Co-occurrence of adult abuse and child abuse: analysis of the phenomenon

Marta Kożybska a, *, Marta Giezek b, Paulina Zabielska b, Barbara Masna c, Jacek Ciechowicz d, Monika Paszkiewicz b, Artur Kotwas b, Beata Karakiewicz b

a Subdepartment of Medical Law, Department of Social Medicine, Pomeranian Medical University in Szczecin, Poland.

b Subdepartment of Social Medicine and Public Health, Department of Social Medicine, Pomeranian Medical University in Szczecin, Poland.

c Centre for People with Special Needs in Szczecin, ul. Tartaczna 14, 70-893 Szczecin, Poland.

d Municipal Family Support Center in Szczecin, ul. Sikorskiego 3, 70-323 Szczecin, Poland.

KEYWORDS

Domestic Violence
Child Abuse
Intimate Partner Violence

Abstract:

Background: The purpose of this study was to analyze the co-occurrence of adult and child abuse based on the reports collected from the Polish police and social welfare institutions.

Methods: The study involved data concerning 468 households in Szczecin (Poland) inhabited by children where acts of violence between adults took place. The presented data refer to the years 2012-2013. The data came from so-called Blue Card files, i.e., documents issued by the police and social workers in cases of domestic abuse, providing information about its forms, perpetrators, and victims.

Results: Domestic violence usually occurs between spouses and cohabitees (78%). The perpetrator was usually a man (88%). Violence usually lasted from 1 up to 3 years (30.0%). The most common forms of physical abuse against adults and children included pushing (79.5% of adults, 22.4% of children) and hitting (64.7% of adults, 16.6% of children), and psychologically abusive behaviors were mostly insults (91.9% of adults, 27.5% of children) and criticism (79.1% of adults, 21.5% of children). This work has shown that the longer the psychological abuse between adults lasts, the greater probability is that it will also be used against children. Child abuse is also associated with putting up resistance to the police by perpetrators.

Conclusions: Summing up, in households where violence between adults is observed, actions should be taken to prevent violence against children.

* Corresponding Author at: Marta Kożybska: Subdepartment of Medical Law, Department of Social Medicine, Pomeranian Medical University in Szczecin, Poland, Żołnierska 48, 71-210 Szczecin. Tel: +48 91 48 00 920; Email: marta.kozybska@pum.edu.pl (Kożybska M.). https://orcid.org/0000-0002-9261-0548

This is an open-access article distributed under the terms of the Creative Commons Attribution 3.0 License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Introduction

Violence is one of the oldest social problems that has not been successfully solved yet. It is estimated that 12% of children in Europe are affected by violence; 64% in Asia; 56% in North America; 50% in Africa; and 34% in Latin America. However, it should be kept in mind that violence is a phenomenon that is difficult to estimate. The prevalence of violence against children varies depending on the form of violence (sexual, physical, emotional, neglect), place of occurrence and gender of the child. The difficulty is the lack of a uniform methodology for collecting this type of information. On the one hand, some researchers obtain this data using the self-reported method, and on the other hand, data collected by specialized institutions are also presented. This causes significant discrepancies in the obtained results. The literature indicates that in Europe the most common form of violence against children is neglect (27.0% median prevalence rates for both genders),
emotional / psychological abuse (21.7% median prevalence rates for both genders), sexual abuse (13.2% median prevalence rates for both genders) and physical violence (12.2% median prevalence rates for both genders). The World Health Organization’s Global Status Report on Preventing Violence Against Children 2020 indicated that violence has long-lasting emotional, social and economic consequences. It is noted in the literature that its consequences are not limited to an individual who experiences violence, but include entire families, communities and nations, from generation to generation.

An important problem associated with domestic violence is that children are exposed to it. Exposure to violence is usually defined as "being within sight or sound of violence". Exposure to violence includes child abuse, school violence, and community or neighborhood violence. Children may also be exposed to intimate partner violence (IPV). This phenomenon is defined as an intimate partner’s behavior that causes physical, sexual or psychological harm, including acts of physical aggression, sexual coercion, psychological abuse and controlling behaviors. The term "intimate partner" includes the following people: a husband, cohabiting partner, boyfriend or lover, or ex-husband, ex-partner, ex-boyfriend or ex-lover. In the past, child exposure to IPV was referred to as IPV "witnessing". However, it is nowadays emphasized that this exposure occurs not only when the child sees or hears violence directly, but always when they are aware of it. Thus, a Canadian Incidence Study of Reported Child Abuse and Neglect distinguishes three forms of IPV exposure: indirect exposure to physical violence (the child overheard violence but did not see the effects of violence as a direct injury, or the child was informed about violence by someone or overheard a conversation about violence), direct exposure to physical violence (the child is a direct witness of violence), and exposure to emotional violence (the child is directly or indirectly exposed to emotional violence between partners).

The frequency of IPV is significant. The World Health Organization (WHO) estimates that 30% of women around the world have experienced IPV. This means that the number of children who witness violence is huge. Individual studies point to different prevalence of IPV exposure, the percentage of children who witness IPV is indicated as 8-25% in high-income countries and 10-39% in middle income countries. This problem is of particular importance during the COVID-19 pandemic. Children living in homes where there is violence between partners are more likely to experience maltreatment and many other adverse consequences, for example, depression. Research indicates that adverse childhood experiences, which also includes IPV, may even result in the development of cancer. Both child exposure to IPV and child maltreatment are described as the "double whammy effect" in the literature.

Prevention of violence

One of the tools for preventing violence against children is legal norms. In 1989, the United Nations ratified the Convention on the Rights of the Child, recognizing freedom from violence as children’s fundamental right. Also, the contemporary law-making activities of the United Nations take into account the issue of violence against children. The 2030 Agenda for Sustainable Development aims to totally eliminate violence against the child.

The Blue Card procedure has been introduced to the Polish law in order to counteract domestic violence. It can be initiated in cases of suspected domestic violence by the police, social workers, school psychologists, or healthcare workers either on their own initiative or on the victim’s request. The initiation of the Blue Card procedure causes that information about the suspicion of domestic abuse is passed to social support organizations, such as the police, as well as social welfare, healthcare, and educational institutions. Representatives of these institutions meet and draw up an appropriate family assistance program.

The Blue Card is a document containing information about perpetrators and victims of abuse (name, surname, kinship, age), children living in the same place (age), forms and duration of adult and child abuse, the behavior of perpetrators during the initiation of the Blue Card procedure, and witnesses of abuse (name, surname, kinship with the victim). Additionally, the Blue Card includes information about offenders that can be useful while developing the plan of assistance. This information is obtained by asking questions whether the offender has already been punished for violent crime or potentially violent crime; abuses alcohol, psychoactive substances or drugs; has been receiving psychiatric treatment; has any weapons. The next part of the questionnaire concerns interventions undertaken due to abusive behavior so far (e.g. direct coercion, temporary detention, detention in a detoxification center).

Factors associated with the use of violence analyzed in the study

In this study we analyzed a relationship between the co-occurrence of adult and child abuse and such factors as: the kinship of perpetrators and victims, duration of abuse, perpetrator’s criminal record, as well as narcotic, psychotropic and medical drug abuse, history of psychiatric treatment, possession of weapons,
behavior at the time of establishing the Blue Card. The presented data refer to domestic violence incidents in the city of Szczecin (Poland) in the years 2012-2013. They do not show lifetime prevalence.

Analysis of the degree of the kinship between perpetrators and victims will enable establishing if only intimate partner violence (IPV) or also violence between other individuals than partners exposes a child to abuse. It can be, for example, violence between grandparents, uncles, adult sisters and brothers, and parents. We also took into account the behavior of the perpetrator at moment of establishing the Blue Card (is he/she aggressive or calm). Establishing the duration of violence will provide the answer to the question if there is a relationship between long-lasting violence between adults and abusive behaviors against children. It can be, for example, violence between grandparents, uncles, adult sisters and brothers, and parents. We also took into account the behavior of the perpetrator at moment of establishing the Blue Card (is he/she aggressive or calm). Establishing the duration of violence will provide the answer to the question if there is a relationship between long-lasting violence between adults and abusive behaviors against children.

Effective prevention of violence should be based on reliable research outcomes concerning the risk factors for domestic violence. The purpose of this study was to analyze the co-occurrence of adult and child abuse based on the Polish violence prevention procedures. This paper enriches the current state of knowledge by identifying the risk factors for violence against children in households where the main problem of police and social assistance interventions is violence between adults.

### Methods

The research method was the analysis of the Blue Card documentation. All Blue Cards are sent to social welfare institutions, where they are kept. We obtained access to the Blue Cards with the consent of the Bioethics Committee, and the director of the Municipal Family Support Center in Szczecin after training on the protection of personal data.

The present study analyzed all BCs from years 2012-2013 in one of the largest metropolitan communities in Poland (the city of Szczecin; 402,067 inhabitants, 170,300 households). There was a total of 1299 reports of violence, 576 in 2012 and 723 in 2013. A further analysis included households with violence between adults in which a cohabiting person was aged 0-18 years. We found 468 of such households. In all those cases the main cause of police/social interventions was violence between adults. Table 1 shows information included in the Blue Cards which were analyzed in this study. The presented results concern the city of Szczecin (Poland) and include information collected by authorized officers during the establishment of the Blue Card.

### Table 1: Information included in the Blue Cards taken into account in the research.

| Victim:          |
|------------------|
| - sex            |
| - kinship with the perpetrator |
| - forms of abuse  |
| - duration of abuse |

| Children living in the same household: |
|---------------------------------------|
| - age                                 |
| - is abuse used against children      |
| - forms of abuse against children     |

| Offender:                         |
|-----------------------------------|
| - sex                             |
| - if was punished for the crime of violence or threat of its use |
| - if abuses alcohol, narcotic, psychotropic or medical drugs |
| - if was treated psychiatrically   |
| - if owns a gun                    |
| - alcohol content level in offender's blood |
| - offender’s behavior during the initiation of the Blue Card procedure: |
|   - difficulty in establishing contact |
|   - calm                           |
|   - tearful                        |
|   - frightened                     |
|   - avoids conversation            |
|   - aggressive                     |
|   - resists the police             |

Are there visible traces of fight at home
of the Blue Cards. These data refer to the description of violence at the time the Blue Card was established (2012-2013), and not to the occurrence of violence during the lifetime.

Statistical inference was based on Pearson’s chi-square independence test. The level of significance was set at $\alpha = 0.05$. Additionally, we used multiple and bi-variate logistic regression to determine the influence of explanatory variables on the odds ratio (OR) of physical and psychological abuse against adults and children. Statistical analysis was performed using SPSS software.

### Results

#### Description of the studied group

Of the full sample of 1299 reports of violence 468 (36.0%) concerned violence between adults in households with a child. In those 468 households 293 (62.6%) cases of violence against adult only were found while 175 (37.4%) against both the adult and the child were noted (see Figure 1).

The extracted 468 households were inhabited by a total of 785 children. The majority of the children were 10 years old or younger. A great majority of the adult respondents experiencing violence were women and the perpetrators were mainly men (Table 2).

![Figure 1. Abuse subgroups](image)

| All reports of violence | 293 | 175 | 831 |
|-------------------------|-----|-----|-----|
| Adult abuse only (households with a child) | | | |
| Both adult and child abuse (child without their own BC) | | | |
| The remaining cases of violence (no child or child with their own BC) | | | |

#### Table 2: Descriptive data of the study sample.

|                                      | n   | %   |
|--------------------------------------|-----|-----|
| Number of households where abuse occurred between adults living with children | 468 | 100.0 |
| Victim’s sex                         |     |     |
| women                                | 426 | 91.0 |
| men                                  | 42  | 9.0  |
| Perpetrator’s sex                    |     |     |
| women                                | 54  | 11.5 |
| men                                  | 413 | 88.3 |
| Number of children in the households | 785 | -   |
| Children’s age                       |     |     |
| 0-10 years                           | 461 | 58.7* |
| 11-18 years                          | 324 | 41.2* |
| Number of households with co-occurring child abuse | 175 | 37.4 |
| Presence of traces of fight in the household | 88  | 18.8 |

*a total number of children (785) was regarded as 100%
Characteristics of violence in the examined households

The most common forms of physical violence in the group of children and adults were pushing, hitting, slapping, and bruises. The most common forms of psychological violence included insults, criticism, humiliation (see Table 3). A part of characteristics shown in Table 4 connected with the violent person and the types of violence was statistically significant. It was: relatedness between the violent person and the person experiencing violence, the duration of violence, the violent persons’ alcohol abuse, psychiatric treatment of a violent person, the violent person’s behavior at the time of establishing the Blue Card, the forms of violence.

The risk factors for violence

The next step was to determine which characteristics affect the prevalence of different forms of violence against the child and against the adult. The factors that increase the odds of psychological abuse against an adult were: prolonged duration of violence (OR=1.73), violent persons’ alcohol abuse (OR=3.50), aggressive behavior of a violent person (OR=16.71). Aggressive behavior of a violent person was positively associated with physical violence (OR=1.87). The factors that increase the odds of psychological abuse against a child were prolonged duration of violence (OR=1.37), violent persons’ alcohol abuse (OR=2.10), difficulty in establishing contact with the violent person (OR=6.57), avoidance of conversation by a violent person (OR=5.03), resisting the police (OR=3.49). The odds of physical violence against a child were increased by: prolonged duration of violence (OR=1.35) and avoidance of conversation by a violent person (OR=5.03) (Table 5).

Table 3: Forms of Violence Used in Households with Children.

|                      | Adult (N = 468) |         | Child (N = 175) |         |
|----------------------|----------------|---------|----------------|---------|
|                      | n   | %     | n   | %     |
| Physical violence    |     |       |     |       |
| pushing              | 372 | 79.5% | 101 | 22.4% |
| hitting              | 303 | 64.7% | 75  | 16.6% |
| slapping             | 211 | 45.1% | 39  | 8.7%  |
| bruises              | 208 | 44.4% | 39  | 8.7%  |
| twisting             | 163 | 34.8% | 24  | 5.3%  |
| choking              | 109 | 23.3% | 18  | 4.0%  |
| scratches            | 149 | 31.8% | 23  | 5.1%  |
| kicking              | 141 | 30.1% | 25  | 5.5%  |
| bleeding             | 83  | 17.7% | 6   | 1.3%  |
| burns                | 3   | 0.6%  | 2   | 0.4%  |
| Psychological violence|   |       |     |       |
| insults              | 430 | 91.9% | 124 | 27.5% |
| criticism            | 370 | 79.1% | 97  | 21.5% |
| humiliation          | 366 | 78.2% | 90  | 20.0% |
| threats              | 338 | 72.2% | 73  | 16.2% |
| ridicule             | 325 | 69.4% | 83  | 18.4% |
| regular troubling    | 309 | 66.0% | 85  | 18.9% |
| control              | 207 | 44.2% | 54  | 12.0% |
| limiting contacts    | 166 | 35.5% | 40  | 8.9%  |
| isolation            | 132 | 28.2% | 30  | 6.7%  |
| demoralization       | 82  | 17.5% | 65  | 14.4% |
The data do not add up to 100% due to gaps in BCs.

### Physical violence against adult

| Violent person's behavior: | Violent person's behavior: |
|--------------------------|--------------------------|
| calm                     | 19.7                     |
| tearful                  | 2.4                     |

### Alcohol content level in violent person's blood

| 0.2-1.0   | 0.2-1.0   |
|-----------|-----------|
| 1.9       | 2.3       |

### Degree of relatedness between the violent person and the person experiencing violence

| Degree of relatedness | Degree of relatedness |
|-----------------------|-----------------------|
| spouse                | 28.2                  |
| no relationship       | 20.3                  |
| descendant            | 9.5                   |
| collateral            | 2.6                   |

### Duration of violence

| Duration of violence | Duration of violence |
|----------------------|----------------------|
| 1-4 weeks            | 28.2                  |
| 2-12 months          | 3.0                   |
| 3-5 years            | 15.4                  |

### Table 4: Selected characteristics of the phenomenon of violence in households with children.

|                                                                 | TOTAL N = 468 | Psychological violence against adult n = 442 | Physical violence against adult n = 393 | Psychological violence against child n = 159 | Physical violence against child n = 119 |
|----------------------------------------------------------------|--------------|---------------------------------------------|----------------------------------------|---------------------------------------------|----------------------------------------|
|                                                                 | Row %        | Chi², p-value                              | Row %                                  | Chi², p-value                              | Row %                                  |
| Age the violent person                                         |              |                                            |                                        |                                            |                                        |
| 18-40                                                           | 45.1         | 0.198                                      | 47.3                                   | 0.084                                      | 44.1                                   | 0.256                                   | 46.2 | 0.613 |
| 41-60                                                           | 33.1         | 0.124                                      | 31.3                                   | 0.061                                      | 34.6                                   | 0.256                                   | 30.3 | 0.596 |
| 61-80                                                           | 3.0          | 3.2                                        | 3.3                                    | 1.3                                        | 1.3                                    | 1.7                                     |      |      |
| lack of data                                                   | 18.8         | 18.8                                       | 18.1                                   | 20.0                                       | 21.8                                   |                                        |      |      |
| Degree of relatedness between the violent person and the person experiencing violence |              |                                            |                                        |                                            |                                        |                                        |      |      |
| spouse                                                          | 51.3         | 54.1                                       | 55.0                                   | 37.197                                     | 56.0                                   | 51.3                                    |      |      |
| no relationship (e.g. co-habitee)                              | 26.9         | 26.7                                       | 27.0                                   | 0.000**                                    | 24.5                                   | 23.5                                    |      |      |
| descendant                                                      | 9.4          | 6.8                                        | 71.398                                 | 0.000**                                    | 10.1                                   | 9.042                                   |      |      |
| collateral                                                      | 5.8          | 5.9                                        | 5.3                                    | 3.8                                        | 3.8                                    | 1.7                                     |      |      |
| stranger (e.g. neighbor)                                        | 0.9          | 0.9                                        | 1.0                                    | 0.6                                        | 0.8                                    |                                        |      |      |
| Alcohol content level in violent person’s blood                 |              |                                            |                                        |                                            |                                        |                                        |      |      |
| 0.2-1.0                                                         | 1.9          | 2.0                                        | 2.3                                    | 2.5                                        | 2.5                                    |                                        |      |      |
| 1.1-2.0                                                         | 12.0         | 12.0                                       | 1.253                                  | 12.7                                       | 1.679                                  | 17.0                                    | 1.070 | 0.010** |
| 2.1-3.0                                                         | 17.5         | 17.2                                       | 0.263                                  | 17.8                                       | 0.195                                  | 15.1                                    | 0.791 | 0.281 |
| 3.1-4.0                                                         | 3.4          | 3.4                                        | 4.1                                    | 1.9                                        | 1.9                                    | 2.5                                     |      |      |
| Violent person’s behavior: difficulty in establishing contacts  |              |                                            |                                        |                                            |                                        |                                        |      |      |
| Violent person’s behavior: calming                              | 20.3         | 19.7                                       | 4.159                                  | 0.041**                                    | 7.7                                    | 1.470                                   |      |      |
| Violent person’s behavior: tearful                              | 7.9          | 7.2                                        | 8.085                                  | 0.04**                                     | 7.1                                    | 0.817                                   |      |      |
| Violent person’s behavior: frightened                           | 9.0          | 0.7                                        | 3.937                                  | 0.047**                                    | 1.0                                    | 0.667                                   |      |      |
| Violent person’s behavior: aggressive                           | 14.5         | 15.2                                       | 2.237                                  | 0.135                                       | 14.5                                   | 1.451                                   |      |      |
| Violent person’s behavior: resists the police                   | 34.0         | 35.7                                       | 12.726                                 | 0.000**                                    | 36.1                                   | 3.201                                   |      |      |
| Psychological violence against child                           | 34.0         | 33.5                                       | 0.020                                  | 0.889                                       | 32.1                                   | 2.692                                   |      |      |
| Physical violence against child                                | 25.4         | 22.9                                       | 12.457                                 | 0.000**                                    | 25.2                                   | 0.049                                   |      |      |
| Psychological violence against adult                            | 94.4         | -                                          | -                                      | -                                          | 93.1                                   | 0.020                                   |      |      |
| Physical violence against adult                                | 84.0         | -                                          | -                                      | -                                          | 79.2                                   | 2.692                                   |      |      |
The results of multivariate analysis only confirmed the connection between duration of violence and psychological abuse against children in the households where psychological abuse against adults occurred, and between resisting by perpetrators to the police and both psychological and physical abuse observed between adults with physical and psychological abuse observed between adults (Table 6).

**Discussion**

The authors’ research focused on a widespread exposure of children to domestic violence, which is violence that occurs not only between parents or parents and partners but also between other cohabiters. Moreover, the study attempted to fill the gap in the current research, indicating the forms of violence children are exposed to and by pointing to the forms which children experience directly.

The authors’ research has shown that domestic violence in households with children is the most frequent between spouses and cohabiters. This concerned both physical and psychological violence. In the study on children’s exposure to violence, the phenomenon of IPV is very important, because IPV increases the risk of child abuse.15, 18

Contrary to Tajima’s29 results it is worth noticing that co-occurrence of violence against adult and children is a common phenomenon and violence against adult was often accompanied by child abuse. This data provides

| Table 5: Bivariate logistic regression of forms of violence and selected variables. |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
|                                  | Psychological violence against adult OR (95% CI) | Physical violence against adult OR (95% CI) | Psychological violence against child OR (95% CI) | Physical violence against child OR (95% CI) |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Duration of violence             | 1.73 (1.04-2.89) **               | 1.21 (0.94-1.56)                 | 1.37 (1.07-1.74) **              | 1.35 (1.06-1.72) **              |
| Violent person was punished for the crime of violence or threat of its use | 1.03 (0.29-3.71)                | 0.71 (0.30-1.67)                 | 0.85 (0.37-1.95)                 | 0.63 (0.28-1.45)                 |
| Violent person abuses alcohol    | 3.50 (1.41-8.69) **               | 1.58 (0.90-2.76)                 | 2.10 (1.18-3.72) **              | 1.21 (0.68-2.16)                 |
| Violent person abuses narcotic, psychotropic or medical drugs | 2.52 (0.33-19.64)              | 1.44 (0.58-3.57)                 | 1.46 (0.64-3.33)                 | 1.05 (0.46-2.41)                 |
| Violent person was treated psychiatrically | 0.91 (0.19-4.22)               | 0.9 (0.39-2.05)                  | 2.26 (0.91-5.58) **              | 1.97 (0.86-4.51)                 |
| Violent person owns a gun        | 56606936 (-)                     | 0.51 (0.10-2.60)                 | 2.50 (0.27-22.74)                | 2.63 (0.23-29.53)                |
| Violent person’s behavior difficulty in establishing contacts | 1.46 (0.38-5.55)               | 0.91 (0.44-1.88)                 | 6.57 (2.70-15.98) ***            | 1.54 (0.76-3.11)                 |
| Violent person’s behavior calm   | 0.32 (0.10-1.00) *               | 0.77 (0.37-1.56)                 | 0.58 (0.30-1.13)                 | 1.17 (0.60-2.29)                 |
| Violent person’s behavior tearful | 0.20 (0.06-0.67) **             | 0.42 (0.17-0.97) **              | 0.54 (0.21-1.34)                 | 0.47 (0.17-1.24)                 |
| Violent person’s behavior frightened | 0.13 (0.01-1.37) *             | 250184160 (-)                    | 1.44 (0.12-16.32)                | 175394138 (-)                    |
| Violent person’s behavior avoids conversation | 4.25 (0.54-33.34)           | 0.8 (0.37-1.72)                  | 5.03 (2.06-12.28) ***            | 2.72 (1.26-5.85) **              |
| Violent person’s behavior aggressive | 16.71 (2.12-131.38) **         | 1.87 (0.93-3.72) **              | 1.79 (0.94-3.42) *               | 0.93 (0.48-1.78)                 |
| Violent person’s behavior resists the police | 93527492 (-)               | 0.81 (0.35-1.83)                 | 3.49 (1.52-8.00) **              | 1.42 (0.67-3.01)                 |
| Alcohol content level in violent person’s blood | 0.73 (0.29-1.78)         | 0.95 (0.48-1.86)                 | 0.65 (0.36-1.15)                 | 0.87 (0.49-1.51)                 |
| Age the violent person           | 2.19 (0.94-5.10) *               | 0.68 (0.42-1.07)                 | 0.82 (0.52-1.30)                 | 0.79 (0.50-1.26)                 |

* p < .1, ** p < .05, *** p < 0.001
some insight into the scale of the phenomenon of violence in society, but little is known about the forms of violence which children are exposed to, and the risk factors for violence. The literature indicates that there is still insufficient knowledge on the types of IPV-related violence that children are exposed to. The authors’ research fills this gap. The outcomes clearly show that in households with children, the most common forms of physical violence between adults were pushing (79.5%), hitting (64.7%) and slapping (45.1%). The most frequent forms of psychological violence were insults (91.9%), criticism (79.1%), and humiliation (78.2%). To date, it has been shown that there is a relationship between physical violence against children and the prevalence of domestic violence. We have supplemented this knowledge by verifying if this relationship depends on physical or psychological violence. It has been shown that the use of physical violence against the child is significantly related to using psychological violence between adults.

We also focused on factors associated with using violence against children. The previous research has identified such factors as loss of job by parents, poverty, criminality, mental illness, substance abuse, incarceration of a household member, violence against the mother, separation of parents. During the COVID-19 pandemic, there is evidence of a greater prevalence of violence against children as a result of isolation and social distance, but not all studies confirm this.

In the discussion on the risk factors for child abuse, the IPV risk factors cannot be ignored. Among these factors the following have been distinguished so far: low level of education (both men and women), violence against women in childhood, low socio-economic status, rural place of residence, higher number of children and separate or divorced marital status. The partner’s unemployment was a factor as well, although Indian research does not support this thesis. The co-occurrence of domestic violence with physical violence against children correlates with such factors as lower education, poor health and depression in the family.

The authors’ research has identified such factors as behavior of a person who uses violence, psychological violence as the risk factor for physical violence, alcohol abuse, duration of violence, mental illness. As far as the behavior of a person using domestic violence is concerned, it has been shown that there is a relationship between physical violence and psychological violence. It has been shown that the use of physical violence against the child is significantly related to using psychological violence between adults.
curred, it has been shown that women's exposure to severe physical injuries is related to jealousy, suspicion and control from their partners. The research revealed that perpetrator's anxiety and aggression were associated with violence between adults and resistance to the police has with child abuse. There was no statistically significant relationship between prior conviction of the perpetrator for using violence or a threat of its use and the use of a given form of violence. However, it should be emphasized that in up to 12.2% of the analyzed households, the perpetrator of violence had a criminal history record. The literature confirms the relationship between crime and domestic violence and the use of child maltreatment. It has also been proven that co-occurrence of domestic violence and physical violence against the child is related to arresting the father for crime rather than for domestic violence.

In the presented research, the relation has been shown between the use of psychological violence between adults and the use of physical violence against a child. Sabri et al. point out that psychological abuse is a risk factor for severe physical abuse between adults, however, the authors' research did not confirm this thesis.

An important risk factor for violence is alcohol use. It correlates with the prevalence of violence between partners and child maltreatment. The co-occurrence of domestic violence and physical violence against the child is related to both alcohol and drug use. In our research, the fact of alcohol abuse by the perpetrator was associated with psychological violence against the adult. Multivariate analysis did not confirm it to be related to child abuse. It was not found that the perpetrator's psychiatric illness correlated with physical violence against the child or against the adult. Nevertheless, other research suggests that a psychiatric illness can be a factor associated with child abuse and exposure to domestic violence. Gonzalez et al. reported that a caregiver’s mental illness is a significant risk factor for child behavior problems related to IPV exposure.

For designing the preventive measures, an important finding from the authors' research is that a long-term prevalence of violence between adults also correlated with psychological and physical violence against the child. This justifies the need for early interventions in environments where domestic violence occurs. Moreover, Sabri et al. have demonstrated a relationship according to which being in a long-term relationship is related to experiencing a serious trauma as a result of IPV.

To sum up, the fact that children are witnesses of violence is a major social problem. Violence in households with children lasts for a long time and is reported late. The fact that there is just violence between adults does not mean that the child is not at risk. The results obtained in this study suggest that the longer violence between adults maintains, the higher the risk that the child will not only be an indirect or direct witness, but that violence will also be directed against him or her. It has also been shown that in households where the adult is affected by psychological violence, the child is at risk of physical violence.

Thus, the results of the research justify early interventions to eliminate domestic violence. Early interventions, also when there is only psychological violence between partners, taken especially against the perpetrators who refuse to cooperate, can help to protect children against experiencing domestic violence directly.

Limitations
This study had a number of limitations. It should be noted that this research did not directly assess children's exposure to adult domestic violence. Nevertheless, the literature indicates that one of the forms of exposure to domestic violence is being ostensibly unaware, that is, situations when the child does not know about violence between parents. Among the analyzed risk factors there were no such factors as family’s financial situation, overcrowding of the household, or education of adult inhabitants. However, analysis of these aspects was not possible because such information was not included in the Blue Cards, which were the research material of this study.

Acknowledgement
The authors would like to thank the employees of the Municipal Family Support Center in Szczecin for providing access to blue cards.

Funding: This study is funded by Pomeranian Medical University in Poland.

Competing interests: None declared.

Ethical approval: We received the approval of the Bioethics Committee of the Pomeranian Medical University in Szczecin.
References

1. Hillis S, Mercy J, Amobi A, Kress H. Global Prevalence of Past-year Violence Against Children: A Systematic Review and Minimum Estimates. Pediatrics. 2016, http://pediatrics.aappublications.org/content/early/2016/01/25/peds.2015-4079, accessed 18 Jul 2017.

2. Moody G, Cannings-John R, Hood K, Kemp A, Robling M. Establishing the international prevalence of self-reported child maltreatment: a systematic review by maltreatment type and gender. BMC Public Health. 2018;18:1–15.

3. World Health Organization. Global Status Report on Prevention of Violence Against Children 2020. World Health Organization. 2020, https://www.who.int/teams/social-determinants-of-health/violence-prevention/global-status-report-on-violence-against-children-2020, accessed 18 Jul 2017.

4. Edleson JL, Shin N, Johnson Armendariz KK. Measuring children's exposure to domestic violence: The development and testing of the Child Exposure to Domestic Violence (CEDV) Scale. Child Youth Serv Rev. 2008;30:502–21.

5. Wright EM, Fagan AA, Pinchevsky GM. The effects of exposure to violence and victimization across life domains on adolescent substance use. Child Abuse Negl. 2013 Nov;37(11):899-909.

6. World Health Organization. Violence against women prevalence estimates, 2018: global, regional and national prevalence estimates for intimate partner violence against women and global and regional prevalence estimates for non-partner sexual violence against women 2021, https://www.who.int/publications/i/item/9789240022256, accessed 3 January 2022.

7. Gonzalez A, MacMillan H, Tanaka M, Jack S, Tomynyl R. Subtypes of exposure to intimate partner violence within a Canadian child welfare sample: associated risks and child maladjustment. Child Abuse Negl. 2014 Dec;38(12):1934–44.

8. Public Health Agency of Canada. Canadian Incidence Study of Reported Child Abuse and Neglect 2008 (CIS-2008): Major Findings | Canadian Child Welfare Research Portal, https://cwrp.ca/publications/canadian-incidence-study-reported-child-abuse-and-neglect-2008-cis-2008-major-findings, accessed 30 Sep 2021.

9. Public Health Agency of Canada. Appendix G: CIS-2008 guidebook. 2010, http://www.phac-aspc.gc.ca/cmv-cee/csc-cvex/2008/cis-e-ci-16-eng.php, accessed 3 January 2022.

10. Fang X, Fry DA, Brown DS, Mercy JA, Dunne MP, Butchart AR, et al. The burden of child maltreatment in the East Asia and Pacific region. Child Abuse Negl. 2015 Apr;42:146–62.

11. Gilbert R, Widom CS, Browne K, Ferguson D, Webb E, Janson S. Burden and consequences of child maltreatment in high-income countries. Lancet. 2009 Jan 3;373(9657):68-81.

12. Ferrara P, Franceschini G, Corsello G, Mestrovic J, Giardino I, Vural M, et al. Children Witnessing Domestic and Family Violence: A Widespread Occurrence during the Coronavirus Disease 2019 (COVID-19) Pandemic. J Pediatr. 2021 Aug;235:305-306.e2.

13. Finkelhor D, Turner H, Ormrod R, Hamby SL. Violence, Abuse, and Crime Exposure in a National Sample of Children and Youth. Pediatrics. 2009;124:141–23.

14. Chan KL, Chen Q, Chen M. Prevalence and Correlates of the Co-occurrence of Family Violence: A Meta-Analysis on Family Polyvictimization. Trauma, Violence, Abuse, 2021;22:289–305.

15. Silva E, Silva EP. Depression in childhood: The role of children’s exposure to intimate partner violence and maternal mental disorders. Child Abuse Negl. 2021;122.

16. Hu Z, Kaminga AC, Yang J, Liu J, Xu H. Adverse childhood experiences and risk of cancer during adulthood: A systematic review and meta-analysis. Child Abuse Negl. 2021 Jul;117:105088.

17. Dim EE, Elabor-Imadudia P. Severity and Predictors of Physical Intimate Partner Violence against Male Victims in Canada. Journal of Aggression, Maltreatment & Trauma. 2020.

18. United Nations. Transforming our World: The 2030 Agenda for Sustainable Development. United Nations. 2015, https://sustainabledevelopment.un.org/post2015/transformingourworld/publication, accessed 1 Oct 2021.

19. Act of July 29, 2005 on counteracting domestic violence. Journal of Laws 2015.0.1390, http://usaj.sjednoczony.org.pl/usaj.nsf/DocDetails.aspx?Document=WDU20051801493, accessed 3 January 2022.

20. Mas B, Giezek M, Ciechowicz J, Zabielesko P, Bozydło M, Tomczak J, et al. The analysis of the phenomenon of violence in psychiatric patients Environmental Self-Help House in Szczecin. Polish Medical Journal of Psychiatry 2018;28:52(1):103–13.

21. Dong M, Anda RF, Felitti VJ, Dube SR, Williamson DF, Thompson TJ, et al. The interrelatedness of multiple forms of childhood abuse, neglect, and household dysfunction. Child Abuse Negl. 2004 Jul;28:771-84.

22. Herrenkahzl TJ, Sousa C, Tajima EA, Herrenkahzl RC, Moylan CA. Intersection of child abuse and children’s exposure to domestic violence. Trauma Violence Abuse. 2008 Apr;9(2):84-99.

23. Hartley CC. The co-occurrence of child maltreatment and domestic violence: examining both neglect and child physical abuse. Child Maltreat. 2002 Nov;7(4):349-58.
24. Sabri B, Renner LM, Stockman JK, Mihal M, Dedker MR. Risk factors for severe intimate partner violence and violence-related injuries among women in India. Women Health. 2014;54(4):281-300.

25. Buzawa ES, Buzawa CG. What does research suggest are the primary risk and protective factors for intimate partner violence (IPV) and what is the role of economic factors? J Policy Anal Manag. 2013;32:128-37.

26. Biuletyn Informacji Publicznej Urzędu Miasta Szczecin. Zestawienie liczby osób zameldowanych na terenie Miasta Szczecin. 2017, http://bip.um.szczecin.pl/chapter_131096.asp, accessed 4 Nov 2017.

27. U.S. Department of Justice, Bureau of Justice Statistics. Sourcebook of Criminal Justice Statistics 2020. https://www.albany.edu/sourcebook/2020/pdf/16-260.pdf, accessed 22 Jan 2021.

28. Afiez A, Masud MS, Mansur M. Impact of child's cognitive and social-emotional difficulties on child abuse: Does mother's justification of intimate partner violence also play a role? Child Abuse Negl. 2021 Jul;117:105028.

29. Tajima EA. Correlates of the Co-Occurrence of Wife Abuse and Child Abuse Among a Representative Sample. J Fam Violence. 2004; 19(6):391-402.

30. Edleson JL, Ellerton AL, Seagren EA, Kirchberg SL, Schmidt SQ, Ambrose AT. Assessing child exposure to adult domestic violence. Child Youth Serv Rev. 2007;29:61-71.

31. Herrenkohl TI, Herrenkohl RC. Examining the Overlap and Prediction of Multiple Forms of Child Maltreatment, Stressors, and Socioeconomic Status: A Longitudinal Analysis of Youth Outcomes. J Fam Violence. 2007;22:553-62.

32. Lawson M, Piel MH, Simon M. Child Maltreatment during the COVID-19 Pandemic: Consequences of Parental Job Loss on Psychological and Physical Abuse Towards Children. Child Abuse Negl. 2020 Dec;110:104709.

33. Kim H, Drake B. Child maltreatment risk as a function of poverty and race/ethnicity in the USA. Int J Epidemiol. 2018;47:780-7.

34. Morris MC, Marco M, Maguire-Jack K, Kouras CD, Bailey B, Ruiz E, et al. Connecting child maltreatment risk with crime and neighborhood disadvantage across time and place: A Bayesian spatio-temporal analysis. Child Maltreat. 2019 May;24(2):181-192.

35. Clemens V, Berthold O, Witt A, Socher C, Brähler E, Plener PL, et al. Child maltreatment is mediating long-term consequences of household dysfunction in a population representative sample. Eur Psychiatry. 2019 May;58:10-18.

36. Rapp A, Fall G, Rodomansky AC, Santarosa S. Child Maltreatment during the COVID-19 Pandemic: A Systematic Rapid Review. Pediatr Clin North Am. 2021 Oct;68(5):991-1009.

37. Campbell JC, Webster D, Koziol-McLain J, Block C, Campbell D, Curry MA, et al. Risk factors for femicide in abusive relationships results from a multi-site case control study. Am J Public Health. 2003 Jul;93(7):1089-97.

38. Krishnan S, Rocca CH, Hubbard AE, Subbiah K, Edmeades J, Padlan NS. "Do Changes in Spousal Employment Status Lead to Domestic Violence? Insights from a Prospective Study in Bangalore, India". Soc Sci Med. 2010 Jan; 70(1): 136-143.

39. Wamser-Nanney R, Nanney JT, Conrad E, Constans JL. Childhood trauma exposure and gun violence risk factors among victims of gun violence. Psychol Trauma. 2019 Jan;11(1):99-106.

40. Holden G. Children exposed to domestic violence and child abuse: terminology and taxonomy. Clin Child Fam Psychol Rev. 2003 Sep;6(3):151-60.
Goharshad Mosque, Mashhad, Iran.