

Knowledge Organization Systems Classifying Crimes of Violence Against Women, Homicide of Women and Feminicide: A Proposal

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Abstract: According to the World Health Organization (WHO), one in three women worldwide has experienced some form of physical or sexual violence. In Brazil, in 2022, about 30% suffered some form of gender-based violence, with the number of women's homicides (4,034) surpassing that of femicides (1,437). Misclassified crimes? In 2015, Law 13,104 amended article 121 of the Brazilian Penal Code, establishing femicide as a qualifying circumstance for the crime of homicide (when the act occurs against the woman because of her female sex condition). Having Infor-

mation Science as a basis for promoting the development of methodologies and strategic solutions, conceptual and technical treatments on this phenomenon are necessary. Aiming to contribute guidance for typifying crimes of violence against women in filling out the National Risk Assessment Form (FNAR) and Police Report (BO) through Knowledge Organization Systems, it was based on Araújo and Lima (2018), who suggest semantic enrichment of ontologies through text corpus comparison, and applied METHODOE (Methodology for Domain Ontology Enrichment) by Araújo (2021), consisting of 5 steps. GSSO – Gender, Sex, and Sexual Orientation Ontology, Thesaurus for Gender and Women's Studies, Women Thesaurus, and Thesaurus on Violence against Women and Girls were used as a basis. The result was the OntoVDFcM ontology, to be used in filling out FNAR and BO forms, reducing errors, identifying or preventing crime more assertively, and contributing to

more precise statistics, enabling investment of more time and money in protective, preventive, supportive, educational actions, and mainly, in more effective public policies.

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1.0 Introduction

According to the World Health Organization (WHO), one in every three women worldwide (approximately 736 million) has experienced some type of physical or sexual violence. This occurs in all countries and cultures, causing irreparable damage to millions of women and their families (Nações Unidas 2021).

In Brazil, about 30% of Brazilian women have experienced some type of gender-based violence. The number of women's homicides was 4,034, while that of femicides was 1,437, meaning 180% more women's homicides (Bueno et al. 2023). Are we dealing with incorrectly classified crimes?

In 2015, Law 13,104 amended article 121 of the Brazilian Penal Code, establishing femicide as a qualifying circumstance for the crime of homicide when the act occurs against the woman because of her female sex condition (when the crime involves domestic violence, contempt, or discrimination against the woman's condition) (Brazil 2015).

At the time of reporting homicides of women and femicides, when filling out the occurrence records, both professionals and individuals complete some fields following the questionnaire flow, with fixed responses, and the only way to choose another response is: "None of the above aggressions," or "none of the above-listed behaviors," or "yes, otherwise". In other words, the lack of options and a methodology or standard complicates and distorts the content and analysis of the FNAR – National Risk Assessment Form, filled out when the death crime has not yet occurred, and the complaint in the BO – Police Report, filled out when the death crime has already occurred. It is perceived that we need semantic and terminological standards to be followed in filling out the forms, contemplating the domain "Domestic and family violence against women (VDFcM)".

The urgency and importance of the topic are evident as it is embedded in two of the 17 United Nations Sustainable Development Goals: SDG 5 – Achieving gender equality and empowering all women and girls; and SDG 16 – Promoting peaceful and inclusive societies for sustainable development, providing access to justice for all and building effective, responsible, and inclusive institutions at all levels (Nações Unidas 2022).

In this scenario, Information Science (Is) presents itself as support, interacting with Police Science (PS) at a technological level, promoting the development and selecting pertinent,

useful, and valuable information for public safety, helping for the well-being of society (Moreira and Muriel-Torrado 2019).

By using knowledge organization systems (KOS), we can create a terminological control instrument with the purpose of aligning and standardizing the insertion of information in the complaint forms (FNAR and BO), promoting the development of solutions that support, through correct typification, the best information and interpretation of these situations.

Zeng (2008) explains that there are different types of KOS according to the complexity of their structures and functions, and adds that they can be described based on their structures (from planar to multidimensional), and their main functions. These functions include: eliminating ambiguity, controlling synonyms or equivalents, establishing explicit semantic relations, such as hierarchical and associative relationships, presenting both relationships and the properties of concepts in knowledge models. Examples of KOS include: term lists (lists, dictionaries, glossaries, synonym rings); similar models and metadata (authority files, directories); Classification and categorization (subject headings, taxonomies, categorization schemes, classification schemes); Relationship models (Thesauri, Semantic networks, and ontologies).

To elaborate a terminological control instrument to represent and share knowledge and be used in filling out the forms typified as FNAR and BO, in addition to contemplating the complexity of the theme and the different synonyms and ambiguities of the expressions presented in the Brazilian vocabulary, we need conceptual models in which the terms represent the concepts, their relationships, and synonyms. In this scenario, ontologies, as one of the models of KOS, present themselves as "specific conceptual models that represent complex relationships between objects, including rules and axioms missing in semantic networks" (Zeng 2008, 162).

According to Araújo (2021), domain ontologies are formatted from guidelines made by specialists, on the specific objectives of a knowledge domain, therefore, we will approach the use of domain ontologies and thesauri to conceptualize and classify terms from the perspective of Araújo and Lima (2018), Zeng (2008), and Campos (2010; 2017). In the complex purpose of elaborating consistent ontologies, definitions are fundamental, as they describe the semantic content of a term, providing possible semantic compatibility (Campos 2010). For good work in specific domains, it is important to use standards in definitory enunciation. Dahlberg (1983)

defines a definitive statement as a combination of attributes that describe a concept in a specific scenario. We will also use the onomasiological approach where the concept is the premise for the correct definition of terms and their relationships, Dahlberg's Concept Theory (1978), which emphasizes classification based on Aristotelian categories and Ranganathan's Faceted Classification Theory, according to the guidelines of Gomes et al. (2010) and Gomes and Campos (2019).

We sought in previous studies, research addressing the VDFcM theme in order to identify thesauri or ontologies that could represent such domain more realistically, being the most representative for this research: Thesaurus for Gender and Women's Studies (TPEDGESM) (Bruschini et al., 1998), with information in the field of gender studies, showing a "revolution" in terms of objectivity and reality about the female gender; Women's Thesaurus (Mediavilla Herreros and Folla Fernández 2014), elaborated from the collection of the Women's Library in Madrid, covering the evolution of the Feminist Movement in Spain, showing the contribution of women in the historical and social process, with a non-sexist language, aiming to make women visible, empowered, eliminating misogynistic terms in the designation of women; Thesaurus on Violence against Women and Girls (Morais, 2022), aiming at the democratization of utilitarian information for the protection, support, and support of women in situations of violence, contributing to the fight and prevention of gender violence; and finally, the Gender, Sex, and Sexual Orientation Ontology (GSSO) (EMBL-EBI, 2022), created in 2019, to provide a way to facilitate communication between LGBTQIA+ people and health professionals in the LGBTQIA+ domain, being classified among the top 5% of all ontologies in the BioPortal of the National Center for Biomedical Ontology (NCBO).

As this article is part of a research within the scope of an ongoing doctoral thesis, which studies the moment and the most appropriate way to typify homicides of women and femicides, we will focus on the study of KOS, more specifically on the enrichment of an ontology. Therefore, we will follow the methodology proposed by Araújo and Lima (2018), who suggest semantic enrichment of ontologies based on comparison to a text corpus, with the "objective of measuring the proximity between the ontology and the domain it proposes to represent" (649), complementing with Araújo (2021), the METHODOE (Methodology for Domain Ontology Enrichment).

2.0 Objectives

Our main goal is to provide guidance for better classification and prevention of women's homicides and feminicides through the development and application of SOC, with specific objectives including the semantic enrichment of the GSSO Ontology and the creation of the OntoVDFcM

ontology, focused on Domestic and Family Violence against Women, based on the enriched GSSO Ontology.

3.0 Methodology and results

For the ontology to encompass the reality of the context under study, it is essential to pay special attention to its modeling and elaboration, thus using validated methodologies. According to Isotani and Bitencourt (2015), in addition to the conceptual analysis and modeling of the domain, identifying the central function of the ontology will be crucial, as well as reusing another ontology to support the development of the ontology of interest and evaluating, through competency questions, the correct representation of reality, concepts, and relationships.

In Figure 1, we present the methodological steps for developing an ontology through the semantic enrichment of another ontology. In this article, we reduce the presentation of the methodological steps to accommodate word limitations.

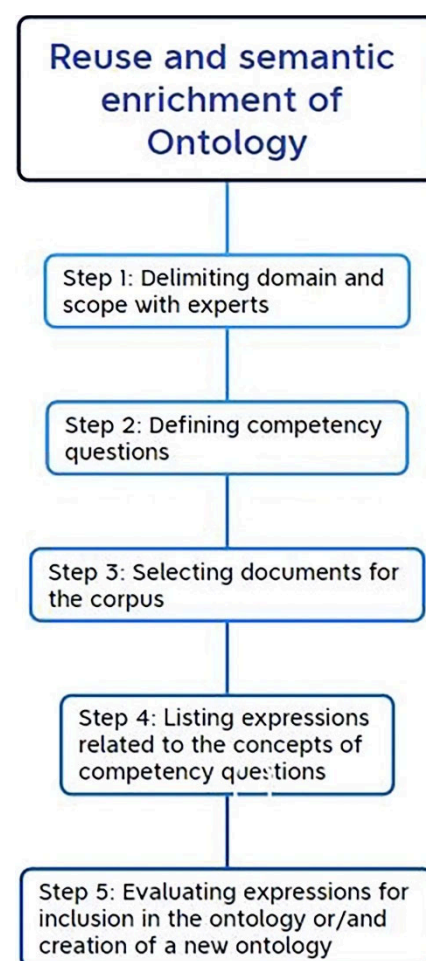


Figure 1. Reuse and semantic enrichment of Ontology – methodological steps.

Source: Prepared by the authors.

Given the proposal to enrich the GSSO ontology to more accurately encompass the domain of ‘Domestic and Family Violence against Women’, and following Campos et al. (2011), we have based our approach on domain ontologies. Domain ontologies aim to genuinely represent the characteristics of a conceptualization, portraying the proposed domain in a way that is closer to reality. These ontologies are developed based on the knowledge of domain experts, with well-defined purposes within a specific context. Furthermore, they provide greater semantic richness by constraining interpretations of concepts through a vocabulary and offer an ontological structure capable of creating a corpus suitable for validating the established conceptual model. To begin enriching the GSSO ontology following part of the methodology proposed by Araújo (2021), METHODOE, we will have five steps shown in Figure 1 and presented below: step 1 – Delimiting domain and scope with experts; step 2 – defining competence issues; step 3 – selecting documents for the corpus; step 4 – listing expressions related to the concepts of competence issues; step 5 – evaluating expressions for inclusion in the ontology or/and creation of a new ontology.

3.1 Delimiting domain and scope with experts

It is important to answer some questions related to domain and scope, with the following steps:

- a) Identification of the problem with specialists: classification of homicides of women and feminicides;
- b) Definition of the ontology’s theme: Domestic and Family Violence against Women – VDFcM;
- c) Application and use of the ontology: within the context of Brazilian Civil Police in FNAR and BO forms;
- d) Ontology for comparison and reuse: GSSO – Gender, Sex, and Sexual Orientation Ontology.

The crime of femicide is the end of a stage of various types of announced violence, which culminates in the death of a woman. After interviewing civil police officers who are experts in assisting women in situations of violence, eight CQs were formulated based on the research problem, the Brazilian Penal Code, and the five forms of domestic and family violence according to Article 7 of Law No. 11.340/2006 – Maria da Penha Law (Brazil 2006):

- a) What is understood as domestic and family violence against women?
- b) What is understood as femicide?
- c) What is understood as the homicide of a woman?
- d) What is understood as physical violence, what other terms can we attribute to this type of violence, and what examples can we consider?

- e) What is understood as psychological violence, what other terms can we attribute to this type of violence, and what examples can we consider?
- f) What is understood as economic violence, what other terms can we attribute to this type of violence, and what examples can we consider?
- g) What is understood as moral violence, what other terms can we attribute to this type of violence, and what examples can we consider?
- h) What is understood as sexual violence, what other terms can we attribute to this type of violence, and what examples can we consider?

In the verification of the eight competency questions, 11 terms were identified that will guide the answers: domestic and family violence against women, domestic violence, family violence, violence against women, femicide, homicide of a woman, physical violence, psychological violence, economic violence, moral violence, and sexual violence.

3.2 Selecting documents for the corpus

When using documents such as laws, the Brazilian Penal Code, and national guidelines (Table 1), we will make ontology enrichment more effective and bring us closer to reality. According to Campos (2017), by using a consistent terminological corpus that accurately describes the domain, we can produce more complete ontologies.

The selected documents are those that support the legal decisions and actions of the Public Ministry and the Police, chosen for this stage of the research. As the research is ongoing, it is expected, in the future, to add other laws to compose a more complete picture of reality.

3.3 Selecting expressions related to concepts

The information extraction technique was manual, given that our Textual Corpus is made up of legally validated documents such as laws, decrees, standards, etc., and thus we can carry out conceptual and relationship enrichment (Araújo 2021). We present in Table 2, the terms chosen in the QCS, the number of definitory texts related to each of the terms chosen in the documents.

The definition increases the semantic expressiveness of ontologies, enabling semantic harmonization, as it describes the semantic content of a term. “This description allows intelligent agents to understand the meaning of a term and establish inferences about these meanings, as the definition is composed of characteristics of concepts, which are also concepts that are related to form the semantic understanding of the terms in question” (Campos 2010, 222).

Dahlberg (1978, 106) explains that “definitions are indispensable assumptions in argumentation and verbal commu-

Law	Date	Details
Decree Law nº 2.848	07/12/1940	Brazilian Penal Code
Decree nº 19.841	22/10/1945	Promulgates the United Nations Charter, of which the Statute of the International Court of Justice, signed in San Francisco on June 26, 1945, is an integral part, on the occasion of the Conference of the International Organization of the United Nations.
Universal Declaration of Human Rights	1948	The document (Resolution 217 A III) was adopted by the United Nations General Assembly in 1948, during a period of restructuring of the post-Second World War world order, and served as the basis for the drafting of several constitutional charters around the world, including the current Brazilian Federal Constitution.
Decree nº 52.476	12/09/1963	Promulgates the Convention on the Political Rights of Women, adopted on the occasion of the Seventh Session of the United Nations General Assembly.
Decree nº 89.460	20/03/1984	Promulgated the Convention on the Elimination of All Forms of Discrimination Against Women/CEDAW, 1979
Inter-American Commission on Human Rights	1994	Inter-American Convention to Prevent, Punish, and Eradicate Violence against Women, "Convention of Belém do Pará"
Decree nº 1.973	01/08/1996	Decree nº 1,973, of 01/08/1996, which promulgated the Inter-American Convention on Preventing, Punishing, and Eradicating Violence against Women, Belém do Pará, 06/09/1994
Law nº 11.340	07/08/2006	Creates mechanisms to combat domestic and family violence against women, in accordance with § 8 of art. 226 of the Federal Constitution, the Convention on the Elimination of All Forms of Discrimination against Women, and the Inter-American Convention to Prevent, Punish, and Eradicate Violence against Women; provides for the creation of Special Courts for Domestic and Family Violence against Women; amends the Code of Criminal Procedure, the Penal Code, and the Penal Execution Law; and provides other measures. Maria da Penha Law.
Law nº 13.104	09/03/2015	Amends art. 121 of Decree-Law nº 2,848, of December 7, 1940 – Penal Code, to provide for femicide as a qualifying circumstance of the crime of homicide, and art. 1 of Law nº 8,072, of July 25, 1990, to include femicide in the list of heinous crimes. Femicide Law
Women's Legislation	2016 (7th ed.)	Chamber of Deputies (Legislation Series, 230)
UN Women	2016	National Guidelines for Femicide: investigating, prosecuting, and judging violent deaths of women

Table 1. Laws on the topic of Domestic and Family Violence against Women.

Source: prepared by the authors based on the aforementioned legislation.

nications and that they constitute necessary elements in the construction of scientific systems". The author states that the characteristics, in addition to presenting the relationships between concepts, determine the definitions, and are divided into essential (necessary and sufficient), and accidental (optional) (Dahlberg 1983).

Araújo (2021) infers about the importance of concepts in the conception of SOC, because based on the principles of Dahlberg's Concept Theory (1978), when we apply consistent definitions in ontologies, we will be able to establish relationships (relationships or properties) between classes and subclasses, making -the most specific and assertive ones, and in the elaboration of axioms (restrictions/rules on relationships, allowing the use of inferences that do not appear in the Thesauruses).

When selecting candidate knowledge for the ontology, resulting from the application of the extraction technique, definitory enunciation were sought and relevant concepts

were selected that will be inserted in the context of OntoVDFcM (Table 3).

The definition is a limitation of the idea of the concept, and only general concepts need to be defined, as they imply differences from other concepts. Individual concepts, on the other hand, have their own well-established objects (they have the form of time and space). But when we identify approximately 200 relevant concepts, referring to the general concepts extracted from the QCs, it is important to carry out an analysis so that we can extract all the necessary characteristics and help compose the general concepts (Dahlberg 1978).

3.4 Evaluation of expressions and inclusion in the ontology

For ontologies to represent knowledge, it is necessary to identify their general and auxiliary components. The gen-

QC No.	Search term/expression	Amount recovered	Definitory enunciation	Located in documents
QC-1	domestic and family violence counts women	34	1 (Law No. 11,340)	Decree Law No. 2,848; Law No. 11,340
QC-1	violence against women	35	1 (Decree nº 1,973)	Decree Law nº 2,848; Decree No. 1,973, Law No. 11,340
QC-1	Domestic violence	70	1 (Decree Law No. 2,848)	Decree Law No. 2,848; Law No. 11,340
QC-2	Feminicide	3	1(Decree Law nº 2,848/Law nº 13,104)	Decree Law nº 2,848; Law No. 13104
QC-3	Homicide of a woman	0	1(Decree Law nº 2,848/Law nº 13,104)	Decree Law No. 2,848, of December 7, 1940 – Brazilian Penal Code, Section VI – added by Law No. 13,104, of 3/9/2015
QC-4	physical violence	2	1(Law nº 11,340)	Law nº 11,340
QC-5	psychological violence	2	2 (Decree Law nº 2,848; Law nº 11,340)	Decree Law nº 2,848; Law No. 11,340
QC-6	property violence	1	1 (Law nº 11,340)	Law nº 11,340
QC-7	moral violence	1	1 (Law nº 11,340)	Law nº 11,340
QC-8	Sexual violence	2	1 (Law nº 11,340)	Law nº 11,340

Table 2. Definitory enunciation recovered in the collection of legal documents consulted.

Source: prepared by the authors based on the aforementioned legislation.

eral components: Classes and subclasses (elements composed of similar attributes represent the concepts of the domain, and the basic units of an ontology); properties/attributes (characteristics/qualities of classes and subclasses); relations (relationship or property, responsible for the semantic links between concepts in a given domain); axioms or restrictions (rules about relationships, allowing inferences to be made and restricting interpretations so that there are no ambiguities; bring the ontology closer to the intended model; and instances (or individuals) (represent a given object of a concept) (Araújo 2021).

For each of the expressions originating from the QCs, information was sought in the GSSO (1), TPEDGESM (2), Tesouro de Mujeres (3), and Tesouro sobre Violência contra Mulheres e Meninas (4), to identify existing terms, their relationships and definitions. Following Araújo (2021), we created a table showing concepts (conceptual enrichment), synonymous terms (lexical enrichment), relationships between concepts (relationship enrichment), resulting in, in addition to the table below, a glossary of selected terms (Appendix A). We will only show two terms, pointing with numbers, when in any of the SOC, signaling those that need to be enriched in the definitions and consequently in the relationships (Table 4). As the ontology is expected to be used by Brazilian civil police, the use of the Portuguese language (BR) is default, and it is important to add terms in Portuguese to the VDFcM enriched ontology.

To ensure that the information complies with the objective of the OntoVDFcM ontology and the purpose of enrichment, the list will be presented to experts for validation and changes (if necessary). In case of changes, the list will be presented again after modifications.

3.5 Creation of the OntoVDFcM ontology

To add new classes, subclasses and properties, we present a sample concept map (Figure 2) of the enriched OntoVDFcM ontology. We will only present the map with the term Patri- monial Violence, which I not included in the GSSO.

Figure 3 shows a sample of intermediate representations (relations), presented in triplets, in natural language (LN).

To formalize and implement the OntoVDFcM ontology, based on the conceptual model represented in Figure 3 in LN, we will transform knowledge into formal language using computer-readable language, OWL (Ontology Web Language), through the Protégé software, an ontology editor. Following the logic proposed by Araújo (2021), we will do it in the following order: insertion of concepts such as classes and subclasses; definitions and synonyms of classes; creation of relationships and their logical properties; and the axioms between classes. We present the ontology in Figure 4.

At the end of the thesis, we will make available a guiding document with steps and modifications made so that we can share it between the Brazilian Civil and Military Police.

QC No	Search term/ expression	Definitory enunciation	Relevant concepts
QC-1	Domestic and Family Violence Against Women	Article 5. For the purposes of this Law, domestic and family violence against women is defined as any action or omission based on gender that causes her death, injury, physical, sexual, or psychological suffering, as well as moral or patrimonial harm: (See Supplementary Law No. 150, 2015); I – within the domestic unit, understood as the permanent living space of individuals, with or without family ties, including those sporadically aggregated; II – within the family, understood as the community formed by individuals who are or consider themselves related, united by natural, affinity, or express will bonds; III – in any intimate relationship of affection, in which the aggressor lives or has lived with the victim, regardless of cohabitation. Sole paragraph. The personal relationships referred to in this article are independent of sexual orientation. Article 6. Domestic and family violence against women constitutes one of the forms of violation of human rights.	Action, omission, gender, death, injury, physical suffering, sexual suffering, psychological suffering, moral harm, patrimonial harm, domestic unit, permanent coexistence, individuals, family ties, sporadically aggregated, family, community, related individuals, united, natural bonds, affinity, express will, intimate relationship, relationship of affection, aggressor, victim, cohabitation, personal relationships, sexual orientation, violation of human rights
QC-1	Violence Against Women	Violence against women is any action or conduct, based on gender, that causes death, harm, or physical, sexual, or psychological suffering to women, both in the public and private spheres. It is understood that violence against women includes physical, sexual, and psychological violence: §1. That occurred within the family or domestic unit or in any other interpersonal relationship, in which the aggressor lives or has lived in the same household as the woman and which includes, among others, rape, violation, mistreatment, and sexual abuse: §2. That occurred in the community and is perpetrated by any person and which includes, among others, rape, sexual abuse, torture, mistreatment of people, trafficking of women, forced prostitution, kidnapping, and sexual harassment in the workplace, as well as in educational institutions, health establishments, or any other place, and §3. That is perpetrated or tolerated by the State or its agents, wherever it occurs.	Physical violence, sexual violence, psychological violence, patrimonial violence, moral violence, action, conduct, gender, death, harm, physical suffering, sexual suffering, psychological suffering, public sphere, private sphere, within the family, domestic unit, interpersonal relationship, aggressor, household, woman, rape, violation, mistreatment, sexual abuse; community, people, torture, trafficking of women, forced prostitution, kidnapping, sexual harassment, workplace, educational institutions, health establishments, state, state agents
QC-1	Domestic Violence	§ 9. If the injury is committed against an ascendant, descendant, sibling, spouse or partner, or with whom they live or have lived, or, still, taking advantage of domestic relations, cohabitation, or hospitality relationships: Penalty – detention, from 3 (three) months to 3 (three) years. (Paragraph added by Law No. 10,886, of 7/17/2004, and with wording given by Law No. 11,340, of 8/7/2006, published in the DOU of 8/8/2006, in force 45 days after publication) § 10. In the cases provided for in paragraphs 1 to 3 of this article, if the circumstances are those indicated in § 9 of this article, the penalty is increased by 1/3 (one third). (Paragraph added by Law No. 10,886, of 7/17/2004) § 11. In the hypothesis of § 9 of this article, the penalty shall be increased by one third if the crime is committed against a disabled person. (Paragraph added by Law No. 11,340, of 8/7/2006, published in the DOU of 8/8/2006, in force 45 days after publication) § 12. If the injury is committed against an authority or agent described in arts. 142 and 144 of the Federal Constitution, members of the prison system and	Injury, ascendant, descendant, sibling, spouse, partner, live together, agent, domestic relations, cohabitation, hospitality, detention, penalty, crime, disabled person, injury, authority, agent, members of the prison system, members of the National Public Security Force, exercise of function, against spouse, as a result of the function, woman, injury committed against a woman, female sex condition, female sex.

Table 3. Definitory Enunciation and relevant concepts (*to be continued*).

Source: ONU Mulheres (2016, 125-127), National risk assessment form – domestic and family violence against women (Conselho Nacional de Justiça 2020), *Decreto-lei no 2.848, de 7 de dezembro de 1940* (Brazil 1940), Maria da Penha Law (Brazil 2006).

QC No	Search term/ expression	Definitory enunciation	Relevant concepts
		the National Public Security Force, in the exercise of their function or as a result of it, or against their spouse, partner or blood relative up to the third degree, by virtue of this condition, the penalty is increased by one to two thirds. (Paragraph added by Law No. 13,142, of 7/6/2015) § 13. If the injury is committed against a woman, for reasons of female sex, as provided for in § 2-A of art. 121 of this Code: Penalty – imprisonment, from 1 (one) to 4 (four) years. (Paragraph added by Law No. 14,188, of 7/28/2021).	
QC-2	Femicide	(Legal name added by Law No. 13,104, of 3/9/2015) Qualified Homicide VI – against women for reasons of female sex condition; (Paragraph added by Law No. 13,104, of 3/9/2015) § 2. - A, there are reasons of female sex condition when the crime involves: I – domestic and family violence; II – disregard or discrimination against the female condition.	Qualified homicide, woman, against women, female sex, domestic and family violence, disregard, discrimination, female condition, disregard for the female condition
QC-3	Woman Homicide	Killing someone – qualified homicide: if the homicide is committed: I – for pay or promise of reward, or for another vile reason; II – for futile reason; III – with the use of poison, fire, explosive, suffocation, torture or other insidious or cruel means, or that may result in common danger; IV – treacherously, by ambush, or by dissimulation or other resource that hinders or makes impossible the defense of the victim; V – to ensure the execution, concealment, impunity or advantage of another crime;	Qualified homicide, woman, against women, female sex, domestic and family violence, disregard, discrimination, female condition, disregard for the female condition
QC-4	Physical Violence	Article 7. Forms of domestic and family violence against women include, among others: I – physical violence, understood as any conduct that offends her integrity or physical health; Types of physical violence: Drownings; Hand assaults; Object assaults; Threats to children; Death threats; Suicide threats; Threats of physical violence; Throwing objects; Lack of communication as a form of punishment: does not listen or speak; Pinches; Kicks; Decides for her; Destruction of objects with special sentimental value Pushes; Beatings; Strangulation; Injuries caused by burns; Injuries caused by firearms; Injuries caused by knives or cutting objects; Shaking and squeezing arms; Prevents or hinders access to work, study or any other activity; Injuries with cutting objects; Injuries with piercing objects; Mistreatment of pets; Bites; Sudden and unjustified mood changes, in the face of the same situation or behavior: both praise and humiliate; Does not allow the victim to make decisions about her life or family, nor participate in decisions; Beatings; Deprivation of basic needs (food, sleep, etc.); Hair pulls; Guilt and confusion, caused by constant corrections and manifestations made by the abuser, with the intention of presenting themselves as victims; Punches; Suffocation; Hanging; Slaps; Torture.	Conduct, offend, bodily integrity, physical health, Drownings, assaults, Hand assaults; Object assaults; Threats, Threats to children; Death threats; Suicide threats; Threats of physical violence; Throwing objects; Lack of communication, punishment, does not listen, does not speak, Lack of communication as a form of punishment: does not listen or does not speak; Pinches; Kicks; Decides for her; Destruction of objects with special sentimental value, destruction, objects of special value, objects of value, Pushes; Beatings; Strangulation; Injuries caused by burns; Injuries caused by firearms; Injuries caused by knives or cutting objects; Shaking and squeezing arms; Prevents access to work; hinders access to work; Prevents or hinders access to work, study or any other activity; prevents access to study, access to study, injuries, cutting objects; Injuries with cutting objects; piercing

Table 3 continued

QC No	Search term/ expression	Definitory enunciation	Relevant concepts
			objects; Mistreatment of pets; Bites; Sudden and unjustified mood changes, in the face of the same situation or behavior: sudden changes, both praise and humiliate; praise, humiliations; Does not allow the victim to make decisions about her life or family, nor participate in decisions; Beatings; Deprivation of basic needs (food, sleep, etc.); Deprivations, basic needs, food, sleep, Hair pulls; Guilt and confusion, caused by constant corrections and manifestations made by the abuser, with the intention of presenting themselves as victims: Punches; Suffocation; Hanging; Slaps; Torture.
QC-5	Psychological Violence	Article 7. Forms of domestic and family violence against women include, among others: II – psychological violence, understood as any conduct that causes emotional harm and decreases self-esteem or that harms and disturbs the full development or that aims to degrade or control her actions, behaviors, beliefs and decisions, through threats, coercion, humiliation, manipulation, isolation, constant surveillance, chronic persecution, insult, blackmail, violation of her privacy, ridicule, exploitation and limitation of the right to come and go or any other means that cause harm to her psychological health and self-determination; (Text given by Law No. 13,772, 2018). Types of psychological violence: Alienation; Abandonment; Threats; Intimidating physical approach; Knocking on doors; Blackmail; Embarrassment; distorting and omitting facts to leave the woman in doubt about her memory and sanity (gaslighting); examining her drawers and belongings. Exploitation; Screaming; Humiliation; Insistence on considering the victim crazy, stupid, or useless; Insults; Isolation; Limitation of the right to come and go or any other means that cause harm to her psychological health and self-determination; Insults; Manifesting jealousy and continuous suspicions; Manipulation; Persecution; Prohibiting studying; Prohibiting traveling; Prohibiting from talking to friends; Prohibiting from talking to relatives; Prohibiting from leaving home; Ridicule; Restricting freedom of belief; Constant surveillance.	Conduct, emotional harm, Alienation; Abandonment; Threats; Intimidating physical approach; Knocking on doors; Blackmail; Embarrassment; Distorting and omitting facts to leave the woman in doubt about her memory and sanity (gaslighting); Examining her drawers and belongings; Exploitation; Screaming; Humiliation; Insistence on considering the victim crazy, stupid, or useless; Insults; Isolation; Limitation of the right to come and go or any other means that cause harm to her psychological health and self-determination; Insults; Manifesting jealousy and continuous suspicions; Manipulation; Persecution; Prohibiting studying; Prohibiting traveling; Prohibiting from talking to friends; Prohibiting from talking to relatives; Prohibiting from leaving home; Ridicule; Restricting freedom of belief; Constant surveillance.
QC-6	Patrimonial Violence	Article 7. Forms of domestic and family violence against women include, among others: IV – patrimonial violence, understood as any conduct that constitutes retention, subtraction, partial or total destruction of her objects, work instruments, personal documents, assets, values and rights or economic resources, including those intended to meet her needs; Types of patrimonial violence: Causing intentional damage to objects belonging to the woman or those she cares about; Controlling money; Control over work and salary (it can even	Causing intentional damage to objects belonging to the woman or those she cares about; Controlling money; Control over work and salary (it can even involve withholding money); Failure to pay alimony; Destruction of personal documents; Fraud; Theft, extortion or damage; Not providing access to the money

Table 3 continued

QC No	Search term/ expression	Definitory enunciation	Relevant concepts
		involve withholding money); Failure to pay alimony; Destruction of personal documents; Fraud; Theft, extortion or damage; Not providing access to the money necessary to meet the family's needs; Deprivation of goods, values, or economic resources; Subtraction or destruction of belongings, objects, personal documents, assets, values, resources, etc., belonging to the woman, to cause her harm and control her.	necessary to meet the family's needs; Deprivation of goods, values, or economic resources; Subtraction or destruction of belongings, objects, personal documents, assets, values, resources, etc., belonging to the woman, to cause her harm and control her;
QC-7	Moral Violence	Article 7. Forms of domestic and family violence against women include, among others: V – moral violence, understood as any conduct that constitutes slander, defamation, or insult. Types of moral violence: Accusing the woman of betrayal; reporting the victim to the police; devaluing the victim for her way of dressing; distorting and omitting facts to leave the woman in doubt about her memory and sanity; passing moral judgments on behavior; exposing intimate life; making false criticisms; Playing the victim in public, claiming that she mistreats him; preventing or hindering external relationships to the couple; preventing her from accompanying him in activities or imposing his presence by force; Social isolation; belittling the woman through insults that target her character; trying to tarnish the woman's reputation	Accusing the woman of betrayal; Reporting the victim to the police; Devaluing the victim for her way of dressing; Distorting and omitting facts to leave the woman in doubt about her memory and sanity; Passing moral judgments on behavior; Exposing intimate life; Making false criticisms; Playing the victim in public, claiming that she mistreats him; Preventing or hindering external relationships to the couple; Preventing her from accompanying him in activities or imposing his presence by force; Social isolation; Belittling the woman through insults that target her character; Trying to tarnish the woman's reputation
QC-8	Sexual Violence	Article 7. Forms of domestic and family violence against women include, among others: III – sexual violence, understood as any conduct that constrains her to witness, maintain, or participate in unwanted sexual relations, through intimidation, threat, coercion, or the use of force; that induces her to commercialize or use her sexuality in any way, that prevents her from using any contraceptive method, or that forces her into marriage, pregnancy, abortion, or prostitution, through coercion, blackmail, bribery, or manipulation; or that limits or annuls the exercise of her sexual and reproductive rights; Types of sexual violence: Coercion to maintain sexual relations, using physical force or emotional blackmail; Rape; Forcing marriage, pregnancy, or prostitution through coercion, blackmail, bribery, or manipulation; Humiliations related to her sexual conduct; Preventing the use of contraceptives or forcing the woman to have an abortion; Limiting or nullifying the exercise of the woman's sexual and reproductive rights; Forcing the woman to commercialize or use her sexuality in any way; Forcing the woman to perform sexual acts that cause discomfort or repulsion; Degrading treatment of females; Violence and assaults during pregnancy.	Intimidation, threat, use of force, Coercion to maintain sexual relations, using physical force or emotional blackmail; Rape; Forcing marriage, pregnancy, or prostitution through coercion, blackmail, bribery, or manipulation; Humiliations related to her sexual conduct; Preventing the use of contraceptives or forcing the woman to have an abortion; Limiting or nullifying the exercise of the woman's sexual and reproductive rights; Forcing the woman to commercialize or use her sexuality in any way; Forcing the woman to perform sexual acts that cause discomfort or repulsion; Degrading treatment of females; Violence and assaults during pregnancy.

Table 3 continued

QC No.	Concept (conceptual enrichment)	Thesauri & GSSO	Synonymous terms (lexical enrichment)	Relationships with other concepts (relationship enrichment)
QC-1	Domestic and family violence Against the woman	1, 2, 3	Domestic violence against women; Family violence against women; Abuse against women, gender-based violence; marital violence; violence in the home; intrafamily violence; domestic violence; relationship violence; violence within the family, violence in the domestic environment; violence in marriage; Dating violence/domestic abuse; mistreatment of women; domestic assault against women; family violence	isPracticedBy: people with family ties, people without family ties, partners isType: violence, aggression, physical suffering. Sexual suffering isBasedOn: gender isCausedBy: gender-based action or inaction doesnotDependOn sexual orientation resultsIn: death, injury, physical suffering, sexual suffering, psychological suffering, moral damage, property damage hasAsContext: scope of the family, family environment, scope of the domestic unit, intimate relationship of affection constitutesAFormOf: violation of human rights hasImpact: Physical, psychological, social impact affectsThe: family, the wife, the children isAProductOf: neglect, aggression, abuse, violence, mistreatment, discrimination, exploitation, cruelty, oppression isATypeRelatedTo: Violence is a form of violence, physical violence, domestic violence hasLaws: Law No. 11,340, 2006 hasInjuries: bruises, cuts, bruises hasLegalConsequences: suspension of possession or restriction of carrying of weapons, removal from the home, domicile or place of coexistence with the offended party, prohibition of approaching the offended party, her family and witnesses hasMinimumDistanceBetweenAggressorAndVictim: to be fixed hasHowTypes: physical violence, psychological violence, moral violence, sexual violence, property violence hasInstitutionThatPrevents: Union, State, Federal District, Municipalities, Judiciary, Public Ministry, Public Defender hasAreasInInstitutionsForPrevention: Public security, social assistance, health, education, work and housing, women's assistance police stations, hasPreventiveMeasure: Public policies, non-governmental actions

Table 4. Organization of acquired knowledge (to be continued).

Source: ONU Mulheres (2016, 125-127), National risk assessment form – domestic and family violence against women (Conselho Nacional de Justiça 2020), *Decreto-lei no 2.848, de 7 de dezembro de 1940* (Brazil 1940), Maria da Penha Law (Brazil 2006).

QC No.	Concept (conceptual enrichment)	Thesauri & GSSO	Synonymous terms (lexical enrichment)	Relationships with other concepts (relationship enrichment)
				<p>hasProtectionMeasure: urgent protective measures</p> <p>hasSynonyms: Domestic violence against women; Family violence against women; Abuse against women, gender-based violence; marital violence; violence in the home; intrafamily violence; domestic violence; relationship violence; violence within the family, violence in the domestic environment; violence in marriage; Dating violence/domestic abuse; mistreatment of women; domestic assault against women; family violence</p>
QC-6	property violence	4	Property damage, Financial violence, Financial abuse, Control of assets, Destruction of assets, Destruction of personal property, retention of assets, procedural plunder	<p>isPracticedBy: people with family ties, people without family ties, partners</p> <p>isTypeof: Domestic and family violence against women, Violence against women, financial violence, property damage, financial abuse, Control of assets, Destruction of assets, Destruction of personal property, retention of property, procedural embezzlement</p> <p>isBasedOn: gender</p> <p>isCausedBy: gender-based action or inaction</p> <p>doesnotDependOn: sexual orientation</p> <p>resultsIn: death, injury, property damage</p> <p>hasAsContext: scope of the family, family environment, scope of the domestic unit, intimate relationship of affection</p> <p>constitutesAFormOf: violation of human rights</p> <p>hasImpact: Physical, psychological, social</p> <p>affectsThe: family, the wife, the children</p> <p>isAProductOf: neglect, aggression, abuse, violence, mistreatment, discrimination, exploitation, cruelty, oppression</p> <p>isTypeRelatedTo: Violence</p> <p>isAFormOf: violence, physical violence, domestic violence</p> <p>hasLaw: Law No. 11,340, 2006</p> <p>hasLegalConsequences: suspension of possession or restriction of carrying of weapons, removal from the home, domicile or place of coexistence with the offended party, prohibition of approaching the offended party, her family and witnesses</p> <p>hasMinimumDistanceBetweenAggressorAndVictim: to be fixed</p>

Table 4 continued

QC No.	Concept (conceptual enrichment)	Thesauri & GSSO	Synonymous terms (lexical enrichment)	Relationships with other concepts (relationship enrichment)
				<p>hasLegalDefinition: Any conduct that constitutes retention, subtraction, partial or total destruction of your objects, work instruments, personal documentation, goods, values and rights or economic resources, including those intended to satisfy your needs; act of violence that involves damage, loss, subtraction, destruction or retention of objects, personal documents, goods and valuables.</p> <p>hasSynonym: Emotional and Patrimonial Violence</p> <p>hasHowTypes: Purposefully causing damage to objects belonging to the woman or things she likes, Controlling money, Control over work and salary (may even withhold money), Failure to pay alimony, Destruction of personal documents, Embezzlement, Theft, extortion or damage, Not providing access to the money necessary to meet the family's needs, Depriving of goods, values or economic resources, Subtraction or destruction of goods, objects, personal documents, assets, values, resources, etc., belonging to the woman, to cause harm and control it</p>

Table 4 continued

The choice of the GSSO ontology allowed us to reach 70% of the initial terms that will be available in OntoVDFcM. With regard to QCs, two important classes (property violence and moral violence) were not included in the GSSO. The vast majority of terms found present definitions, but need complementation, as most definitions for the VDFcM context are based on Laws and decrees. Regarding relationships such as object properties and data properties, it was found that they do not exist in GSSO and were added in OntoVDFcM.

We present the first results, as the subject is very dense and the samples are large. Another important point is that the GSSO ontology is entirely in English. In the case of the new OntoVDFcM ontology, which we intend to use in Brazil, it results in terms translated and defined in the Portuguese language – BR.

5.0 Conclusions

IC is a human and social science, in which information is treated as “something alive”, dynamic, relating to society, at

a specific moment, and in a given context (Araújo and Lima 2018). In the same way, ontologies are also, as they need to be updated, fed and adjusted to the context. When using domain ontologies, we thought about the potential for representing knowledge in a reliable way with regard to the intended domain, being readable by both humans and machines (using languages such as OWL/RDF).

In Table 1, documents composed of laws and resolutions that deal with Women's Rights were presented. In Table 2, the number of definitory Enunciation found in the documents was presented. In Table 3, the relevant concepts arising from the definitory Enunciation were presented, which were compared to the GSSO ontology and thesauruses. Such concepts need to be aligned according to the VDFcM context. In Table 4, a small sample of the organization of knowledge acquired from QCs was listed. We used 3 types of enrichment proposed by Araújo (2021): conceptual, lexical and relations. From this table, a conceptual map was created (Figure 2), showing the proposed relationships. In Figure 3, the elaborated relationships were shown in LN, ready to be added to the new ontology. And finally, a preview of

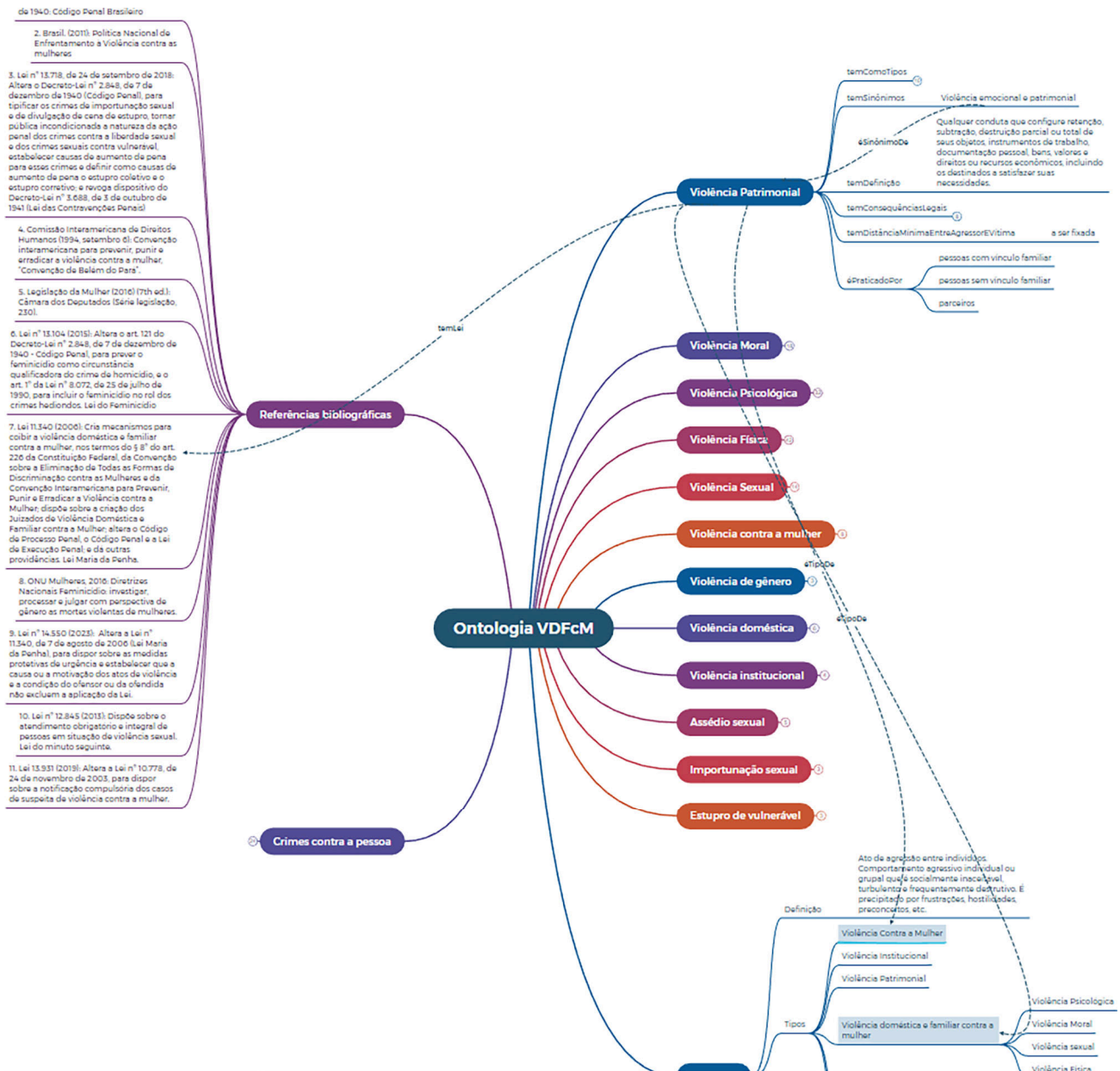


Figure 2. Conceptual Map of the GSSO + OntoVDFcM Ontology – Patrimonial Violence.
Source: prepared by the authors

the new ontology in the Protégé software was shown. (OntoVDFcM.rdf) OWX

According to Meneghel and Portella (2017), the crime of femicide is the final stage in an escalation of violence against women, knowing that the vast majority of these deaths are “announced” and could be avoided.

This difference between records of female homicides and femicides demonstrates how public policy does not depend solely on the approval of a law. It is necessary to record and monitor data, in addition to care in implementation, which, in this case, seems to be lacking.

It is expected that the use of the OntoVDFcM ontology, when filling out the occurrence (FNAR or BO), will help in preventing a possible crime, or at least in identifying the crime correctly. Using the ontology, when filling in the fields, the record options will be listed standardized and within the VDFcM knowledge domain. In this way, we will contribute so that statistics portray the real situation and act in favor of the urgent need to invest more time and money in protection, prevention, reception, education, and public policies. And above all, it is expected that the Civil Police realizes the importance of this work and use it.

Term	relationship	Term Y
Violence	HasHowTypes	Violence against women
Violence against women	HasHowTypes	Moral Violence
Violence against women	HasHowTypes	Sexual Violence
Violence against women	HasHowTypes	Psychological violence
Violence against women	HasHowTypes	Physical violence
Violence against women	HasHowTypes	Patrimonial Violence
Patrimonial Violence	affectsA	family
Patrimonial Violence	affectsA	the woman
Patrimonial Violence	affectsA	the children
Patrimonial Violence	constitutesAFormOf	violation of human rights
Patrimonial Violence	isBasedOn	gender
Patrimonial Violence	isCausedBy	gender-based omission
Patrimonial Violence	isCausedBy	gender-based action
Patrimonial Violence	isPracticedBy	people with family ties
Patrimonial Violence	isPracticedBy	people without family ties
Patrimonial Violence	isPracticedBy	partners
Patrimonial Violence	isProductOf	negligence
Patrimonial Violence	isProductOf	aggression
Patrimonial Violence	isProductOf	abuse
Patrimonial Violence	isProductOf	violence
Patrimonial Violence	isProductOf	mistreatment
Patrimonial Violence	isProductOf	discrimination
Patrimonial Violence	isProductOf	exploration
Patrimonial Violence	isProductOf	cruelty
Patrimonial Violence	isProductOf	oppression
Patrimonial Violence	isType	Violence against women
Patrimonial Violence	isType	Domestic and family violence against women
Patrimonial Violence	isType	financial violence
Patrimonial Violence	isType	property damage
Patrimonial Violence	isType	financial abuse
Patrimonial Violence	isType	Asset control
Patrimonial Violence	isType	Destruction of property
Patrimonial Violence	isType	Destruction of personal property
Patrimonial Violence	isType	asset retention
Patrimonial Violence	isType	waste procedural
Patrimonial Violence	isTypeRelatedA	violence
Patrimonial Violence	it's a way of	violence
Patrimonial Violence	it's a way of	Physical violence
Patrimonial Violence	it's a way of	domestic violence

Figure 3. OntoVDFeM relationships.

Source: prepared by the authors

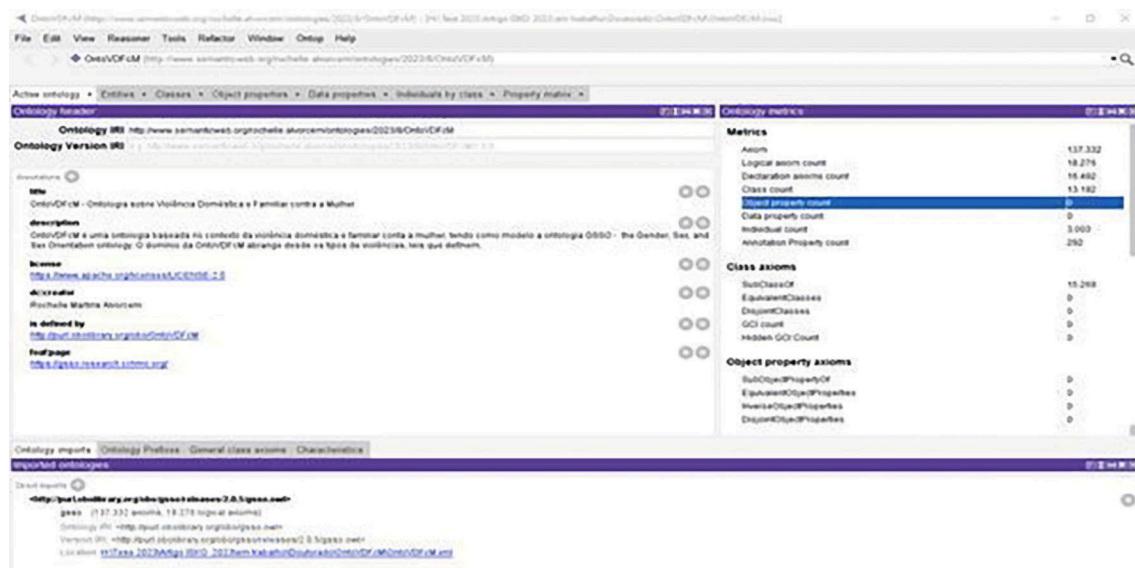


Figure 4. OntoVDFcM Ontology.

References

- Araújo, W. J. 2016. "Avaliação de ontologia com base na comparação a um corpus: um estudo da OntoAgroHidro da EMBRAPA". Master's Thesis, Universidade Federal de Minas Gerais.
- Araújo, W. J. 2021. "Proposta metodológica para enriquecimento de ontologias de domínio". PhD diss., Universidade Federal de Minas Gerais.
- Araújo, Webert Júnio and Gercina Ângela de Lima. 2018. "Avaliação e enriquecimento semântico de ontologia com base na comparação a um corpus: um estudo de caso no domínio da agricultura". *Revista Ibero-Americana de Ciência da Informação* 11, no. 3: 645–62. <https://doi.org/10.26512/rici.v11.n3.2018.10433>
- Brazil. 1940. *Decreto-lei no 2.848, de 7 de dezembro de 1940*. http://www.planalto.gov.br/ccivil_03/Decreto-Lei/Del2848.htm.
- Brazil. 2015. *Lei no 13.104, de 9 de março de 2015*. http://www.planalto.gov.br/ccivil_03/_Ato2015-2018/2015/Lei/L13104.htm#art1.
- Brazil. 2006. *Lei no 11.340, de 7 de agosto de 2006*. http://www.planalto.gov.br/ccivil_03/_ato2004-2006/2006/lei/l11340.htm.
- Bruschini, Maria Cristina A., Danielle Ardaillon and Sandra G. Unbehaun Ridenti. 1998. *Tesouro para estudos de gênero e sobre mulheres*. São Paulo, SP, Brasil: Fundação Carlos Chagas.
- Bueno, Samira, Juliana Martins, Juliana Brandão, Isabela Sobral and Amanda Lagreca. 2023. "Visível e Invisível: A Vitimização de Mulheres no Brasil". 4th ed. https://forumseguranca.org.br/publicacoes_posts/visivel-e-invisivel-a-vitimizacao-de-mulheres-no-brasil-4a-edicao/.
- Campos, Maria Luiza De Almeida. 2010. "O papel das definições na pesquisa em ontologia". *Perspectivas em Ciência da Informação* 15, no. 1: 220–38. <https://doi.org/10.1590/S1413-99362010000100013>
- Campos, Maria Luiza de Almeida. 2017. "Elaboração de modelos de domínio em ontologias: a abordagem onomasiológica e a função da definição". *Ciência da Informação* 46, no. 1: 89–101. <https://doi.org/10.18225/ci.inf.v46i1.4016>
- Campos, Maria Luiza de Almeida, Linair Maria Campos and Jackson da Silva Medeiros. 2011. "A representação de domínios de conhecimento e uma teoria de representação: a ontologia de fundamentação". *Informação & Informação* 16, no. 2: 140–64. <https://doi.org/10.5433/1981-8920.2011v16nesp.p140>
- Conselho Nacional de Justiça. 2020. Resolução Conjunta n.º 5, de 3 de março de 2020. Institui o Formulário Nacional de Avaliação de Risco no âmbito do Poder Judiciário e do Ministério Público e dá outras providências. *DJe/CNJ*, n.º 49 de 4 de março de 2020: 2–8. <https://atos.cnj.jus.br/atos/detalhar/3218>.
- Dahlberg, Ingetraut. 1978. "Teoria do conceito". *Ciência da Informação* 7, no. 2: 101–7. <https://doi.org/10.18225/ci.inf.v7i2.115>
- Dahlberg, Ingertrud. 1983; "Terminological definitions: characteristics and demands". 1983. In *Problèmes de la définition et de la synonymie en terminologie: Actes du Colloque International de Terminologie* 23-27 May 1982 Québec, Canada. Québec: Université Laval, 13-34.

- EMBL-EBI. 2022. "GSSO – the Gender, Sex, and Sexual Orientation Ontology". *Repository. OLS Ontology Search* (website). <https://www.ebi.ac.uk/ols4/ontologies/gssso>
- Gomes, Hagar Espanha, Maria Luiza de Almeida Campos and Ludmila dos Santos Guimarães. 2010. "Organização Da Informação e Terminologia: a abordagem onomasiológica". *DataGramaZero* 11, no. 5. <https://cip.brapi.ci.inf.br/download/45551>
- Gomes, Hagar Espanha and Maria Luiza de Almeida Campos. 2019. *A organização do conhecimento na Web: contribuições de Shiyali Ramamrita Ranganathan e de Inge-traut Dahlberg*. Série Cadernos Acadêmicos 1. Niterói: IACS/UFF.
- Isotani, Seiji, and Ig Ibert Bittencourt. 2015. *Dados abertos conectados: em busca da web do conhecimento*. São Paulo: Novatec.
- Legislação sobre a violência contra as mulheres no Brasil. (2023). *Compromissoeaatidude.org*. <http://www.compromissoeaatidude.org.br/legislacao-sobre-violencia-contra-as-mulheres-no-brasil/>
- Mediavilla Herreros, Marisa and Rocarda Folla Fernández. *Tesouro de Mujeres*. 2014. Madrid: Biblioteca de Mujeres.
- Meneghel, Stela Nazareth and Ana Paula Portella. 2017. "Feminicídios: conceitos, tipos e cenários". *Ciência & Saúde Coletiva* 22, no. 9: 3077–86. <https://doi.org/10.1590/1413-81232017229.11412017>
- Moraes, B. R. S. 2022. "Proposta de Tesouro para dar suporte a organização da informação de apoio à prevenção e combate à violência contra a mulher". PhD diss., Universidade de Brasília
- Moreira, Marcelo da Silva, and Enrique Muriel-Torrado. 2019. "A relação da inteligência policial com a Ciência da Informação", In *Aproximação entre a Ciência da Informação com a Ciência Policial.*, edited by Adilson Luiz Pinto, 7–19. Florianópolis: Senac SC.
- Nações Unidas. 2021. "OMS: uma em cada 3 mulheres em todo o mundo sofre violência". *Nações Unidas Brasil*, March 10 2021. <https://brasil.un.org/pt-br/115652-oms-uma-em-cada-3-mulheres-em-todo-o-mundo-sofre-viol%C3%A2ncia>.
- Nações Unidas. 2022. "Objetivos de Desenvolvimento Sustentável". *Nações Unidas Brasil* (website). <https://brasil.un.org/pt-br/sdgs>.
- ONU Mulheres. 2016. "Diretrizes Nacionais Feminicídio: Investigar, processar e Julgar com perspectiva de gênero as mortes violentas de mulheres". *Onu Mulheres*. https://www.onumulheres.org.br/wp-content/uploads/2016/04/diretrizes_feminicidio.pdf
- Santos, Luana Carla de Moura dos and Marisa Bräscher. 2017. "Uso de ontologia na recuperação da informação em acervos digitais de jornais". *Informação & Informação* 22, no. 3: 346–376. <https://doi.org/10.5433/1981-8920.2017v22n3p346>.
- Zeng, Marcia L. 2008. "Knowledge Organization Systems (KOS)". *Knowledge Organization* 35, nos. 2-3: 160–82. <https://doi.org/10.5771/0943-7444-2008-2-3-160>

Appendix— Glossary OntoVDFcM

Femicide: Qualified homicide against a woman due to her female sex status; (Item VI – added by Law No. 13,104, of 3/9/2015) § 2 – A, it is considered that there are reasons for female sex when the crime involves: I – domestic and family violence; II – disregard or discrimination against the condition of women. Source: Decree Law No. 2,848, of December 7, 1940 – Brazilian Penal Code

Homicide of a woman: Killing someone – qualified homicide: if the homicide is committed: I – against payment or promise of reward, or for another base reason; II – for futile reasons; III – with the use of poison, fire, explosives, asphyxiation, torture or other insidious or cruel means, or which may result in common danger; IV – betrayal, by ambush, or through dissimulation or other resource that makes the defense of the offended party difficult or impossible; V – to ensure the execution, concealment, impunity or advantage of another crime; Source: Decree Law No. 2,848, of December 7, 1940 – Brazilian Penal Code, Section VI – added by Law No. 13,104, of 3/9/2015

Domestic and family violence concerns women: any action or omission based on gender that causes death, injury, physical, sexual or psychological suffering and moral or property damage: (See Supplementary Law No. 150, of 2015); I – within the scope of the domestic unit, understood as the space for permanent coexistence of people, with or without family ties, including those sporadically aggregated; II – within the scope of the family, understood as the community formed by individuals who are or consider themselves related, united by natural ties, affinity or express will; III – in any intimate relationship of affection, in which the aggressor lives or has lived with the offended party, regardless of cohabitation. Single paragraph. The personal relationships set out in this article are independent of sexual orientation. Art. 6 Domestic and family violence against women constitutes one of the forms of violation of human rights. Types: Sexual violence, psychological violence, moral violence, property violence, physical violence. Source: Law No. 11,340 of August 7, 2006 – Maria da Penha Law

Violence against women: any action or conduct, based on gender, that causes death, harm or physical, sexual or psychological suffering to women, both in the public and private spheres. It will be understood that violence against women includes physical, sexual and psychological violence: §1. That occurred within the family or domestic unit or in any other interpersonal relationship, in

which the aggressor lives or has lived in the same household as the woman and which includes, among others, rape, rape, mistreatment and sexual abuse: §2. That occurred in the community and is perpetrated by any person and that includes, among others, rape, sexual abuse, torture, mistreatment of people, trafficking in women, forced prostitution, kidnapping and sexual harassment in the workplace, as well as in institutions educational institutions, health establishments or any other place, and §3. That is perpetrated or tolerated by the State or its agents, wherever it occurs. Source: Decree nº 1973 of August 1, 1996.

Domestic violence: If the injury is committed against an ascendant, descendant, brother, spouse or partner, or with whom he lives or has lived, or, even, if the agent of domestic relations, cohabitation or hospitality prevails Source: Decree Law no. 2,848, of December 7, 1940 – Brazilian Penal Code

Physical violence: physical violence, understood as any conduct that offends your integrity or bodily health; Types of physical violence: Drowning; Attacks with the hands; Aggressions with objects; Threats to children; Death threats; Threats of suicide Threats of physical violence; Throwing objects; Lack of communication as a form of punishment: does not listen or does not speak; Pinching; Kicks; Decide for her; Destruction of objects with special sentimental value Pushing; Beating; Strangulation; Injuries caused by burns; Injuries caused by firearms; Injuries caused by knives or sharp objects; Shake and squeeze your arms; Prevents or hinders access to work, study or any other activity; Injuries with sharp objects; Injuries with piercing objects; Abuse of domestic animals; Bites; Sudden and unjustified changes in mood, when faced with the same situation or behavior: either praises or humiliates; Does not allow the victim to make decisions about his or her life or family, nor participate in decisions; Pauladas; Deprivation of basic needs (food, sleep, etc.); Hair pulling; Feeling of guilt and confusion, caused by constant corrections and demonstrations made by those who mistreat, with the intention of presenting themselves as victims; Punches; Suffocation; Hanging; Tapas; Torture. Source: Law No. 11,340 of August 7, 2006 – Maria da Pe Law.

Psychological violence: psychological violence, understood as any conduct that causes emotional harm and reduced self-esteem or that harms and disrupts full development or that aims to degrade or control your actions, behaviors, beliefs and decisions, through threat, embarrassment, humiliation, manipulation, isolation, constant surveillance, persistent persecution, insult, blackmail, violation of privacy, ridicule, exploitation and limitation of the right to come and go or any other means that causes harm to psychological health and self-deter-

mination; (Wording given by Law No. 13,772, of 2018). Types of psychological violence: Alienation; Abandonment; Threats; Intimidating physical approach; knocking on doors; Bribery; Embarrassment; distorting and omitting facts to leave the woman in doubt about her memory and sanity (gaslighting); examine her drawers and belongings. Exploration; Screams; Humiliation; Insistence on considering the victim crazy, stupid or useless; Insults; Isolation; Limitation of the right to come and go or any other means that causes harm to psychological health and self-determination; Insults; Express continuous jealousy and suspicion; Manipulation; Persecution; Prohibit studying; Prohibit travel; Prohibit talking to friends; Prohibit speaking to relatives; Prohibit leaving the house; Ridicule; Take away freedom of belief; Constant vigilance. Source: Law No. 11,340 of August 7, 2006 – Maria da Penha Law.

Property violence: property violence, understood as any conduct that constitutes retention, subtraction, partial or total destruction of your objects, work instruments, personal documents, assets, values and rights or economic resources, including those intended to satisfy your needs; The following types of property violence are: Purposefully causing damage to objects belonging to the woman or objects that she likes; Control the money; Control over work and salary (may retain money); Failure to pay alimony; Destruction of personal documents; Fraud; Theft, extortion or damage; Not providing access to the money necessary to meet the family's needs; Deprive of goods, values or economic resources; Theft or destruction of goods, objects, personal documents, assets, valuables, resources, etc., belonging to the woman, to cause harm and control her. Source: Law No. 11,340 of August 7, 2006 – Maria da Penha Law.

Moral violence: understood as any conduct that constitutes slander, defamation or insult. The following are types of moral violence: Accusing the woman of cheating; reports the victim to the police; devaluing the victim due to the way they dress; distorting and omitting facts to leave the woman in doubt about her memory and sanity; make moral judgments about conduct; expose intimate life; make false criticisms; Plays the victim in public, saying that she mistreats him; prevents or hinders relationships outside the couple; prevents you from accompanying you in activities or imposes your presence by force; Social isolation; demeaning the woman through insults that affect her nature; trying to tarnish the woman's reputation. Source: Law No. 11,340 of August 7, 2006 – Maria da Penha Law.

Sexual violence: understood as any conduct that forces you to witness, maintain or participate in unwanted sexual relations, through intimidation, threat, coercion or use of force; that induces her to commercialize or use, in any

way, her sexuality, that prevents her from using any contraceptive method or that forces her into marriage, pregnancy, abortion or prostitution, through coercion, blackmail, bribery or manipulation; or that limits or nullifies the exercise of your sexual and reproductive rights; The following types of sexual violence are: Coercion to maintain sexual relations, using physical force or emotional blackmail; Rape; Force marriage, pregnancy or prostitution through coercion, blackmail, bribery or ma-

nipulation; Humiliation related to her sexual conduct; Prevent the use of contraceptives or force women to have an abortion; Limit or annul the exercise of women's sexual and reproductive rights; Forcing women to sell or use, in any way, their sexuality; Forcing a woman to perform sexual acts that cause discomfort or repulsion; Degrading treatment of females; Violence and aggression during pregnancy. Source: Law No. 11,340 of August 7, 2006 – Maria da Penha Law.