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RESEARCH

PROGRAMMATIC VULNERABILITY IN HEALTH: CONCEPT ANALYSIS

VULNERABILIDADE PROGRAMÁTICA NA SAÚDE: ANÁLISE DO CONCEITO

VULNERABILIDAD PROGRAMÁTICA EN LA SALUD: ANÁLISIS DEL CONCEPTO

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ABSTRACT

Objective: to conceptually analyze programmatic vulnerability with the identification of its antecedents, attributes, and consequences. **Method:** conceptual analysis model according to the Walker and Avant methodology. There were steps, I. selection of the concept: programmatic vulnerability; II. determination of objectives: analysis of the use of the concept; III. identification of uses of the concept: integrative review study (the uncontrolled expression "*programmatic vulnerabilty*" was searched in the Embase, Web of Science and Medline databases via Pubmed and in the article repositories Biblioteca Virtual em Saúde and Scielo); IV. determination of attributes: analysis of records from stage III; V. identification of the model case and additional cases: construction based on attributes and an otherwise; VI. identification of antecedents and consequences: panel of data for elaboration of phenomena before and after programmatic vulnerability; VII. empirical reference: operational definitions extracted from the records. **Results:** 20 records were included in the concept analysis. Variations of the term and the most common meanings that characterize programmatic vulnerability were identified, with the programmatic dimension and access to health being the most frequent. The model case was built. The antecedents, attributes and consequences were grouped in a table by similarity, in which empirical references of the concept were indicated. **Conclusion:** programmatic vulnerability has important discursive elements, its main characteristic being the lack of available consultations (antecedent), insufficiency/difficulty in accessing health (attribute) and disease evolution (consequent).

Keywords: Health Vulnerability; Concept Formation; Vulnerability Study; Vulnerability Analysis; Heath; Health Services.

RESUMO

Objetivo: *analisar, conceitualmente, a vulnerabilidade programática com identificação de seus antecedentes, atributos e consequentes.* ***Método:*** *modelo de análise conceitual segundo metodologia de Walker e Avant. Foram etapas, I. seleção do conceito: vulnerabilidade programática; II. determinação dos objetivos: análise do uso do conceito; III. identificação de usos do conceito: estudo de revisão integrativa (buscou-se a expressão não controlada "programmatic vulnerabilty" nas bases de dados embase, web of science e Medline via pubmed e nos repositórios de artigos Biblioteca Virtual em Saúde e Scielo); IV. determinação dos atributos: análise dos registros da etapa III; V. identificação do caso modelo e casos adicionais: construção com base nos atributos e um caso contrário; VI. identificação de antecedentes e consequentes: painel de dados para elaboração de fenômenos antes e depois da vulnerabilidade programática; VII. referência empíricas: definições operacionais extraídas dos registros.* ***Resultados:*** *20 registros foram incluídos na análise do conceito. Identificaram-se as variações do termo e os significados mais presentes e caracterizadores da vulnerabilidade programática, sendo a dimensão programática e acesso à saúde as mais frequentes. Foi construído o caso modelo. Os antecedentes, atributos e consequentes foram agrupados em quadro por similitude, no qual referências empíricas do conceito foram indicadas.* ***Conclusão:*** *a vulnerabilidade programática tem elementos discursivos importantes, sendo sua principal característica a falta de consultas disponibilizadas (antecedente), insuficiência/dificuldade no acesso à saúde (atributo) e evolução da doença (consequente).*

Palavras-chave: *Vulnerabilidade em Saúde; Formação de Conceito; Estudo sobre Vulnerabilidade; Análise de Vulnerabilidade; Saúde; Serviços de Saúde.*

RESUMEN

Objetivo: *analizar conceptualmente la vulnerabilidad programática con la identificación de sus antecedentes, atributos y consecuencias.* ***Método:*** *modelo de análisis conceptual según la metodología de Walker y Avant. Los pasos fueron: I. selección del concepto: vulnerabilidad programática; II. determinación de los objetivos: analizar el uso del concepto; III. identificación de los usos del concepto: se utilizó un estudio de revisión integrador (se buscó la expresión no controlada " programmatic vulnerabilty " en las bases de datos embase, Web of Science y Medline a través de pubmed y en los repositorios de artículos Virtual Health Library y Scielo); IV. determinación de los atributos: análisis de los registros del paso III; V. identificación del caso modelo y de los casos adicionales: se construyó a partir de los atributos y de un caso contrario; VI. identificación de los antecedentes y las consecuencias: panel de datos para la elaboración de los fenómenos antes y después de la vulnerabilidad programática; VII. referencia empírica: definiciones operativas extraídas de los registros.* ***Resultados:*** *se incluyeron veinte registros en el análisis conceptual. Se identificaron las variaciones del término y los significados más presentes y característicos de la vulnerabilidad programática, siendo la dimensión programática y el acceso a la salud los más frecuentes. Se construyó el caso modelo. Los antecedentes, atributos y consecuencias se agruparon en una tabla por similitud, en la que se indicaron las referencias empíricas del concepto.* ***Conclusión:*** *la vulnerabilidad programática tiene importantes elementos discursivos, siendo su principal característica la falta de consultas disponibles (antecedente), la insuficiencia/dificultad en el acceso a la salud (atributo) y la evolución de la enfermedad (consecuente).*

Palabras clave: *Vulnerabilidad en Salud; Formación de Concepto; Estudio de Vulnerabilidad; Análisis de Vulnerabilidad; Salud; Servicios de Salud.*

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INTRODUCTION

Health vulnerability (SV) brings new concepts to care practices in the field of collective health. This is because, although the term carries a negative connotation, it has the potential to be worked with emphasis on promoting the health of subjects in the public and private spheres of health services, as well as to produce reflections on health needs that can be met.

The SV has its dimensions supported by three (individual, social and programmatic)[1] or two essential elements (subject and social).[2] The individual and social components indicate clear situations of vulnerability that subjects may have or present. On the other hand, programmatic vulnerability (PV) still raises questions about its use and operationalization in health services, as well as the question of whether or not to integrate the social part of the SV construct.

There are definitions in the literature of PV[1-3] that seek to mediate the notion of risk, but without consensus. Ayres[1] described the degree of commitment and public policies designed in a reality close to the subjects to reduce the vulnerabilities involved. Junges[3] explains ethical problems that generate vulnerability in Primary Health Care (PHC). Florêncio[4] completes Ayres' assertion by clarifying that PV refers to the characteristics and processes of health services, characterized by the infrastructure and work process in terms of absence or insufficiency. Other works that are less relevant from a conceptual point of view are found,[5,6] but without further addition of definitions and meanings attributed to PV.

Despite not being a polysemic term, like SV in the literature, PV brings variations of uses and terms that make it difficult to identify how subjects are vulnerable. This context justifies the need for the present study to, when analyzing this concept, fill the knowledge gap and better structure PV and its operationalization as part of SV in care practices. Based on the above, the objective was to conceptually analyze programmatic vulnerability, identifying its antecedents, attributes, and consequences.

METHOD

Conceptual analysis according to the methodology of Walker and Avant. This type of analysis seeks to make stronger and more solid concepts to structure a theory. To do so, the concept to which it refers must be clearly named and have a structure (definition), and its functions in theory must be clarified (uses) so that anyone who sees the concept and its definition within the theory knows what it means. was written, explained, or predicted.[7]

Thus, the steps[7] were followed: concept selection; determination of the objectives of the analysis; identifying all the uses of the concept that you can discover; determination of attributes; identification of the model case; identification of additional cases; identification of antecedents and consequences; and definition of empirical references.

Concept selection should be manageable, while concepts defined only by examples or umbrellas should be avoided. Therefore, PV was selected because it is related to SV, which dialogues with several interfaces inside and outside public health. PV refers to health services and how they start to enhance SV conditions when some attributes related to physical characteristics or management and organization are unstructured. Thus, these aspects make the phenomenon relevant for professionals and users of health services. Furthermore, we chose to select this concept because it is the most widespread in studies on SV related to health services, which was defined as the social resources that people need in order not to expose themselves and not suffer damage.[1]

The determination of the objectives of the analysis were: to identify the uses, the variations of terms used and the delimitation of the PV concept. Although the concept of PV is well structured in the scientific literature regarding its meanings, there are variations in the terms used, and clarification regarding the existence of PV as part of SV is relevant.

Subsequently, in order to identify all uses of the concept, aspects were not limited. The methodological framework encourages searching for uses via dictionaries, synonyms, colleagues, or available literature. Therefore, for this step, a systematic survey was used in databases, determined as an integrative review study.[8] This type of study is common in health studies to critically analyze a specific topic-in this case, it is PV.

This step consisted of selecting records that brought, in their titles or objectives, the PV. The search took place in May 2021 and the uncontrolled term programmatic vulnerability was used. Although this term has been selective for data search, its use is justified because there is no health descriptor (DECS), Emtree or Medical Subject Heading (MESH) that represents the concept. The databases where the records were searched were Web of Science (WOS), Medical Literature Analysis and Retrieval System Online (MEDLINE via Pubmed), Excerpta Medical Database (EMBASE); and the article repositories were

the Virtual Health Library (BVS) and Scientific Electronic Library Online (SciELO).

Eligibility criteria were records that dealt with PV referring to the SV concept, published in any language, without limitation of year or type of publication, regardless of age group or correlation with other health conditions. The process of screening the records was the reading of titles and abstracts and, if they were eligible, the texts were read in full. After identifying the record, it was reread to extract the data, resulting in 20 records for analysis (flowchart 1). Letters, editorials, and surveys that emphasized other SV issues were excluded.

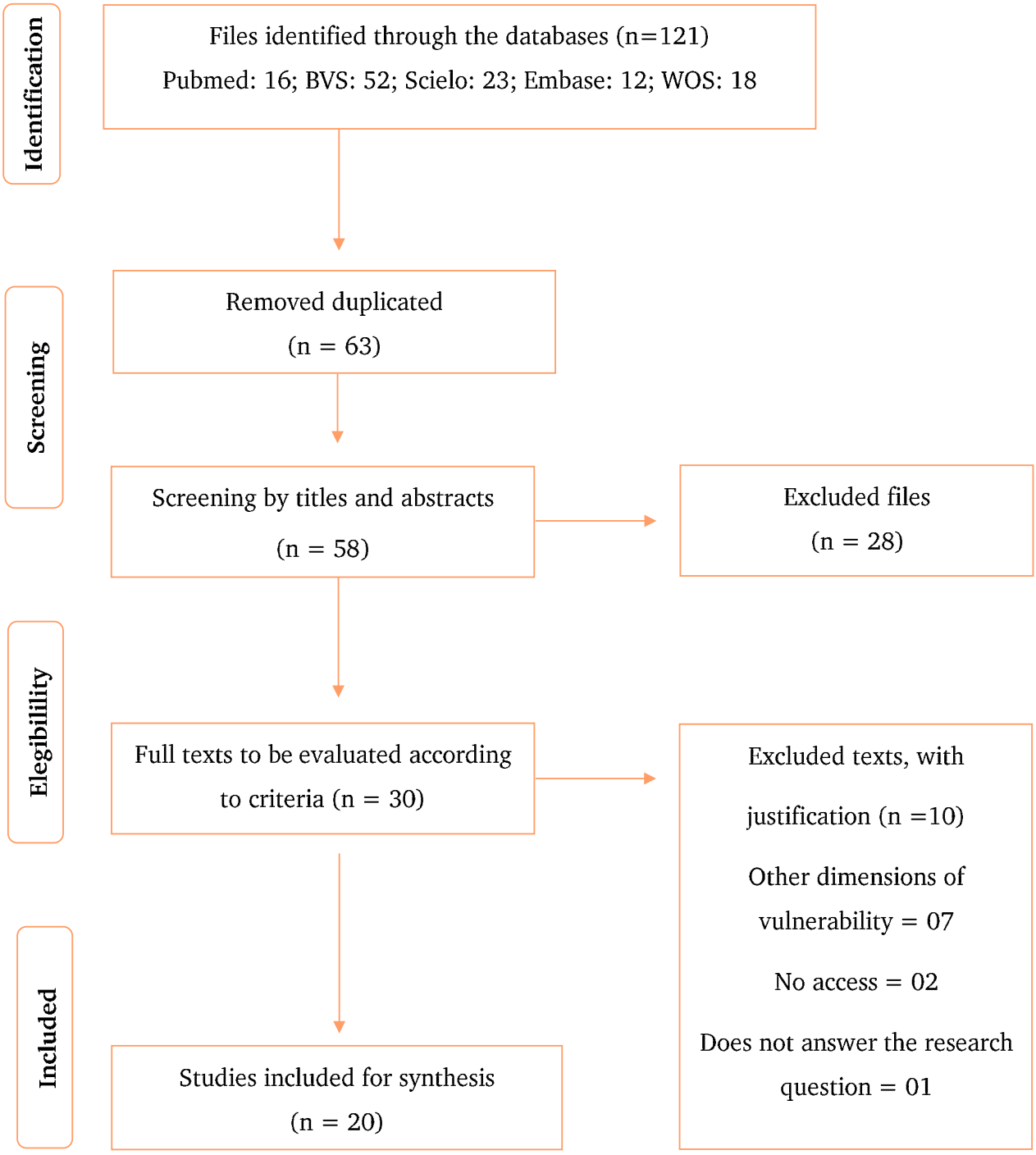

Figure 1 - Flowchart of selected records

Data extraction took place using an instrument previously prepared in a Microsoft Excel® spreadsheet, covering authors, year, type of publication, study objective, definition of the programmatic dimension and main results. There was no need to make a classification according to the level of evidence, as it is a context belonging to the scope of public health, not being specific to the clinic or epidemiology.

With the main part of the conceptual analysis, the attributes were determined, which, by helping to name the occurrence of the phenomenon and differentiating it from another, was based on the study of the results of the records of the previous stage to know which uses were most associated with PV. These uses are clusters often associated with the concept that allow those who investigate to have a broad view of the instances that characterize it.

To determine an attribute, the entire record was read and what was representative of the PV was extracted from the results, a central idea. From this, a reflection was made on what is characteristic of vulnerability. The identification of attributes served to build the model case formulation stage. The variations of the concept were removed at the time of identification of the attributes, having been listed those that appeared at certain times in the records as synonymous with PV.

The model case stage was an example for the use of the concept that demonstrates the attributes and can be made from real life, found in the literature, or written by those who explore the concept, serving to understand the internal structure and, therefore, clarify its meaning and context. The construction of the model case was based on the author's previous experiences based on a real situation and involved a previous case from the diagnosis of a health condition to its mismanagement and included the attributes that emerged in the previous step.

The identification of additional cases step aimed to determine what counts or not to delimit the concept and the methodological framework,[7] with five types: borderline, related cases, contrary cases, invented and illegitimate cases. The use of each depends on the purpose of the analysis; therefore, the opposite case was chosen, which intends to exemplify what does not belong to the concept. Thus, other aspects of SV were included, such as the level of education, the level of functional literacy and the patient's motivation to define more clearly what PV is not.

The second last step referred to the determination of antecedents (events that precede the occurrence of the phenomenon) and consequences (events that follow the occurrence of the phenomenon), which are social contexts in which the concept is used, which was also done from the results of the records. It was taken into account that an attribute cannot be an antecedent or consequent. Each result related to PV was listed, a data panel was built to visualize the set of results and, finally, we analyzed which ones preceded the PV and what consequences were presented in the records.

The conceptual analysis ended with the definition of empirical references, which are real classes or categories that, through their existence or presence, demonstrate the occurrence of the concept itself.[7] A table was created containing the records used in the analysis, focusing on the uses of the concept to show how PV has been emphasized in the literature and in health care practices. It is noteworthy that the records deal with various segments of PV, from the organization and management of care, technoscientific preparation of professionals to access to health.

There was no need to submit this study to the Research Ethics Committee (CEP) with human beings, as it analyzes secondary data.

RESULTS

Most of the records (95%, 18 records) brought the concept of programmatic vulnerability in their writings.[9-22,25-27] However, there were those that brought variations such as programmatic actions,[14,21,26] institutional vulnerability,[25] component programmatic,[23] and programmatic dimension.[20,21,25,27] The wide dissemination of PV may have contributed to authors using it to report the SV of subjects regarding the ability of health services to produce vulnerability, which had impacts on its variations, as the dimension itself, a measurable term that reports the space occupied by something.

The definitions used in the records to identify what the authors of the studies consider as PV show that the term *access to services* was more often presented as an element involved in this type of vulnerability. It is noteworthy that PV was not used exclusively as a synonym for risk and considered aspects of infrastructure, work process, organization of services and intersectionality. The terms that express the essence of the PV phenomenon are presented in Table 1.

After identifying the attributes, the analysis continued with the identification of a model case to delimit the operationalization of the PV concept in health care. The construction was chosen based on the author's

Table 1 - Terms that express the essence of the phenomenon of programmatic vulnerability in health. Fortaleza, Ceará, Brazil, 2021

Difficulty/insufficiency/absence in accessing health;[9,11,12,15,16,18-20,22,24,25]
Insufficiency of staff training;[9,10,18,26,27]
Weaknesses in the articulation of the team;[9,15]
Insufficiency in articulation with other services;[3,9,15]
Problems in the physical structure of health services;[4,17,20,21,23]
Problems in the organization of health services;[12,13,15,17,21,19]
Problems in service management;[10,11,13-15]
Devaluation of human rights.[14,25]

Source: Research data. Self-elaboration.

experience in a basic health unit (UBS, Unidade Básica de Saúde). The case follows:

> *After observing some symptoms such as excessive thirst, frequent urination, excessive tiredness and sleep, a 59-year-old woman who lives in the countryside decides to have a routine lab test to check if everything is fine with her health. When she arrives at the UBS for a consultation and obtains the request to take the lab tests, the lady is informed that* ***consultations to request lab tests are made only in the afternoon*** *(difficulty in accessing health care). She returns home, asks her boss to take a break from work (during the shift she works) and returns to the unit. Upon arrival, she is one of the last to be attended to because of her classification according to urgency level. In the consultation with the health professional, she passes on information that she has observed.* ***The professional is not interested in knowing more about the current situation*** **(insufficiency in primary prevention)** *and requests the lab tests that the woman wanted.* ***When doing the lab tests, the woman was not instructed whether she should have fasted or not or other guidelines for that procedure*** **(insufficient professional training)**. *It takes two weeks to get the results. When she receive the results, she noticed a change in her blood glucose. She returns to the professional responsible for requesting the lab tests one week after receiving the tests because the* ***service is restricted (limited number of people)*** **(insufficient response capacity of the health service)**. *When showing the results, the health professional tells the lady, who is distressed with the results, that she does not have to worry because the result confirms that she has diabetes mellitus, a disease that can be controlled.* ***The professional gives general explanations of this woman's health condition and explains that she needs to take continuous medication to control blood "sugar" but does not inform which medication it is*** **(one-off and unplanned actions).** *The woman questions whether the medication is really necessary because she already takes two others for reasons related to mental health* ***(the professional did not question whether other health conditions already exist)*** **(insufficiency of professional training).** *The health professional answers that yes, there is no problem. Even if little, the woman has already heard about diabetes and heard that she had to change her diet. The professional answers that she doesn't have to worry, that she* ***can eat all kinds of food, as long as she eats small portions*** **(insufficiency of professional training)**. *She asks if she can drink soda without sugar, which is confirmed by the professional. She leaves the appointment and despite being sad because of the diagnosis, one more in her life, she remains calm and silent.* ***The woman only went through this professional*** **(insufficiency in the articulation between the team)**. *A few days later, talking to a neighbor, she reports what happened. The neighbor informs that there is a nutritionist at the UBS in their neighborhood. The woman promptly returns to try to make an appointment to get more information on how to improve her diet. But, when looking for her community health agent, she is informed that* ***the nutritionist's schedule is full, and she has to wait for it to "empty" to be fitted*** **(insufficient access to treatment/ difficulty in accessing health)**. *The woman patiently waits for her time to be called for an evaluation.* ***One year later, she gets the appointment*** **(insufficient organization of the service/institutional problems)**. *During the conversation, the nutritionist talks about food readjustment and makes a meal plan for the woman. In the consultation,* ***at no time was there a mention of "return" for follow-up*** **(specific actions).** *Despite having been a plan according to her income, the woman does not adhere to it because it does not match her nutritional needs, before she used to eat spaced meals, but in larger amount.* ***Unmotivated with the health service, after a year, at the age of 60 (now considered elderly by public policies and Brazilian laws), the woman now takes three pills to control her blood glucose, does not follow the nutritionist's plan, drinks sugar-free soda when she can, does not have return appointments for evaluation about diabetes and her prescriptions are brought every six months by her health agent, putting her in a situation of programmatic vulnerability*** **(violation of human rights).**

However, this concept can overlap with others, so the identification of the contrary case to delimit what is not exactly the same as the concept, but which generates misinterpretations, is presented below. The objective was to present it to help decide what counts or not as an attribute related to the concept.

> *The woman in the case above has low education and low functional health literacy. When doing routine lab tests, it takes time to go to a healthcare professional to show you the exams. When consulting and the professional explaining the development of the disease, explaining the use of*

medications, what types they have, why she will use a certain medication, making referrals for consultations with other types of professionals such as nurses, physical education professionals and nutritionist (who are available at the unit) the woman leaves and says she returns to see a better day for these professionals. Upon returning, she knows that there are collective groups in the unit to promote physical activity and that despite having a full schedule, the nutritionist can attend to her in a week. But, as time passes, she gives up going to the group because she doesn't like it. She has had a good consultation with the nutritionist but decides that she will only follow a few indications of the food plan because she is not used to eating every three hours in small portions.

Thus, PV does not fit here because, although group activity is not satisfactory for her, it is not the health service that causes dissatisfaction. However, specific issues related to the subject and the professional can identify these individual situations and work them with the person. Even the consultation with the nutritionist is unsatisfactory because it does not include some of the woman's needs and desires, whether or not to follow the plan due to dietary issues at other times is a social condition that involves working hours, number of personal tasks to do, organization of the day, among others.

With regard to antecedents, attributes, and consequences, these are presented in Table 2 and represent the essential elements of the PV concept. It is noteworthy that the attributes were presented in their negative senses, as it was understood that PV interferes in health care processes, which makes them fragile. The analysis made it possible to operationalize this SV perspective broader.

In view of the analysis in which the uses, delimitations and essential elements of the concept were verified, it was found that the PV is a set of elements involved in the absence, insufficiency, difficulty or repression within the management, organization, responsiveness of the service , infrastructure, public policies, planning, work process, intersectoral articulation, social commitment or access to health associated with health services that, from this, establish precarious relationships in health care, resulting in social inequities, from the insertion of subjects in the Healthcare Network (HCN) until they undergo monitoring, treatment, rehabilitation or cure of health conditions, whether chronic, acute, risky or aggravating. However, by identifying the phenomena involved as attributes, antecedents, or consequences, it is possible to arrive at strategies and actions focused on managing this vulnerability and enhancing health promotion.

Empirical references are classes or categories of observable phenomena that demonstrate the occurrence of the concept through operational definitions. Therefore, empirical examples through operational definitions were identified from the perspective of PV in health and organized in Table 3. It is noteworthy that the references may be in more than one attribute because they present different situations of vulnerability.

DISCUSSION

Vulnerability has been discussed from different organizing compositions of its processes, being taken as plans, dimensions, or sub-concepts. One of these perspectives is the PV that was conceptually analyzed in this text. When observing its attributes, terms used in theoretical references were observed to verify characteristics involved in processes in the health field. The attributes refer to insufficiency, precariousness or difficulties related to health service problems that interfere in the care of subjects, as described in Table 2.

Although the literature shows that the most used term was programmatic vulnerability, its variations brought relevant considerations about this concept. It was observed that the meanings that the PV have were to belong to an institution (institutional vulnerability),[26] to be part of an organized system (programmatic component),[23] to be situated in a measurable extent, as a space (programmatic dimension)[20,25] or just the result of everything that is done (programmatic actions).[14,21] However, these qualifications, while being necessary to define a positionality within the SV, transcended the ideas of vulnerability, which, in the interdisciplinary field, it's essential.

The antecedents were investigated, and situations of fragility were identified in the care provided to subjects brought up in publications related to work processes in health. As examples, we have forcing breastfeeding, lack of bonding, prejudgment, imposing attitudes and general guidelines.[9,10,13] These are themes that studies have already shown as inconsistent practices with quality health care.[28,29]

However, it is emphasized that health professionals are influenced by sociocultural issues brought about in their personal, academic and professional experiences, which are guided by a perspective of socially acceptable norms for most of the population. In this way, the issues presented become flaws because the professional does not distance himself from these convictions. Discussing

Table 2 - Elements of programmatic vulnerability of the concept of vulnerability in health. Fortaleza, Ceará, Brazil, 2021

Antecedents	Attributes	Consequences	
Absence of bond	Difficulty in accessing health	Lack of information to the population	Absence of completeness
Lack of trust in the ACS professional	Insufficiency in the professional training	Decreased diagnostic testing	Frequent rescheduling of appointments
Not providing condoms in the last 12 months	Insufficiency in the coordination between the team	for STIs	Absence of data on the territory
Absence of social programs	Insufficiency in articulation with other services	Difficulty traveling to	Absence of participation in technical chambers
Routine of frequent hospitalizations	Specific actions	another city	No expansion of family health teams
Problems starting a follow-up	One-off and unplanned actions	Delays in vaccination	Exam results greater than 7 days
Lack of vacancy	Institutional problems	Long waiting time	Follow-up of the compromised subject
Inadequate management of health condition	Inappropriate physical structure of the service	Reduced demand for	Non-indication of treatment to partner
Insufficiency in counseling	Insufficiency in the organization of the service	dental service	Frustration
Insufficiency with educational groups	Inadequacy in health management	Decreased motivation for care	Problems generating consolidated numbers
Insufficiency of continuing education	Insufficiency in the access to treatment	Evolution of the infectious process/disease or health condition	Low adherence to primary exams
Absence of team meetings	Failure in primary prevention	Increased physical or social vulnerability	Emotional overload
Lack of communication	Insufficiency in the responsiveness of the health service	Screening mechanism	Blaming the woman
Insufficiency in the referral and counter-referral system	Violation of human rights	Low patient adherence	Pathology-based care
Lack of communication with NGOs	Insufficiency in the implementation of public policies	They do not make an adequate syndromic approach	Violation of social rights
Problems in requesting the test form	Insufficiency of inputs	Anguish, insecurity and increased difficulties	Legal abortion suspended
Prescriptive character of consultation	Precariousness and scrapping of health institutions	Call for consultation	Withdrawal of sexual and reproductive rights
Identification of PHC as a biomedical model	Inadequacy of health apps	Rude approach	Lack of commitment
General or incipient guidelines		Breach of secrecy	Absence of coalition
Insufficiency in the evaluation of services		Team dissatisfaction	Lack of structural strategic actions to combat epidemics
Absence of a compacted therapeutic project		Fragmented assistance	Absence of educational activity
Professional turnover		Low adherence	Prioritize demands
Lack of exam instruments		Increased vulnerability	Fragile work process

Continue...

...Continuation

Table 2 - Elements of programmatic vulnerability of the concept of vulnerability in health. Fortaleza, Ceará, Brazil, 2021

Antecedents	Attributes	Consequences	
Lack of consultations		Insufficiency of integrated actions	Gender inequality
Frequent changes in protocols		No return of information to the source unit	Silencing
Lack of internal process planning		Incomplete data that prevent the evaluation and return of results	
No internal referrals		Absence of preventive care	
Absence of qualified health institutions for a given condition		Absence of community participation	
Absence of remote care		Risk behavior	
Repressed demand of hypertensive and diabetic patients		Low adherence	
Insufficiency of notifications		Professionals' lack of commitment to prevention actions	
Decisions made before talking to a healthcare professional		Affects actions and services in the fight against communicable diseases	
force breastfeeding		Absence of strategies	
Imposing attitudes		Delay in drug withdrawal	
Prejudice		Absence of routine exams	
Insufficiency of protection services		Absence of continuous monitoring	
Lack of commitment to design and sustain existing programs		Insufficiency in the expansion of offers	
Absence of formalized and comprehensive documents		Concentration and non-prioritization of resources	
Absence of basic materials for educational activity			
Difficulty addressing violence through an app			

Source: Research data.

the work processes in health is urgent to ensure respect for human rights in private and public spheres.[30]

For this, as a way of reducing these negative impacts within the scope of interdisciplinarity, the technical-scientific development of professionals must be stimulated from a perspective that goes beyond technical standards, protocols, or procedures inherent to each health professional, so that, in a dialogic, the care of socially disadvantaged subjects can allow horizontal work that favors co-responsibility and timely assistance. Other antecedents require more critical judgments from healthcare professionals in their workspaces to know how to distance and organize services in order to avoid outcomes that represent PV.

The construction of a field of study in health, such as vulnerability, developed from the context of HIV/AIDS, is complex. Its operationalized form to be used safely and reliably in health care is a challenge, as it is necessary to map it so that its structure and functions are identified, in order to clarify it to health professionals. Part of the

Table 3 - Empirical References for Programmatic Vulnerability. Fortaleza, Ceará, Brazil, 2021

Attribute and Empirical Reference	Citations
Difficulty in accessing health *Enforce quotas for withdrawing condoms* *Exclusion of people working during business hours* *Difficulty in accessing information*	Silva *et al.*[9], Zuge *et al.*[11], Passos *et al.*[16], Barbosa *et al.*[22]
Insufficient professional training *Does not develop proper management* *Develops disciplinary practices* *Develops normative practices* *Non-early diagnosis* *It only deals with biological aspects* *Lack of guidance*	Silva *et al.*[9], Cirino[10], Pedroso *et al.*[17], Val[18], Feliciano *et al.*[26]
Insufficient coordination between the team *Unable to maintain professional secrecy*	Silva *et al.*[9]
Insufficiency in articulation with other services *Does not use referral paper*	Silva *et al.*[9]
Specific actions *Develops specific actions only for adolescents with a focus on STIs*	Cirino[10]
One-off and unplanned actions *Offer collective groups with a normative character* *Condoms available in non-strategic locations*	Silva *et al.*[9], Cirino[10], Pasqual *et al.*[19]
Institutional problems *Performs triage as a form of referral to a doctor* *Communication barriers* *Does not carry out therapeutic project* *Does not trust the CHA professional*	Silva *et al.*[9], Cirino[10], Souza *et al.*[13]
Inappropriate physical structure of the service *No security in service* *No private room*	Cirino[10], Oliveira[12]
Insufficiency in the organization of the service *Does not offer testing for STIs* *Reschedule appointments frequently*	Silva *et al.*[9], Araújo *et al.*[20]
Insufficiency in health management *Does not pass information between team* *No territory data* *Fragmentation of the health network*	Silva *et al.*[9], Oliveira[12], Junges *et al.*[3]
Insufficiency of treatment access *Difficulty withdrawing medication*	Zuge *et al.*[11]
Insufficiency of primary prevention *Absence of counseling*	Silva *et al.*[9]
Insufficiency of responsiveness of the health service *Performs home visits with low resolution*	Silva *et al.*[9], Cirino[10]
Violation of human rights *Lack of commitment from professionals* *Judge the subjects* *Blame the subjects*	Zuge *et al.*[11], Souza *et al.*[13], Calazans *et al.*[25]
Insufficiency in the implementation of public policies *Does not build social networks and supports* *Does not establish technical standards* *Does not link to other policies*	Zuge *et al.*[11], Figueiredo *et al.*[14]
Insufficiency of inputs *Only available for HIV testing* *There is no transport at the health unit*	Cirino[10], Oliveira[12]
Precariousness and scrapping of health institutions *It does not have basic materials for the operation of the service* *Destructs the unit* *Having to decide which demand to prioritize*	Val *et al.*[15], Pedroso *et al.*[17], Araújo *et al.*[20], Cabral[23]
Insufficiency of health apps *Unable to monitor patients remotely*	Campos *et al.*[21]

Source: Research data.

records included were focused on the discussion in the field of HIV/STIs,[9-11,15,16,18,25,26] but there was expansion to other areas,[3,12-14,17,19-24,27] which allowed us to identify, in other objects of study, issues that place subjects in situations of vulnerability.

Regarding the attributes, they were presented in negative planes. This is due to the way that vulnerability in health is seen: the condition of human life has movements of precariousness when health promotion is not potentiated.[2] Likewise, in PV, situations persist, such as the model case above, in which should be managed to improve the care condition of the subjects, although efforts have been made in recent years to overcome the phenomena identified as attributes of PV. Therefore, in the observation of attributes, fields of organization of services, infrastructure, access to health and development of public policies are observed. These areas are broad and distinct and, to improve them, multi-disciplinarity in health services is a relevant way to organize strategies that seek advances and ways of facing the challenges in the care of subjects.

A study[31] points out some contributions to advance clinical practice, such as creating protocols according to evidence-based care, using dynamic explanatory models for subjects to elucidate the clinical picture, fostering research on excessive medical practices, person-centered care, conducting research in health gradually, build relationships according to collaborative practice, include subjects in their care plan, consider the experience of the family and the subject guided by ethical and reflective questioning, promote campaigns on excessive medical interventions, encourage medication withdrawing practices and to motivate changes in the professional and community perception of the health-disease process.

The consequences are negative outcomes because they make comprehensive care difficult. In a way, these consequences are related to attributes and antecedents because in the PV one situation impacts the other, but it is not possible to identify the proportion or the moment that they interact with other plans of vulnerability. All should be avoided in clinical practice, but subjects can be more severely harmed by one than by the others.

Regarding the operationalization, it is understood that this type of vulnerability interferes in the health care processes, as the subjects have their access to treatment and human rights harmed with partial health policies.[32] Although at the national level, there are already several health policies for the population with the intention of promoting health through organizational guidelines, the PV is in the discontinuity of actions, which generates relevant impacts on its effectiveness.[33]

This aspect already dialogues with the definition of the concepts of Ayres, Junges and Florêncio. Ayres[1] has a broad view of the proportions that this programmatic dimension has and calls it *programmatic vulnerability* (PV). Junges[3], on the other hand, has the structural axis composed of weakening of professionals, fragmentation of the network and of care, protagonism of professionals, participatory planning, and permanent education, and brings *programmatic vulnerability*. Florêncio,[2] recently clarified the concept of SV and understands that PV is characterized only by the infrastructure and work process, bringing the name *programmatic situation*.

This multiplicity was the reason for the need for the conceptual analysis developed in this study. However, it made no sense to separate antecedents and consequences into categories, because they are already inserted in axes that these authors elaborated. The purpose was to objectively identify what causes, what is the situation involved and the outcome that emerged in the development of this vulnerability, so that the concept is clearer, stronger, and more solid in vulnerability models.

The analysis of which term best represents vulnerability depends on the conceptual approaches on which the authors were based and adopted as coherent, as well as it depends on who will use the term to proceed with other studies. It was not appropriate here to report from the conceptual analysis which term is most suitable. Apparently, all of them represent PV based on characteristics inherent to the development of studies carried out by these authors.

In view of this, the proposed framework of the PV brings, in its core, the intention of modeling old actions and enabling the creation of new ones. This content must be continuously fed back in the construction of these elements that characterize the PV, in order to consider the uniqueness of subjects. Furthermore, incorporating and articulating other spheres of vulnerability is a valuable way to enhance studies in this field, as it is not yet considered a public health problem.

However, it is recognized that there are caveats to the use of the PV concept, as the term is linked to susceptibility and chance of exposure,1 which can lead to actions restricted to traditional epidemiology. And, as it is the most scientifically disseminated concept, studies tend to follow this perspective. Thus, PV has referred to

the vulnerability of assistance programs within services related to the organization of the service around specific policies, which may not reflect the vulnerability of the subject, as this is a condition of the subject.

Therefore, when analyzing the uses of PV and observing that there is a complexity in the interpretation of its various discursive elements, such as programmatic vulnerability,[9,22,25-27] programmatic actions,[14,21,26] institutional vulnerability,[26] programmatic dimension,[20, 21,25,27] programmatic component[23] and programmatic vulnerability,[3] it is considered to use, in these circumstances, the term "*programmatic situation*"[2] because it is about vulnerability and understanding that it occurs due to the occurrence of several events at a given moment in time, being finite, professional, organizational and subject to agency. This term still does not circulate in the literature emphatically, but it presents itself as an alternative, since vulnerability is a condition of human life in a relational context of the social subject.

The approach to the framework in which this concept is presented allowed us to observe processes that are more micro-organizational than macro, causing this vulnerability to be seen closer to the subject. However, when choosing to use this term, which involves the infrastructure and work process, difficulties in access, violation of human rights or others that are not characteristic of PV are not disregarded. On the contrary: they are essential concepts for the development of other structural models.

Among the limitations, there is the level of abstraction of the PV, which made it difficult to analyze the impact of the characteristics presented that involved this concept because most of the studies are qualitative, in addition to the search in the databases having been carried out only by a researcher. On the other hand, the relevance of the concept analysis for activities in public health and the potential of a review study as a tool for the construction of this type of study in the field of health is highlighted, as it synthesizes significant research.

Contributions to the health area involve the refinement of PV in a perspective for health promotion compared to other dimensions of vulnerability that, sometimes, have their elements used ambiguously both in research and in clinical practice, in addition to providing identification of outcomes with a theoretical basis present in research developed in public health contexts. This favors an underlying understanding of the attributes that make up the concept, as its structure and function were analyzed. Thus, this facilitates the creation of research instruments and the standardization of their language.

CONCLUSION

PV has important discursive elements to be understood as part of vulnerability. There are variations and uses of the term, in which the most used to name PV is access to health. Its main characteristics were lack of available consultation (antecedent), insufficiency/difficulty in accessing health care (attribute) and disease evolution (consequent). Although the variability of the concept makes it difficult to establish quality indicators and create instruments/scales to assess PV, it is possible to apply it within the scope of care practice. Therefore, the identification of the occurrence of this type of vulnerability in different contexts and areas is encouraged, with the aim of understanding the breadth of practice and teaching in health to guide actions aimed at advancing care, progressing in the knowledge of other antecedents, attributes, and consequences.

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