IPVAW, such as demeaning attitudes toward women (i.e., sexism), on emotional facial processing and IPVAW prevalence remains unclear. Hence, the objective of this study was twofold. First, our primary goal was to examine the emotional facial responses of two groups of IPVAW perpetrators (highly sexist vs. less sexist) when witnessing violence against women. Sexism has been related to reduced empathy towards women suffering (Garaigordobil, 2014). Therefore, we expected highly sexist IPVAW perpetrators to exhibit reduced facial expressions of negative emotions when exposed to IPVAW. Furthermore, we assessed the predictive capacity of their emotional facial response on IPVAW prevalence. We anticipate that maladjusted emotional facial expressions will predict IPVAW prevalence (Fanti et al., 2017).

2. Methods

2.1. Participants

The sample consisted of 55 IPVAW perpetrators. The Ambivalent Sexism Inventory (Glick & Fiske, 1997) was employed to categorize the offenders based on their sexist attitudes, resulting in two groups: 28 highly sexist perpetrators and 27 less sexist perpetrators. IPVAW perpetrators were recruited from the CONTEXTO Program at the University of Valencia, a community-based intervention program for men convicted of gender-based violence for up to 2 years (suspended under mandatory program attendance). Recruitment was completed before the intervention program. Inclusion criteria for all participants included: having been sentenced for IPVAW, the absence of mental or neurological disorders, and proficiency in both written and spoken Spanish.

2.2. Procedure

First, the Revised Conflict Tactics Scale (Straus et al., 1996) was administered to assess the prevalence of IPVAW. Then, the Noldus FaceReader 6.1 software (Noldus Information Technology, 2015) was programmed and calibrated for the online recording of participants' facial expressions. FaceReader 6.1 is a program for facial analysis that can detect the emotional valence and identify Ekman' six basic emotions: sadness, anger, disgust, fear, surprise and happiness. Once calibrated, a Spanish-validated battery of emotion-inducing videos (Fernández-Megías et al., 2011) was employed for the empathic induction task. From this battery, two IPVAW-focused clips were selected based on their high negative affect. Prior to visualization, participants were instructed to actively empathize with the victim in each scene. After visualization, participants had to relax for one minute before viewing the next scene.

2.3. Data analysis

T-tests were performed to assess group differences between highly-sexist perpetrators and less-sexist perpetrators for registered emotional facial expressions. Additionally, a linear regression model was constructed using the total scores of the registered facial expressions as independent variables and the CTS-2 as the dependent variable. Data analyses were conducted using IBM SPSS Statistics for Windows, version 28.0 (Armonk, NY). Values of p < .05 were considered statistically significant.

3. Results

The analysis performed for emotional facial expressions revealed that highly-sexist IPVAW perpetrators reported higher registration of happy facial expression compared to less-sexist IPVAW perpetrators (highly-sexist IPVAW perpetrators, M = 1.64, SE = 2.66; less-sexist IPVAW perpetrators, M = 0.13, SE = 0.67; t (30.6) = -2.903, p = .007). No other significant difference between groups was found.

Regarding the regression analysis, the registration of happy facial expression predicted the 11.8% of the variance for physical IPVAW prevalence ($adj\ R^2=.079,\ F\ (1,\ 54)=5.626,\ p=.021,\ \beta=.310$). Additionally, the registration happy facial expression also predicted 11.8% of the variance for severe IPVAW violence ($adj\ R^2=.060,\ F\ (1,\ 54)=4.422,\ p=.040,\ \beta=.277$). No other significant model was found.

4. Discussion

Current research indicates that challenges in emotional processing have significant implications for IPVAW behaviors. In this context, it has been demonstrated that cognitive patterns favorable to violence, such as sexism, influence the emotional processing of individuals. Accordingly, out results reveal that highly-sexist IPVAW perpetrators also exhibited a distinct facial emotion response pattern compared to a less-sexist IPVAW perpetrators when observing IPVAW. Specifically, those perpetrators who scored high in sexism were characterized by a greater display of happiness in their facial expressions when witnessing IPVAW victims. Furthermore, a higher facial display of happiness predicted a higher prevalence of physical and severe violence in this population.

According to Holland et al., (2021), individuals engage in automatic facial mimicry when observing the expressions of others, and adjusted facial mimicry is positively associated with affective empathy. Nevertheless, sexism has consistently predicted negative evaluations of women, resulting in a maladjusted emotional response to them (Bosson et al., 2010). Indeed, current findings have exposed that individuals integrating hostile sexism score low in the global capacity for empathy, both cognitive and affective empathy (Garaigordobil, 2014). In conclusion, our results suggest that highly-sexist IPVAW perpetrators display a misaligned facial expression pattern (i.e., a higher prevalence of happiness facial expression) when viewing women suffering, and it is related to IPVAW prevalence. Considering this, the variation in their facial expressions could be relevant when adapting interventions. For example, IPVAW perpetrators could benefit from interventions that emphasize emotional processing, focusing on adjusting their cognitive schemas toward women. Ultimately, enhancing socioaffective functioning may serve as a mechanism to reduce IPVAW.

Acknowledgments

The Spanish Ministry of Science and Innovation and The Spanish State Research Agency, grant number PID2019-111412RB-I00, The Spanish Ministry of Health, Consume and Social Services, grant number PND2018/021, The Valencian Government of Science, grant number GV/2021/161 and AICO/2020/052 and the Prometeo Program for research groups of excellence of the Ministry of Innovation, Universities, Science and Digital Society of the Generalitat Valenciana (CIPROM/2021/46).

References

- Bosson, J. K., Pinel, E. C., & Vandello, J. A. (2010). The emotional impact of ambivalent sexism: Forecasts versus real experiences. *Sex Roles*, 62, 520-531.
- de Wied, M., van Boxtel, A., Matthys, W., & Meeus, W. (2012). Verbal, facial and autonomic responses to empathy-eliciting film clips by disruptive male adolescents with high versus low callous-unemotional traits. *Journal of abnormal child psychology*, 40(2), 211-223.
- Ekman, P. (1993). Facial expression and emotion. American psychologist, 48(4), 384-392.
- Fanti, K. A., Kyranides, M. N., & Panayiotou, G. (2017). Facial reactions to violent and comedy films: Association with callous—unemotional traits and impulsive aggression. *Cognition and emotion*, 31(2), 209-224.
- Garaigordobil, M. (2014). Sexism and empathy: Differences as a function of sociodemographic variables and relations between both constructs. In A. M. Columbus (Ed.), *Advances in psychology research* (pp. 59–80). Nova Science Publishers.
- Glick, P., & Fiske, S. T. (1997). Hostile and benevolent sexism: Measuring ambivalent sexist attitudes toward women. *Psychology of Women Quarterly*, 21(1), 119-135.
- Hess, U., & Fischer, A. (2022). Emotional mimicry as social regulator: theoretical considerations. *Cognition and Emotion*, 36(5), 785-793.
- Holland, A. C., O'Connell, G., & Dziobek, I. (2021). Facial mimicry, empathy, and emotion recognition: A meta-analysis of correlations. *Cognition and Emotion*, *35*(1), 150-168.
- Megías, C. F., Mateos, J. C. P., Ribaudi, J. S., & Fernández-Abascal, E. G. (2011). Validación española de una batería de películas para inducir emociones. *Psicothema*, 23(4), 778-785.
- Romero-Martínez, Á., Lila, M., & Moya-Albiol, L. (2021). Alexithymic traits are closely related to impulsivity and cognitive and empathic dysfunctions in intimate partner violence perpetrators: New targets for intervention. *Applied Neuropsychology: Adult*, 28(1), 71-79.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S. U. E., & Sugarman, D. B. (1996). The revised conflict tactics scales (CTS2) development and preliminary psychometric data. *Journal of family issues*, 17(3), 283-316.