ORIGINAL ARTICLE

Prevalence and Patterns of Intimate Partner Violence in a Nationally Representative Sample in Lithuania

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Abstract

This representative study examines the prevalence of psychological, economic, physical, or sexual intimate partner violence (IPV), the main patterns of IPV exposure, and the interconnections between IPV and socio-demographic characteristics. The participants of the current cross-sectional study were 1173 women from a nationally representative survey. The data were collected using in-person interviews. The reported lifetime prevalence of any IPV (physical, sexual, psychological, and economic abuse) in Lithuania is 51.2%. For women who experienced abuse, the lifetime prevalence of psychological, economic, physical, and sexual IPV is 50.1%, 29.9%, 21.5%, and 16.9%, respectively. Of those victims, 57.1% had experienced IPV in the past year. Younger women (≤ 60 years), being separated or divorced, being economically disadvantaged, living in rural areas, and those who had experienced violence in their childhood are more likely to have experienced IPV during the past 12 months. Five different patterns of exposure to violence were identified: *nearly absent IPV, psychological-only IPV, psychological/physical IPV, high sexual IPV, and high overall IPV*. Comparison of the women belonging to different clusters differed from each other on the type of partner relationship, household income, area of residency, and childhood violence exposure. Findings of this study make a unique contribution to the existing literature by identifying multiple risk factors associated with various types and patterns of IPV that to date, had not yet been comprehensively analyzed in the IPV literature. Implications for future research and policy are discussed.

Keywords Psychological violence · Economic violence · Physical violence · Sexual violence · Intimate partner violence (IPV) · Socio-demographic characteristics

Introduction

Violence against women, and particularly intimate partner violence (IPV), is a serious and complex public health issue affecting not only the women who directly experience violence, but the wider community as well. IPV is conceptualized as "behavior by an intimate partner or ex-partner that causes physical, sexual, or psychological harm, including physical aggression, sexual coercion, psychological abuse, and control-

ling behaviors" (García-Moreno et al. 2013, p. 74). Intimate partner violence causes mental and physical health problems and affects the social well-being (Ellsberg et al. 2008; Dillon et al. 2013) of women from all social backgrounds and of different ages (Heise and Kotsadam 2015). Many studies have shown that IPV is a leading cause of homicide death of women (Catalano et al. 2009; Stöckl et al. 2013) and is associated with increased levels of emotional distress, depression, suicidal thoughts and suicidal attempts (Ellsberg et al. 2008; Devries et al. 2013a).

A number of studies, conducted in different countries, have analyzed the prevalence of different forms of IPV (Devries et al. 2013b; Krug et al. 2002). Their findings revealed that globally, about one third of women aged 15 and over were exposed to physical and/or sexual IPV during their lifetime. However, considerable regional variation in the prevalence of physical and/or sexual violence has been noted, both between different European regions and between high- and low-income countries across the world (World Health Organization 2013).

Furthermore, most studies that assess the prevalence of IPV experienced by ever-partnered women have evaluated the prevalence of physical and/or sexual violence by intimate partners (Devries et al. 2013b). However, a smaller number of studies have addressed other forms of IPV. Furthermore, little research has been conducted to examine the co-occurrence of physical, psychological, sexual, and economic violence, and their associations with socio-economic factors.

The full extent of prevalence of different forms of IPV is difficult to estimate. In Lithuania, the *Law on the Protection from domestic violence* was passed in 2011. This increased number of reported cases of IPV, however, violence against women continues to be underreported, meaning that what appears in official statistics on IPV is only a fraction of the reality. Until now, only one population survey has been conducted in Lithuania during the European-Union wide survey (European Union Agency for Fundamental Rights [FRA] 2014), however, this survey hasn't addressed co-occurrence of different forms of IPV. Therefore, this study aims to investigate the prevalence of different forms of IPV, to identify the main patterns of IPV exposure and to examine the interconnections between IPV and socio-demographic characteristics in a representative sample of Lithuanian women. The study aims are presented in more detail after the literature review given in the next section.

Prevalence

Physical, sexual, psychological, or economic IPV may be conducted by a current or former intimate partner, irrespective of the sex of the partner (Barnett et al. 2005). Physical violence refers to intentional physical actions intended to cause death, disability, harm or injury (Breiding et al. 2015b). In the context of IPV, sexual violence is defined as an attempted or committed act with sexual intentions without the freely given consent of the victim (Breiding et al. 2015b). Findings from the analysis of the 141 studies on IPV show that globally, in 2010, 30% of women aged 15 and over have experienced physical and/or sexual violence during their lifetime, with the highest prevalence in African, Eastern Mediterranean and South-East Asian regions and second highest prevalence reported in Region of the Americas (Devries et al. 2013b; García-Moreno et al. 2013). In a survey of 24 European countries (FRA 2014), 42,000 women were interviewed about their experience(s) of violence, ranging from IPV through to sexual harassment, committed by their current or former partner. The results showed that overall, 22% of women reported having experienced physical and/or sexual violence in their current or previous relationship (FRA 2014). According to the FRA survey, Lithuania belongs to a group of countries where the lifetime prevalence of women experiencing physical and/or sexual partner violence is 20% to 29% (FRA 2014). In other studies, the 12-month prevalence of physical and/or sexual

intimate partner violence was found to be 2.9% for sexual violence in the US (Breiding et al. 2015a), 3.1% for physical and 0.4% for sexual violence in rural Australia (Lockie 2011), 4% for physical and 2% for sexual violence in Saudi Arabia (Barnawi 2017), 7.5% for physical and 2.8% for sexual violence in Sweden (Lövestad et al. 2017), and almost 27% for physical and/or sexual IPV in Tanzania (Kapiga et al. 2017). These results show that the prevalence of physical and/or sexual violence in most of the regions is relatively high; however, the range of prevalence rates across different countries varies.

A growing number of population-based surveys have measured the prevalence of other two forms of IPV, namely economic and psychological abuse (WHO 2012). However, economic violence is rarely measured separately; instead, this type of violence is often included in controlling behaviors. Economic abuse is used by perpetrators to control and monitor their victims' use and distribution of financial resources, threatening the economic security and financial independence of the victim (Miskulin et al. 2018; Adams et al. 2008). Results from various studies indicate that the lifetime economic violence prevalence varies from 14% in the US (Voth Schrag 2015) and almost 16% in Australia (Kutin et al. 2017) to 21% in the UK (Sharp-Jeffs 2015).

Psychological violence, often called emotional abuse refers to the use of various behaviors intended to humiliate and control another individual in public or in private (Follingstad and Dehart 2000). In a study conducted in Thailand, different types of psychological violence were experienced by 7.5% to 15.4% of women over their lifetime (Chuemchit et al. 2018). Similar results were found in a study conducted in a representative sample in the US, where psychological IPV alone was experienced by 12.1% of women (Coker et al. 2002). Moreover, 7% of women reported experiencing psychological violence in Spain within last 12-months (Zorrilla et al. 2009). Furthermore, in a more recent study conducted in Sweden, the 12-months prevalence of psychological violence was reported by 25% of women (Lövestad et al. 2017). These results show that other, often non-physical, forms of IPV are widely prevalent and should be considered equally as important as physical and/or sexual forms of violence against women.

In the context of IPV, different forms of violence can sometimes coexist in the same relationship making the violence more complex and intense (Thompson et al. 2006; Krug et al. 2002). Findings indicate that physical and sexual violence are often reported in combination with psychological violence (Lövestad et al. 2017; Pico-Alfonso et al. 2006). However, psychological abuse can be experienced without sexual or physical violence (e.g., Lövestad et al. 2017; O'Leary 1999). The overlap between various types of violence varies by countries and samples. For example, Stylianou et al. (2013) reported that in most cases (76%) when participants were experiencing one form of IPV they also were

experiencing other forms of IPV. However, those findings were gathered from a sample recruited from domestic violence programs in the US. In a representative US sample, 17.6% of women experienced a combination of psychological and physical or sexual IPV (Coker et al. 2002). Yet, other findings suggest that psychological abuse is far more frequent than other forms of IPV (Thompson et al. 2006). Nevertheless, the co-occurrence of different types of IPV, and prevalence rate of women who experience these different combinations of violence is under examined in general population samples (Basile and Hall 2011).

Therefore, this study aims to identify clusters of women, characterized by the frequency of physical, sexual, psychological, and economic abuse. In doing so, we are using propositions from person-oriented research that suggest that distinct subgroups in a sample exist and have substantively meaningful subgroup characteristics (Bergman and Magnusson 1997; Bogat et al. 2005; von Eye and Bergman 2003). By examining the prevalence of IPV from a person-oriented perspective, we assume that it is possible to identify subgroups of women sharing similarities in the type and frequency of the different types of IPV experienced during the past 12 months.

Furthermore, we want to explore how those subgroups, based on the types and frequency of IPV, differ by socio-economic status. To date, many studies have included demographic characteristics as descriptives, but the relationships between different forms of (co-existing) IPV and socio-economic variables remains understudied (Capaldi et al. 2012). There is some existing evidence that annual household income is the most important socio-economic factor for IPV across racial/ethnic groups in the US (Cunradi et al. 2002). In previous studies (Coker et al. 2000; Bullock et al. 1989), marital status and lower income were associated with physical violence (Coker et al. 2000). Furthermore, higher socio-economic status (measured as being better educated and employed) acts as a protective factor, lowering the risk for IPV (for a review, see Capaldi et al. 2012). Results of a study conducted in China indicated that marital status predicted all forms of IPV, that is, divorced women experienced more violence compared with married women (Lin et al. 2018). Similar results were found in a study in Spain, where IPV was most prevalent in divorced/separated women (Zorrilla et al. 2009). Controlling behaviors (a form of psychological abuse) were found to be associated with age and employment status, as younger and unemployed women were more likely to become victims of such controlling behaviors (Lin et al. 2018). When considering only age, studies have found that the highest prevalence of general violence (e.g., intimate partner violence and non-partner sexual violence) (García-Moreno et al. 2013) and economic abuse (Kutin et al. 2017) were found in the age group of 40–49 years. Additionally, important associations were found between IPV victimization and the experience of violence in childhood, where adults with histories of physical

or sexual victimization during childhood were more likely to experience IPV (Coid et al. 2001; Widom et al. 2014). Thus, while some studies examine how specific types of IPV may be associated with different risk factors, further investigation is needed to better understand the relationships between different forms and different patterns of IPV and socio-economic variables. Therefore, the aim of the current representative study was to examine a) the prevalence (lifetime and during past 12 months) of different forms of IPV, including physical, sexual, psychological, and economic violence, among Lithuanian women; b) to identify the main patterns of IPV exposure; and c) to examine the interconnections between IPV and socio-demographic characteristics, such as age group, educational level, relationship status, household income, area of residency, and the experience of violence in childhood.

Methods

Participants and Procedures

The participants of the current cross-sectional study were 1173 women from a nationally representative OMNIBUS survey, recruited for the ongoing study on "Identity and posttraumatic growth in female survivors of intimate partner violence (INTEGRO)." The sampling strategy ensured that the ages and geographic residency of women were representative of the population. The data were collected in the spring of 2018 using in-person interviews by a survey research company in Lithuania. Households were selected through random route sampling (Brace and Adams 2006) which is intended to create an equal probability of a household being selected. Respondents are found using random multistage selection. In the first stage, 75 primary sample points all over Lithuania are distributed between 5 biggest cities and 15 counties according to the proportion in the territorial model of the Lithuanian population. Next birthday rule is used to select the respondent in the household.

The age of the participants ranged from 18 to 89 (M_{age} = 48.81; SD_{age} = 18.82). Some of the women (n = 118, 10.1%) were omitted from the sample as they indicated that they had never had an intimate partner (M_{age} = 26.23; SD_{age} = 17.72). Furthermore, 43 (4.1%) women refused to answer part of the questionnaire about intimate partner violence. Thus, the final sample used for this study consisted of 1012 women (M_{age} = 51.87; SD_{age} = 16.93). In this study, unweighted data was used. More than a half (56%) of the women were currently married and/or living with a partner, 5.3% were single, 17% had a partner or spouse but did not live together, and 21.4% were widows. Sample characteristics are presented in more detail in Table 1. The IPV-related sample characteristics are presented in Table 2.

Table 1 Sociodemographic sample characteristics (N = 1012)

Characteristics	n (%)	Characteristics	n (%)
Education		Household income per month	
Primary (up to grade 4)	86 (8.5)	Less than 350 Eur	370 (36.6)
Lower secondary (up to grade 10)	616 (60.9)	650 Eur – 1000 Eur	147 (14.5)
Tertiary	310 (30.6)	1000 Eur – 1500 Eur	158 (15.6)
Age		More than 1500 Eur	130 (12.8)
18–29	119 (11.8)	No response	207 (20.5)
30–39	162 (16)	Place of residence	
40–49	157 (15.5)	City (> 50.000 residents)	409 (40.4)
50–59	210 (20.8)	Town (2.000–50.000 res.)	244 (24.1)
60+	364 (36)	Village (< 2.000 res.)	359 (35.5)
Type of partner relationship		Violence experience in the childhood	
Married / living together	576 (56.1)	Yes	135 (13.3)
Divorced / living separately	172 (17)	No	831 (82.1)
Single / Dating / Widow	271 (26.8)	No response	46 (4.5)

Ethical Considerations

Physical and emotional safety of the respondents during the data collection was ensured by the procedure of the data collection as discussed below. Confidentiality was ensured by not collecting any personal data from the responders that would allow to identify who the respondent was.

Physical Safety The research was conducted by using the standard OMNIBUS methodology. The survey was conducted by conducting personal interviews, when an interviewer questioned each respondent individually at their home. The IPV related questions were self-filled. The assessment

Table 2 Description of intimate partner violence experience in the total sample (N = 1012)

IPV related variable	n (%)
Time after last violence incident	
Over the last 7 days	19 (1.9)
Over the last month	26 (2.6)
Over the last half year	41 (4.1)
Over the last year	73 (7.2)
More than a year ago	117 (11.6)
More that 5 years ago	75 (7.4)
More than 10 years ago	153 (15.1)
Never had experience IPV	498 (49.2)
No response	10 (1)
Relationship status with the perpetrator	
Living with the perpetrator	221 (21.8)
Divorced or currently in divorce process	208 (20.6)
No response	583 (57.6)

procedure provided protection to a particularly vulnerable subgroup of women (i.e., those in abusive or potentially abusive relationships from potential physical harm) by not disclosing research aims to other household members, and by inquiring women if she feels safe to respond to the questions. If the safe environment could not be ensured, the interview was terminated. In line with WHO 2001 guidelines the focus of the study was disclosed only to participating individuals, and informed consent to participate in the study was signed. Women could refuse to participate in the study at any moment.

Emotional Safety The study design included actions aimed at reducing any possible emotional distress caused by the research. Data collection was conducted by professional field workers employed at data collection company. Women participants were interviewed only by women-field workers in order to decrease any emotional stress related to the questions regarding their experiences of IPV. In addition, fieldworkers were trained to refer women requesting assistance to women crisis centers where they could seek individual help. Leaflets with information on where to seek psychological help or consultation were distributed to study participants, ensuring that any emotional distress caused by the questions on sensitive issues related to IPV could be resolved.

This study has been approved by the Mykolas Romeris University, Institute of Psychology. The ethics committee will continue to see if this study is being done in a safe way until the study is completed.

Measures

To assess different forms of IPV, we used a 21-item checklist, developed by the authors of this manuscript, based on the Composite Abuse Scale (Ford-Gilboe et al. 2016) and the

Scale of Economic Abuse (Adams et al. 2008). The checklist measures four types of violence, namely psychological violence (8 items, e.g., "Tried to restrict contact with your family or friends"), physical violence (5 items, e.g., "Pushed, grabbed or shoved you"), economic violence (5 items, e.g., "Restricted your access to personal money"), and sexual violence (3 items, e.g. "Physically forced you to have sexual intercourse when you did not want to"). Full checklist is presented in Online Resource 1. Participants were asked to rate whether they had experienced these partner behaviors during the past 12 months on a 6-point Likert-type scale ranging from 0 (*never happened to me*) to 5 (*happens to me every day*). Additionally, participants had a chance to indicate that they had not experienced such behaviors during past year but had experienced it before (*happened to me more than a year ago*) to evaluate lifetime IPV exposure. Cronbach's alpha coefficients for the subscales ranged from .81 to .90.

To evaluate the prevalence of the different types of IPV, dummy variables were created for the different types of violence (psychological, economic, physical, sexual, and total/combined score) separately for a) violence experienced during the past year, b) violence experienced more than a year ago, and c) violence experienced regardless the timing (i.e., at least once in the lifetime). The dummy variables were dichotomized as follows: 0 – has not experienced this behavior (none of the behaviors) and 1 – has experienced this behavior (at least one of the behaviors) at least once. The prevalence of IPV in this representative sample of Lithuanian women was expressed as percentages (%).

The socio-demographic variables of age, education, status of a relationship, area of residence, household income, and experiencing violence in childhood ("Have you experienced violence in your family when you were a child") were each measured by a single item (Table 1). In addition, single items were used to measure whether the participants were currently in an abusive relationship, and the time since the last IPV incident (Table 2).

Statistical Analysis

We used multivariate logistic regression to identify which demographic characteristics were the most important predictors of IPV. Dichotomous IPV exposure variables (experienced vs. not experienced at least one psychological, economic, physical, sexual, and combined IPV incident during last year) were used as outcome variables. The multivariate regression analyses with likelihood ratio test were carried out in two steps. In the first step, all sociodemographic characteristics (gender, education, type of partner relationship, household income, area of residency, and experience of childhood violence) were included as predictors. In the second step, only significant predictors were left in the analysis.

In order to identify distinct groups of women which could be classified as experiencing similar combinations of IPV, we conducted a cluster analysis on the standardized scores of psychological, economic, physical, and sexual intimate partner violence during past year. Only responses from women who experienced at least one incident of any type of IPV were used in this analysis ($n = 296$). We followed Gore's (2000) two-stage approach which combines the advantages of the hierarchical and k-means clustering algorithms. Specifically, in the first step, a hierarchical cluster analysis was carried out using Ward's method based on squared Euclidian distances to determine the optimal number of classes. In the second step, the initial cluster centers of the best retained class-solution were used as non-random starting points in iterative k-means clustering, which yielded the final classification. We compared cluster solutions with two to six clusters on the basis of three criteria, namely the explanatory power (i.e., the cluster solution had to explain more than 50% of the variance in each of the identity dimensions; Milligan and Cooper 1985), the meaningfulness of the cluster, and the cluster size (i.e., the groups should represent at least 5% of the sample). On the basis of these criteria, a five-cluster solution was determined to be the most acceptable. Although in a five-cluster solution one group did not reach the 5% threshold for group size, we decided to keep this solution, because this group was clearly meaningful, and its size and composition was stable across all cluster solutions.

To investigate the associations between different types of IPV and demographic variables, Pearson's Chi square tests were used to analyze the association between experiences of violence and demographic characteristics. This analysis was carried out in two steps. First, we compared the demographic characteristics of women who had and had not experienced IPV during the past year. Second, we compared the demographic characteristics of women in different IPV clusters. We used conventional .05 cutoff for the p value significance.

Results

Sociodemographic Characteristics

Sample sociodemographic characteristics are presented in Table 1 and intimate partner violence experience related factors (time after last violence and relationship status with perpetrator) are presented in Table 2. The sociodemographic characteristics of the women sample are nationally representative for Lithuanian context.

Regarding the factors related to IPV we can see that almost half of the women in the sample of IPV victims are divorced or currently undergoing a separation process; approximately 15% of women had experiences some sort of IPV during the

last year, and almost 50% of women had never experienced IPV in their life.

Intimate Partner Violence Prevalence in the General Sample

An analysis of the prevalence of the different forms of IPV in this nationally representative survey (Table 3) revealed that more than half of women (51.2%) had been victims of some type of violence at least once in their lifetime. Of those women, that is victims of IPV, 57.1% had experienced IPV in the past year, and almost half (42.9%) had experienced acts of violence only more than a year ago. Type specific analyses revealed that most prevalent form of IPV was psychological violence (50.1%) and the least prevalent form was sexual violence (16.9%). Additionally, less than half (43.2%) of the women who had ever experienced psychological violence, had not experienced it in the past year, and even more women did not experience economic (58.1%), physical (69.3%), and sexual (64.9%) violence in the past year.

Associations between IPV Types and Sociodemographic Characteristics

The results of the multivariate logistic regression analysis for overall IPV are presented in Table 4. Lower probabilities for overall IPV were found for women who were older than 60 years in comparison to women who were younger than 30 years old; single women or widows, compared to married or cohabiting women; women who lived in households with a monthly income of over 1500 euros (compared to those who had an income of less than 650 euros per month); women who lived in a bigger cities (compared to those who lived in villages); and higher for those women who had experienced violence in their childhood.

The results of the multivariate logistic regression analysis for different types of IPV are shown in Table 5. For psychological violence, all sociodemographic characteristics were significant predictors, similar to the results for overall IPV. A lower probability of experiencing psychological violence was

Table 4 Coefficients of the model predicting IPV victimization (combined IPV score) during last 12 months (N = 1012)

	Total IPV	
	Odds ratio	(95% CI)
Age		
18–29	1	Ref.
30–39	0.77	(0.39, 1.52)
40–49	0.62	(0.31, 1.24)
50–59	0.92	(0.49, 1.76)
60+	0.37	(0.19, 0.71) *
Type of partner relationship		
Married / living together	1	Ref.
Divorced / living separately	0.87	(0.54, 1.41)
Single / Dating / Widow	0.30	(0.17, 0.53) *
Household income		
< 650 Eur / month	1	Ref.
650–1000 Eur / month	0.97	(0.58, 1.61)
1000–1500 Eur / month	1.29	(0.76, 2.20)
> 1500 Eur / month	0.42	(0.22, 0.79) *
Area of residency		
Village (< 2.000 residents)	1	Ref.
Town (2.000–50.000 residents)	0.99	(0.64, 1.52)
City (> 50.000 residents)	0.51	(0.33, 0.77) *
Violence experience in the childhood	5.98	(3.75, 9.55) *

Notes. (95% CI) - 95% confidence intervals for odds ratio of the univariate and multivariate logistic regression model

$*p < .05$

found for women who were older than 60 (compared to the youngest group of 18–29 year olds), single women or widows (compared to those who are married/living together), women living in a household with monthly income of more than 1500 euros (compared to those with a monthly household income of less than 650 euros), women who lived in the bigger cities (compared to those who lived in villages), and women who had not experienced violence in their childhood. For economic and sexual violence only area of residency and childhood violence experience remained significant predictors. Women

Table 3 Proportion (%) of women who experienced IPV

	At least once in the lifetime	Never	Past year	Over 1 year ago	Never
	In total sample N = 1012		In the sample of abused women N = 518		
Psychological violence	50.1	49.9	55.6	42.3	2.1
Economic violence	29.9	70.1	24.6	34.0	41.5
Physical violence	21.5	78.5	12.9	29.2	57.9
Sexual violence	16.9	83.1	11.6	21.4	67.0
Combined IPV score	51.2	48.8	57.1	42.9	NA

Table 5 Coefficients of the model predicting different forms of IPV victimization (psychological IPV, economic IPV, physical IPV, and sexual IPV) during last 12 months

	Psychological IPV OR (95% CI)	Economic IPV OR (95% CI)	Physical IPV OR (95% CI)	Sexual IPV OR (95% CI)
Age				
18–29	1			
30–39	0.68 (0.35, 1.34)			
40–49	0.59 (0.29, 1.18)			
50–59	0.80 (0.42, 1.54)			
60 +	0.33 (0.17, 0.63)*			
Type of partner relationship				
Married / living together	1		1	
Divorced / living separately	0.87 (0.54, 1.42)		3.08 (1.49, 6.37)*	
Single / Dating / Widow	0.27 (0.15, 0.48)*		2.08 (0.83, 5.22)	
Household income				
< 650 Eur / month	1			
650–1000 Eur / month	0.86 (0.52, 1.44)			
1000–1500 Eur / month	1.08 (0.63, 1.86)			
> 1500 Eur / month	0.38 (0.20, 0.72)*			
Area of residency				
Village (< 2.000 residents)	1	1	1	1
Town (2.000–50.000 residents)	1.02 (0.66, 1.58)	0.88 (0.51, 1.50)	0.41 (0.19, 0.89)*	0.78 (0.36, 1.70)
City (> 50.000 residents)	0.51 (0.33, 0.79)*	0.33 (0.18, 0.59)*	0.39 (0.19, 0.82)*	0.43 (0.18, 0.98)*
Violence experience in the childhood	6.12 (3.82, 9.78)*	4.95 (2.98, 8.23)*	4.39 (2.38, 8.11)*	8.22 (4.33, 15.63)*

Notes. OR - Odds ratios of the univariate and multivariate logistic regression model, (95% CI) 95% confidence intervals

*p < .05

who had experienced violence in their childhood had a higher probability of experiencing these types of violence than women who had not had such an experience, and women living in bigger cities (compared to those who lived in villages) had a lower probability of experiencing these types of violence. Significant predictors for physical violence were: area of residency, type of partner relationship, and experiencing violence in childhood. Women who had experienced violence in their childhood and those who were married or cohabiting had a higher probability of experiencing physical violence compared to women who did not experience violence in their childhood and to those who are single/widows. Women who lived in towns or bigger cities had a lower probability of experiencing physical violence than those living in villages. However, when discussing the results we need to have in mind that for some IPV forms (namely physical and sexual violence) the prevalence is quite low (approx. 12%), and that can affect the power to detect the significant effects in our sample, and that could be even more important predictors. Additionally, it is worth noting that there is a potential overlap or the co-occurrence of different forms of IPV, meaning that women that experience one type of violence is more likely experience others too. To explore this issue, in the next step the cluster analysis were employed.

Identifying IPV Exposure Groups

The cluster analysis revealed 5 IPV exposure clusters. This five-cluster solution explained 86%, 69%, 65% and 82% of the variance in psychological, economic, physical, and sexual violence, respectively. The final clusters are shown in Fig. 1. The first cluster, *nearly absent IPV,* consisted of 143 (48.3%) women reporting low scores on all types of IPV. The second cluster, *high overall IPV,* comprised 14 (4.7%) women reporting high scores of all types of IPV. The third cluster, *high sexual IPV,* included 22 (7.4%) women who reported the highest levels of sexual violence and levels of psychological, economic, and sexual violence were also moderately high. The fourth cluster, *psychological-only IPV,* consisted of 89 (30.1%) women reporting moderately high psychological violence, and low on all other types. The fifth cluster, *psychological/physical IPV,* consisted of 28 (9.5%) women reporting high psychological and physical violence, and low economic and sexual violence.

Characteristics of IPV Exposure Groups

We conducted a series of Chi-square tests to examine whether a) women who had experienced IPV or not in the past year,

Fig. 1 Different IPV exposure groups in the sample of women who experienced violence during last 12 months (*n* = 296)
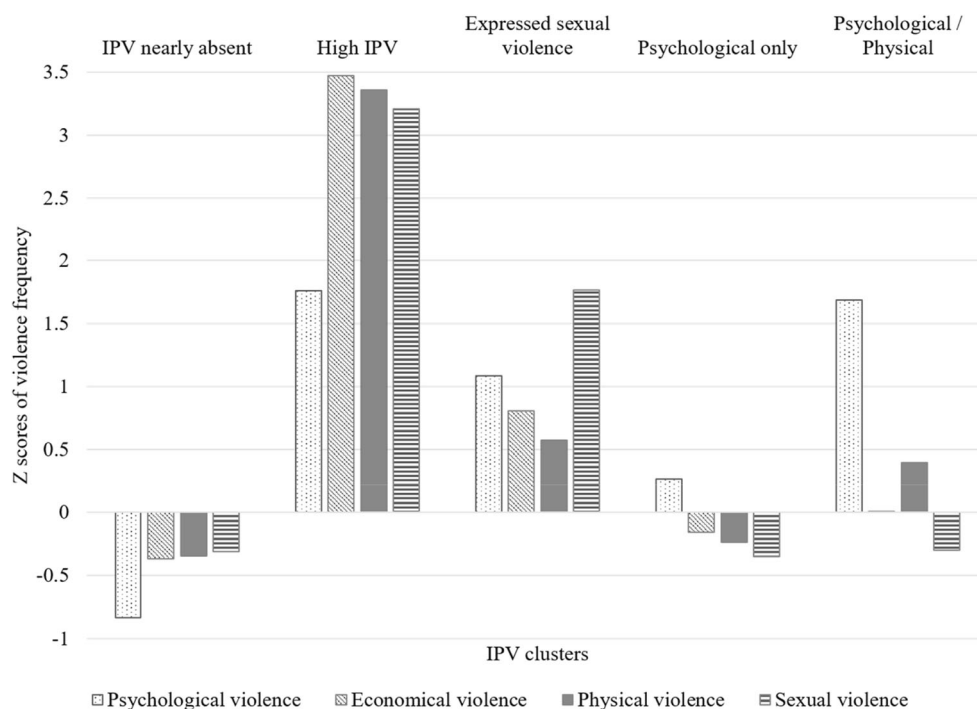
and b) the number of women in each of the five IPV clusters, differed on sociodemographic characteristics. Namely, we examined age, education, type of partner relationship, household income, area of residency, and childhood violence experience (Table 6). First, we compared women IPV victims and women who did not report being victims of IPV. Results showed a significant effect of all sociodemographic characteristics (Cramer's V ranged between .10 and .20). Women who had primary education, were older than 60 years, were single or widowed, and women who lived in the cities were less represented in the group of women who had experienced any type of IPV during the past year. Women who were 50–59 years old, were married or cohabiting, living in a household with a monthly income of 1000–1500 euros, and living in rural areas (i.e., villages) were overrepresented in this group. In the group of women who did not experience IPV in the past year, women who were older than 60 years were single or widowed, and had not experienced violence in their childhood were overrepresented.

In the second step, we compared women in all five clusters. We found a significant effect for four sociodemographic characteristics: type of partner relationship, household income, area of residency, and childhood violence experience (Cramer's V ranged between 16. and .48). Detailed results are reported in Table 6. In the group of women who experienced only psychological violence, women with secondary education and women who experienced violence in childhood were overrepresented, whereas women with tertiary education and those who did not experience childhood violence were underrepresented compared to the women distribution in the

total sample. In the group of women who experienced very rare episodic violence, divorced women and women with a low household income (< 650 Eur/month), and women with childhood violence experience were underrepresented. Furthermore, the youngest age group (18–29 years old), married or cohabiting women, women with a higher household income (1000–1500 Eur/month), women from bigger cities, and without childhood violence experience were overrepresented. In the high IPV cluster, married or cohabiting women and women without childhood violence experience were underrepresented, whereas divorced women, and women with a low household income (< 650 Eur/month), and women with childhood violence experience were overrepresented. In the psychological/physical violence group divorced women, women who lived in rural areas, in households with a monthly income of less than 650 euros and women who had previous childhood violence experience were overrepresented.

Discussion

The aim of the current representative study conducted in Lithuania was to investigate the prevalence of different forms of IPV in the past 12 months as well as over the lifetime in ever-partnered adult women. In addition, we sought to evaluate how IPV experience and the socio-demographic characteristics of IPV victims are interrelated as well as to identify patterns of co-existing forms of IPV. Overall, the results of the current study indicate a relatively high prevalence of IPV in Lithuania. The exposure to different types of IPV was found

Table 6 Distribution of the sociodemographic characteristics across women who did and did not experienced IPV, and across women in different IPV clusters

	No IPV during the past year (%)	Any type of IPV reported (%)	p (yes vs. no)	n	%	IPV nearly absent (%)	High overall IPV (%)	High sexual IPV (%)	Psychological only IPV (%)	Psychological / physical IPV (%)	n	%	p (within clusters)
				Total N = 1012					Total N = 296				
Education													
Primary	9.9 (+)	5.1-	.008	86	8.5	4.2	7.1	4.5	6.7	3.6	15	5.1	.141
Secondary	58.2 (-)	67.2 (+)		616	60.9	64.3	78.6	50.0	76.4 (+)	60.7	199	67.2	
Tertiary	31.8	19.7		310	30.6	31.5	14.3	45.5	16.9 (-)	35.7	82	27.7	
Age			.000										.288
18 – 29	11.6	12.2		119	11.8	16.1 (+)	7.1	4.5	11.2	3.6	36	12.2	
30 – 39	14.5 (-)	19.6 (+)		162	16.0	19.6	21.4	27.3	15.7	25	58	19.6	
40 – 49	14.0 (-)	19.3 (+)		157	15.5	19.6	28.6	31.8	19.1	3.6 (-)	57	19.3	
50 – 59	18.0 (-)	27.4 (+)		210	20.8	26.6	21.4	27.3	27	35.7	81	21.6	
60 +	41.9 (+)	21.6 (-)		364	36.0	18.2	21.4	9.1	27	32.1	64	21.6	
Type of partner relationship			.000										.000
Married / living together	52.6 (-)	64.7 (+)		567	56.1	73.2 (+)	21.4 (-)	68.2	65.2	39.3 (-)	191	64.7	
Divorced / living separately	15.2 (-)	21.4 (+)		172	17.0	12.0 (-)	71.4 (+)	22.7	21.3	42.9 (+)	63	21.4	
Single / Dating / Widow	32.2 (+)	13.9 (-)		271	26.8	14.8	7.1	9.1	13.5	17.9	41	13.9	
Household income [a]			.000										.000
< 650 Eur / month	49.2 (+)	38.3 (-)		370	46.0	29.7 (-)	64.3 (+)	20.0	35.1	95.2 (+)	92	38.3	
650 – 1000 Eur /month	16.6	22.1		147	18.3	19.8	21.4	40.0 (+)	25.7	4.8 (-)	53	22.1	
1000 – 1500 Eur /month	16.1 (-)	27.9 (+)		158	19.6	36.9 (+)	14.3	30.0	24.3	0 (-)	67	27.9	
> 1500 Eur / month	18.1 (+)	11.7 (-)		130	16.1	13.5	0	10.0	14.9	0	28	11.7	
Area of residency			.000										.046
City (> 50.000 residents)	44.7 (-)	30.1 (-)		409	40.4	36.4 (+)	21.4	13.6	30.3	14.3	89	30.1	
Town (2.000 – 50.000 res.)	22.9	27		244	24.1	25.2	21.4	31.8	32.6	17.9	80	27.0	
Village (<2.000 res.)	32.4 (-)	42.9 (+)		359	35.5	38.5	57.1	54.5	37.1	67.9 (+)	127	42.9	
Violence experience in the childhood			.000										.000
Yes	8.3 (-)	72.2 (-)		135	14.0	18.5 (-)	84.6 (+)	72.7 (+)	52.3 (+)	74.1 (+)	117	41.3	
No	91.7 (+)	27.8 (+)		831	86.0	81.5 (+)	15.4 (-)	27.3 (-)	47.7 (-)	25.9 (-)	166	58.7	
Total n (%)	716 (70.8)	296 (29.2)				143 (14.1)	14 (1.4)	22 (2.2)	89 (8.8)	28 (2.8)			

Notes. [a] – the household income variable consisted of missing data, thus the total N for this variable is 508. For no IPV group n = 565, IPV nearly absent n = 111, high overall IPV n = 14, high sexual IPV n = 20, psychological-only n = 74, and for psychological / physical IPV group n = 21. Observed values indicated in bold are significantly different from expected values (i.e., standardized residuals higher than |2|): (+) indicates that the observed value is higher than the expected value; (-) indicates that the observed value is lower than the expected value.

to be associated with age, relationship status, household income, area of residency, and violence experienced in childhood. Five different patterns of exposure to IPV during the past 12 months were identified, namely (in order of prevalence), *nearly absent IPV, psychological-only IPV, psychological/physical IPV, high sexual IPV* (with also relatively high levels of all other types of violence), and *overall high IPV*.

Intimate Partner Violence Prevalence in General Sample

When analyzing the lifetime prevalence of IPV in Lithuania, we found that over half of women were exposed to at least one form of IPV over the course of their life, meaning that one in two women in Lithuania have experienced at least one episode of psychological, economic, physical, or sexual violence from their current or previous partners. These results indicate that the overall prevalence of IPV (including non-physical violence) is similar to that found in the US ~15 years ago (44.0%, Thompson et al. 2006), but higher than currently found in, for example, England and Wales (21.1%, Office of National Statistics 2016), Japan (23.7%, Nagai 2017), and Thailand (15.4%, Chuemchit et al. 2018).

In terms of physical and sexual violence, with approximately one in five women being exposed to physical and approximately one in six to sexual violence over a lifetime, the prevalence of physical/sexual IPV in Lithuania is comparable to the rate in most Western European countries (19.3%, Devries et al. 2013b) ~10 years ago and in most EU countries (22%, FRA 2014) as well as the US (22.3% physical IPV, 15.8% sexual IPV, Breiding et al. 2015a) ~5 years ago. The current lifetime prevalence of physical and/or sexual IPV in Lithuania is comparable to that found in Italy (~20.0%, Meini 2017) and Turkey (~21%, Yüksel-Kaptanoğlu and Çavlin 2015). However, rates of physical and/or sexual violence are higher than, for example, in Sweden (15.0% physical IPV, 5.1% sexual IPV, Strand and Selenius 2017). Nevertheless, our data indicate that the general level of physical and/or sexual violence has not changed over last few years, as in 2018, and as in 2014 (FRA 2014), Lithuania was among countries with a medium level of physical/sexual IPV.

Compared to other countries, the lifetime prevalence of psychological and economic violence in Lithuania stands out, with almost one in three women being exposed to economic violence and one in two to psychological violence. These rates of psychological violence are comparable to the rates found in the US almost a decade ago (47.1%, Breiding et al. 2015a). However, they are much higher than those in Sweden (23.5%, Strand and Selenius 2017) and Canada (13%, Burczycka and Ibrahim 2016). The level of economic violence in Lithuania is comparable to that found in United Kingdom (21%, Sharp-Jeffs 2015), however, it is higher than as that found in Australia (16%, Kutin et al. 2017) and the US (14%, Voth Schrag 2015), and 10 times

higher than that found in Canada (Burczycka and Ibrahim 2016). The current level of the lifetime prevalence of psychological/economic violence has not changed over the last years as in the current study, at least half of Lithuanian women have experienced psychological/economic violence. This rate is similar to the rate reported several years ago where Lithuania had the second highest prevalence of non-physical violence out of all EU countries (FRA 2014).

The past year prevalence of overall violence in Lithuania, with almost one in three women being exposed to it, is comparable to, for example, Turkey (~25–30%, Solakoğlu et al. 2017). However, it is higher than, for example, in England and Wales (8.2%, Office of National Statistics 2016) and urban Spain (10.1%, Zorrilla et al. 2009). As in other countries, non-physical violence in Lithuania is more prevalent than physical violence. The level of past year psychological violence, with almost one in three women being exposed, is comparable to, for example, Italy (Meini 2017). However, it is twice as high as the US (Breiding et al. 2015a), and three times higher than Thailand (Chuemchit et al. 2018) and urban Spain (Zorrilla et al. 2009). The level of past year economic violence is twice as low as past year psychological violence. However, psychological and economic violence together are still much higher than, for example, England and Wales (5.8%, Office of National Statistics 2016).

In terms of past year physical and sexual violence, with about 6% of women being exposed to each of these types of IPV, the situation in Lithuania currently looks better than, for example, in Thailand (9.4%, Chuemchit et al. 2018). However, these numbers are higher that, for example, in the US (2.9%, Breiding et al. 2015a), rural Australia (0.4%, Lockie 2011), and urban Spain (1.1%, Zorrilla et al. 2009). Interestingly, several years ago the level of physical/sexual IPV in Lithuania represented the exact EU mean (FRA 2014) and current findings indicate that Lithuania has some of the highest levels of physical/sexual IPV among EU countries. In general, compared to data from all over the world, all types of IPV are less prevalent in Lithuania than in underdeveloped countries, for example, Tanzania (Kapiga et al. 2017) or Saudi Arabia (Barnawi 2017). However, our findings revealed that the prevalence of IPV in Lithuania surpasses other Western countries such as the United Kingdom, Sweden, the US, Australia or Canada. We presume, these findings reflect still prevalent Post-Soviet mentality in the country, which in the interpersonal level is characterized by disrespect, prejudice, feeling of inferiority, distrust, envy, hatred, and rudeness (Klicperova-Baker and Kostal 2018).

Intimate Partner Violence Victimization and Socio-Demographic Factors

When evaluating the role of socio-demographic factors in IPV victimization, we only took prevalence of IPV during the last

twelve months into account. We did so to address the risk factors of current experiences of IPV. We found that for overall IPV, women in all *age* groups are equally at risk, with the exception of women 60 years and older. This is also true for psychological violence. These findings are in line with previous findings among other countries (FRA 2014) and could reflect the fact that women in the oldest age group were more likely to be single (in our sample $\chi^2(8) = 276.98$; $p = .00$) and therefore have fewer opportunities to be exposed to IPV.

Although in some countries being separated or divorced (*relationship status*) was found to be among the risk factors for domestic abuse (e.g., England and Wales; Office of National Statistics 2016), in Lithuania this was only true for physical violence. These findings, however, could indicate that more women (in our sample 63%) who have experienced physical abuse during the past year have left their abusive relationships ($\chi^2(1) = 5.67$; $p = .02$), rather than being indicative of a risk factor for abuse. We assume that these findings reflect the trend of women empowerment movement with women nowadays having increased power to leave violent relationships instead of suffering in them (Cornwall 2016). Although it may be a positive trend, one in three women exposed to physical violence in the past 12 months are still at risk for repeated victimization, as they are in an ongoing relationship with the perpetrator.

Consistent with our results, low *income* has repeatedly been found to be a predictor of domestic violence (Coker et al. 2000; FRA 2014; Sanz-Barbero et al. 2018). Financial strain and higher levels of psychological stress may have a negative effect on family relationships (Neff and Karney 2009) and subsequently, may increase violence. However, when examining the different types of violence separately, in Lithuania, a higher income was associated with a lower risk of abuse only in the case of psychological violence. Although women's education was not a significant predictor of violence in our study (in line with findings from previous studies, e.g., FRA 2014; Lin et al. 2018), a higher family income is usually associated with higher levels of education among family members. Families with higher education may also have better socio-emotional competencies, including conflict resolution skills and, therefore, education may work as an additional protective factor against psychological violence.

The *area of residency* also predicted a higher risk of IPV in Lithuanian women. For all types of violence, IPV prevalence was lower in cities and almost half of IPV cases were from rural areas. These findings are in line with trends found in Canada (Burczycka and Ibrahim 2016), however, they contradict previous findings from Europe (FRA 2014), where, in contrast, rural areas of residence were associated with lower levels of IPV during the past 12 months. In Lithuania, however, living in rural locations is also associated with lower household incomes (in our sample, $\chi^2(6) = 58.50$; $p = .00$),

but this may not be the case for other, especially Western European, countries.

The strongest predictor and the biggest risk factor for all types of IPV in Lithuania was self-reported *childhood violence experience*. The strong links between maltreatment in childhood and IPV victimization later in life has repeatedly been found in different cultural contexts such as the US (Widom et al. 2014), Canada (Burczycka and Ibrahim 2016), and in the EU (FRA 2014). Apparently, in Lithuania, as in other countries, childhood victimization is part of the cycle of violence that has serious long-term negative effects on physical and mental health as well as general well-being, including IPV victimization in adulthood (Gilbert et al. 2009).

In summary, women of all ages and education levels are at an equal risk of being exposed to any type of IPV. Additionally, women in all kinds of relationship statuses and with all levels of household income are at an equal risk of being exposed to economic or sexual violence. Living in the city seems to be a protective factor against any type of violence in intimate relationships. And finally, experiencing violence in the family of origin increases women's risk for any type of violence, but in particular for sexual violence. Among other factors, childhood experiences of violence is overall the strongest predictor of IPV with nearly three in four IPV victims reporting childhood victimization.

The Patterns of the Current Exposure to Intimate Partner Violence

Although the number of women who reported being exposed to any type of IPV in the past 12 months was relatively high (nearly one third of the total sample), subsequent analyses showed that nearly half of these women belong to the *nearly absent* IPV group and almost one third of women in this group are mainly exposed to *psychological violence only*. However, our findings highlight that 6.4% of all women living in Lithuania have been exposed to severe violence in the past 12 months. Almost half of this 6.4% appear to be in the group with very high levels of psychological violence in combination with physical violence. One third of these women are exposed to very high sexual violence combined with also relatively high levels of all other types of violence; and the remaining women report experiencing very high levels of all types of violence. Keeping in mind that about 30% of the Lithuanian population are adult women, these numbers imply that over 50,000 women have recently been exposed to severe levels of both physical and non-physical violence. And even more strikingly, over 10,000 women experienced extremely high levels of all types of violence during the last year. Even if only considering the latter, this represents a full stadium of IPV victims in a small European country that needs urgent help.

The results of our study also confirm Coker et al.' (2000) suggestion that sexual violence may be a possible marker of severe violence in intimate relationships. The current study, as well as Coker et al. (2000), found that the level of physical violence is higher when sexual violence is present. Additionally, we found that all types of violence occur alongside psychological violence, indicating that women are being hurt psychologically not only by means of experiencing physical abuse, but also through intentional actions of humiliation.

Regarding the relationships between sociodemographic characteristics and the different patterns of violence, we found that more of the youngest women are in the *nearly absent* violence group than expected. In addition to that, more women than we expected in the *high IPV* and *psychological and physical IPV* are no longer in their relationships whereas fewer women than we expected are still in these violent relationships. This could mean that severe violence is less tolerable these days, especially in the younger generation and this is a very positive and promising tendency in the context of family violence. However, we also found that most women in both the *high IPV* and *psychological and physical IPV* groups live in families with extremely low income. This draws attention to the fact that poverty and violence do tend to go together. Finally, considering that most women in the severe violence groups experienced violence in childhood, it seems that violence begets violence and traumatizing childhood experiences are a major risk factor for becoming trapped in an on-going cycle of violence in adulthood.

Strengths and Limitations

Our study provides the prevalence rates of physical, sexual, economic and psychological violence, using data from a nationally representative survey, thereby overcoming the limitations of previous studies that have addressed a smaller number of IPV types. Among the strengths, is that this study uses a person-centered perspective to examine the socio-economic characteristics of women in the population, classified into smaller sub-groups of women who share similarities related to the type and frequency of IPV victimization. However, the prevalence rates of the different types of IPV, and in particular, comparisons between the prevalence rates in different countries should be interpreted with caution, as the indicators of violence differ among countries. In addition, the findings from the IPV prevalence studies, including this one, may be affected by the socially desirable responding bias, as women may tend to minimize their IPV experiences (Dunham and Senn 2000) and therefore, in reality, the prevalence rates may be even higher. Moreover, we recommend that future research attempt to measure different types of childhood violence to make more accurate predictions regarding the long-term impact of experiencing violence in

childhood. Longitudinal studies are needed as well to adequately examine changes that occur in the context of IPV. Despite these shortcomings, the findings of this study make a unique contribution to the existing literature by identifying multiple risk factors associated with various types and patterns of IPV that to date, had not yet been comprehensively analyzed in the IPV literature. Furthermore, Lithuania with its booming economic growth is becoming increasingly WEIRD (Western, educated, industrialized, rich, and democratic), and we expect the findings from our study to be generalizable to similar social and economic contexts.

Practical Implications

The results of the current study shed light on the possible protective factors against IPV. First of all, our findings indicate that the financial independence of women should be encouraged. This may also include financial literacy training, especially for those living in rural locations. However, the biggest effort should be to prevent violence from an early age. More specifically, children and adolescents from families with a history of IPV may be a reasonable target group for intervention. Targeting the impact of role modelling in the family, changing the social norm, and breaking the negative cycle of violence could be the best thing we can do for our future generation. In addition, being exposed to violence during childhood may also include being exposed to poor interpersonal communication and relationships strategies and, subsequently, a lack of socio-emotional skill development. Therefore, in addition to changing social norms, the proper training of socio-emotional skills and the development of healthy relationship strategies during childhood and adolescence, when behaviors are still quite modifiable, could help develop positive behaviors even before the first intimate relationship experience. This would increase the likelihood that adults exposed to violence in childhood may be able to avoid violent behaviors in their own families. In addition to that, parenting skills training could also help prevent the involvement of children in family conflicts and may raise awareness on how interpersonal violence affects children in the family, as parenting programs are proven to be effective in reducing violence both against and by children (Knerr et al. 2013). Finally, health care institutions should be aware of signs of sexual abuse, as it may help identify the cases of IPV. In addition, psychological support and psychotherapy should be more readily available for IPV victims, as the traumatizing experience of complex abuse may affect victims' entire personality leading to tremendously negative psychosocial effects on the entire life of women and their children.

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