



Revista da Escola de Enfermagem da USP

ISSN: 0080-6234

reeusp@usp.br

Universidade de São Paulo

Brasil

Izumi Nichiata, Lúcia Yasuko; Bertolozzi, Maria Rita; Pinho Lins Gryschek, Anna Luiza; DÁvila L. de Araújo, Núbia Virginia; Padoveze, Maria Clara; Itsuko Ciosak, Suely; Ferreira Takahashi, Renata  
Potencialidade do conceito de vulnerabilidade para a compreensão das doenças transmissíveis  
Revista da Escola de Enfermagem da USP, vol. 45, núm. 2, diciembre, 2011, pp. 1769-1773  
Universidade de São Paulo  
São Paulo, Brasil

Available in: <http://www.redalyc.org/articulo.oa?id=361033314023>

- How to cite
- Complete issue
- More information about this article
- Journal's homepage in redalyc.org

redalyc.org

Scientific Information System  
Network of Scientific Journals from Latin America, the Caribbean, Spain and Portugal  
Non-profit academic project, developed under the open access initiative

# The potential of the concept of vulnerability in understanding transmissible diseases\*

POTENCIALIDADE DO CONCEITO DE VULNERABILIDADE PARA A COMPREENSÃO DAS DOENÇAS TRANSMISSÍVEIS

POTENCIALIDAD DEL CONCEPTO DE VULNERABILIDAD PARA LA COMPRENSIÓN DE LAS ENFERMEDADES CONTAGIOSAS

Lúcia Yasuko Izumi Nichiata<sup>1</sup>, Maria Rita Bertolozzi<sup>2</sup>, Anna Luiza Pinho Lins Gryscek<sup>3</sup>, Núbia Virginia DÁvila L. de Araújo<sup>4</sup>, Maria Clara Padoveze<sup>5</sup>, Suely Itsuko Ciosak<sup>6</sup>, Renata Ferreira Takahashi<sup>7</sup>

## ABSTRACT

This article presents the evolution and the contribution of the scientific production related to the concept of vulnerability and its potential to help studying transmissible diseases. It presents the concept of vulnerability and the production of knowledge in nursing, developed particularly by the CNPq Research Group *Vulnerability, Adherence, and Health Needs*. The purpose is to improve the understanding of health issues, based on this concept, and permit the proposition of coping interventions that surpass the individual domain, thus contemplating the organization of health care work and the social determination of the health-disease process.

## RESUMO

O artigo traz a evolução e a contribuição da produção científica relacionada ao conceito de vulnerabilidade e sua potencialidade em estudos das doenças transmissíveis. Apresenta-se o conceito de Vulnerabilidade e a produção do conhecimento em Enfermagem, particularmente desenvolvida no Grupo Pesquisa *Vulnerabilidade, Adesão e Necessidades em Saúde*, do CNPq. Tem como finalidade ampliar a compreensão de agravos de saúde, com base neste conceito, além de possibilitar a proposição de intervenções para o seu enfrentamento, que extrapolem o âmbito do indivíduo, mas contemple a organização do trabalho nos serviços de saúde e a determinação social do processo saúde-doença.

## RESUMEN

El artículo se refiere a la evolución y a la contribución de la producción científica relacionada al concepto de vulnerabilidad y su potencialidad en estudios de las enfermedades contagiosas. Se presenta el concepto de Vulnerabilidad y la producción de conocimiento en Enfermería, particularmente, desarrollada en el Grupo de Investigación *Vulnerabilidad, Adhesión y Necesidades en Salud*, del CNPq. Tiene como finalidad ampliar la comprensión de perjuicios de salud con base en este concepto, además de posibilitar la propuesta de intervenciones para su enfrentamiento que extrapolen el ámbito del individuo, pero que contemple la organización del trabajo en los servicios de salud y la determinación social del proceso salud-enfermedad.

## DESCRIPTORS

Vulnerability  
Communicable diseases  
Public health  
Public health nursing

## DESCRIPTORES

Vulnerabilidade  
Doenças transmissíveis  
Saúde pública  
Enfermagem em saúde pública

## DESCRIPTORES

Vulnerabilidad  
Enfermedades transmissibles  
Salud publica  
Enfermería em salud publica

\* Extracted from the research Group "Vulnerabilidade, Adesão e Necessidades de Saúde", School of Nursing, University of São Paulo, 2011. <sup>1</sup>RN, PhD, Associate Professor, Collective Health Nursing Department, School of Nursing, University of São Paulo. Researcher with CNPq. São Paulo, SP, Brazil. <sup>2</sup>RN, PhD, Associate Professor, Collective Health Nursing Department, School of Nursing, University of São Paulo. São Paulo, SP, Brazil. <sup>3</sup>RN, PhD, Assistant Professor, Collective Health Nursing Department, School of Nursing, University of São Paulo. São Paulo, SP, Brazil. <sup>4</sup>RN, MSc, Assistant Professor, Collective Health Nursing Department, School of Nursing, University of São Paulo. São Paulo, SP, Brazil. <sup>5</sup>RN, PhD, Assistant Professor, Collective Health Nursing Department, School of Nursing, University of São Paulo. São Paulo, SP, Brazil. <sup>6</sup>RN, PhD, Associate Professor, Collective Health Nursing Department, School of Nursing, University of São Paulo. São Paulo, SP, Brazil. <sup>7</sup>RN, PhD, Associate Professor, Collective Health Nursing Department, School of Nursing, University of São Paulo. São Paulo, SP, Brazil.

## INTRODUCTION

Since the late 1990's, faculty and researchers of the Research Group *Vulnerabilidade, adesão e necessidades de saúde* (Vulnerability, adherence and health needs) enrolled with the National Council for Scientific and Technological Development (*Conselho Nacional de Desenvolvimento Científico e Tecnológico* - CNPq), adopted the concept of *Vulnerability* as the guideline of its education, research and community outreach activities, due to its potentiality to understand the health-disease process and perform interventions, from the perspective of social determination.

AIDS and tuberculosis (TB), health conditions with characteristics that are strongly rooted on social aspects, consist of a fertile field for the development of studies about the diagnosis of vulnerability, as well as interventions, in individuals, families and social groups.

Over the last ten years, worldwide socioeconomic-political and environmental changes have created conditions to disseminate infectious agents, new ones and those already known, surpassing any sort of barrier. This situation, despite being unfortunate because of causing suffering to those who become infected and having a social and economical impact, has been propitious because it permits to apply the concept of vulnerability to infectious diseases. This statement is founded on the fact that, at first, anyone is vulnerable to these agents, just as in the recent pandemics caused by H1N1.

The risk, a central concept, frequently used in studies that address these diseases, has not been sufficient to explain its production, as it reduces the disease to the factors inherent to the etiological agents or the characteristics of the hosts and the environment, besides understanding this process as a multifactorial relationship, based on the linear logic of cause and effect<sup>(1)</sup>.

The objective of this paper is to present the evolution and contribution of scientific production of the referred Research Group, related to the concept of vulnerability and the potentiality of its use for infectious diseases. It aims at broadening the understanding about the production of these conditions, besides permitting the proposition of coping interventions that extrapolate the individual domain, while contemplating the organization of work in health care services and the social determination of the health-disease process.

### About the concept of Vulnerability

The concept of vulnerability is rooted in the field of human rights. It originates from the discussion about citizens' rights of social groups referred to as *vulnerable* due

to the fragility in achieving their rights. The concept began being used in a broader sense in health studies as of the 1990s, with the important contribution of the study about the dissemination of AIDS in different countries across the world<sup>(2)</sup>. This study can be considered a frame of reference, as a paradigmatic breakthrough in terms of the use of the concept, because, until then, it was strictly applied in situations involving catastrophes.

Researchers<sup>(1)</sup> make an important epistemological distinction between the concept of risk and vulnerability. By adopting the latter, researchers have aimed to explain the abstract elements that are associated and associable to the disease processes, to plan a more effective and particularized theory construction, in which the nexus and the mediations contained therein comprise the object of knowledge.

Different from risk studies, the investigations that use the concept framework of vulnerability, as some authors point out, seek universality, and not the broadened reproducibility of its phenomenology and inference. The risk concept indicates probabilities, whereas vulnerability consists of the *indicator of the inequity and social inequality*. Therefore, vulnerability antecedes risk, and, by seeking to understand the mediations present in the health-disease process, it promotes distinct possibilities for coping that are pertaining to people's everyday lives.

According to the analysis, studies from the perspective of vulnerability aim at the *phenomenological isolation*, i.e., to isolate the phenomenon, associating the dependent and independent variables by carefully controlling the level of uncertainty about the non-randomness of the established associations<sup>(1)</sup>. In other words, the processes that can cause a disease and death, as well as the coping measures, result from individual aspects as well as collective contexts or conditions.

As a concept chosen to improve the understanding of a disease and the intervention potentials, vulnerability aims at the synthesis of the concepts of a given reality, in the several dimensions of the studied phenomenon. As a tool used to define the prevention and health promotion strategies, it permits to interpret the phenomenon considering the susceptibilities of individuals, families and groups<sup>(3)</sup>. In this perspective, the intervention holds stronger answers, involving, above all, the development of emancipatory processes of those involved, with autonomy as another key concept<sup>(4)</sup>.

The concept of vulnerability favors the collective plan, as an analytical unit whose structure is marked by an ethical-philosophical framework that aims at a critical interpretation of the phenomenon, surpassing the approach

limited to the individual accountability, as the one traditionally used in studies that analyze the individual's role in the causality scheme of the health-disease process<sup>(5)</sup>.

The analysis of vulnerability involves two dimensions or inter-related plans: individual and the collective, the latter unfolded in the programmatic and social aspects. In the *individual dimension*, the cognitive, behavioral and social aspects are evaluated. The *programmatic dimension* consists of the effective and democratic access to the necessary social resources to avoid the exposure to diseases, besides the possibility to access the means of protection. The *social dimension* covers structural aspects related to education, means of communication, social, economic and health policies, citizenship, gender, culture, religion, and other aspects, which exert an influence on other dimensions, determining or mediating them. The interdependence between the three plans evidences that the components of the individual dimension are conditioned by those of the collective dimension, i.e., the adoption of protective practices depends on the accessibility to means of communication, schooling, the availability of material resources, the power to have an effect on political decisions, the possibility of facing cultural barriers, besides the capacity of defense in situations of violent coercions<sup>(2)</sup>.

### **Knowledge production in Collective Health Nursing focused on Infectious Diseases from the perspective of Vulnerability**

Vulnerability is an important concept for Nursing research, because it is intrinsically associated with health and health problems. Knowing people's vulnerability to infectious diseases helps to identify their health needs, which are marked by stigma, social exclusion, and feelings of fear.

In the domain of the Research Group, the scientific production was initiated in the second half of the 1990's, with the object of study being the expression of AIDS in adults, the analysis of contexts vulnerable to infection and disease aiming at the individual and collective dimensions, defining the vulnerability diagnoses of different social groups, and identifying elements that increase and minimize vulnerability<sup>(6-12)</sup>. The posterior analysis of these studies provided the foundations for the creation of markers of vulnerability to infection, death, and becoming infected with HIV/AIDS<sup>(3)</sup>. This study launched the development of a set of other studies with the purpose to produce instruments to assess the vulnerability of people to certain diseases.

It is worth to, herein, make a distinction between *health indicator* and *health marker*. Indicators express the health situation of groups and are usually used to quantify and assess information, i.e., they are *synthesized-measures containing relevant information about certain aspects and dimensions of the health condition, as well as the performance of the health system*<sup>(a)</sup>. They are designed

according to a set of variables that can be measured directly, with the purpose to reflect the existence of a certain health condition/situation and represent the risk measurement, mathematically calculated and represented.

The term *marker* refers to *what marks or serves to mark*. In the health area, according to Bireme's Health Science Descriptors, has its meaning associated to a word that qualifies it. In the Research Group, the vulnerability markers refers to the qualifying elements that integrate the individual and collective dimensions, whose presence or absence defines and characterizes the dimension of vulnerability.

One researcher<sup>(3)</sup> proposed markers that address both dimensions of vulnerability, with the individual and programmatic dimensions being the most explored. They were gathered in subgroups: knowledge and meanings of AIDS, personal and relational characteristics, impact of diagnosis, available resources (personal and experiences that affect coping) and forms of coping (practices and behaviors).

In the programmatic dimension, that addresses the prevention and health care programs and the accessibility to control measures, there are two orders of markers: one related to the dynamic structure of health service organization and, the other, to the operationalization of the actions. In the social dimension, the identified markers are related to the material conditions of the existence of the individual with AIDS, the juridical-political apparatus regarding AIDS and social organizations, governmental or not, related to AIDS and the gender relationships.

Systematic reviews<sup>(13-14)</sup> identified new components of the HIV/AIDS vulnerability, and for the women group they are related to the *social norms, migration processes, contexts involving the conjugal relationship, and health service management*. In the adolescents group, the new elements are: *the adolescent's lack of perception regarding their vulnerability to HIV/AIDS and a lack of perspective towards their future*.

Until then, scientific production had focused mostly on issues that expresses a condition or characterize the vulnerability to HIV, emphasizing on the individual dimension, permitting the to learn the determinants of its occurrence and supporting the proposition of actions in the ambit of public policies, health services, and in the everyday lives of individuals or social groups.

Therefore, concurrently with the reported studies, considering that the dimension of the policies, programs, and the participation of civil society as a determinant of individual and collective vulnerability, as of the year 2000, the Research Group began performing studies to increase the knowledge focusing on this dimension, still aiming at AIDS and tuberculosis. Regarding the domain of the political-institutional guidelines of AIDS control programs, some investigations<sup>(15-18)</sup> analyzed the working processes to cope with HIV/AIDS in the Family Health Strategy, while

<sup>(a)</sup> RIPSAs – Rede Interagencial de Informações para a Saúde-www.ripsa.org.br

another study<sup>(19)</sup> characterized the participation of civil society in coping with the epidemics.

Regarding tuberculosis, one study<sup>(20)</sup> characterized the vulnerability of university students to the disease. Considering the recognized relationship between tuberculosis and the social determination, the authors pointed out the important potential of the concept of vulnerability to interpret this disease and propose interventions that change the health-disease situation. The group has also invested in the creation of markers that support the monitoring of treatment adherence, also using the concept of vulnerability.

The potentiality of the concept of vulnerability for interpreting other infectious diseases is being explored by Healthcare-related Infections (*Infecções Relacionadas à Assistência a Saúde* -IRAS). The referred infections are defined as those that were acquired by any type of procedure performed in any sort of health service, involving from health care users to health workers, and can be mild or severe, regardless of the involved microorganism.

In spite of the advancements in knowledge production and in the responses to the IRAS, improving the understanding about the diseases and the so-called complexity is only possible by using theoretical-conceptual instruments that permit a broader view of the phenomenon, such as the concept of vulnerability. Therefore, it is believed that the occurrence of IRAS can be assessed considering the aspects related to users and health service production, focused, for instance, on situations that involve the exposure to biological and physical materials that originate the IRAS or aspects related to the policies of work management, of health education. This aspect has been more recently explored in the research project *Avaliação da vulnerabilidade programática para prevenção de Infecções Relacionadas à Assistência a Saúde nas Unidades Básicas de Saúde da Região do Butantã do Município de São Paulo* (*The assessment of programmatic vulnerability for the prevention of Healthcare-related Infections at the Basic Health Units in the Butantã Region in São Paulo*)<sup>(b)</sup>.

The concept of vulnerability also has a potential of knowledge production in the field of immunopreventable

diseases. The susceptibility to these diseases is undeniable, and, although vaccines are currently available, at no cost, for a large part of the Brazilian population, in the domain of the National Health System (Sistema Único de Saúde – SUS), it is believed that this concept can support better healthcare practices for this group of diseases<sup>(21)</sup>.

Another emerging group in which the concept of vulnerability is applied to its various dimensions is the elderly. With the increase in longevity, this group has shown a progressive growth, as seen in the diseases, not only those related to aging, but also to the new *forms of living* and *living together*. Advancements in healthcare technology have added elements that promote behavior changes and, with them, the reemergence of diseases often relegated for this age group, such as STD/AIDS<sup>(22)</sup>.

## CONCLUSION

Vulnerability and the production of knowledge in Collective Health Nursing focused on infectious diseases and other processes in this field of knowledge and practices are aspects addressed with the purpose to discuss about their potentialities for Nursing studies, implicated with understanding and coping with problems and health conditions. Taking vulnerability as a theoretical framework opens windows of opportunity to overcome the limits of the concept of risk, improve epidemiological analyses, whose object are the situations of inequity and social inequality, increase the coverage of the interventions, aiming to surpass the biological and behavioral approach, besides developing and/or appropriating instruments to identify the individual and collective dimension of the health disease-process and make interventions.

The researchers devote to improve the scientific production in Nursing invite others to increase and deepen studies guided by the concept of vulnerability, thus contributing with the proposition and implementation of individual and collective vulnerability (social and programmatic) markers. Therefore, efforts will be joined to disseminate the concept, promoting deeper and fruitful debates on this theme with healthcare workers.

## REFERENCES

1. Ayres JRCM, Calazans GJ, Saletti Filho HC, França Junior I. Risco, vulnerabilidade e práticas de prevenção e promoção da saúde. In: Campos GWS, Minayo MCS, Akerman M, Drumond Junior M, Carvalho YM. Tratado de saúde coletiva. São Paulo: Hucitec; 2006. p. 375-417.
2. Mann J, Tarantola DJM, Netter TW. A aids no mundo. Rio de Janeiro: Relume Dumará; 1993. Programas Nacionais de Combate a Aids.
3. Takahashi RF. Marcadores de vulnerabilidade a infecção, ao adoecimento e morte por HIV/AIDS [tese livre-docência]. São Paulo: Escola de Enfermagem, Universidade de São Paulo; 2006.

<sup>(b)</sup> Research Project – Professor Maria Clara Padoveze, Ph.D.



4. Paiva V, Peres C, Blessa C. Jovens e adolescentes em tempos de aids: reflexões sobre uma década de trabalho de prevenção. *Psicol USP*. 2001;13(1):55-78.
5. Sánchez AIM, Bertolozzi MR. Pode o conceito de Vulnerabilidade apoiar a construção do conhecimento em Saúde Coletiva? *Cienc Saúde Coletiva*. 2007;12(2):319-24.
6. Alencar, CCP. As representações sociais de mulheres soropositivas ao HIV sobre o seu processo saúde-doença [dissertação]. São Paulo: Escola de Enfermagem, Universidade de São Paulo; 1998.
7. Longa PALRC. A trajetória do portador do HIV: da suspeita da infecção à assistência. São Paulo [dissertação]. São Paulo: Escola de Enfermagem, Universidade de São Paulo; 1999.
8. Silva GA. Da aparência à essência: o cuidado no cotidiano do portador do HIV. São Paulo [tese doutorado]. São Paulo: Escola de Enfermagem, Universidade de São Paulo; 2002.
9. David R. A vulnerabilidade ao adoecimento e morte por aids em usuários de um serviço ambulatorial especializado em DST/AIDS do Município de São Paulo [dissertação]. São Paulo: Escola de Enfermagem, Universidade de São Paulo; 2002.
10. Noguchi NEO. A vulnerabilidade de mulheres matriculadas em um serviço especializado em DST/AIDS do Município de São Paulo ao HIV [dissertação]. São Paulo: Escola de Enfermagem, Universidade de São Paulo; 2002.
11. Oliveira RN. As práticas de saúde para redução da transmissão vertical do HIV em unidades de atenção básica: realidades e determinantes [dissertação]. São Paulo: Escola de Enfermagem, Universidade de São Paulo; 2004.
12. Athaniel MAS. Significados e implicações de ser mãe no processo saúde-doença em mulheres com aids [dissertação]. São Paulo: Escola de Enfermagem, Universidade de São Paulo; 2006.
13. Guanillo MCLTU. Vulnerabilidade feminina ao HIV/AIDS: metassíntese [dissertação]. São Paulo: Escola de Enfermagem, Universidade de São Paulo; 2008.
14. Toledo MM, Takahashi RF, Guanilo MCLTU. Elementos de vulnerabilidade individual de adolescentes ao HIV/AIDS. *Rev Bras Enferm*. 2011;64(3):370-5.
15. Abdalla FTM, Nichiata LYI. Abertura da privacidade e o sigilo das informações sobre o HIV/AIDS das mulheres atendidas pelo Programa Saúde da Família no Município de São Paulo. *Saúde Soc*. 2008;17(1):140-52.
16. Silva JAS, Val LF, Nichiata LYI. A estratégia saúde da família e a vulnerabilidade programática na atenção ao HIV/AIDS: uma revisão da literatura. *Mundo Saúde*. 2010;34(1):103-8.
17. Nichiata LYI, Bertolozzi MR, Takahashi RF, Fraccolli LA. The use of the "vulnerability" concept in the nursing area. *Rev Latino Am Enferm*. 2008;16(5):923-8.
18. Nichiata LYI. Vulnerabilidade da atenção em HIV/AIDS na estratégia saúde da família: um estudo de caso no município de São Paulo – Brasil [tese livre-docência]. São Paulo: Escola de Enfermagem, Universidade de São Paulo; 2010.
19. Pereira AG, Nichiata LYI. A sociedade civil contra a aids: demandas coletivas e políticas públicas. *Cienc Saúde Coletiva*. 2011;16(7):3249-57.
20. Muñoz-Sánchez AI. Vulnerabilidade à tuberculose em alunos moradores do Conjunto Residencial da Universidade de São Paulo [dissertação]. São Paulo: Escola de Enfermagem, Universidade de São Paulo; 2003.
21. Gryscek ALPL, Araujo NVD'ALA, Oliveira MAC, Takahashi RF. Bases teóricas da imunização. In: Fujimori E, Silva CV, organizadora. *Enfermagem e a saúde da criança na Atenção Básica*. Barueri: Manole; 2009. v. 1, p. 248-66.
22. Rosa NG, Ciosak SI. Desafios na senescência: doenças sexualmente transmissíveis em usuários de um Centro de Saúde [monografia]. São Paulo: Conclusão do Curso de Graduação em Enfermagem, Escola de Enfermagem, Universidade de São Paulo; 2009.