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Towards an Integrated Understanding of Aggression in the General Population: Findings from an Epidemiological Catchment Area Study

Marichelle C. Leclair[1-2], Andrea Reyes[1], Laurence Roy[1-3], Jean Caron[1-3] & Anne G. Crocker[2-4]

[1] McGill University (845 Sherbrooke St. W., Montréal (QC) Canada, H3A 2T5)

[2] Institut Philippe-Pinel de Montréal (10 905 Henri-Bourassa East blvd, Montréal (QC) Canada, H1C 1H1)

[3] Douglas Mental Health University Institute (6875 LaSalle blvd, Montréal (QC) Canada, H4H 1R3)

[4] Université de Montréal (2900 Edouard-Montpetit blvd, Montréal (QC) Canada, H3T 1J4)

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Corresponding author: Marichelle Leclair, marichelle.leclair@umontreal.ca, (514) 953-4697, Institut Philippe Pinel de Montréal, 10 905 Henri-Bourassa East blvd., Montréal (QC) Canada, H1C 1H1

Authors' email : andrea.reyesayllon@mail.mcgill.ca; laurence.roy@mcgill.ca;

jean.caron@mcgill.ca; anne.crocker@umontreal.ca

Highlights (for review)

- A typological approach offers an integrated perspective on aggression
- 4 qualitatively distinct aggression profiles are found in the general population
- Findings shed light on where efforts towards prevention/detection should be prioritized
- Results speak to the importance of early intervention in natural environments

Abstract

The goal of this study is to identify patterns of various forms of aggression in the general population and their psychosocial and environmental correlates. Data from the Montreal Epidemiological Catchment Area study (N=1,855) were analyzed using latent class analysis and multinomial logistic regression. Four classes were identified: a 'Low Aggression' profile (91.4%) – individuals were older, more likely to be women, and had greater quality of life – and three profiles with individuals displaying aggression. The 'Acting out' profile (4.3%) reported property and mild verbal aggression, and profile membership was associated with impulsivity. The 'Violent' profile (2.0%) reported severe verbal aggression and physical aggression, and membership was associated with posttraumatic stress disorder and substance use disorders. Finally, the 'Self-injuring' profile (2.2%) reported self-harming behaviors along with mild verbal aggression and property destruction and were psychologically distressed. Findings are consistent with the risk factors in violence risk assessment instruments. They also shed light on how different types of aggression are interrelated and may help in the development of a psychological formulation of individuals for whom different types of aggression co-occur so that integrated prevention strategies may be put in place.

KEYWORDS: aggression, risk factors, mental health, impulsive behavior, risk assessment, epidemiologic studies

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1 - Introduction

Despite epidemiological evidence that different forms of aggression co-occur to a greater extent than what chance would predict (O'Donnell, House, & Waterman, 2015) and pleas for an integrated approach (Lubell & Vetter, 2006; Wilkins, Myers, Kuehl, Bauman, & Hertz, 2018), research on aggression in the general population has until recently addressed different forms of aggression in a siloed and linear approach. This strategy has resulted in generating extensive knowledge regarding risk factors for each form of aggression, but very little understanding in how they are interrelated when different forms of aggressive behaviors co-occur.

Systematic reviews and epidemiological studies have identified common risk factors for physical aggression, verbal aggression, property destruction and self-harm, including substance misuse (verbal, physical, self-harm); depression and psychological distress (physical, self-harm); experience of trauma or abuse (physical, self-harm); neighborhood disadvantage (physical, self-harm) in various populations, and against various victims (Black, Slep, & Heyman, 2001; Capaldi, Knoble, Shortt, & Kim, 2012; Chang, Wang, & Tsai, 2016; Coulton, Crampton, Irwin, Spilsbury, & Korbin, 2007; Fliege, Lee, Grimm, & Klapp, 2009; McLean, Maxwell, Platt, Harris, & Jepson, 2008; Schumacher, Slep, & Heyman, 2001; Wells, Graham, & West, 2000). This overlap in risk factors suggests that various aggressive behaviors share underlying etiological mechanisms which may be best explored by identifying patterns of co-occurrence.

Research on aggression in clinical populations has already moved towards exploring the causes and correlates of aggression using more comprehensive approaches such as multivariate correspondence analysis and latent class analysis (Crocker, Mercier, Allaire, & Roy, 2007;

Dumais et al., 2011; Joyal, Côté, Meloche, & Hodgins, 2011; Moulin et al., 2017). This typological approach has not yet been attempted in the general population but could yield important results regarding prediction of risk and potential prevention strategies. Our current understanding of aggression does not reflect the complex interrelations of shared risk and protective factors. Empirically identifying patterns, or profiles, of different forms of aggression may help to understand ways in which different types of aggression are connected; to develop a psychological formulation of individuals for whom different types of aggression co-occur; and to identify prevention strategies that go above and beyond the historical siloes.

The objective of this study is to identify profiles of aggressive behavior, and their psychosocial and environmental correlates, in the general population. We hypothesized that the largest group would be constituted of individuals with very low severity of all types of aggression, if any. We had no a priori prediction of the number of profiles but expected to find qualitatively different profiles in type and severity of aggressive behavior. We expected individuals in aggression-prone profiles to present more complex psychosocial situations and increased social disadvantage than the profile with low aggression.

2 - Methods

2.1 - Research Design and Participants

This study is part of a larger Epidemiological Catchment Area study in the Southwest of Montreal, Canada. Participants were randomly selected from civic addresses in the geographic area to obtain a representative sample of the population between 15 and 65 years old at the time of recruitment. Because of the availability of relevant data regarding aggression and risk factors, analyses for the current study were carried out using cross-sectional data from the fourth cycle of interviews for cohort 1 (recruited in 2007-2008; n=1,095) and the second cycle for cohort 2

(newly recruited participants in 2012-2013 to maintain the representativeness of the sample due to attrition; n=776). Residents were interviewed in person in 2014-2015. All participants provided signed informed consent. For a detailed description of the research design and procedures, see -BLINDED-. The project was approved by the -BLINDED- Research Ethics Committee.

Participants with missing data (n=16) on three or more types of aggression were excluded, for a final sample of 1,855 participants. Table 1 describes the sociodemographic characteristics of the sample, and eTable 1 in the online supplement compares the cohorts on these characteristics.

TABLE 1

2.2 - Measures

The display of four types of aggressive behaviors (verbal, physical, destruction of property, self-harm) in the prior year was assessed using the Modified Overt Aggression Scale (inter-rater reliability=0.85-0.94) (Kay, Wolkenfeld, & Murrill, 1988). Participants were invited to answer the questions on their own but could have the questionnaire administered by the interviewer if they preferred. Four levels of severity for each type of aggression were assessed, for a total of 16 items. eTable 2 describes the behaviors included. For each type of aggression, a severity score was attributed, with a possible range of 0 (no behaviors in the prior year) to 4 (presence of behaviors of the highest level of severity in the prior year).

Potential correlated variables were collected during the same interview through questionnaires administered by trained interviewers. Self-reported sociodemographic and economic variables were collected using the Canadian Community Health Survey (CCHS 1.2) (Statistics Canada, 2002). Household income was considered ‘low’ when lower than 50% of the

median level, adjusted for the number of adults and children. Psychiatric diagnoses in the past year (depression, posttraumatic stress disorder (PTSD), alcohol and drug use disorder) were assessed using the CCHS 1.2 adaptation of the Composite International Diagnostic Interview short-form (overall classification accuracy between 93% and 99%) (Kessler, Andrews, & Mroczek, 1998), while psychological distress was measured using the K-10 scale (10 items, α=0.93, range: 0-40) (Kessler et al., 2003). Impulsivity was measured using the Barratt Impulsiveness Scale-11a (30 items, α=0.79, range: 30-120) (Patton, Stanford, & Barratt, 1995; Weinstein, Crocker, Reyes, & Caron, 2015). Perceived quality of life was assessed using the Satisfaction with Life Domains Scale (20 items, α=0.92, range: 20-140) (Baker & Intaglia, 1982; Caron, Mercier, & Tempier, 1997). Finally, perceived neighborhood unsafety due to crime was assessed using the International Physical Activity Questionnaire (2 relevant items, α=0.71, range: 2-8) (Alexander, Bergman, Hagströmer, & Sjöström, 2006), while theft victimization in the past year was assessed using an item from the Life events questionnaire ('In the prior 12 months, have you been victim of a theft?') (Laurin, 1998).

2.3 - Analytic Procedure

First, we conducted a latent class analysis (LCA) with the following indicator variables: severity level of (1) verbal aggression; (2) physical aggression; (3) property destruction; and (4) self-harm. We investigated the plausibility of a 2 to 6-class solution and selected the model based on theoretical interpretation and the following fit indices: entropy (>.80), the Bayesian Information Criterion (lowest preferred), and the Bootstrapped Likelihood Ratio Test (significant *p*-value desired) (Nylund, Asparouhov, & Muthén, 2007). Because the sample was representative of the general population, we expected relatively small classes, which the large sample size permitted. We did not reject solutions based solely on class sizes, providing that classes were

qualitatively distinct and meaningful. Second, we ran a multivariate multinomial logistic regression to identify factors that were associated with profiles.

3 - Results

3.1 - Latent Class Analysis

Table 2 shows the fit indices for 2- to 6-class models. Based on recommended guidelines, model identification, and interpretability (i.e., qualitatively different classes), the 4-class model was selected (see Figure 1). Class-1 was the largest (n=1696, 91.4%), with no or very low severity of verbal aggression and no behaviors for all other types of aggression (label: 'Low Aggression'). Class-2 (n=80, 4.3%) was comprised of participants that displayed mild verbal aggression and property destruction (label: 'Acting out'). On average, they would, for example, throw objects around and kick furniture, sometimes breaking objects, as well as shout angrily and insult people, sometimes severely. Class-3 (n=38, 2.0%) displayed a high severity of both verbal aggression and physical aggression, with some property destruction (label: 'Violent'). On average, they would push and strike others, potentially causing injury, as well as have severe temper outbursts. Finally, Class-4 (n=41, 2.2%) displayed a high severity of self-harm (on average, banging head against the wall or inflicting cuts, bruises, and burns), along with mild verbal aggression and property destruction (label: 'Self-injuring') . The 4-class model was selected over the 3-class model because of better fit indices and because it allowed the emergence of an 'Acting out' profile, otherwise embedded within the 'Low Aggression' profile. Model identification was not attained for solutions with 5 and 6 classes.

TABLE 2-FIGURE 1

3.2 - Profile Correlates

Table 3 presents characteristics of the profiles. The multinomial logistic regression (see Table 4) suggests that income, perception of neighborhood safety, and depression were unrelated to profiles. Individuals belonging to the 'Low aggression' were older than all other profiles, as well as more likely to be women and reported a better quality of life than most other profiles.

3.2.1 – 'Acting out'

Individuals belonging to the 'Acting out' profile were younger, less likely to be women, potentially more impulsive and with a lower quality of life than individuals belonging to the 'Low aggression' profile. For every standard deviation unit decrease in perceived quality of life and every standard deviation unit increase in impulsivity, the risk of membership to the 'Acting out' profile compared to the 'Low Aggression' profile increased by about 30% – however, the limits of the confidence intervals approached 1, suggesting that there could be very little association. Due to rare occurrences, theft victimization yielded an imprecise confidence interval, but the effect size suggests that there could be a relevant association with belonging to the 'Acting out' profile. PTSD, substance use disorders and psychological distress were not associated with the profile.

3.2.2 – 'Violent'

Individuals belonging in the 'Violent' profile were younger, about 6 times more likely to have PTSD, about 3 times more likely to have an alcohol use disorder, and about 5 times more likely to have a drug use disorder compared to individuals in the 'Low Aggression' profile. In addition, every standard deviation unit decrease in perceived quality of life was associated with a 44% increase in the risk of membership to the 'Violent' profile. Gender, psychological distress, impulsivity, and theft victimization were not associated with the profile.

3.2.3 – 'Self-injuring'

Finally, individuals from the 'Self-injuring' profile were similar to individuals from the 'Low Aggression' profile, with the exception that they were younger, more likely to be men and showed greater psychological distress: for every standard deviation unit increase in psychological distress, the risk of membership to the 'Self-injuring' profile increased by over 50%. The lower limit of the confidence interval was however equal to 1, suggesting that there could be no real association. PTSD, substance use disorders, impulsivity, quality of life and theft victimization were not associated with the profile.

TABLES 3-4

4 - Discussion

This study used the severity of verbal aggression, physical aggression, property destruction and self-harm to identify subgroups of persons in the general population and clarify the complex relation between co-occuring forms of aggression and their correlates. Although this study has replicated many known psychosocial and environmental correlates, it is novel in that we used a typological rather than linear approach, therefore offering a more integrated perspective.

Four distinct profiles emerged: one large profile comprising individuals displaying low aggression, and three profiles of individuals presenting different patterns of aggression. The 'Acting out' profile represented individuals whose aggressive behavior was targeted towards objects or took the form of angry shouting and insults. Impulsivity emerged as an important correlate, suggesting that these individuals are highly reactive and respond to daily frustrations through non-violent aggression. A similar aggression profile has already been suggested among individuals with severe mental illness (Dubreucq, Joyal, & Millaud, 2005) and among individuals with intellectual disabilities (Crocker et al., 2007). Impulsivity has been shown to

play a crucial part in the adult externalizing spectrum, including through relational aggression and property destruction (Krueger, Markon, Patrick, Benning, & Kramer, 2007). Theft victimization was too rare to yield precise confidence intervals, but the relative risk ratio suggests that those who were victim of a theft could be two times as likely to belong to the 'Acting out' profile (95% CI: 0.96, 4.38). The literature suggests that being victimized may result in the development of suspicion and mistrust, leading individuals to being more anxious and more prompt to react to frustrations (Hodgins, Cree, Alderton, & Mak, 2008). Because the data presented here is cross-sectional, this could also suggest that impulsivity increases one's risk of acting out and of having one's possessions stolen through increased exposure to offenders and risk taking behaviors. For example, a study on risk factors of online consumer fraud victimization (Van Wilsem, 2013) found that impulsive people were at increased risk of victimization both because of increased exposure to offenders through increased internet activity and because of risk taking, lack of preventive behavior and lack of consideration to consequences. Knowing more about the circumstances of the theft victimization could shed light on the potential role of impulsivity in the current study. A longer duration of follow-up would also allow for more theft events to occur and would most likely result in a more precise confidence interval.

The 'Violent' profile represented individuals who reported a high severity of both verbal aggression and physical aggression, with severe temper outbursts as well as pushing and striking others, sometimes resulting in injury. This group showed the expected risk factors of substance use disorders, which are amongst the most important predictors of violence (Swanson, Holzer, Ganju, & Jono, 1990). The concomitance of violence, substance use disorder, and PTSD within the same profile highlights the intricate relationship between exposure to traumatic events,

substance abuse and aggression. Perkonnig et al. (2000) found that one-third of PTSD cases are preceded by other disorders, such as alcohol and drug use disorder, that increase the risk of exposure to traumatic events or of developing threshold PTSD as a result. For the other two thirds, however, psychopathologies follow trauma exposure and PTSD, potentially as an attempt to self-medicate. Specific responses to trauma, notably posttraumatic anger and self-medication through alcohol, may be accountable for the increase in physical aggression (Blakey, Love, Lindquist, Beckham, & Elbogen, 2018). The DSM-5 criterion for PTSD may also explain part of the association. Indeed, a required criterion involves trauma-related arousal and reactivity, which may take the form of physical and verbal aggression towards people and objects.

Finally, the 'Self-injuring' profile represented individuals who engaged in important self-harming behaviors, but also mild verbal aggression and property destruction, which is in line with the finding of a systematic review of the literature that self-harm frequently co-occurs with other forms of aggression (O'Donnell et al., 2015). The finding that individuals who belong to the 'Self-injuring' profile experience greater psychological distress is unsurprising given the extensive literature on the subject (Fox et al., 2015). A systematic review highlighted that the most frequently reported explanation for engaging in self-harm was managing distress or regulating affect, and the idea of transposing emotional pain into physical pain (Edmondson, Brennan, & House, 2016). What is more surprising however is the overrepresentation of men in this profile, which runs counter to the literature. A recent meta-analysis found that, in community samples, women were 1.5 times more likely than men to engage in non-suicidal self-injury (Bresin & Schoenleber, 2015). When examining our data more closely, we found that men were four times as likely as women to engage in level 2 behaviors, such as banging the head and hitting fists into walls (3.8% [2.4-5.2%] vs. 1.0% [0.4-1.6%]), while men and women engaged in

other self-harming behaviors at relatively similar rates. This is in line with findings from the same meta-analysis that suggests that self-hitting and banging the head are methods that are privileged by men (Bresin & Schoenleber, 2015). It also highlights the overlap between certain self-harming behaviors, such as hitting fists into walls, and property destruction.

In our sample, low income and perception of neighborhood safety did not distinguish the profiles. These findings contrast previous studies that identify neighborhood factors as predictors of aggression. This could be an artifact of the sampling strategy, where all participants live in neighborhoods of fairly homogenous safety. Furthermore, perception of neighborhood safety due to crime is highly subjective and has been found not to be associated with the actual crime rates of a neighborhood (Scarborough, Like-Haislip, Novak, Lucas, & Alarid, 2010). Our measure for neighborhood factor may thus be an inadequate proxy for social disadvantage.

Lower quality of life was a significant correlate of the 'Acting out' and 'Violent' profile compared to 'Low aggression'. The association of quality of life and aggression, and more specifically the impact of aggression on the quality of life of the perpetrator, has not been the subject of much research. Future studies could examine the role of quality of life in the trajectories of aggression.

4.1 - Implications

Overall, identifying and understanding profiles of aggression in the general population helps shed light on where efforts towards detection and prevention of aggressive behaviours should be prioritized, as well as strategies for early intervention and support of groups most likely to display aggression towards themselves or others. First, the gender difference in profiles of aggression should be echoed in detection, prevention and early intervention strategies. As boys and men are less likely to seek psychosocial and mental health services than women, our

results speak to the importance of providing resources in natural environments such as schools and workplaces from a violence prevention perspective. Whether in health promotion or primary care settings, our results add to the emerging literature on the importance of trauma-informed services and, in some cases, trauma-specific interventions. For a subgroup of individuals who present with traumatic experiences, anger, aggression, and self-medication with alcohol, adopting comprehensive approaches like trauma-informed care alongside integrated substance use treatment may thus be most effective (Blakey et al., 2018; Dyer et al., 2009).

Individuals who display self-aggression do not tend to exhibit severe maladaptive behaviors that typically result in hospitalization or criminalization, such as physical violence. These individuals may thus often go under the radar and continue to engage in mild to moderately severe self-harming, which may then escalate to suicide attempts or suicide, without receiving appropriate services. Again, increased access to counselling and primary care mental health services may be appropriate for these individuals who experience psychological distress and mild to moderate symptoms.

4.2 - Limitations

Certain limitations must be considered when interpreting these results. First, we cannot infer causal relationships between correlates and aggression given the cross-sectional nature of the study. Second, although the Modified Overt Aggression Scale was self-administrated, it is possible that participants might self-censor given the sensitive nature of the questions. Third, the sampling methodology excluded all individuals who were without stable housing or institutionalized (e.g., corrections, hospitals, long-term care facilities). The sample may thus not be representative of the general population in terms of the most severe behaviors, most importantly suicide completers. Fourth, data on sexual aggression were not available. Finally, the

generalizability of the findings may be limited given that the sample provides from a specific epidemiological catchment area in Canada, with substantial ethnoracial homogeneity. The research should be replicated in samples from different populations.

5 - Conclusions

To our knowledge, this is the first study to examine typologies of various forms of aggression in the general population. This typology assists in moving towards an integrated understanding of aggression, above and beyond the siloed and linear approach privileged until recently. Various types of aggression co-occur within individuals, resulting in heterogeneous groups with distinct risk factors. While these risk factors were already known in the literature, their association with profiles of aggression had never been examined. These findings suggest that strategies to address aggression should be tailored to those profiles. The results reflect the risk factors put forward in the general violence risk assessment instruments, suggesting that violent individuals tend to abuse substances and evolve in environments at risk for exposure to traumatic events; that individuals who display property destruction and mild verbal aggression tend to be highly impulsive; and that individuals who engage in self-harm also report other types of aggression and are psychologically distressed.

This typology sheds light to potential prevention strategies for aggression in the general population and provides guidance for new research opportunities. More specifically, future studies should attempt to replicate the typology using longitudinal data and examining aggression in a more granular manner, by incorporating sexually aggressive behaviors and the context of the behavior in their analyses.

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Table 1

Sample description (mean and standard deviation or proportion)

	N=1855
Women	60.2%
Age	46.8(13.9)
Marital status	
Single	32.8%
Married/Common-law	48.7%
Separated/Divorced	15.6%
Widowed	2.8%
High School	88.8%
Born in Canada	77.9%
Primary language	
French	57.2%
English	20.7%
French+English	5.9%
Other	16.3%
White	83.9%
Household size	2.6(1.3)
Household income	$74,252($61,305)

Table 2

Fit indices for 2- to 6-class models

	2-class	3-class	4-class	5-class	6-class
BIC	8553.20	6913.49	6063.75	3009.20	1611.26
Entropy	1.000	1.000	0.998	0.998	0.999
Size of classes	1803 52	1776 49 30	1696 80 41 38	1694 93 30 24 14	1674 77 36 30 24 14
Model identification attained?	Yes	Yes	Yes	No	No

Note. BIC: Bayesian Information Criterion. All Bootstrapped Likelihood Ratio Tests significant at $p<.001$.

Table 3

Characteristics of Profiles (mean and standard deviation or proportion)

Variable	'Low aggression' (n=1696)	'Acting out' (n=80)	'Violent' (n=38)	'Self-injuring' (n=41)
Age	47.6(13.7)	40.4(12.6)	35.8(12.3)	37.4(14.4)
Women	61.4%	47.5%	55.3%	39.0%
Low income	21.3%	23.0%	35.1%	18.9%
Depression	6.3%	15.4%	10.5%	15.0%
Posttraumatic stress disorder	2.1%	2.5%	24.3%	12.5%
Alcohol abuse/dependence	3.2%	10.0%	23.7%	4.9%
Drug abuse/dependence	1.5%	3.8%	23.7%	10.0%
Psychological distress	7.44(5.84)	9.99(6.52)	11.87(8.21)	11.44(6.87)
Impulsivity	68.3(5.34)	70.1(5.51)	71.1(5.86)	70.3(5.48)
Quality of life	110.5(14.5)	104.2(14.1)	99.5(17.8)	103.4(15.0)
Neighborhood unsafety	3.42(1.24)	3.41(1.33)	3.53(1.48)	3.22(1.19)
Theft victimization	5.8%	12.5%	13.2%	12.2%

Table 4

Multivariate Multinomial Logistic Regression for the Identification of Profile Correlates

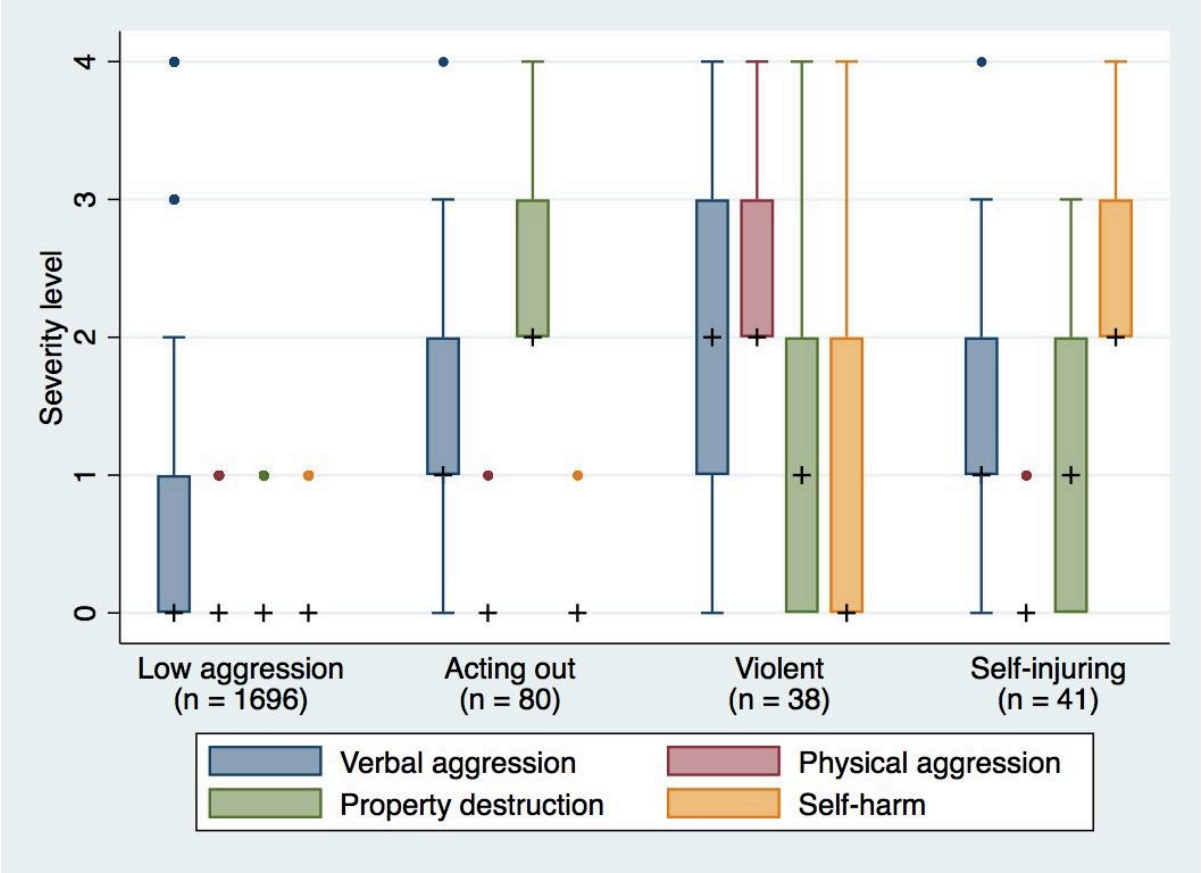
	'Acting out' compared with 'Low aggression'		'Violent' compared with 'Low aggression'		'Self-injuring' compared with 'Low aggression'	
Correlates	RRR	(95% CI)	RRR	(95% CI)	RRR	(95% CI)
Age	**0.97**	**(0.95–0.98)**	**0.94**	**(0.91–0.97)**	**0.95**	**(0.92–0.97)**
Women	**0.55**	**(0.33–0.91)**	0.72	(0.33–1.57)	**0.28**	**(0.13–0.61)**
Low income	0.80	(0.42–1.50)	1.38	(0.61–3.12)	0.39	(0.13–1.21)
Depression	1.63	(0.71–3.73)	0.26	(0.06–1.13)	0.91	(0.26–3.24)
Posttraumatic stress disorder	0.62	(0.13–2.91)	**5.65**	**(1.80–17.76)**	1.92	(0.39–9.47)
Alcohol abuse or dependence	1.21	(0.46–3.16)	**3.24**	**(1.22–8.62)**	0.68	(0.15–3.15)
Drug abuse or dependence	1.25	(0.34–4.60)	**5.42**	**(1.89–15.60)**	1.60	(0.32–7.87)
Psychological distress$_{STD}$	1.13	(0.84–1.52)	1.22	(0.77–1.92)	**1.53**	**(1.00–2.33)**
Impulsivity$_{STD}$	**1.31**	**(1.03–1.67)**	1.17	(0.82–1.68)	1.27	(0.89–1.81)
Quality of life$_{STD}$	**0.71**	**(0.53–0.95)**	**0.56**	**(0.36–0.86)**	0.75	(0.49–1.16)
Neighborhood unsafety	1.00	(0.81–1.22)	0.91	(0.67–1.23)	0.82	(0.59–1.14)

Theft victimization	2.04	(0.96–4.38)	1.84	(0.62–5.49)	1.40	(0.40–4.87)

Note. RRR: relative risk ratios; $_{STD}$: standardized variables; boldface: $p<.05$.

Figure 1

Box plot displaying the distribution of severity level for each type of aggression by profiles



Note. '+': median; boxes: interquartile range (IQR); dots: outliers (beyond 1.5 x IQR).

Online supplement

eTable 1

Sample description (mean and standard deviation or proportion), by cohort

	Cohort 1 n=1084	Cohort 2 n=771
Women	63.8%	55.1%
Age	50.8(12.6)	41.2(13.8)
Marital status		
Single	27.4%	40.4%
Married/Common-law	50.2%	46.7%
Separated/Divorced	18.9%	11.1%
Widowed	3.5%	1.8%
High School	88.7%	89.0%
Born in Canada	78.4%	77.1%
Primary language		
French	57.3%	57.2%
English	20.3%	21.2%
French+English	6.4%	5.1%
Other	16.0%	16.6%
White	85.2%	82.1%
Household size	2.5(1.4)	2.6(1.3)
Household income	$76,213($64,855)	$71,449($55,768)

Note. Cohort 2 was recruited to maintain the representativeness of the sample. Because attrition in Cohort 1 was related to gender and age, for example, a greater proportion of men and younger participants were recruited in Cohort 2.

eTable 2

Aggressive Behaviors Included, by Level of Severity

Type of aggression	Behaviors by level of severity
Verbal aggression	Level 1: shouting angrily, cursing mildly, insulting; Level 2: Cursing viciously, being severely insulting, having temper outbursts; Level 3: making impulsive threats of violence; Level 4: making repeated or deliberate threats of violence.
Physical aggression	Level 1: making menacing gestures, swinging at people, grabbing at clothing; Level 2: striking, pushing, scratching others; pulling hair of others; Level 3: attacking others, causing mild injury; Level 4: attacking others, causing serious injury.
Property destruction	Level 1: slamming doors, ripping clothing, urinating on floor; Level 2: throwing objects down, kicking furniture, defacing walls; Level 3: breaking objects, smashing windows; Level 4: setting fires, throwing objects dangerously.
Self-harm	Level 1: Picking or scratching skin, pulling hair out, hitting self (without injury); Level 2: banging head, hitting fists into walls, throwing self onto floor; Level 3: inflicting minor cuts, bruises, burns;

Level 4: inflicting major injury, making a suicide attempt.