Matrix of critical processes of violence against and between young university students: the experience of nursing*

Matriz de processos críticos das violências contra e entre jovens universitários: a experiência da enfermagem

Matriz de procesos críticos de violencia entre y contra jóvenes universitarios: experiencia de la enfermería

How to cite this article:

ABSTRACT
Objective: To describe the steps that led to the formulation of a matrix of critical processes as an experience of public health nursing as part of reflections about coping with violence against and between young university students. Method: Mixed methods study. During the quantitative step, a descriptive, retrospective, time series study was carried out with data available in the Brazilian Information System for Notifiable Diseases, which recorded 854 cases of violence against and between young university students, whose ages ranged from 18 to 29 years old, reported in the state of Paraná, Brazil, between 2009 and 2015. The qualitative step focused on producing a descriptive study with 68 university students by applying content analysis, supported by the software webQDA. Results: The formulated matrix of critical processes showed protection and attrition processes, as well as weaknesses in their domains and dimensions, which allowed reflection on the interventions necessary to transform the objective reality of violence against and between young university students in the state of Paraná. Conclusion: Formulating the matrix of critical processes as an experience of reflection about coping with different types of violence allowed the application of theoretical and practical dialogue in a dialect of contraries, a principle that is foundational in public health nursing practice.

DESCRIPTORS
Students; Universities; Exposure to Violence; Public Health Nursing; Nursing; Epidemiology.
INTRODUCTION

It is indispensable to consider that epidemiology must go beyond numbers and factors and be guided by dialectical understanding of historical and social processes of the determination of health and disease conditions of collectivities and their territories, with the aim of overcoming reductionist and Cartesian explanations, which regard sickness as an individual and ahistorical phenomenon, disconnected from reality.

This theoretical perspective was consolidated in the 1970s and 1980s with the Latin American Movement of Social Medicine, which since then has been advocating countervergemonic proposals, if classic epidemiology and traditional public health are taken as a reference. In this movement, with a critical theoretical basis, other ways of conceiving health have emerged. One is critical epidemiology (CE), idealized by Breilh. It stands out as a new science, critical and multicultural, immersed in the historical-social paradigm, with the perspective of exploring and describing social determination in collective health.

By acknowledging the contradictory nature of individual and collective events, CE sets aside the word “factors” and uses “processes” instead, as a distinct projection of socially and historically built spaces in which there are protection processes, which preserve or favor support for the lives of individuals or collectivities, and attrition processes, which cause deprivation or deterioration of the lives of individuals or collectivities. These processes can be in the same reality and at opposite poles but, contradictorily, can change their polarity, sometimes acting as protection, sometimes as attrition, because of the dynamic nature of the reality in which they materialize. They are complex and dialectical processes, whose definition is initiated with the structuring of society, recognized in the social reproduction of collectivities and in the specificity of the individuals who live in a given territory and historical moment.

The means of overcoming knowledge proposed by CE resides in the analysis categories of health phenomena, because this approach considers that power relations in societies are centered in social class, gender, ethnicity, and, more recently, generation. And the dynamics of these relationships are defined according to the structure of society, which endorses social inequities by means of its public policies, producing social injustice and more inequities. These inequities are expressed empirically by social inequities found in daily routines and in different ways that are inherent to it. To gain critical understanding of these manifestations, it is necessary to analyze the inequities that produce them. Social inequities are determined, therefore, based on social exclusion produced by power relations hegemonically established in the structure of society; and public policies are adopted that hinder circulation and distribution of the common good that would allow citizens to contribute with their capacities and enjoy full lives.

The CE categories (social class, gender, ethnicity/race, and generation) were crucial to the research process oriented toward understanding violence against and between young university students. It should be emphasized that, in the context of life, social class also determines the life conditions of individuals in society, developing, by means of protection and attrition processes, the actions of everyday routines. Also worth mentioning are processes of strengthening and attrition in health processes, individual or collective, which, when explicit, allow proposals for overcoming social inequities.

To analyze a complex phenomenon such as violence, it is also necessary to use social categories such as gender, ethnicity/race, and generation. Gender refers to understanding the relationships that historically and socially develop between the sexes. For this reason, it is construed as a constitutive element of every social relationship and the first way to signify power relations. By understanding the phenomenon from the perspective of this category, it is possible to expose the social constructs of the subjective identities of women and men, and, therefore, the conjectures regarding the social roles expected of them.

In the present study, the category generation is highlighted because of its potential to identify polarities in social phenomena. Generation establishes the social positions taken by individuals who are identified as belonging to the groups categorized into childhood, adolescence, adult life, and old age. Members of these groups have differing experiences of the events of the societies in which they are inserted, given the power asymmetries in the relationships between generations.

From this standpoint, the category ethnicity/race must also be considered when proposing analysis of the violence phenomenon. It is the expression of a collectivity, based on its manifestation as a society or community of individuals that share a territory and, therefore, make up, as a unit, a cultural homogeneity. Expression of ethnicity/race occurs by means of language, religion, and identification of beliefs and values, but, most importantly, by the collective identity of belonging to a group.

One of the challenges faced by CE is, by means of the social determination of health, act an instrument for human development of the implementation of comprehensive health care that perceives individuals as a whole, overcoming the unidimensional and fragmented views of classic epidemiology. Critical epidemiology was conceived as a science whose goal is emancipating activities by dialectically exploring the contradictions identifiable in the general (political and ideological), specific (social class, gender, family, and work), and individual dimensions (genotype, phenotype, and way of living) of objective reality. These theoretical assumptions are part of the foundations of practice and methodology for interventions in public health nursing, since this is grounded in dialectical and historical materialism and seeks, by means of its participatory actions, to transform health realities that are undesirable.

Critical epidemiology applies matrices of critical processes (MCPs) as an instrument for using epidemiological information to carry out strategic planning in the face of collective needs in health, monitoring of quality of life, programs and services, as well as in the field of health management. That is, MCPs are used as a form of organization of work in health.

To achieve that, there are five domains that must be examined: work (in which production activities are developed);
domestic and consumption-related life (in which the social subject conditions are expressed); organizational and political space (political life, including historical interests and projects of a group); culture (construction of a worldview); and ecosystemic space (where we move around). Each has to fulfill the set of standards designated by “4S”: sustainability, solidarity, sovereignty, and full security(3,11). Therefore, CE contributes to a concept of public health that moves beyond cases treated, and includes monitoring of critical health processes and reconstruction of information systems necessary for human and epidemiology development.

It is understood that MCPs are important tools for understanding and coping with violence against and between young university students, and that they allow contextualization of the increase of various types of violence in Brazilian universities. Ideas about the existence of faith that education can create a civilized and pacifist society, and of making personal resources available to cope with violence, are common sense beliefs, but frequent complaints of discrimination and violent acts in the university setting expose another reality(12-13). In this context, it is understood that MCPs allow contextualization of the increase of violence in Brazilian public universities and, consequently, helping to understanding and to cope with this phenomenon in this setting.

The Ribeirão Preto Campus of the Universidade de São Paulo can be cited in this scenario. It instituted a Parliamentary Commission of Inquiry to evaluate violent situations. It was verified that women were more exposed to various types of violence, and that there was institutional omission of reported cases. In 2016, the office USP Women (USP Mulheres) was created, with the function of carrying out actions of gender equity in this university(14).

The reality of violence in higher education institutions can be described by students who are cowed by aggressors, including professors. Some of these students opt to withdraw from their courses. Physical sequelae such as headaches, depression, and abuse of alcohol and other drugs stand out, as well as an increase in the number of cases of suicide among students(15).

The objective of the present study was to describe the process that led to the formulation of an MCP as an experience of public health nursing as part of reflections about coping with violence against and between young university students. It is important to emphasize the relevance to nursing of the knowledge developed based on the experiences reported in the present study, which allows recognition of the objective reality of the examined phenomenon and strengthens the design of an interpretative guide to action, organization, and training of professionals regarding coping with different types of violence(16).

METHOD

STUDY TYPE

The present article describes the formulation of an MCP by carrying out a mixed methods study, since this methodological design strengthens the understanding of complex health and healthcare phenomena(17).

POPULATION

The quantitative step involved the examination of 854 cases of violence against and between young university students, aged 18 to 29 years old, reported in the state of Paraná, Brazil, between 2009 and 2015. The qualitative step focused on collecting data by applying 68 electronic questionnaires from November 2017 to August 2018.

SELECTION CRITERIA

During the quantitative step, the reporting form fields 12 (age ranging from 18 to 29 years old) and 16, code 7 (level of education: incomplete higher education) were delimited.

The qualitative phase involved an intentional sample and applied an electronic questionnaire that was filled out by university students from 18 to 29 years old enrolled in undergraduate courses at six campuses of a public higher education institution in the state of Paraná.

This methodological interaction allowed the formulation of an MCP as a way to understand the context and determination of processes of violence against and between young university students, establishing dialogues in which lengthy explanation and in-depth understanding of the phenomenon allowed the coordination of the general, specific, and individual dimensions of social determination of protection and attrition processes(18).

DATA ANALYSIS AND TREATMENT

The quantitative step was a descriptive, retrospective, time series study that used data available in the Brazilian Information System for Notifiable Diseases. There were 81,508 reports, of which 16,559 involved young people. By narrowing down the search to the level of education and age group that were the target of the present study, the total reports decreased to 854. They were analyzed, organized, and categorized by applying simple descriptive statistics with the software TabWin(19) (tabulator for Windows(20)) version 4.1. The qualitative phase was a descriptive study, carried out by applying an electronic questionnaire filled out by young university students enrolled in undergraduate courses. Data were organized and analyzed by using the webQDA software. This process guided content analysis toward showing a lower subjective influence of the researcher on results presentation, stressing the categories (classification and aggregation) that were meaningful to the subject and the study objective.

After the steps of collection, organization, and analysis of data on violence against and between young university students, it was possible to design the MCP, which was formulated based on the identification of critical protection and attrition processes identified in previous phases of the study. These processes resulted from a system of contradictions of social reproduction encompassing five domains: production life, domestic and consumption-related life, political life (organizational abilities and social interests), ideological life, and life of relationships with social conditions.
domains are related to the general, specific, and individual dimensions of reality\(^{(3,16)}\).

The following characteristics were observed to consolidate the MCP model\(^{(3)}\):

**Contextualization** – convergence of contents and processes, having as indicators development of the profile of needs, incorporation of popular perspectives and opinions, integration of the information system, humanization of work, consumer protection, and cultural and organizational strengthening of the collectivity.

**Human directionality** – participatory development and analysis of ways of sharing, funding, and management; social, ethnic, and gender equity; and interculturality and information systems that dialogue with several sectors.

**Quality of information and processes** – validity of indicators; organization; adequacy to the needs of the collectivity; cultural focus; gender perspective; and register reliability. Effectiveness (sufficient coverage of information), efficiency (analysis of benefits in comparison with needs), and efficacy (fulfillment of objectives and targets) must be respected.

It is considered that MCPs, being based on dialectical and historical materialism, identify, in social contexts, ways to develop protection and attrition actions of the examined phenomena. Taking this as a starting point, the critical process of formulating an MCP envisages the transformation of health management, which materializes in a territory or social space by means of strategic planning information that recognizes public health needs and the participation of the collectivity in public health management. To do that, participatory monitoring and social control actions are used\(^{(3)}\).

**Ethical aspects**

Ethical and legal aspects were observed, in accordance with Brazilian National Health Council Resolution 466/2012. The study proposal was submitted to the Ethics Committee of the Health Sector at the Universidade Federal do Paraná, and with the State Health Secretariat of the State of Paraná as a partner institution, whose resolutions can be found in Report no. 2.048.302/17 and no. 2.239.849/17, respectively. Regarding the study dissemination, the Consolidated Criteria for Reporting of Qualitative Research (COREQ)\(^{(19)}\) and the Strengthening the Reporting of Observational Studies in Epidemiology checklist (STROBE)\(^{(20)}\) were used.

**RESULTS**

The results of pre-formulation of MCP were as follows. The quantitative phase indicated that violence occurred more often with single women, and was characterized mostly as self-inflicted injuries, both physical and psychological. Sexual violence occurred mainly as rape and with female victims. The qualitative step had greater participation by white and brown women, who were knowledgeable about the typology of the types of violence and male aggressors (students, professors, and men who did not belong to the university community). It is important to emphasize that, when filling out the electronic questionnaires, some students identified themselves as being both aggressors and victims.

The participants mentioned protection processes (avoiding going out at specific times, walking in groups, avoiding wearing clothes that expose their bodies, going through psychological treatment, punishing aggressors, claiming that institutional staff does not protect professors reported for acts of violence). They also cited attrition processes: power relations in the institution, the social context, socioeconomic conditions, psychological pressure, gender identity, impunity, and lack of embracement.

Chart 1 was designed based on the characteristics of organization of work to formulate the MCP. It shows the protective and destructive processes regarding violence against and between young university students found in the quantitative and qualitative phases of the study. For critical thinking, it is imperative to understand the relationships between the whole and its parts in transforming reality, since there is a natural movement of social reproduction as society evolves. Consequently, Chart gathers the social reproduction variables (logic and metabolism; ways of living and lifestyle)\(^{(1)}\).

Chart 2 guided the organization of actions of prevention and promotion of nonviolence, which allow explanation of social processes such as the analysis dimensions (general, specific, and individual), as well as some actions and results indicators to reduce the phenomenon of violence against and between young university students\(^{(21)}\).

---

**Chart 1** – Domains in the dimensions of reality: general, specific, and individual, pointed out in the characterization of types of violence and the content of the accounts of the interviewed participants – Curitiba, PR, Brazil, 2017-2018.

<table>
<thead>
<tr>
<th>Dimensions Domains</th>
<th>General</th>
<th>Specific</th>
<th>Individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production life</td>
<td>Professor vs. student domination; harassment; violence of different types, especially psychological, physical and sexual</td>
<td>Students’ overload about the professional training process because of excessive pressure; harassment in the different forms of established relationships in the institution; precarious social relationships</td>
<td>Psychological disorders; fragilities in gender identity</td>
</tr>
<tr>
<td>Consumption-related and everyday life</td>
<td>Insertion in the production system; way of living emphasizing the study of young university students in Paraná</td>
<td>Low academic performance; restriction in social contacts; lack of safety in spaces and territories where young university students move around</td>
<td>Restrictions on obtaining proper diet, access to decent housing, and leisure and cultural activities, caused by economic difficulties and excess activities</td>
</tr>
</tbody>
</table>

continue...
The formulated MCP showed protection and attrition processes, whether by means of secondary data or information provided by the respondents to the electronic questionnaire. The matrix pointed out fragilities in its domains and dimensions regarding violence against and between young university students, allowing reflection about the interventions necessary to transform the objective reality of these types of violence in the Brazilian state of Paraná.

**DISCUSSION**

The formulation of the MCP emphasized the determination of life and health conditions, which allows reflection about participatory actions to solve problems. This type of matrix is known as a model for organization of research and intervention work in epidemiology[1,2]. Its critical process envisages transformation of health interventions that materialize in a territory by means of actions to be implemented in a process of participatory and dynamic planning, in which collective and individual health needs are recognized, as well as their determination. These actions must be multiprofessional, intersectorial, and include the principles of social justice to promote life[2].

In a study carried out in a university in Goiás state, Brazil, young people mentioned the practice of violence against women, but did not consider themselves aggressors. They pointed the occurrence of psychological (46.8%), sexual (40.4%), moral (31.9%), physical (8.5%), and patrimonial (2.1%) violence. By mentioning psychological violence as being the type most practiced in sexual-emotional relationships, they highlighted masculinity, power, and guarantees of authority in this type of relationship, and indicated that they see this form of violence as an instrument for solving conflicts[13].

Another study showed the importance of carrying out activities oriented toward prevention and intervention related to violence, offering support and solidarity without blaming victims for the experienced violations. It also attested that lack of support and solidarity prevents people experiencing violence, especially women, from seeking help and participating in support groups against gender violence[23].

In the educational institution where the qualitative phase was developed, collectivities have been emerging since 2012 to take this phenomenon out of invisibility, demanding policies and actions to cope with violence in institutional spaces. Aiming to increase the exposure of gender and race issues, they have proposed discussions on
Sexismo, diferentes tipos de violencia y prejuicio, diferencias en el mercado laboral, y estrategias de empoderamiento por deepen-
ing temas como la sexualidad, opresión, sexismo, racismo, y homofobia en entornos universitarios.

Sin embargo, un estudio brasileño demostró que, a pesar de que institucionales se desarrollan para implementar acciones para promover la paz, prevenir la violencia, llevar a cabo programas para ayudar a los afectados, y mantener a personas responsables, estas políticas no manejan los problemas relacionados con la violencia y los conflictos que surgen en el contexto de poder entre profesionales e estudiantes.

El análisis de documentos realizados por estudiantes universitarios en Brasil y europeos para lidiar con la violencia mostró que no se cuenta con regulaciones que guíen a las universidades en este sentido, especialmente en instituciones que reciben financiamiento federal.

Un estudio exploratorio realizó en el interior del estado de Sao Paulo, Brasil, reportó que, en los participantes, la violencia es un fenómeno social determinado, dialécticamente interpretado, y una violencia que se reproduce de manera interna y externa a las universidades.

El proceso de formulación de los procesos críticos (MCP) como una experiencia de reflexión con respecto a la lucha contra la violencia, permitió ejercer la consideración de las necesidades del grupo, la protección y la transformación de la realidad en la percepción de los jóvenes universitarios. Esto permitió establecer una perspectiva de acción y participación en el ámbito universitario.

CONCLUSIÓN

El reconocimiento del potencial de matrices de procesos críticos (MCPs) como un modelo para organización del trabajo de investigación y intervención en salud pública en enfermería, debe ser considerable. Esto permite visibilizar los dominios y dimensiones que constituyen el fenómeno examinado. En el presente estudio, la formulación de la matriz ofreció la posibilidad de reconocer las realidades objetivas de la violencia contra y entre jóvenes universitarios en el estado de Paraná, y se creó la posibilidad de reconocer las realidades objetivas de la violencia en la población estudiantil, lo que permitió continuar colaborando en las acciones de cooperación con los jóvenes universitarios en el estado de Paraná. Exposición a la violencia; Enfermería en salud pública; Epidemiología.

DESCRITORES

Estudiantes; Universidades; Exposición a la violencia; Enfermería en salud pública; Epidemiología.

Rev Esc Enferm USP · 2021;55:e03716
www.scielo.br/reeusp
realidad objetiva de la violencia entre y contra jóvenes universitarios en el estado de Paraná. **Conclusión:** La construcción de la Matriz de Procesos Críticos, como experiencia de reflexión para enfrentar la violencia, permitió ejercitar el diálogo teórico y práctico en una dialéctica de los opuestos, supuestos que son base de la praxis de la Enfermería en Salud Colectiva.

**DESCRIPTORES**
Estudiantes; Universidades; Exposición a la Violencia; Enfermería en Salud Pública; Epidemiología.

**REFERENCES**


15. Deslandes SF, Assis SG. Abordagem quantitativa e qualitativa em saúde: o diálogo das diferenças. In: Minayo MCS, Deslandes SF, editores. Ambientes de Procesos Críticos, como experiencia de reflexión para enfrentar la violencia, permitió ejercitar el diálogo teórico y práctico en una dialéctica de los opuestos, supuestos que son base de la praxis de la Enfermería en Salud Colectiva.

16. Deslandes SF, Assis SG. Abordagem quantitativa e qualitativa em saúde: o diálogo das diferenças. In: Minayo MCS, Deslandes SF, editores. Ambientes de Procesos Críticos, como experiencia de reflexión para enfrentar la violencia, permitió ejercitar el diálogo teórico y práctico en una dialéctica de los opuestos, supuestos que son base de la praxis de la Enfermería en Salud Colectiva.


19. Deslandes SF, Assis SG. Abordagem quantitativa e qualitativa em saúde: o diálogo das diferenças. In: Minayo MCS, Deslandes SF, editores. Ambientes de Procesos Críticos, como experiencia de reflexión para enfrentar la violencia, permitió ejercitar el diálogo teórico y práctico en una dialéctica de los opuestos, supuestos que son base de la praxis de la Enfermería en Salud Colectiva.


24. Deslandes SF, Assis SG. Abordagem quantitativa e qualitativa em saúde: o diálogo das diferenças. In: Minayo MCS, Deslandes SF, editores. Ambientes de Procesos Críticos, como experiencia de reflexión para enfrentar la violencia, permitió ejercitar el diálogo teórico y práctico en una dialéctica de los opuestos, supuestos que son base de la praxis de la Enfermería en Salud Colectiva.


This is an open-access article distributed under the terms of the Creative Commons Attribution License.