

THE RAPID HIV-TEST: SOCIAL REPRESENTATIONS OF PRIMARY HEALTH CARE PROFESSIONALS

TESTE RÁPIDO PARA HIV: REPRESENTAÇÕES SOCIAIS DE PROFISSIONAIS DA ATENÇÃO BÁSICA

TEST RÁPIDO PARA VIH: REPRESENTACIONES SOCIALES DE PROFESIONALES DE LA ATENCIÓN PRIMARIA

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Objective: to grasp the rapid HIV-test social representations built by health professionals in primary health care. **Method:** qualitative research, based on the structural approach of the Social Representations Theory using the EVOC software for data processing and analysis. Data collection was performed between February and March 2017, in primary health care units in the city of Senhor do Bonfim, state of Bahia, Brazil. **Results:** for the inducing term “rapid test”, the elements present in the central core of social representation were “fear, HIV, diseases, agility”. It is noteworthy that the term “fear”, evoked by 67% of professionals, presents itself as the most important component according to its hierarchy. **Conclusion:** when they assumed the freedom to speak for each other, the professionals in this study revealed “fear” as a major element in the rapid test as well as representational elements that accompany AIDS since its emergence,

Descriptors: HIV. Serological tests. Primary health care.

Objetivo: apreender as representações sociais dos profissionais de saúde da atenção básica face o teste rápido para anticorpos contra o HIV. Método: pesquisa qualitativa, fundamentada na Teoria das Representações Sociais, em sua abordagem estrutural, com utilização do software EVOC para processamento e análise dos dados. A coleta de dados foi realizada entre os meses de fevereiro e março de 2017, em unidades básicas no município de Senhor do Bonfim, estado da Bahia, Brasil. Resultados: para o termo indutor “teste rápido”, os elementos presentes no núcleo central da representação social foram “medo, HIV, doenças, agilidade”. Chama atenção que o termo “medo”, evocado por 67% dos profissionais, apresenta-se como o mais importante componente de acordo com sua hierarquia. Conclusão: ao assumir a liberdade de falar pelo outro, os profissionais estudados revelaram o “medo” como elemento de maior

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importância na realização do teste rápido e também elementos representacionais que acompanham a aids desde a sua aparição.

Descritores: HIV. Testes sorológicos. Atenção básica.

Objetivo: apreender las representaciones sociales acerca del test rápido anti-VIH por profesionales de salud en atención primaria. Método: investigación cualitativa, fundamentada en Teoría de las Representaciones Sociales en su abordaje estructural, utilizando el software EVOC para procesamiento y análisis de datos. Los mismos fueron recolectados entre febrero y marzo de 2017, en unidades de atención primaria del municipio de Senbor do Bonfim, Babia, Brasil. Resultados: para el término introductorio “test rápido”, los elementos presentes en el núcleo central de la representación social fueron “miedo, VIH, enfermedades, agilidad”. Llama la atención que “miedo”, referido por 67% de los profesionales, se presenta como el componente más importante según su jerarquía. Conclusión: al asumir la libertad de hablar por el otro, los profesionales estudiados señalaron al “miedo” como elemento más importante en la realización del test rápido. También a elementos representacionales que acompañan al VIH desde su aparición.

Descriptorios: VIH. Pruebas serológicas. Atención primaria de salud.

Introduction

The Acquired Immunodeficiency Syndrome (AIDS) remains a prominent public health epidemic. In the year 2016, the incidence rate of the disease in Brazil was 20.1 cases per 100,000 inhabitants and the ratio between the sexes presented 1.6 cases in men for every 1 case in women⁽¹⁾.

The epidemic in the country is more worrying among those at risk for the human immunodeficiency virus (HIV) infection, such as sex workers, men who have sex with men, and drug users. Vulnerability to AIDS and other Sexually Transmitted Infections (STIs) is expanding in the 21st century, as there is still prejudice and stigma⁽¹⁾.

However, there has been an increase in the number of AIDS cases among women without necessarily being included among the groups considered to be at greater risk, which may increase the risk of vertical HIV transmission. To reduce the chances of vertical transmission, it is recommended that prenatal services provide counseling and HIV testing to pregnant women⁽²⁾. Some women discover their HIV seropositivity during these pre-natal services as their first contact with health care networks occurs during prenatal care⁽³⁾. Although, factors such as the low availability to prenatal care make it pertinent to question why the vertical route is the most

important in the contamination of children and to question what has been the quality of the public assistance provided to pregnant woman. Despite being a relatively new problem in society, it is known that AIDS brought very old shortcomings of health care to the surface.

The changes in the sexual behavior of Brazilians in recent times presents a challenging scenario for health professionals in the management of sexually transmitted infections, among them, the increase of casual sex and the reduction of condom use. A report in a study demonstrates the ethical nature of examination requests and their implication regarding the violation of human rights, since half of the women interviewed in the study revealed that they were not informed of the request of the rapid test, thus not complying with the voluntary nature of the test⁽⁴⁾.

The Ministério da Saúde (Ministry of Health – MS) has also shown a concern regarding the offer of the HIV test and the ethical dimension, adopting measures to ensure that this action is taken to ensure respect for the person⁽³⁾, with professionals recognizing and considering their subjectivity. The acknowledging active listening is a fundamental condition for a quality patient service. The counseling can happen in different places in the health system: primary health care

units, hospitals, maternity hospitals, rehabilitation centers and community organizations. It is now increasingly recognized that non-governmental organizations (NGOs) are appropriate venues to develop projects related to STD/HIV/AIDS in the field of health promotion and prevention.

The diagnosis and attendance of people living with STI/HIV – symptomatic or asymptomatic – by primary health care teams involves professional routine and ethical duty. It is essential to recognize the immense stress faced daily by professionals, since they usually deal with difficult situations, from the delivery of positive HIV serological test results to marital crises and drug addiction. The primary health care units do not always have a multidisciplinary team for intervention and follow-up consultations, making it fundamental for matrix teams to support and supervise these professionals⁽⁵⁾.

The HIV testing is indicated as an improvement in the diagnostic technology for viral infections, since it does not require previous complex executions, in addition to reducing the of diagnosis time and providing the patient with the serology results on the same day as the test⁽⁶⁾.

Therefore, discussing the clinical management of STIs / HIV, focusing on the challenges of effective disease prevention, leads health professionals to review their professional practice, and assess both their limitations and the limitations of the health system where they and the HIV carrier are inserted. A humanistic approach to this subject, which values the subjectivity of the subject involved must exist so that this environment, which is so significant for education and health promotion in primary health care, is not lost.

This study is important as it aims to support the assistance activities of the professionals working in primary health care units, through the scientific contribution to the existing gaps regarding people living with STIs/HIV/AIDS. It is also justified because there is an interest in observing if, with health professional counseling, the risks for infection and the possibility of adherence to the treatment of STI/HIV/AIDS

have become effective as a health education action strategy in primary health care.

Thus, in addition to this social-historical contextualization, which expresses the relevance of the theme, it is questioned: How do health professionals, in the process of assisting people living with STI / HIV / AIDS deal with the rapid HIV test in primary health care services? The study aims is to grasp the rapid HIV-test social representations built by health professionals in primary health care.

Method

This is a descriptive research, with a qualitative approach, as it allows to apprehend aspects of reality, actions, behaviors and feelings that, together, resulting in acquiring the desired knowledge⁽⁷⁾.

The theoretical-methodological referential of social representations was a promising way to achieve the objective of this study, it is done by investigating how the reference systems to classify people and groups are formed and implemented, and by propitiating the interpretation of everyday events⁽⁸⁾.

The theory of social representations (TSR) can be understood as a theoretical construction developed by the sociopsychological strand called social thought, which is dedicated to the investigation of constructs and cognitive processes. As a theory, it proposes sociopsychological analysis in order to provide a broader understanding of social interaction phenomena⁽⁸⁾.

This research was based on the structural approach of the TRS, according to Abric's perspective⁽⁹⁾. The author proposes that the content of the representation constitutes a central and a peripheral system with distinct features and functions. This structural organization has a hierarchical nature, i.e., its cognitive systems are interconnected and differ in their natures and functions related to representation⁽⁹⁾.

The evocation of words in order to attain content and structure, understood as a mental

projection, was used to help the individuals remember something stable. The free associations (TALP) technique consists in reducing the difficulties and limits of discursive expressions.

The free association responses are provided by an inducing stimulus, which is commonly the term that refers to an object of social representation⁽¹⁰⁾.

The research was carried out between February and March of 2017, in the city of Senhor do Bonfim, located in the north of the state of Bahia, Brazil, which had about 430 registered cases of HIV / AIDS in 2014. Its primary health care network consists of 12 Primary Health Care Units and / or Family Health Units with a functional team of 42 health professionals with university qualifications, who provide assistance to the population.

By being able to express the totality, in its multiple dimensions, a sample can be considered ideal⁽⁷⁾. Thus, respecting the exclusion criteria, five professionals did not participate in the research due to being on vacation leave / other types of leave. The sample consisted of nurses⁽¹⁶⁾, physicians⁽¹⁰⁾, dentists⁽⁵⁾, physiotherapists⁽²⁾ and psychologists⁽⁴⁾, give a total of 37 participants who met the inclusion criteria: to work directly with people with STI / HIV / AIDS for a minimum of six months.

The preferred location for the data collection was in the clinic where the professional worked, with the intention of providing privacy and confidentiality. For the collection of the evocations, the TALP was used through the inducing expression "rapid test". Each participant was able to evoke up to five terms, this resulted in the corpus which was formed by the terms and/or words that were the basis for the analysis of the structure and organization of social representations. The use of the *Ensemble de Programmes Permettant l'Analyse de Évocations* (EVOC) software, version 2005, allowed

objectivity in the process of inferential analysis of social representations⁽¹¹⁾. The scrip included questions related to the profile of the interviewee (age, sex, training time, length of professional experience) and also about the work (rapid HIV test, post-test, educational activities, questions directed directly or indirectly regarding patient care, reception and counseling regarding rapid HIV tests).

In order to guarantee the principles of autonomy, non-maleficence, beneficence, justice and equity recommended by Resolution n. 466/2012 of the Conselho Nacional de Saúde (National Health Council)⁽¹²⁾, the project was approved by the Research Ethics Committee of the Universidade do Estado da Bahia (State University of Bahia - UNEB) under number muniment 1,628,938.

Results

Regarding the characteristics of the participants, 24 were older than 35 years of age, and 31 were female. The activities developed in the service and oriented specifically to the service of the person seeking the rapid test by professionals were: educational activity (70.2%), consultation (62.1%), counseling (45.9%), condom distribution (48.6%), testing (54.0%) and case reports (40.5%). Each participant was able to choose as many as would fit their work routine from the six alternatives offered in the form,

In response to the term "rapid test" the 37 participants evoked 164 terms. The average evocation order (AEO) was 2.8 (on a scale of 1 to 5). The evoked frequencies equal or less than 3 were disconsidered, and the average evocation frequency of 6 was established. Data analysis resulted in Figure 1, representative of the four-quadrant chart generated by the EVOC software.

Chart 1 – Four-quadrant chart board generated by EVOC, in relation to the inducing term fast test. Senhor do Bonfim, Bahia, Brazil – 2017 (N = 37)

Central core elements			Intermediate elements		
F ≥ 6 AEO < 2.8			F ≥ 6 AEO ≥ 2.8		
Evocation	F	AEO	Evocation	F	AEO
Fear	23	1.826	STI	6	2.833
HIV	12	2.000	Prejudice	6	3.000
Diseases	9	2.000	Embaressment	6	2.833
Agility	8	2.625			
Intermediate elements			Periferal elements		
F < 6 AEO < 2.8			F ≥ 6 AEO ≥ 2.8		
Evocation	F	AEO	Evocation	F	AEO
Cleverness	4	2.750	Trustworthy	5	3.000
			Treatment	5	3.800
			Doubt	4	3.000
			Prevention	4	4.500
			Diagnosis	3	3.333
			Insecurity	3	3.000

Source: Created by the authors.

Discussion

The Chart 1 presents probable elements of the central core of social representation for the inducing term fast test, represented by the terms “fear, HIV, diseases, agility”. However, according to its hierarchy the term “fear” presents itself as the most important element. It is possible that elements that appear in the central core with much greater frequency than the other components are the central element of the representation⁽¹³⁾. In assuming the freedom to speak for the other, the workers revealed “fear” as an element that fits this definition and was evoked 23 times (67%).

The meaning attributed by the subject to a given object comes from the knowledge that continually comes to him from relationships and practice⁽⁸⁾. Considering the presented central core, it can be inferred that the attributed meaning, in the condition of the other, reveals representational elements that accompany AIDS from the moment of its appearance.

The term “fear” is a constituent element of the central core with the highest hierarchy and salience, also it to being accompanied by the terms “HIV. The analysis of the set of terms that constitute the central core of representation

allows us to infer that it denotes that its contextualization occurs both in the field of reification and in hegemonic representations⁽⁸⁾.

By evoking the word “fear” as a social representation of health professionals who are speaking for the general population, it is clear that pragmatism and stigma still exists in the health and social environments, revealing an increased chance of HIV seropositive results in patients diagnosed with STIs. The fear is embedded in biopsychosocial repercussions in the lives of diagnosed people, just as it is also present in the lives of professionals who need to work with counseling, testing and revealing HIV seropositive results.

A study about the disclosure of the diagnosis in the counseling context, reported how “fear” takes over patients to the point where they develop denial mechanisms when faced with a positive diagnoses whereby, in order to support these individuals, counselors need to be prepared so that they can create a welcoming and respectful environment, as well as disregarding stigmatizing or even prejudiced concepts that may cause patients not to accept their diagnoses and possibly refuse initiating treatment⁽¹⁴⁾.

The term “fear”, which appears in the central core of the representation, requires a more accurate look from the perspective of the professionals inserted in the primary health care of a municipality in state of Bahia. The fear of dealing with HIV-positive people, mainly in general and primary health care services, is mainly due to the training of professionals and the lack of technical and scientific training, often leaving these clients restricted to specialized services⁽¹⁵⁾.

Thus, it is possible to affirm that the participants of this study attribute complexity to the object (rapid test), when they see the professional as a person they are able to speak more freely by means of the projective TALP technique. Such representation encompasses both biological aspects, revealing a similarity in the scientific knowledge of the language used in the health area, and the meaning attributed by society in general – fear – in its social aspect.

The term HIV denotes how the AIDS epidemic has leveraged technological advances historically, and although rapid testing encompasses other sexually transmitted infections, they remain invisible in the studied central core of the representation.

The terms presented in the central core constitute the representation of “others” and allows references to effects, i.e., disease and HIV, and highlight technological progress when referring to the term agility. Thus, it is possible to affirm that the figurative system approaches and distances itself at the same time from the contemporary context of AIDS, which conceives it as a phenomenon acceptable to society, in which technological advances distract from the initial period of the epidemic.

The hegemonic representations such as AIDS, which are based on ideologies of domination, such as heterosexism, in the context of social representations, are at the service of power relations⁽¹⁶⁾. Thus, they directly affect the care provided to people living with HIV.

The evocations that also configure the intermediate elements are “STI, prejudice and shame”. It is observed that they reveal a concern

with a complex and relevant social phenomenon (prejudice and shame), inferring that there is approximation to the psycho-affective attributes of representation.

Another relevant discussion focus to point out are the terms “prejudice and shame” which would be related to the structural and/or organizational conditions in the work units or even to the wear and tear and low work capacity. When studying social representations and occupational risk in AIDS, it is concluded that representations of health workers are psychosocially constructed and integrated into their daily lives⁽¹⁷⁾.

The issue of AIDS involves health professionals, both as private individuals and as professionals. Due to the coexistence with the implications of the disease, they derive a type of representation carried by AIDS since the 1980s, which is its association with prejudice⁽¹⁷⁾.

In the third quadrant or intermediate periphery, the present elements are denominated as elements of contrast, as they explain the existence of a certain representational subgroups. The term “cleverness” confirms, to a certain extent, the differences when the same participants take on their professional social roles, which has already been highlighted by the central cores of representation.

The social representations fulfill essential functions in the dynamics of social relations and practices⁽¹⁶⁾. These functions are called knowledge, identity, orientation and justification. Thus, social representations, in addition to understanding and explaining, define a justification for the group, directly affecting the process of conducting their practices. These elements carry positive aspects of the rapid test, and possibly have been incorporated into a self-care perspective associated with the dynamics of modern life.

In the peripheral elements, the constituent elements have low and high AOE frequency and are evoked by a low number of subjects. The terms “treatment, trust, doubt, prevention, diagnosis and insecurity” compose this system. A study on counseling from the perspective of service users revealed that these elements are

found subjectively as representative of care, in which when the user is seen and treated as the center of care and the principal element, makes them more likely to trust the service and accept the diagnosis⁽¹⁴⁾.

The pre-test counseling is essential as it allows the exchange of information between the user and the professional. It also promotes the emergence of greater approximation, favoring a relationship of trust, partnership and the elucidation of doubts, providing the construction of health promotion strategies, through the knowledge of the particularities of the individual. In this perspective, the contribution of several professional classes is feasible⁽⁵⁾.

The presented chart can be classified due to its cohesive and synthetic aspect, with respect to the structural configuration and homogeneity and to expose information in few major themes. It also presents the focus on negative aspects of social representations as a characteristic.

In addition, the evidence of the persistent negative feelings of professionals in relation to the rapid HIV test reveals worrying aspects related to the social representations, possibly linked to the contexts and experiences of the beginning of the epidemic that need to be overcome, with the aim of improving care to people living with HIV/AIDS.

Conclusion

It is concluded that, in assuming the freedom to speak for the other, the professionals under study revealed "fear" as a major element in the performance of the rapid test and as well as representational elements that accompany AIDS since its appearance.

The representations evidenced in this study may have repercussions on the health care practice of people who attend primary health care services and request an early HIV/AIDS/hepatitis/syphilis diagnosis as they reflect the prejudice and stigma since the beginning of the epidemic. Thus, in the search for strategies that favor the integrality of care, it is necessary to strengthen interdisciplinary actions, and discuss

the theme during education and professional training.

Collaborations:

1. conception, design, analysis and interpretation of data: José Andrade Almeida Junior, Alexia Aline da Silva Moraes and Cleuma Sueli Santos Suto;

2. writing of the article and relevant critical review of the intellectual content: José Andrade Almeida Junior; Marizete Alves da Silva de Amorim Barreto, Fabiane da Silva Santos, Cleuma Sueli Santos Suto and Larissa Beatriz Ferreira de Paiva;

3. final approval of the version to be published: José Andrade Almeida Junior and Cleuma Sueli Santos Suto.

References

1. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Departamento de DST, Aids e Hepatites Virais. Boletim Epidemiológico - Aids e IST, Ano V, n. 1, 27^a a 53^a semanas epidemiológicas, julho a dezembro de 2016; Ano V, n. 1, 1^a a 26^a semanas epidemiológicas, janeiro a junho de 2017. Brasília; 2017.
2. Brasil. Ministério da Saúde. HIV/Aids, hepatites e outras DST. Cadernos de Atenção Básica, n. 18. Brasília; 2006. (Série A. Normas e Manuais Técnicos).
3. Silva RMO, Araujo CLF, Paz FMT. A realização do teste anti-hiv no pré-natal: os significados para a gestante. Esc Anna Nery [Internet]. 2008 [cited 2017 Feb 12];12(4):630-6. Available from: <http://www.scielo.br/pdf/ean/v12n4/v12n4a04.pdf>
4. Taquette SR, Rodrigues AO, Bortolotti LR. Percepção de pacientes com Aids diagnosticada na adolescência sobre o aconselhamento pré e pós-teste HIV realizado. Ciênc saúde coletiva [Internet]. 2017 [cited 2018 Feb 6];22(1):23-30. Available from: <http://dx.doi.org/10.1590/1413-81232017221.23532015>
5. Pequeno CS, Macêdo SM, Miranda KCL. Aconselhamento em HIV/AIDS: pressupostos teóricos para uma prática clínica fundamentada. Rev bras enferm [Internet]. 2013 [cited 2018 May

- 15];66(3):437-41. Available from: <http://dx.doi.org/10.1590/S0034-71672013000300020>
6. Ribeiro FB, Sacramento OA. Despistagem do VIH/sida: saúde pública e motivações dos utentes do teste rápido no Nordeste de Portugal. *Saúde Soc [Internet]*. 2014 [cited 2018 Feb 1];23(2):510-22. Available from: <http://www.journals.usp.br/sausoc/article/download/84885/87619>
 7. Minayo MCS. Trabalho de campo: contexto de observação, interação e descobertas. In: Minayo MCS, organizadora. *Pesquisa social: teoria, método e criatividade*. Rio de Janeiro: Vozes; 2015. p. 56-71.
 8. Moscovici S. *Representações sociais: investigações em psicologia social*. Rio de Janeiro: Vozes; 2012.
 9. Abric JC. *Pratiques sociales et représentations*. Paris: Presses Universitaires de France; 1994.
 10. Rateau P, Ernst-Vintila A, Delouvé S. Michel-Louis Rouquette et le modèle de l'architecture de la pensée sociale. *Psicol Saber Social [Internet]*. 2012 [cited 2017 Feb 8];1(1):53-65. Available from: <http://www.e-publicacoes.uerj.br/ojs/index.php/psi-sabersocial>
 11. Reis AOA, Sarubbi-Júnior V, Bertolino Neto MM, Rolim Neto ML. *Tecnologias computacionais para o auxílio em pesquisa qualitativa – Software EVOG*. São Paulo: Schoba; 2013.
 12. Brasil. Conselho Nacional de Saúde. Resolução n. 466, de 12 de dezembro de 2012. Aprova diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos [Internet]. Brasília; 2012. [cited 2017 Feb 10]. Available from: http://bvsms.saude.gov.br/bvs/saudelegis/cns/2013/res0466_12_12_2012.html
 13. Oliveira DC, Gomes AMT, Pontes APM, Costa CPM. The building of a paradigm for nursing care lined in the human and health needs. *Esc Anna Nery*. 2011 Oct/Dec;15(4):838-44.
 14. Moreno DMFC, Reis AOA. Revelação do diagnóstico da infecção pelo HIV no contexto do aconselhamento: a versão do usuário. *Temas Psicol [Internet]*. 2013 [cited 2017 Feb 22];21(3):591-609. Available from: <http://pepsic.bvsalud.org/pdf/tp/v21n3/v21n3a03.pdf>
 15. Sadala MLA, Marques SA. Vinte anos de assistência a pessoas vivendo com HIV/AIDS no Brasil: a perspectiva de profissionais da saúde. *Cad Saúde Pública [Internet]*. 2006 [cited 2017 Dec 22];22(11):2369-78. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-311X2006001100011
 16. Joffe H. “Eu não”, “o meu grupo não”: Representações Sociais transculturais da Aids. In Guareschi PA, Jovchelovitch S, organizadores. *Textos em representações sociais*. Rio de Janeiro: Vozes; 2013. p. 239-62.
 17. Galindo WCM, Francisco AL, Rios LF. Reflexões sobre o trabalho de aconselhamento em HIV/AIDS. *Temas psicol [Internet]*. 2015 [cited 2018 Jan 4];23(4):815-29. Available from: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1413-389X2015000400003&lng=pt&nrm=iso

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