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GLAVAN Petru

MEDICO-LEGAL IDENTIFICATION OF PHYSICAL DOMESTIC VIOLENCE IN ADULTS

351.01 – FORENSIC MEDICINE

Summary of the doctoral thesis in medical sciences

The thesis was developed at the Department of Forensic Medicine, *Nicolae Testemițanu* State University of Medicine and Pharmacy, Republic of Moldova.

Scientific adviser

Pădure Andrei,

Dr. habil. med. sci., associated professor

Guidance Committee Members:

Spinei Larisa,

Dr. habil. med. sci., professor

Cazacu Doina,

PhD in law, associated professor

Bondarev Anatolii,

PhD med. sci., associated professor

Domon -

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Members of the Public PhD Thesis Defense Committee:

Gramma Rodica,

Dr. habil. med. sci., associated professor, Chairperson

Pădure Andrei,

Dr. habil. med. sci., associated professor, scientific adviser

Scripcaru Călin,

PhD med. sci., professor, reviewer

Bodrug-Lungu Valentina,

Dr. habil. pedagogy, professor, reviewer

Bondarev Anatolii,

PhD med. sci., associated professor, reviewer

Alons

Author

Glavan Petru

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INTRODUCTION

Domestic violence represents one of the most serious and widespread public health problems facing contemporary society, infringing upon the rights and human dignity of its members, with severe physical, emotional, financial, and social consequences for victims, families, and society as a whole [11, 14]. By its very nature, domestic violence undermines family stability and affects all members, including children, who, as direct victims or witnesses of interpersonal conflicts, are exposed to a traumatic environment [16]. It is also associated with engagement in risk behaviors, which may persist into later life [5, 6]. Despite being recognized as a social and public health issue for several decades, domestic violence remains underreported and, consequently, underestimated, making its prevalence a matter of ongoing concern. According to global statistics, domestic violence is the most common and widespread form of victimization of women [2, 14, 17, 20], which can be explained by the persistence of stereotypes and beliefs regarding traditional patriarchal gender roles in families and society [1, 8]. Thus, according to WHO statistical data [20], globally, 35% of women have experienced physical or sexual violence from an intimate partner at least once. Statistics provided by the Council of Europe [17] indicate that 45% of women have experienced some form of violence during their lifetime, while 12% to 15% of women in Europe aged over 16 are victims of domestic violence. At the national level, 73% of women have experienced at least one form of violence from an intimate partner at some point in their lives, with physical violence reported in 33% of cases, which is well above the EU average [17]. According to the Ministry of Internal Affairs of the Republic of Moldova, in 2024, 2471 cases of domestic violence were recorded, of which 81.3% of the victims were women. The magnitude of domestic violence can also be reflected in the dynamics of victims reporting to the police. The scale of the phenomenon is also reflected in the increasing number of police reports, rising from 6706 cases in 2013 to 15976 in 2024 [9]. It is also notable that approximately 30 homicides related to domestic violence and 5 suicides caused by domestic violence are recorded annually in the Republic of Moldova. According to the Center for Forensic Medicine, around 4430 forensic examinations and evaluations concerning domestic violence victims are conducted each year.

In recent years, the Republic of Moldova has undertaken several measures aimed at reducing the incidence of domestic violence and violence against women. Among the most significant are the adoption of Law No. 45/2007 on the prevention and combat of domestic violence [7] and the ratification (October 14, 2021) of the Council of Europe Convention on Preventing and Combating Violence against Women and Domestic Violence (2011), also known as the Istanbul Convention [15]. Despite progress in this field, the Council of Europe Action Plan for the Republic of Moldova 2021–2024 [12] highlights concerns raised by the UN Committee on the Elimination of Discrimination against Women regarding the prevalence of domestic violence and the health sector's limited capacity to identify injuries characteristic of domestic violence, particularly in cases of repeated abuse. In this regard, both international [4, 14] and national [3, 10] standards for the intervention of healthcare and forensic institutions in cases of domestic violence stipulate that the identification of domestic violence victims is the first essential step in providing an adequate response. To achieve this, healthcare professionals must be familiar with the specific signs indicative of domestic violence, including the particularities of bodily injuries. In this context, forensic medicine services maintain a substantial information repository regarding the characteristics of injuries observed in victims of domestic violence, which can be scientifically

analyzed to establish injury patterns and victim profiles. Providing such tools to professionals facilitates the identification of victims even in cases that are not formally reported.

The health sector plays a crucial role in preventing domestic violence by contributing to the early identification of abuse, providing necessary treatment, and referring victims to other support services. International organizations, including the World Health Organization, recommend continuous training of healthcare personnel to appropriately address violence against women [21]. A specific objective of the National Program for the Prevention and Combating of Violence against Women and Domestic Violence for 2023–2027 [13] is the integration of topics related to violence against women and domestic violence into both initial and ongoing training curricula for all professionals responsible for preventing and addressing domestic violence, including physicians. The same provisions are reflected in Article 15 of the Istanbul Convention (2011) [15], which requires signatory parties to provide or strengthen appropriate training for relevant professionals. Knowledge of domestic violence, including risk factors, health consequences, and effective intervention strategies, is fundamental to delivering an adequate health-sector response. In the absence of an appropriate approach, victims of domestic and genderbased violence may lose confidence in the healthcare system, hesitate to seek medical assistance, or, even when they do, may be retraumatized and deprived of adequate intervention, potentially preventing them from exercising their constitutional rights to health, bodily integrity, life, and access to justice.

Purpose of the study: Assessment of medical education needs and development of tools for identifying adult victims to strengthen the health system's response to physical domestic violence.

To achieve the proposed goal, the following objectives were established:

- 1. Determining the incidence of domestic violence based on forensic data at the national level;
- 2. Assessing the level of awareness, perceptions, and training needs of current and future physicians regarding domestic violence;
- 3. Identifying the social profile of adult victims of non-fatal physical domestic violence and their injury patterns;
- 4. Providing scientifically supported practical recommendations to facilitate the identification of adult victims of non-fatal domestic violence based on their social profile and injury pattern.

General research methodology.

The scientific research was conducted within the Department of Forensic Medicine at the *Nicolae Testemițanu* State University of Medicine and Pharmacy. To achieve the proposed objectives, a descriptive study was carried out, which, based on the sample size, was both comprehensive and selective. The research covered the period from 2017 to 2024 and focused on the analysis of statistical data from the annual reports of the Center for Forensic Medicine, forensic reports on domestic violence victims from the CFM archives, and the results of questionnaires perfomed on medical students at *Nicolae Testemițanu* SUMPh and to physicians from healthcare institutions across the Republic of Moldova. The comprehensive study included a sample consisting of statistical information extracted from the annual reports of the Center for Forensic Medicine for the years 2017–2024 and allowed for determining the prevalence, trends, and demographic aspects of domestic violence in the Republic of Moldova based on forensic data. The selective study comprised two samples. The first sample, which included forensic reports concerning adult victims of domestic violence, was designed to obtain information about the victims' demographic characteristics, social aspects, circumstances of the traumatic incident, and the morphological nature and severity of injuries. The second sample, consisting of current and

future physicians from healthcare institutions in the Republic of Moldova, aimed to assess the awareness, perceptions, and training needs of medical students and physicians in the field of domestic violence through a structured questionnaire. The data obtained during the study were subjected to statistical analysis, and the results formed the basis for drawing conclusions. The research methods employed included historical, mathematical, comparative, statistical, analytical, and sociological approaches.

The research protocol was positively approved at the meeting of the Ethics Committee of the Doctoral School in Medical Sciences at the *Nicolae Testemiţanu* State University of Medicine and Pharmacy (approval No. 3 of May 18, 2023).

Scientific novelty and theoretical significance of the results obtained.

At the national level, until now, no fundamental studies have been conducted focusing on the issue of domestic violence from a medico-legal perspective. Likewise, a detailed analysis of the training needs of medical personnel to effectively identify and manage cases of domestic violence has not been carried out. As a result of this study, for the first time, the social profile of adult victims of non-lethal physical domestic violence and the injury patterns were identified, providing a practical tool for forensic doctors and clinicians. Based on these findings, a set of practical recommendations was developed regarding the medical and medico-legal examination of this group of victims, aimed at enhancing professional capacity to identify cases of non-lethal physical domestic violence (especially when victims do not report acts of family violence), a decisive action in preventing, combating, and reducing the social risks induced by domestic violence. At the same time, the training needs of current and future doctors in medical institutions in the Republic of Moldova in the field of domestic violence were highlighted. Such research is essential for developing a solid theoretical framework to support the implementation of concrete policies and measures in the prevention and combating of domestic violence.

Theoretical importance and practical value.

The injury pattern established in this study will enhance the capacity of physicians, including forensic doctors, to identify adult victims of domestic violence and will ensure the provision of medical and medico-legal evidence for judicial proceedings. This measure will enable the demonstration of domestic violence, the legal classification of the aggressor's acts, holding the perpetrator accountable, and securing victims' right to fair justice. The research results have also been used to adjust the content of the course *Domestic and Gender-Based Violence*, conducted at the Department of Forensic Medicine of the *Nicolae Testemițanu* State University of Medicine and Pharmacy for medical students and practicing physicians within the framework of continuing medical education. Furthermore, the study supports the implementation of the *National Program for the Prevention and Combating of Violence Against Women and Domestic Violence for 2023–2027*, approved by the Government of the Republic of Moldova, as well as the *Council of Europe Convention on Preventing and Combating Violence Against Women and Domestic Violence*, ratified by the Parliament of the country.

Approval of the study results.

The research results were reported and discussed at national and international scientific forums, including: the International Scientific Conference "Prevention and Combating of Domestic Violence" (Chişinău, Republic of Moldova, 2022); 15th European Exhibition of Creativity and Innovation (EUROINVENT) (Iași, Romania, 2023); International Scientific-Practical Conference "The Contemporary Family between Tradition and Law" (Chișinău, Republic of Moldova, 2023); The International Conference of Forensic Medicine – 3rd Edition (Cluj-Napoca, Romania, 2023); Annual Scientific Conference "Research in Biomedicine and

Health: Quality, Excellence, and Performance" (Chişinău, Republic of Moldova, 2023); XXI International Balkan and Near Eastern Congresses Series on Economics, Business, and Management (Plovdiv, Bulgaria, 2024); 5th Congress of Family Physicians of the Republic of Moldova with International Participation (Chişinău, Republic of Moldova, 2024); 10th International Symposium of the Osteuropaverein Rechtsmedizin E.V. "Domestic and Gender-Based Violence" (Chişinău, Republic of Moldova, 2024); 16th European Exhibition of Creativity and Innovation (EUROINVENT) (Iași, Romania, 2024); 103rd Annual Meeting of the German Society of Forensic Medicine (Potsdam, Germany, 2024); 3rd Edition of the International Exhibition of Innovation and Technology Transfer (EXCELLENT IDEA) 2024 (Chişinău, Republic of Moldova, 2024); 15th Annual Scientific Meeting of the Balkan Academy of Forensic Sciences (Iași, Romania, 2024).

The study results were discussed and approved at the meeting of the Department of Forensic Medicine of the *Nicolae Testemițanu* State University of Medicine and Pharmacy (minutes no. 2 of 08.09.2025), as well as at the scientific seminar of specialties 311. Anatomy and Morphology; 351. Interdisciplinary Medicine (minutes no. 3 of 16.10.2025).

Publications on the thesis topic.

A total of 20 scientific works have been published on the thesis topic, including: 1 article in an ISI-indexed international journal, 5 articles in journals listed in the National Register of Specialized Journals, 4 materials/abstracts at international conferences, and 8 materials/abstracts at national conferences. The research results have also been utilized in 2 specialized books: *Knowledge and Perceptions of Physicians and Medical Students Regarding Domestic Violence* (2023) and *Identification of Adult Victims of Domestic Violence Based on Social Profile and Injury Pattern* (2024). Based on the research results, 2 innovation certificates and 2 implementation acts have been registered.

Summary of the thesis sections.

The thesis is written in Romanian as a manuscript. The work is presented on 166 pages of text and includes: a list of abbreviations, a list of tables, a list of figures, an introduction, 5 chapters, general conclusions, and practical recommendations. The work is complemented by a list of references containing 260 sources, 5 annexis, a statement of responsibility, and the author's CV.

Keywords: domestic violence, physicians, medical students, knowledge, perceptions, victim, medico-legal examination, social profile, injury pattern.

THESIS CONTENTS

1. THE CONCEPT OF DOMESTIC VIOLENCE. SOCIAL AND MEDICAL ASPECTS

Domestic violence represents one of the most serious violations of fundamental human rights and constitutes a public health problem, often underreported and insufficiently assessed, despite efforts to raise awareness and prevent it [11, 14]. This phenomenon has a profound and complex impact on the physical and mental health of victims, manifesting in the short, medium, and long term, while also affecting the overall health of society and generating significant economic costs that influence the development and well-being of communities. The concept of domestic violence has evolved from tacit acceptance in traditional societies, where men held absolute control over the family [1, 8], to explicit recognition as a social and legal issue. According to the Istanbul Convention and the legislation of the Republic of Moldova, domestic violence includes any act of physical, sexual, psychological, spiritual, or economic violence committed between family members, regardless of cohabitation [7, 15]. In the Republic of Moldova, the legislative framework is aligned with international standards through Law No. 45/2007 on the prevention and combating of violence against women and domestic violence, as well as through intersectoral intervention mechanisms [7].

The phenomenon is primarily caused by the power imbalance between genders and the persistence of gender stereotypes [2, 14, 17, 20]. The World Health Organization emphasizes that domestic violence significantly contributes to the poor health status of societies and is associated with numerous short- and long-term physical and mental health problems, including an increased risk of trauma, anxiety-depressive disorders, substance abuse, and premature mortality [18, 19, 20, 21]. Global prevalence data indicate that nearly one-third of women experience physical or sexual violence during their lifetime [17, 20]. The health sector plays a vital role in combating domestic violence by contributing to the early identification of abuse, providing victims with the necessary treatment, and referring them to support services [11, 14, 19]. The WHO (2022) also recommends the training of healthcare professionals to adequately respond to violence against women [21]. The level of knowledge regarding domestic violence plays a crucial role in appropriately addressing and managing this serious social problem. Understanding the aspects of domestic violence, including risk factors, health effects, and effective intervention methods, is fundamental to ensuring an adequate response within the healthcare system [11, 14, 19, 21].

A major difficulty in identifying domestic violence stems from its low visibility, which hinders the intervention of institutions and professionals [14]. An essential tool for facilitating the identification of victims of domestic violence is the study and development of a social profile and an injury pattern of the victims.

2. MATERIALS AND RESEARCH METHODS

2.1. General characteristic of the study

The scientific research was carried out within the Department of Forensic Medicine of the *Nicolae Testemițanu* State University of Medicine and Pharmacy and was based on the analysis of statistical data from the annual reports of the Center of Forensic Medicine, forensic reports of victims of non-lethal physical domestic violence from the archives of the Center, and the results of surveys conducted among medical students of *Nicolae Testemițanu* SUMPh and physicians from medical institutions in the Republic of Moldova. The research period covers the years 2017–2024.

By its nature, the study is **observational, descriptive, and cross-sectional**, and according to the volume of data analyzed – both **comprehensive and selective**. *The comprehensive study* included all annual reports of the Center of Forensic Medicine for the period 2017–2024. This study allowed for the determination of the extent, trends, and demographic aspects of domestic violence in the Republic of Moldova based on medico-legal data.

The selective study included 2 samples:

- 1) current and future physicians from medical institutions in the Republic of Moldova
- 2) judicial and extrajudicial forensic reports concerning adult victims of domestic violence.

Table 1. Characteristics of the study samples

Research objects	Annual reports of the CFM	Students and physicians	Forensic reports	
Source of information	CFM	SUMPh, PHCI	CFM archive	
Time period analyzed	2017-2024	2023	2018-2023	
General statistical population	8	16330	21200	
Size of the representative sample	8	Students: 209 Physicians: 616	754	
Research methods	historical, mathematical, comparative, statistical	mathematical, comparative, sociological, statistical	historical, mathematical, comparative, expertise-based, statistical	

2.2. Characteristics of the study samples

2.2.1. Annual reports of the Center of Forensic Medicine

Sample volume. The research encompassed 8 annual activity reports of the CFM, corresponding to the analyzed period.

Research period. The study analyzed data from the annual reports of the Center of Forensic Medicine for the period 2017–2024.

Study extend. Data on the number of medico-legal examinations and findings concerning victims of domestic violence, including those with fatal outcomes, were extracted from the annual reports of the CFM. The analysis also included a territorial-regional approach, conducted both at the level of each territorial medico-legal subdivision and through their classification into four regions: North, Center, South, and the municipality of Chişinău (including the Ialoveni district).

Research tool. The extracted data were collected and processed using MS Excel 2016 from the Microsoft Office suite.

Research methods. For the processing and interpretation of the sample data, various research methods were applied: observation, historical, chronological series, mathematical, statistical, and comparative.

2.2.2. Physicians, resident doctors, and medical students in the Republic of Moldova

Sample volume. As a general statistical population (N), 4116 medical students (SUMPh data – January 2023) and 12214 doctors (Statistical Yearbook Public Health in Moldova 2022) were considered.

The representative research sample was calculated using EpiInfo 7.2.2.6, in the StatCalc –

Sample Size and Power section, based on the following parameters: a confidence interval of 95.0% for result significance, a total statistical population of 16,330 medical students and doctors, a probability of occurrence of the phenomenon of 50.0%, and a design-effect of 2. The size of the representative sample was calculated to be 750 students and doctors surveyed, to obtain the final sample size adjusted for the non-response rate. Compliance with the structure of the general statistical population was ensured by stratifying the sample according to the professional status of respondents based on their proportion. Within the calculated general statistical population, the proportion of students was 25.3% and of doctors -74.7%. Thus, the number of these categories of respondents in the representative sample was estimated to be at least: students -209 and doctors -616.

Research period. The respondents were surveyed during the period 20.05 – 30.06.2023.

Study extend. To obtain reliable results, the study protocol clearly defined the inclusion and exclusion criteria:

Inclusion criteria:

- ➤ moldavian students of *Nicolae Testemiţanu* SUMPh from different faculties and years of study;
- resident doctors of *Nicolae Testemițanu* SUMPh from different specialties;
- > physicians of various specialties from PHCI district, municipal, and republican hospitals, Family Doctor Centers and Health Centers.

Exclusion criteria:

- international students of *Nicolae Testemițanu* SUMPh;
- > mid-level medical staff.

Research tool. To achieve the study's stated objective, an instrument for data collection was developed in the form of an anonymous and confidential questionnaire called the *Questionnaire* for assessing the training needs of doctors and medical staff in the field of domestic violence. It included four sections: I) sociodemographic data about the respondent; II) assessment of knowledge of the phenomenon; III) assessment of the respondent's perceptions; and IV) evaluation of attitudes regarding the course. The questionnaire comprised 49 questions, of which 43 were closed-ended, 3 were semi-open, and 3 were open-ended, including semantic scale and control questions.

Research management. For the purpose of easier respondent surveying, the questionnaire was structured and administered on the Google Forms platform, ensuring unlimited access for potential respondents from across the country and representatives of various specialties.

Research methods. The collected data were analyzed using the following methods: survey, stratified sampling, mathematical, comparative, statistical, analytical.

2.2.3. Forensic reports on adult victims of non-lethal physical domestic violence

Sample volume. As the general statistical population (N), 21200 victims of physical domestic violence examined within the territorial subdivisions of the Forensic Medicine Center during the years 2018–2023 were considered (annual activity reports of the Center of Forensic Medicine).

The representative research sample was calculated using EpiInfo 7.2.3.1, in the "StatCalc – Sample Size and Power" section, based on the following parameters: a confidence interval of 95.0% for result significance, a total statistical population of 21200 victims of physical domestic violence, and a probability of occurrence of the phenomenon of 50.0%. The size of the representative sample was calculated to be 754 forensic reports.

Compliance with the structure of the general statistical population was ensured by stratifying the sample according to the research object of the forensic reports (individuals or medical documents). Within the calculated general statistical population, the proportion of forensic reports concerning individuals was 75.8%, while those based on medical documents accounted for 24.2%. Thus, the number of these categories of reports in the representative sample was estimated to be at least: forensic reports concerning individuals -572, and based on medical documents -183.

Research period. The study included forensic reports conducted during the period 2018 – 2023.

Study extend. To obtain reliable results, the study protocol defined the inclusion and exclusion criteria:

Inclusion criteria:

➤ Forensic reports concerning adult victims of non-lethal physical domestic violence. *Exclusion criteria*:

- > Forensic reports concerning the dead bodies of victims of physical domestic violence;
- Forensic reports concerning minor victims of non-lethal physical domestic violence;
- > Forensic reports on persons injured under accidental circumstances;
- > Forensic reports on persons who are victims of violence in circumstances other than domestic ones;
- ➤ Forensic reports on persons who are victims of sexual violence and concerning disputable sexual conditions;
- > Supplementary and repeated forensic reports prepared on the basis of medical documents.

Research management: The identification of forensic reports concerning adult victims of non-lethal physical domestic violence from the archive of the Center for Forensic Medicine was carried out through a preliminary analysis of the registers of forensic expert examinations (findings) related to individuals. The selection of reports was performed using proportional stratified probabilistic sampling, with the forensic report serving as the sampling unit and the stratum defined by the object of the report's investigation (direct examination of the person or examination based on the person's related medical documents), in accordance with their proportion within the overall statistical population (75.8% reports concerning individuals and 24.2% reports based on medical documents). The actual selection of the reports was performed through systematic random sampling, whereby, after numbering all eligible cases, reports were extracted at regular intervals corresponding to the size of each category.

Research tool. To achieve the objective set within the study, an information collection tool entitled Questionnaire for the assessment of the profile of domestic violence victims and for the identification of the injury pattern was developed using the EpiInfo 7.2.3.1 database management system. The data entry questionnaire was structured into the following main sections: I) identification data of the case; II) data regarding the victim's social profile; III) data related to the circumstances of the assault; IV) data concerning the traumatic factors; and V) data regarding the morphology and location of the injuries.

Research methods. The collected data were analyzed using the following methods: stratified sampling, mathematical, comparative, statistical, and analytical methods.

2.3. Mathematical-statistical processing of the study results

The research was preceded by the processing of the obtained data, including the analysis of distributions, identification and interpretation of missing values, as well as normalization of the

data when necessary. Descriptive statistics for continuous data included the estimation of central tendency indicators (mean or median), while for ordinal or nominal/dichotomous data, absolute frequencies and proportions were presented. In all cases, the 95% confidence interval (CI) was estimated, providing additional information about the obtained data.

For data collection and management, questionnaires administered online via Google Forms and the EpiInfo 7.2.3.1 system were used. The obtained data were centralized in Microsoft Excel 2019 for processing and then statistically analyzed and graphically represented using the open-source programming tools RStudio (https://www.rstudio.com/) and Python (https://www.python.org/), both ensuring the reproducibility of the performed statistical analysis.

3. THE EXTENT OF THE PHENOMENON OF DOMESTIC VIOLENCE THROUGH THE FORENSIC DATA

The results obtained in this subchapter provided an analysis of the statistical scale of domestic violence, as reflected in the data recorded nationally by forensic and public order institutions during the period 2017–2024. The study allowed for the identification of temporal, geographic, and institutional trends characterizing the evolution of this phenomenon in the Republic of Moldova, contributing to a deeper understanding of the systemic implications of domestic violence. The retrospective analysis of domestic violence during 2017–2024, based on data provided by the subdivisions of the Center for Forensic Medicine (CML), highlighted a total of 35441 forensic examinations and findings related to victims of domestic violence. This figure corresponds to an annual average of approximately 4430 cases, with notable variations between years, registering a minimum of 3635 cases and a maximum of 6425 cases in 2017. The annual evolution of cases exhibited an oscillating dynamic (Figure 1). After a marked decrease in 2018 (4331 cases), an increase was recorded in 2019 (5328 cases), followed by a significant decline

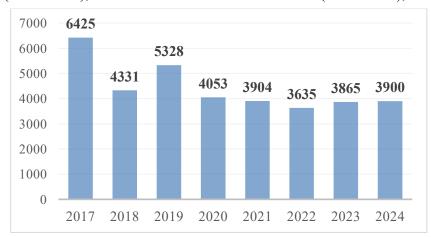


Figure 1. Annual distribution of domestic violence cases examined by forensic medicine at the CML (2017–2024)

during the COVID-19 pandemic period (2020-2022), caused by imposed restrictions, social isolation, limited access forensic services. In 2023-2024, a recovery trend was observed, associated with the relaxation of restrictive measures and the intensification of institutional efforts to support victims.

Data from the Ministry of Internal Affairs (MIA) provide a complementary perspective, indicating a steady increase in the number of reported domestic violence cases, from 6706 cases in 2013 to 15976 cases in 2024. This tripling of reported cases can be interpreted either as a reflection of a real worsening of the phenomenon or as a positive indication of increased public awareness, encouragement to report, and strengthened trust in the competent institutions. The discrepancies between MIA and CFM data are explainable by methodological differences: CFM records only cases of physical or sexual violence requiring forensic examination, while MIA documents all forms of domestic violence, including psychological, economic, or spiritual.

The zonal analysis highlighted a decreasing trend in the number of examinations in the Northern and Central regions, alongside stability or a slight increase in the Southern region and in the municipality of Chişinău. In the Northern region, the annual average of examinations decreased from 1342 in the first four years of the analyzed period to 1167 in the last four years, while in Chişinău and Ialoveni, a decline from 1552 to 902 cases per year was recorded. These regional differences may reflect variations in the accessibility of forensic services, the intensity of reporting activities, or the effectiveness of local institutional interventions. Annual trends at the zonal level

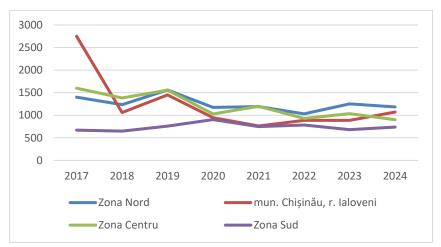


Figure 2. Trends in forensic examinations of domestic violence victims in CFM subdivisions according to the territorial-zonal principle (2017–2024)

revealed gradual decrease in the number of examinations in the Northern and Central relative areas and stability or a slight increase in the Southern and in the municipality of Chișinău. For example, in the Northern region, the annual average of examinations decreased from 1342 in the first four years to 1167 in the

last four years, and in Chișinău and Ialoveni from 1552 to 902 cases (Figure 2).

A significant difference in the average number of cases examined during the period 2017-2024 is observed when analyzed according to the subdivisions where the examinations were carried out. The highest number was recorded in the subdivisions of Chişinău municipality – 1227 cases (27.69%), followed by the Forensic Medicine Subdivision of Orhei -347 (7.83%), Bălți -228 (5.14%), Cahul -214 (4.83%), Edinet -210(4.74%), Fălești -204 (4.6%), and Cimişlia -202 (4.55%) (Figure 3). Additionally, when analyzing these data, administrative changes at the CFM affecting the population coverage area of the institution's subdivisions should also be taken into account.

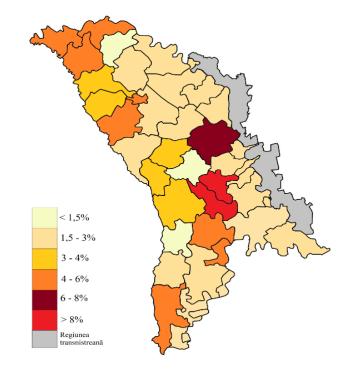


Figura 3. Average number of forensic examinations of domestic violence victims in CML subdivisions (2017–2024)

4. THE KNOWLEDGE AND PERCEPTIONS OF DOCTORS AND MEDICAL STUDENTS IN THE FIELD OF DOMESTIC VIOLENCE

4.1. Sociodemographic data of the research participants

The chapter dedicated to assessing the knowledge, perceptions, and training needs of physicians and future physicians regarding domestic violence was based on a sociological survey conducted on a probabilistic stratified sample consisting of 825 participants: 522 physicians (62.76%), 96 resident doctors (11.51%), and 214 SUMPh students (25.73%) (Figure 4). This

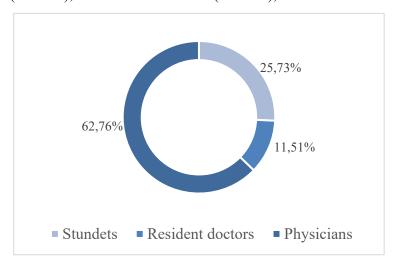


Figure 4. Structure of respondents according to their professional status, %

structure made it possible differences capture the in perception between professionals already active in the medical system and those still in training, providing a comprehensive overview of the training level and knowledge gaps in the field. The distribution by place of residence showed predominance of respondents from urban areas (82.0%), while only 18.0% came from rural areas. The sample was also dominated by women (78.2%) compared to men (21.5%), a ratio

that accurately reflects the demographic structure of the medical profession in the Republic of Moldova.

Professional experience plays a significant role in shaping the perceptions and responses of medical personnel toward patients, including victims of domestic violence. The study revealed that 80.6% of participants have some work experience, while only 19.4% have none.

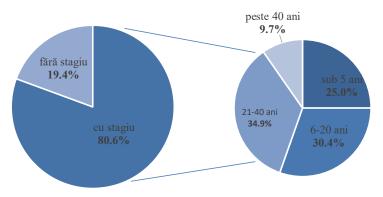


Figure 5. Professional experience of respondents, %

Among those who are professionally active, 34.9% have between 21–40 years of experience, 30.4% have 6–20 years, 25.0% have less than 5 years, and 9.7% have more than 40 years (Figure 5). The predominance of experienced physicians in the sample adds relevance to the results, as they interact constantly with patients and transfer their own perceptions and approaches into clinical practice.

4.2. Knowledge of physicians and medical students in the field of domestic violence

The analysis of responses revealed that the understanding of the phenomenon of domestic violence is partial and often incomplete. Only 21.5% of participants were able to correctly identify all defining characteristics: recognizing domestic violence as a crime, classifying it as a violation of human rights, and correlating it with the power imbalance between genders. In contrast, 19.9% of

participants expressed incorrect views, considering violence as a method of discipline or an acceptable form of communication. This misconception has significant implications in medical practice, as a professional who fails to recognize the illegal and unacceptable nature of violence risks contributing to the perpetuation of abuse—either through lack of intervention or by assigning blame to the victim. Self-assessment of knowledge levels confirmed this reality, with 60.9% rating themselves at a low level (1–3 on a scale from 1 to 5), indicating an acute need for training in this field.

Regarding the forms of manifestation, recognition of physical violence was almost unanimous (95%), whereas psychological (39.1%), sexual (25.3%), and economic and spiritual forms (only 7.4%) were significantly underestimated. This discrepancy suggests that, in the perception of the majority, violence is still predominantly associated with visible physical aggression, while the more subtle, yet equally harmful, forms of control and emotional abuse are largely overlooked.

Participants were asked to indicate the categories of people at higher risk of victimization. The responses highlighted that 63.9% incorrectly considered all individuals to be equally vulnerable, failing to recognize that factors such as gender, age, pregnancy, disability, or living environment influence the likelihood of victimization. Only half of the respondents mentioned persons with disabilities (49.6%) and the elderly (45.5%), while pregnant women (39.5%) and rural residents (35.6%) were even less frequently identified.

The majority of participants (85.7%) consider domestic violence a public health issue, 40.8% believe that the likelihood of a woman seeking medical help is high, and 56.6% think that medical personnel have the necessary knowledge and skills to respond. However, only 5.4% provided a complete answer regarding the true reasons for health system intervention. More concerning is that 34.9% of respondents consider the role of the medical system in combating violence to be insignificant (Table 1), an opinion more frequently held by physicians and residents (38.6%) than by students (34.9%).

The doctor–patient trust relationship is recognized by respondents as essential; 69.1% agreed that a lack of trust constitutes a barrier for victims, while only 52.6% considered the prejudices of medical personnel to be a barrier (Table 1).

Table 1. Respondents' opinions on the role of the health system in addressing domestic violence (abs., %, X)

Statement:	Strongly	Agree	Neutral	Disagree	Strongly disagree	Mean
The role of the health system in combating domestic violence is insignificant	9,9% (82)	25,0% (208)	13,9% (116)	20,6% (171)	30,6% (255)	2,7
Lack of trust in health professionals is a barrier to victims of domestic violence accessing health services	27,6% (230)	41,5% (345)	14,2% (118)	11,4% (95)	5,3% (44)	3,8
Medical care for victims of domestic violence can be affected by the doctor's misconceptions in this regard	18,8% (156)	33,8% (281)	24,3% (202)	11,4% (95)	11,8% (98)	3,3
Physician's inability to recognize victims of domestic violence affects the quality of medical care provided to them	34,3% (285)	36,8% (306)	11,7% (97)	9,0% (75)	8,3% (69)	3,8

The safety of patients exposed to domestic violence should be a priority in professional medical intervention. In the study, 62.2% of respondents recognized risk assessment as an integral element of the physician's response, and 69.8% considered referring victims to other institutions an essential step. However, 61.3% believed that injury documentation is solely the responsibility of the forensic physician, indicating an incomplete understanding of the role of doctors in the justice process.

Regarding sexual violence, 78.4% of respondents recognized the gynecologist's responsibility to collect biological evidence in emergency situations, while 21.6% were unclear or misinformed. It is concerning that 89.1% of respondents are unaware of legal protective measures for victims, mistakenly believing that informing a social worker or the mayor constitutes legal protection, and 11.5% think that such measures do not exist. Cases in which reporting to the police is mandatory were correctly identified by only 33.8% of participants, highlighting significant gaps in knowledge of the legal framework, more pronounced among practicing physicians (31.9%) compared to students (39.3%).

4.3. Perceptions of physicians and medical students in the field of domestic violence

Medical professionals, in the absence of adequate training, can be influenced by myths and stereotypes about domestic violence, which may affect their mode of intervention in professional practice. Our study showed that 79.1% of respondents had direct contact with victims of domestic violence, highlighting the importance of a correct understanding of the phenomenon.

The large majority of participants, 91.9%, consider domestic violence to be unacceptable under any circumstances, and 81.2% recognize it as a public health problem, while 83.9% perceive domestic violence as a widespread phenomenon in the Republic of Moldova. However, certain misconceptions and stereotypes persist. For instance, 36.3% of respondents believe that domestic violence occurs only in poor families, and 24.5% consider it a private matter, highlighting the need for greater awareness of the complex nature of this phenomenon. Additionally, 85.3% of respondents mistakenly believe that alcohol consumption is the main cause of domestic violence, confusing a triggering factor with the actual cause of violent behavior (Figure 6).

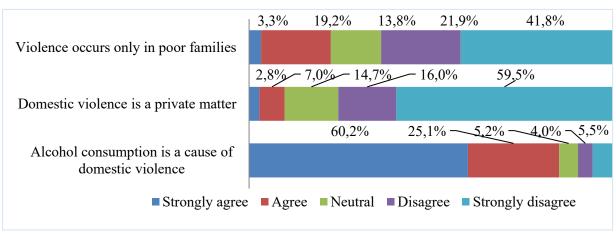


Figura 6. Respondents' opinions on certain myths about domestic violence, %

The link between gender biases and domestic violence is not fully recognized, with 37% of participants expressing indecision or disagreement on this issue. Another harmful myth, that women can provoke their partners into violence, was supported by 18.7% of respondents, while 20.3% were undecided, a perception more common among men and practicing physicians. Encouragingly, 88.6% of respondents reject the idea that there are situations in which a woman

deserves to be hit, and 85.8% disapprove of the notion that child-rearing is the mother's sole responsibility.

Violence against children is often viewed by some members of society as an acceptable form of discipline, even beneficial for the child's future, and occurs both in private and public settings. Studies conducted in the Republic of Moldova show that nearly half of parents still consider spanking an acceptable method of discipline, and 16% admit to having hit a child under one year of age. In the context of our study, we aimed to assess respondents' perceptions of myths related to violence against children, especially since 68.1% of participants reported being parents. The results revealed that, unfortunately, some respondents still believe that physical punishment of children is sometimes justified for educational purposes, with 21% expressing agreement or uncertainty on this issue. The situation is more pronounced among men, where 29% supported this view, and two-thirds of them were parents, indicating a real risk of applying these harmful practices to children.

Similarly, 17.6% of respondents agreed with or were uncertain about the myth that a child who is beaten at home would become more disciplined as an adult. This belief is particularly prevalent among men, who supported it three times more than women (13.4% vs. 4.3%). Analysis by professional status did not reveal significant differences, indicating that these myths can be widespread regardless of training level. Such perceptions are unacceptable both from the perspective of medical professionals and as parents, repeatedly emphasizing the need for training to counter these deeply misguided beliefs.

Sexual violence within the family is accompanied by misconceptions that normalize or justify unacceptable behaviors and perpetuate victim silence. Thus, 24.8% of respondents expressed some degree of agreement or uncertainty regarding the statement that there is no rape between spouses, a belief more common among physicians (26.7%) compared to students (19.5%). More concerning, 26.5% of those who supported this idea were married and 22.7% were women, with men being more influenced at 32.4%. Regarding the myth that if a woman does not resist a sexual act, it is not rape, nearly half of respondents (46.3%) agreed or were confused (Table 2), including 47.2% of practicing physicians and 40.1% of students. Among men, 27.4% agreed and 21.2% were confused, while women were less affected, with 5.8% agreement and 24.7% confusion.

Table 2. Respondents' opinions on certain myths related to rape (abs., %, X)

Statement:	Strongly	Agree	Neutral	Disagree	Strongly disagree	Mean
There is no rape between husband and wife	5,6% (47)	8,9% (74)	10,3% (86)	13,6% (113)	61,5% (512)	2,4
If a woman does not resist a sexual act, it is not considered rape	11,8% (98)	14,9% (124)	19,6% (163)	15,4% (128)	38,3% (319)	2,6

In the assessment of behavior in daily life, the majority of respondents (55.9%) were unsure whether they would report a case if their child were hit by a close relative, and 15.9% would refuse to do so. Additionally, when witnessing violence between spouses in a public place, 35.8% of participants would not intervene or were unsure if they would, suggesting that some perceive domestic violence as a private matter or fear intervening, which is profoundly mistaken.

Comparing these results with the national studies Men and Gender Equality in the Republic

of Moldova from 2015 and 2024, we can conclude that current and future physicians are less influenced by social stereotypes, even though only 37.3% of them have received training in domestic and gender-based violence. However, the study shows that practicing physicians, despite their clinical experience, are more likely to hold misconceptions than students, highlighting gaps in continuous professional development and emphasizing the importance of systematic training in this field.

4.4. Attitudes of physicians and medical students regarding the course *Domestic and Gender-Based Violence*

This subchapter analyzes the attitudes of physicians and medical students toward the course *Domestic and Gender-Based Violence*, offered by the Department of Forensic Medicine at SUMPh *Nicolae Testemițanu*. The data show a low level of awareness about the course – only 44.6% of respondents were informed about it, while the rest were unaware or unsure. The main sources of information were colleagues, the annual continuing professional development program, and the department. Although the course is included in the continuing education program, no practicing physician requested it, suggesting a lack of awareness of the importance of training in domestic violence. The majority of participants (68.1%) indicated lack of information as the main reason for low interest, and 61.5% cited unawareness of the severity of the phenomenon. At the same time, 88.6% stated that they would take the course if they recognized the problem and wanted to be better informed. The results highlight the need for more effective promotion of the course and training for medical personnel to increase engagement in the prevention and identification of domestic violence cases.

5. THE SOCIAL PROFILE OF THE ADULT VICTIM AND THE INJURY PATTERN OF DOMESTIC VIOLENCE

5.1. Characteristics of the research subject

The sample included 801 forensic reports on adult victims of non-lethal physical domestic violence. The majority, 74.9% (600; 95% CI 72–78%), were conducted through direct examination of the victim, while 25.1% (201; 95% CI 22–28%) were based on medical documents.

In terms of report type, 61.1% (490; 95% CI 58–65%) were forensic findings, 28.5% (228; 95% CI 25–32%) were judicial examinations, and 10.4% (83; 95% CI 8.4–13%) were extrajudicial examinations (Figure 7). The findings and judicial examinations were conducted exclusively within contraventional and criminal proceedings, with no cases in civil proceedings

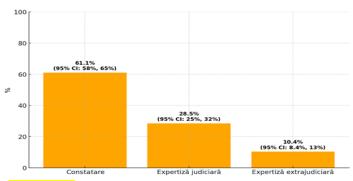


Figura 7. Structure of reports by type, %

The presence of extrajudicial examinations (approximately 1 in 10 cases) indicates victims' reluctance to approach law enforcement, preferring alternative forms of support and intervention. This attitude can be explained by fear of stigmatization, lack of trust in the justice system, and the desire to maintain confidentiality.

5.2. Social profile of the adult victim of domestic violence

The study included a detailed analysis of data from forensic and medico-legal examination reports, aiming to outline a social profile of adult victims examined. Variables such as gender, age, place of residence, social status, and the presence of relevant risk factors for victimization were considered. This information is essential for understanding the phenomenon of domestic violence, as it allows for both the characterization of victims and the identification of vulnerable groups that require specialized interventions.

The study results show that the overwhelming majority of victims are women – 84.5% (677 cases; 95% CI 82–87%) compared to 15.5% men (124 cases; 95% CI 13–18%). This distribution confirms the higher rate of victimization of women within the family in the Republic of Moldova, in line with data from the Ministry of Internal Affairs, which reports that women account for over 90.9% of domestic violence victims. The situation is similar internationally, where the predominant exposure of women to domestic abuse is recognized by the Istanbul Convention (2011) and confirmed by numerous studies.

The analysis of place of residence revealed an almost even distribution of cases: 51.8% came from rural areas (95% CI 48–55%) and 48.2% from urban areas (95% CI 45–52%). Correlating place of residence with the victim's gender showed a slightly higher susceptibility of men from rural areas to being assaulted; however, the association is weak statistically (Fisher's Test p=0.2; Cramer's V=0.04). Additionally, no statistically significant link was identified between place of residence and other variables analyzed, such as age, time of assault, number of injuries, access to medical care, or hospitalization. These data suggest that domestic violence affects victims regardless of geographic location and is not exclusively characteristic of a specific socio-economic

context.

From an age perspective, the studied sample included victims aged 18 to 93 years, with a median age of 38 years. Disaggregated analysis by gender revealed significant differences (p<0.001): the mean age of female victims is 37 years, while men have a higher median age of 43.5 years (Figure 8). These results are consistent with other international research showing that victims are predominantly of working age,

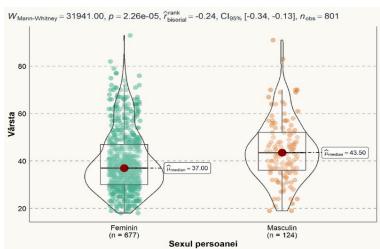


Figure 8. Disaggregated analysis of victims' ages by sex

which has a direct impact on their social and professional lives.

The consequences of violence can manifest as frequent absenteeism, job loss, financial dependence on the abuser, and increased socio-economic vulnerability. In the long term, these effects contribute to reduced productivity and impact the economic development of society, further amplifying gender inequality.

Regarding social status, over half of the victims are employed – 55.8% (95% CI 52–59%), while 32.2% (95% CI 29–35%) are unemployed, and 12.0% (95% CI 9.9–14%) are retired. These data indicate that victimization predominantly affects professionally active individuals, which amplifies the economic and social consequences of the phenomenon.

Another essential aspect is the behavior of victims regarding access to medical services. More than half of the victims (54.6%; 95% CI 51–58%) did not seek medical assistance, which can be explained by fear of repercussions, stigmatization, lack of trust in the medical system, or unawareness of available resources. Since most injuries were minor, there was not always a clinical need to see a doctor. In line with this, the hospitalization rate is extremely low, only 12.7% of victims required admission to a medical facility.

Additionally, the analysis aimed to identify risk factors associated with victimization (pregnancy, presence of children, advanced age, mental or physical disabilities, belonging to a culturally mixed family, alcohol abuse, or substance use). The results showed that 82.4% of forensic physicians did not record the presence of these factors in their reports, partly due to the absence of an explicit requirement in professional protocols.

5.3. Conditions of assault in the family environment

Considering that domestic violence is legally classified as a crime, the research focused not only on the characteristics of victims and perpetrators but also on the setting in which these acts occur. The results showed that in the vast majority of cases (88.3%, 95% CI: 86–90%), the aggression takes place in the victim's home, undermining its perception as a safe space. In comparison, assaults occurring outside the home (on the street, in a park, in a car, at the workplace, in commercial spaces, or in the courtyard of an apartment building) were much less common—only 10.5% of cases occurred outside the home and 1.2% in the area around it. The potential presence of witnesses likely acts as a deterrent for the perpetrator.

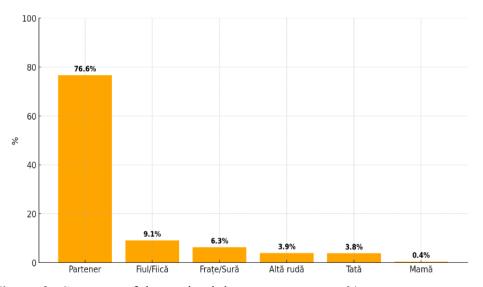


Figure 9. Structure of domestic violence perpetrators, %

Another essential aspect was identifying the perpetrator. The study confirmed that in 76.7% of cases, the aggressor is an intimate partner—husband, wife, or cohabitant—turning the intimate relationship into a source of danger. Other relatives, such as children (9.1%), siblings (6.3%), or other family members (3.9%), played a smaller but still significant role in certain situations (Figure 9).

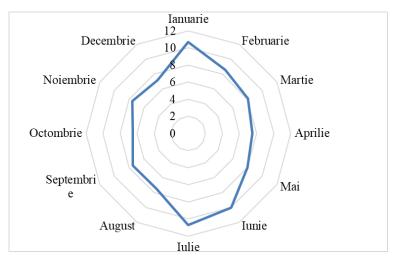


Figure 10. Distribution of domestic violence cases by month of occurrence, %

The temporal dimension of violence provided relevant data for understanding the context in which assaults occur. The study showed that the months of January, June, and July account for the highest number of abuse cases, each representing approximately 10% of the total (Figure 10). Analysis by day of the week and time revealed that frequently are most Saturdays and committed on Sundays, between 5:00 p.m. and

10:00 p.m. These periods coincide with times when family members spend the most time together, which can generate tension and escalate conflicts. Studies conducted during the COVID-19 pandemic showed an increase in the incidence of domestic violence, confirming the hypothesis that prolonged presence of family members in the same space can facilitate the occurrence of abuse.

Another indicator of medico-legal importance was the time elapsed from the assault to seeking examination. The average reporting period was 2.6 days post-assault, with a longer delay in rural areas (2.9 days) compared to urban areas (2.3 days). This difference can be explained by both the greater distance to the subdivisions of the Forensic Medicine Center and the limited resources and additional costs associated with travel. In cases of assaults occurring in public spaces, victims sought forensic examination more quickly (Kruskal-Wallis, $\chi^2 = 8.16$, p = 0.01) (Figure 11), likely due to prompt police intervention and the opportunity for immediate documentation of the incident.

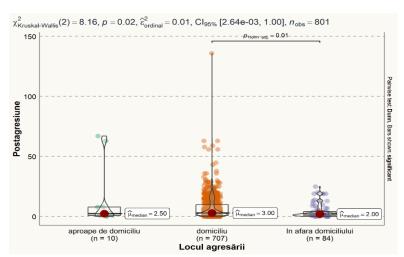


Figure 11. Correlation between the place of assault and the post-assault period

Thus, the analysis of the results showed that the typical victim of domestic violence is predominantly a 37-year-old woman (mean age = 37), affected regardless of her place of residence. employed, assaulted mainly by her intimate partner, at home, during the months of January, June, and July, on Saturdays and Sundays, between 5:00 p.m. and 10:00 p.m., and seeking a forensic examination 2.6 days after the

incident. Understanding this social profile can significantly enhance the ability of medical professionals to identify cases of domestic violence in which the victim is reluctant to report the incident, facilitating early intervention and providing appropriate support for victims.

5.4. Injury patterns of domestic violence in adults

Physical violence represents the most visible expression of domestic violence, often characterized by bodily injuries inflicted by the perpetrator using various traumatic means. In forensic practice, these injuries become the primary focus of evaluation, with the aim of providing objective data on their nature, mechanism of occurrence, and severity. Once recorded in forensic reports, this information gains evidentiary value and is used in judicial proceedings to establish the perpetrator's culpability and legal responsibility.

The most common injuries observed in the analyzed cases were caused by mechanical traumatic factors. The study showed that in the vast majority of cases (92.1%, 95% CI: 90–94%), perpetrators used a blunt object. Notably, the most frequently used traumatic factor was the perpetrator's own body parts (especially fists, palms, and feet), responsible for 75.8% of the cases analyzed. Household objects (7.2%), such as bats, cables, and everyday utensils, represented the second most common category of blunt objects, and in approximately 17% of cases, a combination of both types was used, which could increase the severity of the injuries.

The mechanism of injury is complex, reflecting the diversity of aggressive acts: hitting (85.8%, 95% CI 83–88%), pushing (32.0%, 95% CI 29–35%), pulling of limbs (23.5%, 95% CI 19–25%), hair pulling (18.1%, 95% CI 16–21%), and neck compression without causing mechanical asphyxia (15.1%, 95% CI 13–18%). The latter action is regarded with particular severity, representing a major risk factor for escalation of violence, as compression of the neck organs can have lethal consequences if it progresses to complete strangulation.

Equally serious is the use of sharp objects by the perpetrator, a circumstance recorded in 11.1% of cases (95% CI 9.1-14%) in the study. These include cutting objects (64.7%), piercing-cutting objects (36.4%), piercing objects (3.5%), and splitting objects (2.4%). In all cases where injuries caused by sharp objects were recorded, the acts of violence occurred in the victim's home, with kitchen knives being used in most instances. The use of sharp objects is directly associated with injury severity and increases the risk of serious harm or even death, highlighting the gravity of the assault (p < 0.001). Thermal factors (burns from flames or hot objects) were encountered in only five cases, suggesting rare use in the domestic context, likely due to the need for prior preparation and the high risk of lethal outcomes. No cases in the studied sample involved firearms, confirming the non-lethal nature of the investigated cohort.

From a morphological perspective, the most frequently observed injuries affected soft tissues, represented by bruises (77.5%, 95% CI 74–80%), abrasions (37.0%, 95% CI 34–40%), and post-traumatic edema (22.2%, 95% CI 19–25%). More severe injuries were much less common, such as wounds (19.4%), osteoarticular injuries (11.0%), and visceral injuries (2.1%) (Figure 12). The calculation of the number of injuries per victim showed that adult victims of domestic violence had approximately 4 injuries on their bodies (median = 4).

The topographic distribution of injuries was multipolar in more than half of the cases (53.9%), indicating repeated assaults and multiple impact areas. Unipolar injuries, limited to a single region, were less common (36.7%, 95% CI 33–40%), and this finding often rules out the scenario of accidental falls, which is frequently cited by victims attempting to hide abuse.

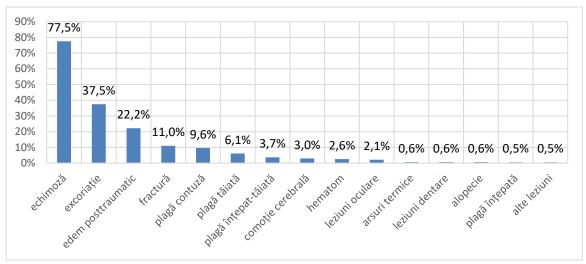


Figure 12. Type of bodily injuries observed, %

From an anatomical localization perspective, the face was the most affected region (54.9%, 95% CI 51–58%). Injuries to the upper limbs were also frequently observed, specifically the arms (38.1%, 95% CI 35–42%), forearms (25.3%, 95% CI 22–29%), and hands (19.2%, 95% CI 17–22%) of the victims. Regarding the lower limbs, injuries were most often located on the thighs (21.5%) and calves (14.5%), with only isolated cases affecting the feet (1.1%). Injuries to the anterior chest (15.4%) and the scalp (14.5%) had an almost equal distribution. Notably, injuries to the neck were observed in 11.7% of cases, largely characteristic of attempted strangulation. Less commonly affected regions included the posterior chest (7.4%), abdomen (4.5%), knee joints (4.1%), lumbar region (3.7%), auricles (3.4%), elbow joints (3.4%), buttocks (2.9%), and the inguinal area (0.5%) (Figure 13).

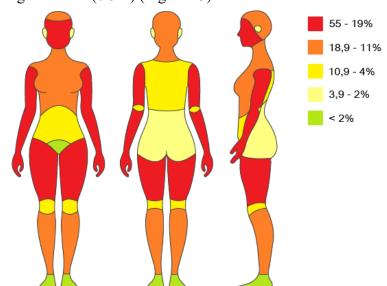


Figure 13. Graphical representation of the distribution of injuries on the body of adult victims of domestic violence

The severity of bodily injury reflects the nature of the lesions observed (bruises, abrasions, posttraumatic edema), with minor injuries predominating (66.2%, 95% CI 63–69%). Less frequently, in 24.7% of cases (95% CI 22-28%), forensic experts classified the injuries as mild, mostly consisting of contusions, cuts, nasal bone fractures, etc. Only about 9.1% of injuries (95% CI 7.3-11%were considered moderate or severe, representing a higher degree of harm to bodily integrity or health. Analysis of the

association between injury severity and victims' age revealed a statistically significant direct correlation (p<0.001), indicating that older individuals are more likely to sustain moderate or severe injuries, likely due to increased vulnerability (Figure 14). This finding repeatedly confirms advanced age as a major risk factor for domestic violence.

Another relevant aspect was the analysis of the correlation between the number of injuries

and their severity. The results showed that a higher number of injuries does not necessarily indicate greater severity, as moderate or severe injuries can be caused by one or two high-intensity injuries (Figure 15). Additionally, there was a slight tendency for male victims to present with more severe injuries than females, although this correlation was not statistically significant.

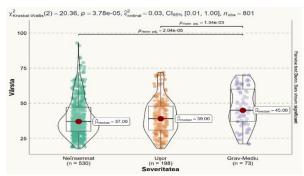


Figure 14. Correlation between the severity of bodily or health injuries and the victim's age

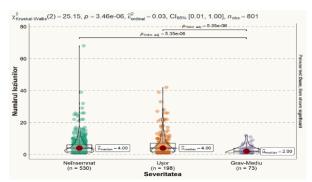


Figure 15. Correlation between the severity of bodily or health injuries and the number of lesions

GENERAL CONCLUSIONS

- 1. Analysis of medico-legal data for the period 2017–2024 highlights a fluctuating trend in domestic violence cases, with an annual average of 4430 cases. A significant decrease was observed during the pandemic years, followed by a recovery trend after the lifting of COVID-19-related sanitary and epidemiological restrictions. From a territorial perspective, there was a declining incidence in the Northern and Central regions, compared to relative stability with a slight increase in the Southern region and the municipality of Chişinău.
- 2. There are significant deficiencies in the understanding of the phenomenon of domestic violence among professionals in the national medical sector. These gaps primarily relate to knowledge of the essence and nature of domestic violence (89.5%–92.6%), vulnerable groups (63.9%), the impact of prejudices associated with domestic violence and gender norms on the quality of medical services provided to victims (23.2%), the role of the health system in combating domestic violence (34.9%), specific aspects of providing medical assistance, legal instruments for victim protection (89.1%), as well as the cases and conditions for reporting such incidents (65.2%). The identified deficiencies are more significant among practicing physicians than among medical students.
- 3. The comparative analysis of the study results shows that physicians and medical students are affected by certain stereotypes associated with domestic violence and gender norms similarly to other members of society, but to a lesser extent. The persistence of gender stereotypes and misconceptions about domestic violence among medical professionals affects their ability to assess risks and intervene effectively, highlighting the need to integrate specialized training into professional education.
- 4. According to national forensic medical data, victims of domestic violence are predominantly female (84.5%). The social profile of the female victim is characterized by an average age of 39.4 years, being affected regardless of place of residence (rural 51.8%, urban 48.2%), being employed (55.8%), and being predominantly assaulted by her intimate partner (76.7%) at home (88.3%), most frequently in January (10.7%), June (10.0%), and July (10.7), on Saturdays (16.5%) and Sundays (20.3%), between 17:00 and 22:00. These victims request a forensic medical examination on average 2.6 days after the assault. The social profile of the

male victim is characterized by an average age of 42.5 years, a higher likelihood of residing in rural areas (57.3%), being employed (54.9%), and being significantly more likely to be assaulted by children and siblings rather than by an intimate partner, most often at home, in January (10.6%), June (9.8%), and July (10.6%), on Saturdays (16.8%) and Sundays (21.0%), between 17:00 and 23:00. Male victims also request a forensic medical examination on average 2.6 days after the assault.

- 5. The injury pattern of domestic violence is characterized predominantly by trauma caused by blunt objects, most often the aggressor's body parts, with an average of 4.6 injuries, of a multipolar distribution (53.9%). These injuries mainly consist of superficial soft-tissue lesions (bruises 77.5%, abrasions 37.0%, and post-traumatic edema 22.2%), assessed as minor bodily harm (66.2%). Injury severity is dependent on alcohol consumption, the age, and the sex of the victim (p < 0.001). The injuries are predominantly localized to the face (54.9%), arm (38.1%), forearm (25.3%), hand (19.2%), and thigh (21.5%) of the victim.
- 6. Both the social profile and the injury pattern represent useful tools for identifying victims of domestic violence, especially in cases where the victim conceals or denies the true circumstances under which the identified injuries occurred.

PRACTICAL RECOMMENDATIONS

For Ministry of Health

1. Development of a mechanism to ensure the continuous training of medical personnel for the implementation of the National Program for the Prevention and Combating of Violence against Women and Domestic Violence for 2023–2027.

For "Nicolae Testemițanu" SUMPh

2. Integrate the course Violence in Family and Gender-Based Violence as a mandatory discipline in the curriculum, as strongly recommended by the GREVIO Committee in the 2023 Reference Evaluation Report for the Republic of Moldova.

For the Department of Forensic Medicine at "Nicolae Testemițanu" SUMPh

3. Actively promote the existing optional course Domestic and Gender-Based Violence among students and medical professionals to enhance their participation.

For Centre of Forensic Medicine

4. Development of a practical guideline for identifying adult victims of domestic violence based on the findings of the study.

For forensic doctors and clinical physicians

- 5. Apply the social profile and injury patterns identified in the study to recognize adult victims (especially those reluctant to report abuse), ensure proper legal classification of aggression, and safeguard victims' rights to fair justice.
- 6. Participate in continuous training programs to update knowledge and reduce prejudices that may compromise the quality of medical and forensic practice.

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LIST OF PUBLICATIONS AND PARTICIPATION IN SCIENTIFIC FORUMS

of Mr. Petru Glavan, PhD candidate, Department of Forensic Medicine, *Nicolae Testemiţanu* State University of Medicine and Pharmacy, conducted as part of the doctoral thesis in medical sciences on the topic: "Medico-legal identification of physical domestic violence in adults" (specialty 351.01 – Forensic Medicine)

SCIENTIFICAL PUBLICATIONS

- Articles in scientific journals abroad:
- ✓ articles in ISI, SCOPUS and other international databases
- 1. Toporeț N., Pădure A., Bondarev A., **Glavan P.** Role of the health system and forensic medical investigations in proving domestic violence. In: *Romanian Journal of Legal Medicine*. 2022, no. 30(4), pp. 200-203. ISSN 1221-8618 (print); ISSN 1844-8585 (online). DOI: 10.4323/rjlm.2022.200 (**IF 0,164**)
- Articles in accredited national scientific journals:
- ✓ articles in category B journals
- 2. **Glavan P.**, Pădure A., Bondarev A. Rolul sistemului sănătății în combaterea violenței sexuale din Republica Moldova. În: *Arta Medica*. 2024, 4(93), pp. 40-45. ISSN 1810-1852. DOI: https://doi.org/10.5281/zenodo.14549429
- 3. **Glavan P.**, Pădure A., Bondarev A. Impactul violenței în familie asupra victimelor și comunității. În: *Arta Medica*, 2024, 4(93), p. 23-27, ISSN 1810-1852. DOI: https://doi.org/10.5281/zenodo.14549318
- 4. **Glavan P.**, Pădure A., Bondarev A. Prejudecățile actualilor și viitorilor medici asociate violenței domestice. În: *Legea și Viața, publicație științifico-practică*. 2025, 1(381), pp. 64-79, ISSN 2587-4365. https://doi.org/10.5281/zenodo.15525927
- 5. **Glavan P.**, Pădure A., Bondarev A. Exploring knowledge and perceptions of domestic violence among medical students and physicians in the Republic of Moldova. In: Mold J Health Sci. 2023, 12(2), pp. 22-29. ISSN: 2345-1467. DOI: https://doi.org/10.52645/MJHS.2025.2.04
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- 6. Pădure A., Bondarev A., Toporeț N., **Glavan P.** Portretul psihosocial al victimei violenței în familie. În: *Legea și Viața, publicație științifico-practică*, 2022, pp. 118-122. ISBN 2587-4365.
- Participation with communications at scientific forums:

✓ international

- 7. Topal C., Pădure A., Bondarev A., **Glavan P**. Caz anomic de omucidere în familie. *International Conference "Homicide within family interdisciplinary perspectives"*. București, România, 24-26 noiembrie 2021.
- 8. Toporeț N., Pădure A., Bondarev A., **Glavan P.** Role of the health system and forensic investigations in proving domestic violence. *The International Conference of Forensic Medicine 5th edition*. Cluj-Napoca, România, 29 septembrie-2 octombrie 2022.
- 9. Pădure A., **Glavan P.** Rolul și capacitatea expertizei medico-legale în identificarea violenței domestice. *Conferința științifică internațională "Prevenirea și combaterea violenței în familie"*. Chișinău, 1-2 decembrie 2022.
- 10. Pădure A., Bondarev A., **Glavan P.** Evaluarea necesităților de instruire a medicilor și mediciniștilor privind violența în familie perspective și provocări. *Conferința internațională științifico-practică "Familia contemporană între tradiție și lege"*. Chișinău, 12 mai 2023.

- 11. **Glavan P.**, Pădure A., Bondarev A., Spinei L., Cazacu D. Exploring knowledge and perceptions of domestic violence among medical students and physicians in the Republic of Moldova. *The International Conference of Forensic Medicine 6th edition*. Cluj-Napoca, România, 28 septembrie-1 octombrie 2023.
- 12. **Glavan P.** A Review on the Economic Costs of Domestic Violence in the Republic of Moldova. *XXI. International Balkan and Near Eastern Social Sciences Congress Series on Economics, Business and Management.* Plovdiv, Bulgaria, 16-17 Martie, 2024.
- 13. **Glavan P.**, Pădure A., Bondarev A., Spinei L., Cazacu D. Knowledge and perceptions of medical students and physicians from the Republic of Moldova regarding domestic violence. *Al 10-lea Simpozion Internațional al Osteuropaverein Rechtsmedizin e.V.* Chişinău, 30 mai-1 iunie 2024.
- 14. **Glavan P.**, Pădure A., Bondarev A., Cazacu D., Arnaut O. Social profile and injury pattern: evidence-based tools for identifying adult victims of domestic violence. *The 15th Annual Meeting of the Balkan Academy of Forensic Science*. Iași, România 24 -27 octombrie 2024.
- 15. Pădure A., **Glavan P.**, Bondarev A., Cazacu D., Arnaut O. Targeted training for heathcare professionals: a key strategy for effectively addressing domestic violence. *The 15th Annual Meeting of the Balkan Academy of Forensic Science*. Iași, România 24 -27 octombrie 2024.

✓ national

- 16. **Glavan P.** Consolidarea capacității medicilor în oferirea unui răspuns eficient la cazurile de violență în familie. *Conferința Științifică Anuală a USMF "Nicolae Testemițanu" Cercetare în Biomedicină și Sănătate: calitate, excelență și performanță.* Chișinău, 18-20 octombrie 2023.
- 17. **Glavan P.,** Pădure A. Cunoștințele și percepțiile medicilor și mediciniștilor cu privire la violența în familie. *Congresul V al medicilor de familie din Republica Moldova*. Chișinău, 17-18 mai 2024.

• Participation with posters in scientific forums:

✓ international

- 18. Pădure A., **Glavan P.**, Bondarev A., Spinei L., Cazacu D. Medico-legal identification of physical domestic violence Research project. *15-th edition of Euroinvent european exhibition of creativity and innovation*. Iași, România, 11-13 mai 2023.
- 19. Pădure A., **Glavan P.**, Bondarev A., Cazacu D., Arnaut O. Medico-legal identification of physical domestic violence Research project results. *16-th edition of Euroinvent european exhibition of creativity and innovation*. Iași, România, 6-8 iunie 2024.
- 20. Pădure A., **Glavan P.**, Bondarev A., Cazacu D., Arnaut O. Utilizarea chestionarului de evaluare a profilului victimelor violenței în familie și de identificare a pattern-ului lezional. *3-nd edition of the International Exhibition of innovation and Technology Transfer*, Excellent Idea 2024". Chișinău, 20-22 septembrie 2024.

✓ national

21. **Glavan P.,** Covata S., Pădure A. Aspecte clinico-morfologice ale sindromului copilului scuturat. *Conferința științifică anuală "Cercetarea în biomedicină și sănătate: calitate, excelență și performanță*". Chișinău, 19-21 octombrie 2022.

ANNOTATION

Glavan Petru, "Medico-legal identification of physical domestic violence in adults", PhD thesis in medical sciences, Chisinau, 2025

Relevance of the research: Domestic violence remains a serious public health issue, with profound effects on both victims and society, and is often underreported. The extend of the phenomenon and the difficulties in identifying victims highlight the need to strengthen the role of the medical sector in the early identification and intervention in cases of domestic violence.

Purpose of the study: Assessment of medical education needs and development of tools for identifying adult victims to strengthen the health system's response to physical domestic violence. **Research objectives:** 1. Determining the incidence of domestic violence based on forensic data at the national level; 2. Assessing the level of awareness, perceptions, and training needs of current and future physicians regarding domestic violence; 3. Identifying the social profile of adult victims of non-fatal physical domestic violence and their injury patterns; 4. Providing scientifically supported practical recommendations to facilitate the identification of adult victims of non-fatal domestic violence based on their social profile and injury pattern.

Scientific novelty and originality: Until now, no fundamental studies have been conducted on domestic violence from a medico-legal perspective, nor has the need for training medical personnel in the effective management of such cases been analyzed. The study established the social profile of the adult victim and the injury pattern, providing forensic doctors and clinicians with practical tools for identifying and examining victims. Thus, the research contributes to the development of a solid theoretical framework for the prevention and combating of domestic violence.

Major new results obtained: The study determined the incidence and characteristics of non-lethal physical domestic violence at the national level based on medico-legal data. The social profile of the adult victim and the specific injury pattern were established, providing objective criteria for victim identification. The research highlighted the need for training doctors and medical students to strengthen their capacities for identifying and managing cases of domestic violence.

Theoretical significance and practical value: A set of practical recommendations was developed regarding the medical and medico-legal examination of victims of non-lethal physical domestic violence. The injury pattern identified in the study will enhance the ability of doctors, including forensic physicians, to identify adult victims of domestic violence and to provide medical and medico-legal evidence for the justice system. This enables the documentation of domestic violence, supports the legal classification of the perpetrator's actions, and ensures the victims' right to fair justice.

Implementation of results: The research findings have been used to update the course "Domestic Violence and Gender-Based Violence" at the Department of Forensic Medicine of Nicolae Testemițanu State University of Medicine and Pharmacy and support the implementation of the National Program for the Prevention and Combating of Violence Against Women and Domestic Violence (2023–2027), as well as the Council of Europe Convention on preventing and combating violence against women and domestic violence.

Thesis structure: The thesis comprises an introduction, five chapters, general conclusions, practical recommendations, a reference list of 260 sources, and 5 annexes. The thesis is presented on 146 pages of main text and is illustrated with 45 figures and 5 tables. The results have been published in 20 scientific papers.

Keywords: domestic violence, victim, physicians, medical students, knowledge, perceptions, medico-legal examination, identification, social profile, injury pattern.

ADNOTARE

Glavan Petru, "Identificarea medico-legală a violenței domestice fizice la adulți", teză de doctor în științe medicale, Chișinău, 2025

Actualitatea cercetării: Violența în familie rămâne o problemă gravă de sănătate publică, cu efecte profunde asupra victimelor și societății, fiind adesea subraportată. Amploarea fenomenului și dificultățile de identificare a victimelor demonstrează necesitatea consolidării rolului sectorului medical în identificarea și intervenția timpurie în cazurile de violență domestică.

Scopul lucrării: Evaluarea necesităților de educație medicală și dezvoltarea instrumentelor de identificare a victimei adulte pentru consolidarea răspunsului sistemului sănătății la violența domestică fizică.

Obiectivele cercetării: 1. Determinarea incidenței violenței în familie după date medico-legale la nivel național; 2. Evaluarea gradului de conștientizare, percepțiilor și necesităților de formare a actualilor și viitorilor medici în domeniul violenței domestice; 3. Constatarea profilului social al victimei adulte a violenței domestice fizice neletale și a pattern-ului lezional; 4. Înaintarea recomandărilor practice susținute științific pentru facilitarea identificării victimelor adulte ale violenței domestice fizice în baza profilului social și a pattern-ului lezional.

Noutatea și originalitatea științifică: Până în prezent nu au fost realizate studii fundamentale privind violența domestică din perspectivă medico-legală și nu a fost analizată necesitatea instruirii cadrelor medicale pentru gestionarea eficientă a cazurilor. Studiul a stabilit profilul social al victimei adulte și pattern-ul lezional, oferind medicilor legiști și clinicienilor instrumente practice pentru identificarea și examinarea victimelor. Cercetarea contribuie astfel la dezvoltarea unui cadru teoretic solid pentru prevenirea și combaterea violenței domestice.

Rezultatele majore noi obținute: Studiul a determinat incidența și caracteristicile violenței domestice fizice neletale la nivel național după date medico-legale. A fost elaborat profilul social al victimei adulte și pattern-ul lezional specific, oferind criterii obiective pentru identificarea victimelor. Cercetarea a evidențiat necesitatea instruirii medicilor și mediciniștilor în vederea consolidării capacităților acestora de identificare și gestionare a cazurilor de violență domestică.

Semnificația teoretică și valoarea aplicativă: A fost elaborat un set de recomandări practice privind examinarea medicală și medico-legală a victimelor violenței domestice fizice neletale. Pattern-ul lezional identificat în cadrul studiului va spori capacitatea medicilor, inclusiv a medicilor legiști, de a identifica victimele adulte ale violenței domestice și de a furniza probe medicale și medico-legale pentru justiție. Acest lucru permite demonstrarea violenței în familie, încadrând juridic faptele agresorului și asigurând dreptul victimelor la justiție echitabilă.

Implementarea rezultatelor științifice: Rezultatele cercetării au fost utilizate pentru actualizarea cursului "Violența în familie și pe criterii de gen" la Catedra de Medicină Legală a USMF "Nicolae Testemițanu" și sprijină implementarea Programului național pentru prevenirea și combaterea violenței față de femei și a violenței în familie (2023–2027) și a Convenției Consiliului Europei privind prevenirea și combaterea violenței împotriva femeilor și a violenței domestice.

Structura tezei: Lucrarea cuprinde: introducere, 5 capitole, concluzii generale, recomandări practice, lista referințelor bibliografice cu 260 surse, 5 anexe. Teza este expusă pe 146 pagini de text de bază și este ilustrată cu 45 figuri și 5 tabele. Rezultatele sunt publicate în 20 lucrări științifice.

Cuvinte-cheie: violența domestică, victimă, medici, mediciniști, cunoștințe, percepții, examinare medico-legală, identificare, profil social, pattern lezional.