

Social representations of community-acquired infection by primary care professionals

Representações sociais da infecção comunitária por profissionais da atenção primária

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Abstract

Objective: Understand the social representations formulated by primary health care professionals in relation to community-acquired infection and analyze how these representations influence infection control and quality of care.

Methods: Exploratory, qualitative research conducted among 16 health professionals, selected by simple sampling. For data collection, a semi-structured form was used. The data were processed and analyzed by Descending Hierarchical Classification.

Results: Four classes were obtained: Primary health care in the management of community-acquired infections; the role of health education in infection prevention and control; the concept of community-acquired infection and risk factors; prevention and control measures for community-acquired infections.

Conclusion: The social representations of community-acquired infection are organized on the basis of professional practice, in which participants recognize the difficulties in conceptualizing the term, and list risk factors and prevention and control measures, reflecting on the quality of care provided.

Resumo

Objetivo: Aprender as representações sociais elaboradas pelos profissionais da Atenção Primária sobre infecção comunitária e analisar como tais representações influenciam no controle da infecção e na qualidade da assistência.

Métodos: Pesquisa exploratória, qualitativa, realizada com 16 profissionais da saúde, selecionados por amostragem simples. Para coleta dos dados, utilizou-se formulário semiestruturado. Os dados foram processados e analisados pela Classificação Hierárquica Descendente.

Resultados: Foram obtidas quatro classes: Atenção Primária em saúde na gestão das infecções comunitárias; O papel da educação em saúde na prevenção e no controle das infecções; O conceito de infecção comunitária e fatores de risco; Medidas de prevenção e controle das infecções comunitárias.

Conclusão: As representações sociais sobre a infecção comunitária se organizam a partir da prática profissional, na qual os participantes reconhecem as dificuldades em conceituar o termo, elencar fatores de riscos e medidas de prevenção e controle, refletindo na qualidade da assistência prestada.

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Introduction

The problem of infectious diseases dates back to the beginning of mankind, and today constitutes an important public health concern. Such diseases have a tremendous impact upon society, and are responsible for increased morbidity and mortality worldwide.⁽¹⁾

Infections have a multifactorial etiology, and are related to intrinsic and extrinsic factors that involve human endogenicity and environmental conditions, respectively. Thus, social and environmental determinants, such as educational level, poverty, lack of information, poor housing, and inadequate sanitation, are linked to the development of infections, especially in the home environment.⁽²⁾

Since 1970, infections have been categorized as either community-acquired or hospital-acquired. Those detected in samples taken within the first 48 hours of hospitalization or in incubation at the time of a patient's admission, provided they are not related to a previous stay in the same hospital, are categorized as community-acquired infections. Infections detected in samples taken more than 48 hours after the admission or discharge of a patient are classified as hospital-acquired infections.⁽³⁾

This definition, based on a time frame recommended by the Centers for Disease Control and Prevention, is justified by the time needed for bacteria to develop an infection in a human host, requiring, therefore, specific tests to prove this diagnosis.^(3,4)

In primary care, the diagnosis of infection for clinical purposes is often carried out empirically, based on signs and symptoms reported by the patient, and not according to a bacterial culture or antibiogram. Furthermore, Brazil does not have a surveillance system for community-acquired infection, which makes it difficult to ascertain the real status of the problem at a national level.⁽⁵⁾

Primary care plays an important role in the prevention and control of infections in the community. This care model is composed of a university- or high school-educated multidisciplinary team, which is

essential for creating and strengthening infection prevention and control practices. Consequently, these professionals must understand the problem as applied to this reality, as well as the risk factors and prevention and control practices.⁽⁶⁾

In light of the above, the object of study of this paper is the social representations of community-acquired infection by primary care professionals. The goal was to understand the social representations formulated by primary care professionals in relation to community-acquired infection and analyze how these representations influence infection control and quality of care.

Methods

This is an exploratory descriptive study with a qualitative approach, conducted among four primary health care teams, in a public outpatient clinic in a state capital in the Northeast Region of Brazil.

The health teams were composed of four doctors, four nurses, four dental surgeons, four nursing technicians, four oral health assistants, and 24 community health workers. The study population consisted of 16 professionals from the four family health strategy teams, selected using the simple random sampling method, as follows: four nurses, four physicians, four community health workers, and four nursing technicians.

For inclusion in the study, each professional should be a member of one of the teams and have worked at least one year in this service. The data collection took place in July 2014. Individual interviews were conducted with the subjects, guided by a semi-structured script, with 16 open questions that explored the knowledge and practices of professionals in their daily routines in the community. The interviews were held in a reserved room and lasted an average of 20 minutes. Ethical criteria and the confidentiality of the interviews were respected.

For data processing and analysis, IRAMUTEC (*Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires*)⁽⁷⁾ software was used, which was designed in France by Pierre Ratinaud in 2009 and began being used in Brazil in 2013. It

enables different kinds of statistical analysis of the text corpus and tables of individuals using words. To perform traditional lexical analyses, the software identifies and reformats the text units, which are transformed from Initial Context Units into Elementary Context Units. A vocabulary study is then performed, where words are reduced based on their roots (stemming). A dictionary is created from the reduced forms and active and supplementary forms are identified. The steps followed during this stage of the study are outlined below.

For text analysis, the Descending Hierarchical Classification method was used,⁽⁸⁾ wherein the texts

were classified according to their respective vocabularies and the set of texts was divided by the frequency of reduced forms. Based on the matrices, which crossed segments of texts and words (repeated X² tests), the Descending Hierarchical Classification method was applied to obtain a stable and definitive classification. Through this classification, the analysis sought to obtain text segment classes which, in addition to manifesting similar vocabulary between them, had vocabulary that was different from the text segments of the other classes. The relationship between classes is illustrated in the dendrogram (Figure 1).

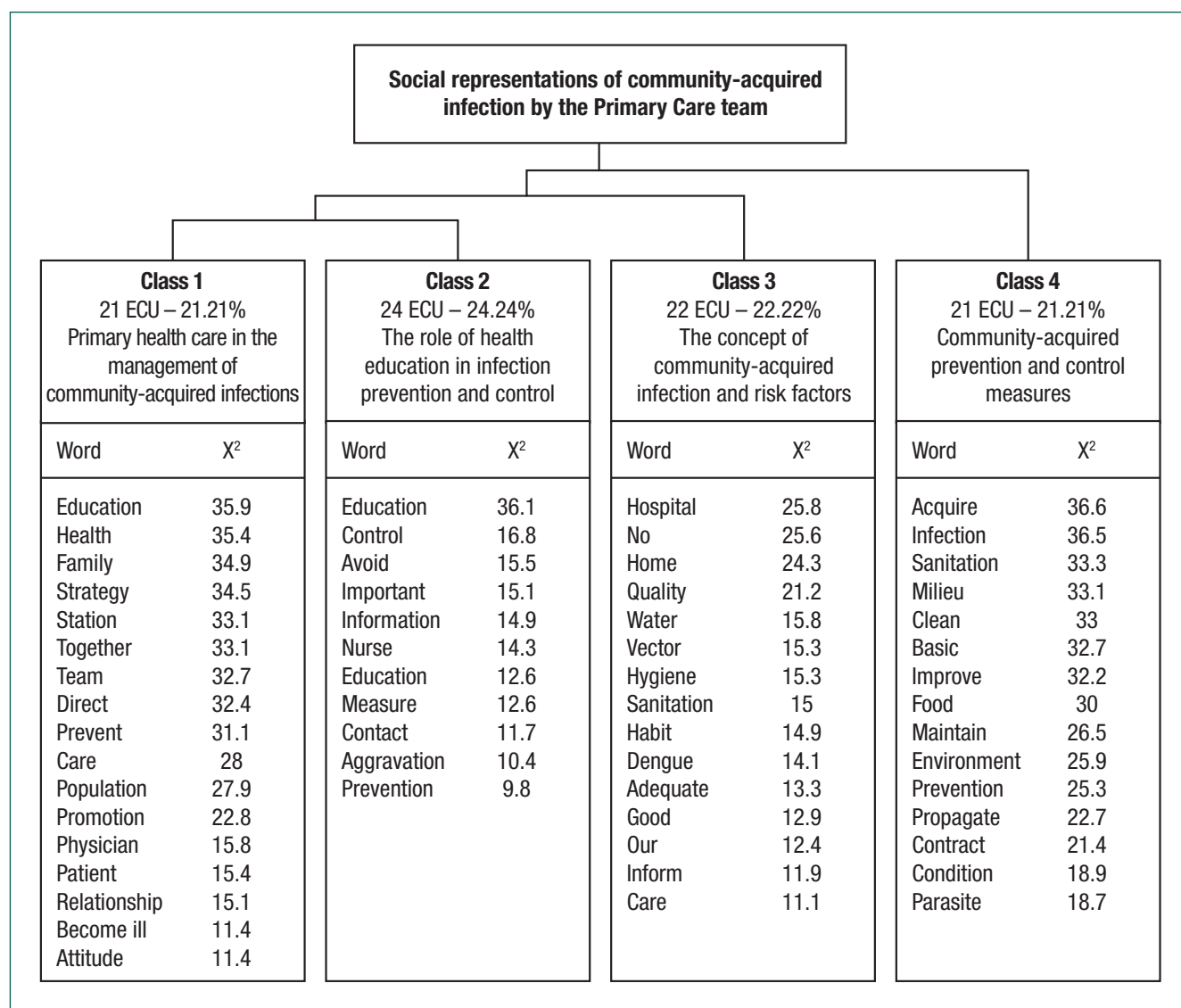


Figure 1. Thematic structure of the social representations of community-acquired information by the primary care team. ECU - Elementary Context Units

The social representations of community-acquired infection by primary health care professionals were defined from the detailed analysis of the interviews and the creation of categories based on the testimonies that were processed. Social representations are built from concepts, statements, and experiences, and become intimate and changeable for each person. These characteristics enable the analysis of social representations of groups such as health professionals to simultaneously demonstrate the behaviors of different professional classes and the actual operational scenario.

The development of the study complied with national and international standards of ethics in research involving humans.

Results

Of the 16 participants, 12 were women and the mean age was 28 years. Mean time of service was eight years. The majority had more than one job (8.75%), university level education, and more than five years of training.

IRAMUTEC recognized the division of the corpus into 99 elementary text units, with use of 88.88% of the corpus. Based on the analysis by Descending Hierarchical Classification, efforts were made to identify and analyze the textual domains, as well as interpret meanings, giving them names with their respective significations in classes, as follows.

Primary health care in the management of community-acquired infections

According to the findings, the management of community-acquired infections in the community is complicated due to difficulties in instituting control measures appropriate to that reality. In the testimonies, the most mentioned words were in reference to Family Health Strategy, highlighting its role in the prevention and control of these infections.

The role of health education in infection prevention and control

The content understood in this class denoted a concern on the part of professionals regarding the role

of primary care in the development of health education practices in the community. The representations understood by the subjects demonstrated the concern of professionals to promote the health of those under their responsibility in the Basic Health Unit, mainly through health education practices.

The concept of community-acquired infection and risk factors

The concept of community-acquired infection was not well constructed by the professionals, referring only to the negation of hospital infection. When asked about risk factors, the interviewees demonstrated a lack of knowledge about them. Most professionals did not follow a holistic line of construction of knowledge, but rather listed it in a unidirectional way that did not cover all of the possible factors that contributed toward risk of infection.

Prevention and control measures for community-acquired infections

The main prevention and control measures for community-acquired infections, drawn from the testimonies, referred to the control of risk factors and adjustment of the environment.

Discussion

Understanding the social representations of community-acquired infection by primary care professionals limits the scope of the results to the universe of participants. Thus, in knowing these representations and the interactions between the individual and the social, the results should provide key elements for understanding the reality of the group.

The need to minimize the length of hospital stays as well as reduce costs led to greater value being given to home care in health prevention and promotion, in accordance with the reality of the community, which was considered an infection risk environment. The incidence of community-acquired infections is high throughout the world.^(8,9)

A study conducted in the United States noted a significant increase in the incidence of communi-

ty-acquired infections, particularly those caused by multidrug-resistant microorganisms.⁽⁵⁾

The fact that a community is a closed environment can facilitate the spread of infection. In addition, there are increasing numbers of older people with chronic diseases, who are more vulnerable and also prone to have indwelling devices. These are factors that favor the increased incidence of community-acquired infection, particularly related to multidrug-resistant bacteria.^(10,11)

Among the risk factors, the primary ones were those involving the domestic environment, such as lack of basic sanitation, patients with acute illnesses and complex medical conditions, difficulties in performing self-care, increased use of medical devices in the home, and patients' social and/or economic factors.⁽¹¹⁾

In Brazil, the Hospital Infection Control Program was implemented in 1998,⁽¹⁰⁾ which defined the conceptual bases of hospital-acquired and community-acquired infection, in addition to regulating the implementation of Hospital Infection Control Committees throughout Brazil. However, this ordinance does not include prevention of community-acquired infections, since it does not specify the need for creating a management body in the community.

In the hospital environment, there is better infection management, including preparation of manuals and ordinances. However, incipient infection control in the community is seen as the main obstacle to instituting control measures appropriate to that reality.⁽¹²⁾

Infection prevention and control measures are essential for managing the risk of infection in the community.^(11,13) The implementation of infection prevention and control strategies, including education and training of staff, with an emphasis on correct hand hygiene, maintenance of aseptic techniques, and the following of standard precautions and effective methods for dealing with environmental factors, have proven to be effective.^(5,14)

Once familiar with these measures, the health team is able to empower the local population through health education strategies and placing greater importance on health promotion, which

make preventive measures and the fight against disease more effective.⁽¹⁵⁻¹⁷⁾

Concerns and care in the community are important, and health professionals should properly assess the environment where care is provided. The infections most frequently reported by professionals in the daily routine of the Basic Health Unit were characterized as preventable by simple control measures, such as provision of information and personal health and hygiene measures. Community-acquired infection control involves three main areas: hand hygiene, safe use of personal protective equipment, and proper disposal of sharps.⁽¹²⁾

The field of social representations of community-acquired infection by primary care professionals, based on the Descending Hierarchical Classification - that is, the relationship between classes - demonstrates that the concept of health professionals regarding community-acquired infection, even if not well developed, determines the implementation of actions in the management of primary care, with an emphasis on health education related to infection control in the community, especially in households. However, infection prevention and control measures related to environmental and personal conditions can help reduce the prevalence of community-acquired infections, through the adoption of a policy of improved housing and sanitation.

Conclusion

The social representations related to community-acquired infection are organized on the basis of professional practice, in which participants recognize the difficulties in conceptualizing the term, and list risk factors and prevention and control measures, reflecting on the quality of care provided.

Collaborations

Sousa AFL, Queiroz AAFLN, and Oliveira LB contributed to the writing of the article, in addition to a relevant critical review of the intellectual content and final approval of the version to be published. Valle ARMC and Moura MEB collaborated on the

study concept, analysis, data interpretation, writing of the article, and final approval of the version to be published.

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