Intimate partner violence against young women: prevalence and associated factors in Europe

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ABSTRACT

Background The magnitude of intimate partner violence (IPV) in young women is a source of increasing concern. The prevalence of IPV has not been analysed in Europe as a whole. The objective was to assess the prevalence and main characteristics of experiencing physical and/or sexual and psychological-only IPV among young women in the European Union and to identify individual and contextual associated risk factors.

Methods We analysed a cross-sectional subsample of 5976 ever-partnered women aged 18–29 years from the European Union Agency for Fundamental Rights Violence Against Women Survey, 2012. The main outcomes were current physical and/or sexual IPV and lifetime psychological-only IPV. Risk factors were assessed by the prevalence ratio (PR) from multilevel Poisson regression models.

Results Current prevalence of physical and/or sexual IPV was 6.1%, lifetime prevalence of psychological-only IPV was 28.7%. Having suffered physical and/or sexual abuse by an adult before age 15 was the strongest risk factor for IPV (PR: 2.9 for physical and/or sexual IPV, PR: 1.5 for psychological-only IPV). Other individual risk factors were: perceived major difficulties in living within their household income (PR: 2.6), having children (PR: 1.8) and age 18–24 years (PR: 1.5) for physical/sexual IPV and immigration background for psychological-only IPV (PR: 1.4). Living in countries with a higher prevalence of binge drinking or early school dropout was positively associated with IPV.

Conclusions Findings show that the fight against violence in young women should consider individual characteristics, childhood experiences of abuse and also structural interventions including reduction of alcohol consumption and improvement in the education-related indicators.

INTRODUCTION

The emergence of intimate partner violence (IPV) at an early age is a cause of growing concern. In 9 of the 14 areas of the WHO Multicountry Study on Women’s Health and Violence, carried out in 2000–2004, last year prevalence of physical and/or sexual IPV among ever-partnered women ages 15–24 years was over 30%.1 For women ages 25–34, the average prevalence of IPV decreases by 6%, and by 33–49 years, the decrease is 13.5%.2 When studies include psychological IPV, the prevalence may increases to 67%.3 In addition, IPV in adolescents and young adults is associated with serious mental and physical health problems.4–7 IPV at early ages also can increase IPV risk in adulthood.8

Different theoretical frameworks have been used to deepen knowledge about IPV. In 1998, Heise9 developed the well-known ‘Integral Ecological Model’ that conceptualises IPV as a multidimensional phenomenon in which individual, relational, community and social factors interact. Individual and relational factors that increase victimisation among young women include negative childhood experiences—childhood sexual abuse before 15 years old by an adult, parental physical abuse and witnessing domestic violence10–11—partner and victim substance abuse11 and low socioeconomic position.12 With regard to contextual factors, community-level poverty12,13 and high alcohol outlet density14 is positively associated with IPV victimisation and/or perpetration for young adults. At the macro level, a recent study reported that higher structural inequity, measured by the Gender Inequality Index, increased the prevalence of physical but not sexual IPV among young women.15

In Europe, the few existing studies on IPV among adolescents and young adults are limited in scale.13,16 The European Union Agency for Fundamental Rights Violence Against Women Survey (FRA-VAW Survey) 201217 makes it possible to obtain comparable data on IPV in young European women, which can help guide future interventions in this vulnerable group.

The objective of this paper is to assess the prevalence and main characteristics of experiencing physical and/or sexual and psychological-only IPV among young women in the European Union, as well as to identify individual and contextual associated risk factors.

METHODS

Study population

Data were taken from the 2012 FRA-VAW Survey carried out in all 28 European Union countries. The cross-sectional subsample analysed includes 5976 ever-partnered women aged 18–29 years. The methodological details have been published previously.17 FRA approved this secondary data analysis project and provides a special license for this purpose (reference number 93210).

Measurements

The main outcomes were current (last 12 months) physical and/or sexual IPV and lifetime psychological-only (neither physical nor sexual) IPV. Women were asked if, after age 15 years, they had experienced physical or sexual aggressions or violent psychological behaviours perpetrated by current or previous partner(s). If a woman had experienced...
any specific violent behaviour, she was considered to have experienced this type of IPV. To describe the most frequent types of psychological violence, behaviours were classified as dominant, abusive, economic and that which involve children. All the specific violent behaviours included in each type of IPV can be seen in the results section, in table 1 and in online supplementary table 1.

We selected possible individual explanatory and contextual variables by following the Integral Ecological Model framework and by looking at previous studies. The individual variables were age, existence of children, parental immigration, educational attainment, self-perceived standard of living, sexual orientation and physical or sexual abuse before age 15 years by an adult. Other individual variables included in the descriptive analysis are presented in table 2. The contextual variables were the Gender Equality Index (GEI), the level of tolerance to violence against women, percentage of early school dropouts, age-standardised last month prevalence of binge drinking episodes among adults (15+ years) and youth unemployment ratio. The definition and data source of these contextual variables, as well as the countries included in each category, are included in online supplementary tables 1 and 2.

### Statistical analysis

We first estimated the current prevalence of physical, sexual and psychological IPV and lifetime prevalence of psychological and psychological-only IPV after age 15 years, as well as the frequency of different specific violent behaviours included in each type of IPV. We then described these prevalences according to sociodemographic variables, health status, childhood experience of abuse and sexual orientation. The 95% CIs were obtained for the prevalence and frequency measures.

The association of each type of IPV with the individual and contextual variables was measured by calculating the prevalence ratios (PRs) and their 95% CI, estimated by multilevel Poisson regression models with robust variance. The first level corresponds to women, and the second level corresponds to country of residence.

To analyse the intercountry variability of the dependent variables, we built an empty model (model 0). Variability between countries was examined using the intraclass correlation coefficient following the Snijders and Bosker method. We then performed a univariate and multivariate analysis. Random effects were estimated by calculating the proportion of second level variance explained (PVE) by the different models. Parameters were calculated based on maximum likelihood estimation, including adaptive quadrature, using the Generalised Linear Latent and Mixed Models programme. Multistage stratified sampling was used. All analyses were performed using the weight coefficients included in the survey. We used the statistical programme Stata V.14.0 to perform all statistical analyses.

### RESULTS

The subsample analysed was composed of 5,976 women. Current prevalences of IPV in women ages 18–29 years were: physical IPV 5.7% (95% CI 4.7% to 6.8%), sexual IPV 1.4% (95% CI 0.9% to 2.0%) and physical and/or sexual IPV 6.1% (95% CI 5.1% to 7.3%). The lifetime prevalence of psychological-only IPV after age 15 years was 28.7% (95% CI 26.6% to 31.0%). When other types of IPV were not excluded, the lifetime prevalence of psychological IPV increased to 47.9% (95% CI 45.4% to 50.4%).

The more frequent specific violent behaviours for each type of IPV are described in table 1.

The prevalence of current physical and/or sexual IPV and psychological-only IPV according to sociodemographic variables, health status, sexual orientation and childhood experiences of abuse are described in table 2.

Table 3 shows the multivariate analysis of the association between the different types of IPV and the covariates studied.

Regarding the individual covariates, the probability of current physical/sexual IPV was higher in women who reported having experienced physical or sexual abuse in childhood (PR: 2.9), or major difficulties in managing with their household income (PR: 2.6), who had children (PR: 1.8) or who were ages 18–24 (PR: 1.5). The probability of lifetime psychological-only IPV increased in those who had experienced physical or sexual abuse in childhood (PR: 1.5) and in women with both parents born abroad (PR: 1.4).

Women who live in countries with high prevalence of binge drinking had a higher probability of experiencing IPV, an association that was stronger with respect to physical/sexual IPV (PR: 2.7) than psychological-only IPV (PR: 1.1). Living in a country with a medium/high level of school dropout increases the probability of experiencing physical and/or sexual IPV (PR: 1.4) as well as psychological-only IPV (PR: 1.2). Living in traditional cultures has a higher probability of experiences of IPV.

### Table 1 Frequency of specific violent behaviours associated with each type of IPV (physical/sexual and psychological-only IPV) experienced by women aged 18–29 years

| Intimate partner violent behaviour | Frequency in women exposed to IPV |
|----------------------------------|----------------------------------|
| Last year frequency of physical or sexual IPV behaviours (n=354) | % (95% CI) |
| Violent physical behaviours | |
| Pushing or trying to push | 71.8 (63.1 to 79.1) |
| Slapping | 36.9 (28.9 to 45.6) |
| Grabbing or pulling hair | 32.7 (24.7 to 41.9) |
| Throwing a hard object | 20.9 (14.2 to 29.7) |
| Punching, kicking, hitting with a hard object | 19.1 (12.6 to 28.0) |
| Trying to suffocate or strangle | 7.8 (4.0 to 14.4) |
| Hitting the victim’s head against something | 8.7 (4.6 to 15.6) |
| Cutting, stabbing or shooting | 0.2 (0.04 to 0.7) |
| Burning | 0.1 (0.01 to 0.8) |
| Violent sexual behaviours | |
| Forcing to have sex by holding down or hurting | 10.3 (5.9 to 17.6) |
| Attempting to force sexual intercourse by holding down or hurting | 9.0 (4.7 to 16.7) |
| Engaging in sexual activity without wanting to or being unable to refuse | 8.7 (4.9 to 14.7) |
| Consenting to sexual activities for fear of what the partner could do | 8.1 (4.8 to 13.2) |
| Lifetime frequency of psychological IPV behaviours* | |
| Dominant behaviour (n=2870) | 87.3 (84.4 to 89.7) |
| Abusive behaviour (n=2773) | 66.3 (62.9 to 69.5) |
| Economic violence (n=2623) | 17.8 (15.3 to 20.7) |
| Blackmail/abusive behaviour through the children (n=810) | 19.2 (14.8 to 24.6) |

*behaviours included as dominant, abusive and economic violence are described in online supplementary table 1. %, weighted percentage; IPV, intimate partner violence (could be perpetrated by either a current or previous partner); n, unweighted frequency.
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EU countries with a high rate of unemployment in young adults as well as in countries with medium/high tolerance to violence increased the probability of the two types of IPV analysed. Finally, compared with living in countries with a high GEI, the probability of experiencing physical/sexual IPV decreased both for women living in countries both with intermediate (PR: 0.5) or low GEI (PR: 0.7) (table 3).

**DISCUSSION**

Our work shows that the prevalence of IPV in young European women is much lower than that identified in multicountry studies carried out elsewhere. The WHO Multicountry Study on Women’s Health and Domestic Violence reported a current prevalence of IPV (physical/sexual) among ever-partnered women ages 15–24 years of 33.2% (calculated from Stöckl et al). The different social and macrostructural context in the regions analysed in the WHO study may explain these differences. According to previous studies, the prevalence of current physical/sexual IPV is higher among women who report worse health status. This is also shown in the results of some longitudinal studies that show a positive association between prevalence of physical/sexual IPV in young women and post-traumatic stress, eating disorders, depression and anxiety and suicide attempts.

Having children increases the probability of experiencing current physical/sexual IPV. Because the relationship between cause and effect is unknown, it could be that, in some cases, children are both a result of IPV and a risk factor for it. Unprotected sexual activity, early initiation of sexual relations, unwanted pregnancies and having a greater number of sexual partners

Table 2  Sample description and prevalence of IPV by sociodemographic characteristics, health variables and childhood experiences

| Variables                                | Current physical or sexual IPV (n=358) | Lifetime psychological-only IPV (n=1784) | Total |
|------------------------------------------|--------------------------------------|----------------------------------------|--------|
|                                          | % row (95% CI)                        | % row (95% CI)                         | % column (95% CI) |
| Age (years)                              | 7.0 (5.5 to 8.9)                     | 30.6 (27.5 to 34.0)                    | 53.1 (50.5 to 55.6) |
| 25–29                                    | 5.1 (3.9 to 6.5)                     | 26.5 (23.7 to 29.5)                    | 46.9 (44.4 to 49.5) |
| Parents born abroad                      |                                      |                                        |                    |
| Neither                                  | 5.6 (4.6 to 6.8)                     | 27.5 (25.3 to 29.9)                    | 86.9 (85.1 to 88.5) |
| One                                      | 12.9 (7.2 to 22.1)                   | 32.9 (23.4 to 44.0)                    | 4.2 (3.4 to 5.2)   |
| Both                                     | 7.6 (4.1 to 13.6)                    | 36.2 (27.9 to 45.5)                    | 9.0 (7.6 to 10.6)  |
| Educational attainment                   |                                      |                                        |                    |
| Primary                                  | 8.1 (5.8 to 11.1)                    | 25.2 (21.1 to 29.7)                    | 24.6 (22.5 to 26.9) |
| Secondary                                | 6.4 (5.1 to 8.1)                     | 29.9 (26.9 to 33.2)                    | 53.0 (50.5 to 55.6) |
| Tertiary                                 | 3.3 (1.9 to 5.6)                     | 29.3 (25.1 to 33.8)                    | 22.3 (20.4 to 24.4) |
| Self-perceived household income           |                                      |                                        |                    |
| Living comfortably                       | 4.5 (3.5 to 5.9)                     | 29.2 (26.5 to 32.1)                    | 72.5 (70.3 to 74.6) |
| Difficult living                         | 7.3 (5.2 to 10.2)                    | 28.2 (23.7 to 33.2)                    | 19.3 (17.5 to 21.3) |
| Very difficult living                    | 18.5 (13.2 to 25.2)                  | 23.4 (18.2 to 29.5)                    | 8.2 (7.1 to 9.4)   |
| Self-perceived health                    |                                      |                                        |                    |
| Good and very good                       | 5.3 (4.3 to 6.5)                     | 29.3 (27.0 to 31.7)                    | 90.1 (88.5 to 91.5) |
| Fair/bad and very bad                    | 14.0 (9.5 to 20.0)                   | 23.8 (17.9 to 30.8)                    | 9.9 (8.5 to 11.5)  |
| Disability for daily activities          |                                      |                                        |                    |
| Yes                                      | 15.9 (9.8 to 24.7)                   | 21.9 (14.8 to 31.1)                    | 5.1 (4.1 to 6.3)   |
| No                                       | 5.6 (4.6 to 6.8)                     | 29.1 (26.9 to 31.5)                    | 94.9 (93.7 to 95.9) |
| Sexual orientation                       |                                      |                                        |                    |
| Heterosexual                             | 5.9 (4.9 to 7.1)                     | 28.9 (26.7 to 31.2)                    | 97.4 (96.3 to 98.2) |
| Non-heterosexual                         | 14.9 (6.6 to 30.2)                   | 20.0 (10.3 to 35.2)                    | 2.6 (1.8 to 3.7)   |
| Suffered physical abuse by an adult in childhood | 13.9 (10.6 to 17.9)          | 29.8 (25.2 to 34.9)                    | 20.1 (18.2 to 22.2) |
| No                                       | 4.2 (3.3 to 5.2)                     | 28.4 (26.0 to 31.0)                    | 79.9 (77.8 to 81.8) |
| Suffered sexual abuse by an adult in childhood | 14.4 (9.2 to 21.9)          | 37.3 (29.0 to 46.4)                    | 7.7 (6.5 to 9.1)   |
| No                                       | 5.4 (4.5 to 6.6)                     | 28.0 (25.7 to 30.3)                    | 92.3 (90.9 to 93.5) |
| Suffered psychological abuse by an adult in childhood | 19.2 (14.0 to 25.9)        | 25.0 (19.5 to 31.5)                    | 10.1 (8.7 to 11.7) |
| No                                       | 4.6 (3.8 to 5.7)                     | 29.1 (26.8 to 31.6)                    | 89.9 (88.3 to 91.3) |

Ever-partnered women ages 18–29 years. European Union Agency for Fundamental Rights Violence Against Women Survey, 2012. %, weighted percentage calculated over the total sample, n=5976; IPV, intimate partner violence (could be perpetrated by either a current or previous partner); n, unweighted frequency.
Pregnancy, in turn, has been described as a risk factor for IPV incidence. Studies that analyse the association between socioeconomic level and IPV in young women have yielded heterogeneous results. Our results suggest that perceived economic difficulties in the household increase the probability of current physical/sexual IPV. There is evidence that financial stressors in the home increase the probability of exposure to within-family violence; this is a variable that longitudinal studies have identified as a clear predictor of lifetime IPV.

There is a positive and independent association between experiencing physical/sexual abuse in childhood by an adult (not necessarily a family member) and the probability of experiencing any type of IPV. Recently published longitudinal studies identify childhood abuse increases the risk of experiencing the most severe forms of IPV. Numerous potential mechanisms have been suggested to explain this association. Authors such as Scott et al. suggest that abuse in childhood could trigger symptoms of trauma that could be reactivated in romantic relationships in adolescence. The abuse, which may lead to post-traumatic stress, impacts self-esteem and increases the vulnerability of women to IPV in relationships. In turn, exposure to family abuse in childhood has been associated with family economic difficulties, maternal stress and family mental health problems, which are situations that increase the risk of being an IPV victim and/or perpetrator. The Social Learning Theory argues that violence in relationships is a behaviour that is learnt
and expected in those exposed to abuse at early age. Women abused in childhood have a greater probability of internalising problems, increasing the risk of IPV victimisation.\textsuperscript{11}

Independent of individual variables, the multilevel model suggests that there is an association between country context and the probability of experiencing IPV. Living in a country with intermediate/high prevalence of binge drinking, as well as of early school dropouts, independently increases the probability of IPV victimisation among young women. The longitudinal study in adolescents by Temple et al\textsuperscript{30} also found an association between alcohol consumption and future perpetration of IPV. In this regard, Hines and Straus’ study shows that the association between alcohol consumption and IPV could be mediated by antisocial traits and behaviours\textsuperscript{18} suggesting that drinking may be acting as a trigger for IPV among those who have antisocial behaviour.

An association between educational level and risk of IPV victimisation has been previously found. Studies by Gracia et al have shown that the rate of protection orders for IPV is higher in neighbourhoods with low educational levels.\textsuperscript{30} Kiss et al\textsuperscript{31} report that women living in neighbourhoods with an intermediate deprivation index—an indicator that includes variables related to household income and educational level—have a higher probability of experiencing physical/sexual IPV. The association between educational context and IPV may also be mediated, at least in part, by antisocial behaviours. The study of Greenwood showed that successful school-based programmes that prevent early school dropout also prevent antisocial behaviours in teenagers, a variable associated to dating violence.\textsuperscript{12}

Women who live in low/medium GEI countries have a lower probability of experiencing current IPV than those living in high GEI countries. This counterintuitive association, which has sometimes been called ‘the Nordic paradox’\textsuperscript{33} could be reflected in our results. Different gender equality indices place the Nordic countries in the highest ranking of gender equality,\textsuperscript{34,35} but at the same time they are among the European countries with the highest prevalence of IPV in the general population.\textsuperscript{17} Authors like Rauskanen\textsuperscript{36} see this perception of gender equality problematic and affirm that IPV is increasingly confined to the private setting, where women are perceived as sufficiently independent and autonomous to fight against it. It has been suggested that women living in countries with better indicators of gender equality are more able to recognise their exposure to IPV, thus leading to a possible overestimation of its prevalence.\textsuperscript{17} Other authors propose that this greater IPV prevalence in Nordic countries could be due to the different drinking patterns.\textsuperscript{13} Our study adjusted for the prevalence of binge drinking—a prevailing type of alcohol consumption among young people—at the national level, but individual consumption practices are unknown. In addition, it is possible that the higher probability of current IPV in high GEI countries could be interpreted as a new form of ‘hegemonic masculinity’, where violence against women in intimate relationships is used as a new form of male oppression, since other types of oppression are not accepted in a society with more gender equality in the public spheres.\textsuperscript{17}

The negative association between the unemployment rate in men and the risk of IPV identified in our study contradicts previous studies in the general population.\textsuperscript{38} This counterintuitive effect could be influenced by the current period of economic crisis that began in Europe in 2008 and which is characterised by a large increase in youth unemployment.\textsuperscript{38} It is possible that in this study the variable youth unemployment functions more as a proxy for the economic crisis than as an indicator of economic deprivation in certain population groups. In this regard, recent studies have not found an increase in femicide due to IPV during the current economic crisis.\textsuperscript{39}

**Strengths and limitations**

Our results should be interpreted by taking several limitations into account. The cross-sectional design means that we cannot establish temporality between cause and effect, although it allows estimation of IPV prevalence. The survey does not include data on sociodemographic characteristics of the aggressor, nor variables on the level of conflict among the couple. These limitations prevent us from pursuing a holistic ecological approach to IPV in young women. The limited size of the sample analysed and the low prevalence of current sexual IPV do not allow identification of factors associated with specific types of. The measure of IPV is based on data that is self-reported by women who have experienced certain behaviours within the couple relationship. These behaviours include situations of very different nature and severity, and reporting them could be subject to subjectivity according to prior experiences, perceptions, values and the cultural setting in which the women live.

**CONCLUSION AND POLICY IMPLICATIONS**

Despite the aforementioned limitations, our results highlight the need to implement preventive measures beginning at the earliest life stages that help reduce the prevalence of violence. There is currently a growing empirical base of interventions to address the prevention of child abuse from a public health perspective. Especially notable is the implementation of primary prevention programmes, home visits, training and early education in gender equity; secondary prevention, identifying the addressing risk factors in the immediate environment; and tertiary prevention to avoid IPV in adulthood.\textsuperscript{40}

Our results suggest that the fight against violence in women must also incorporate structural interventions including the reduction of alcohol consumption among the general population and particularly in young people, as well as improvement

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**What is already known on this subject**

- Different studies show that intimate partner violence (IPV) is increasing in early ages. In Europe, the few existing studies on IPV risk factors among adolescents and young adults are limited in scale. The Fundamental Rights Violence Against Women Survey permits identification of individual and contextual IPV risk factors that can guide future interventions to reduce IPV in this vulnerable group.

**What this study adds**

- Having children, economic difficulties and experiencing physical/sexual abuse in childhood by an adult are individual factors that increase the likelihood of IPV among young women in Europe. In relation with the contextual ones, a counterintuitive association is observed between IPV and the level of gender equality of the countries. The effects of other contextual factors are clearer and evidence the need of interventions to prevent IPV in the earliest life and interventions to reduce alcohol consumption in Europe, particularly among young people, as well as to improve educational indicators are needed.
in the indicators related to education in the population. These interventions could decrease the prevalence of physical, sexual and psychological IPV against women.

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Competing interests None declared.

Patient consent Detail has been removed from this case description/these case descriptions to ensure anonymity. The editors and reviewers have seen the detailed information available and are satisfied that the information backs up the case the authors are making.

Ethics approval European Union Agency for Fundamental Rights approved this secondary data analysis project and provides an special licence for this purpose (reference number 93210).

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