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RESEARCH

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## QUATERNARY PREVENTION IN HEALTH IN THE PERCEPTION OF HEALTH PROFESSIONALS

*Prevenção quaternária na saúde na percepção de profissionais de saúde**Prevención cuaternaria en salud en la percepción de los profesionales de la salud*Rene Ferreira da Silva Junior<sup>1</sup> Maria Luiza Sena Dias<sup>2</sup> Náthila Nadinny Rodrigues Gonçalves<sup>3</sup> Carla Silvana de Oliveira e Silva<sup>4</sup> Josiane Steil Siewert<sup>3</sup> 

### ABSTRACT

**Objective:** to understand the perceptions of health professionals who work in a hospital about quaternary prevention. **Method:** an exploratory qualitative study was conducted, whose theoretical basis was based on symbolic interactionism and content analysis as a methodological reference. The population consisted of thirteen health professionals. The data were obtained through interviews with a semi-structured script. **Results:** The analysis of the discourses determined the construction of thematic units grouped into three thematic categories for discussion: meaning of quaternary prevention for health professionals, experiences with quaternary prevention in the clinical-care context and social interactions. In the light of symbolic interactionism, positive and negative experiences were identified, highlighting the difficulties of professionals and institutions to work with quaternary prevention. **Conclusion:** To implement this proposal, it is necessary that a reorientation of the clinical practice of professionals is desired through desirable technical and ethical conducts.

**DESCRIPTORS:** Quaternary prevention; Primary health care; Health professionals.

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## RESUMO

**Objetivo:** compreender as percepções de profissionais de saúde atuantes em um hospital acerca da prevenção quaternária. **Método:** foi conduzido um estudo exploratório de cunho qualitativo, cuja fundamentação teórica baseou-se no interacionismo simbólico e na análise de conteúdo como referencial metodológico. A população foi composta por onze profissionais de saúde. Os dados foram obtidos por meio de entrevistas com roteiro semiestruturado. **Resultados:** A análise dos discursos determinou a construção das unidades temáticas agrupadas em três categorias temáticas para discussão: significado da prevenção quaternária para profissionais de saúde, experiências com a prevenção quaternária no contexto clínico-assistencial e interações sociais. À luz do interacionismo simbólico, identificaram-se experiências positivas e negativas com destaque às dificuldades dos profissionais e instituições para atuarem com a prevenção quaternária. **Conclusão:** Para concretização dessa proposta é necessário que uma reorientação da prática clínica dos profissionais seja almejada por meio de condutas técnicas e éticas desejáveis.

**DESCRIPTORIOS:** Prevenção quaternária; Atenção primária à saúde; Profissionais da saúde.

## RESUMEN

**Objetivo:** comprender las percepciones de los profesionales de la salud que trabajan en un hospital sobre la prevención cuaternaria. **Método:** se realizó un estudio cualitativo exploratorio, cuya base teórica se basó en el interaccionismo simbólico y el análisis de contenido como referencia metodológica. La población estaba formada por trece profesionales de la salud. Los datos se obtuvieron a través de entrevistas con un guión semiestructurado. **Resultados:** El análisis de los discursos determinó la construcción de unidades temáticas agrupadas en tres categorías temáticas para la discusión: significado de la prevención cuaternaria para los profesionales de la salud, experiencias con la prevención cuaternaria en el contexto clínico-asistencial e interacciones sociales. A la luz del interaccionismo simbólico, se identificaron experiencias positivas y negativas, destacando las dificultades de los profesionales e instituciones para trabajar con la prevención cuaternaria. **Conclusión:** Para implementar esta propuesta, es necesario que se desee una reorientación de la práctica clínica de los profesionales a través de conductas técnicas y éticas deseables.

**DESCRIPTORIOS:** Prevención cuaternaria; Atención primaria de salud; Profesionales de la salud.

## INTRODUCTION

Medical actions and interventions can offer risks to the health of the population when practiced without recognizing the true needs of the patient. In addition to the adequate listening to the patient and the help about his uncertainties and recognition of his suffering, it is necessary that health practices take place based on a critical analysis by the professionals.<sup>1</sup>

The concept of quaternary prevention (QP) was originally proposed by Marc Jamoule in mid 1986. Following the definitions of prevention, he advanced this new perspective by relating it to the risk of iatrogenic disease, i.e., produced by undesirable health actions, such as diagnostic and therapeutic interventionism, together with excessive or unnecessary medicalization.<sup>2</sup>

In its broadest sense, QP is a set of actions and strategies that seek to minimize complications and consequences of excessive health interventions that end up producing unnecessary actions and that have the possibility of producing adverse effects to patients, suggesting ethically acceptable alternatives.<sup>3</sup> It is based on two basic principles: proportionality, which states that it is necessary to consider that the benefits of health interventions must outweigh the possible risks that they may imply, and precaution, which determines that the first health action should be to do no harm.<sup>4</sup>

In addition, QP should be defined as the possibility of identifying people at risk of hypermedicalization in order to protect them from new medical interventions and, thus, to seek actions that are ethically acceptable. Its great importance derives from

its specificity and peculiarity, which refers to the fact that it is not focused on the disease, people, or social and environmental environment, but on professional and institutional actions and behaviors, seeking to minimize the common excess of interventions and iatrogenies.<sup>5-6</sup>

QP implies not giving in to fads (agreements, guidelines, and protocols without scientific basis), to cooperativism, and to public opinion. It also involves an ethical and professional commitment, negative ethics, which determines, briefly, to refuse interventions when not valid.<sup>7-8</sup>

The QP can favor the systematic and reflexive performance of professionals seeking to attentively evaluate the needs and available resources to provide the necessary care to the patient. For this, the relational processes and communication need to improve this practice, which cannot be restricted to following rigid and pre-established procedures and protocols. In care practice, the QP is still little known and faces difficulties for its implementation.<sup>9</sup> Thus, this study aims to understand the perceptions of health professionals about the QP.

## METHOD

A qualitative exploratory study, according to Minayo<sup>10</sup>, whose theoretical foundation was based on Symbolic Interactionism, which is configured in a perspective referring to the role of the human being in society, encompassing communication, language, and interaction.<sup>11</sup> Thus, Symbolic Interactionism is based on

three theoretical prisms: meaning, acquired experiences, and social interactions.<sup>12</sup>

The study setting was a public hospital located in the northern region of Minas Gerais, Brazil. The study population was composed of eleven health professionals, six nurses and five physicians. Eligibility criteria were established as professionals with active employment in the institution and who worked directly with the patients. Professionals on medical leave or vacation were considered illegible.

Data collection was carried out in the second half of 2018, using the semi-structured interview technique with guiding questions about the object of study, each interview lasting between 20 and 40 minutes. The sampling was defined by the criterion of theoretical data saturation, thus, data collection was ceased when it was found that new elements to support theorization were not reached from the observation field.<sup>13</sup>

As an instrument for data collection, we used an instrument with two thematic blocks, the first one formed by socio-demographic elements to characterize the sample, and a semi-structured interview script. The interviews were recorded on an electronic device, carried out individually in a private place indicated by the professional, and then transcribed, preserving the literal content of the speeches. A text editor was used for later analysis together with the collected data.

The professionals were represented by the letter P (professional) and the Arabic numerals determined a sequence code,

attributed by the researchers, thus guaranteeing the anonymity of the participants, assuring them the confidentiality of their identities. The analysis of the data collected was developed through content analysis, organized in the stages of organization, coding, categorization, and inferences, according to Bardin's<sup>14</sup> assumptions, considered the appropriate analysis method to understand the meanings and intentionality of the subjects.<sup>10</sup>

All ethical principles were considered in the execution of the present study, according to resolution n°466 of December 12, 2012 of the National Health Council, under substantiated opinion number 2,815,708.

## RESULTS

The study was conducted with six nurses and five physicians, whose age ranged from 26 to 50 years, the average time of training was seven years, ranging from one to twenty years. Among the professionals, only two had taken some specific course on the subject, while the others reported having some knowledge acquired during graduation or post-graduation. It is noteworthy that initially during data collection some professionals refused to participate because they did not know the term QP. In Chart 1, based on the assumptions of Symbolic Interactionism, the conceptual categories of meanings, social interactions and experiences with the QP are presented.

**Table 1** – Conceptual categories and professionals' speech.

<b>Significance of quaternary prevention for health professionals</b>
"It's the question of you avoiding harm to the patient, or the doctor's own performance with harm. Avoiding iatrogenesis, which is any kind of medical treatment both drug and surgical, anything that the doctor does or can cause any harm to the patient" (P1).
"[...] it refers to the prevention of iatrogenesis, it is unnecessary procedures or necessary procedures that cause or may have some bad consequence for the patient" (P3).
"It's when the patient is already in a stage of advanced disease and we try not to have any invasive procedures, we try to preserve the patient's quality of life, we try not to be iatrogenic in some procedures" (P5).
"They are the measures we take to try to avoid some unnecessary actions for the patient, not only in the medical field, but also in the multiprofessional field, so all the measures, precautions, or even some kind of excitement in certain behaviors are part of the quaternary prevention, that which avoids unnecessary excesses for the patient, without evidence, for example, of benefit" (P7).
"I don't understand very well, I had to ask you what prevention is, in those terms, in those words how is the issue of prevention related to excesses or even lack of medication, I believe it's also, I think that's it" (P9).
<b>Experiences with quaternary prevention in the clinical care context</b>
"Like with the central access, pneumothorax can happen, but we consider it an iatrogenic event, because the patient did not have this type of thing before you performed an access, right, [...] subcutaneous emphysema during intubation. This happens frequently" (P2).
"Many times the patient may have a discharge stay in the hospital unit precisely because of this complication arising from this treatment and not necessarily from the problem that caused his admission" (P6).
"We experience this medication issue all the time, so much so that the quaternary prevention in the sector where I work, which is the obstetric block and the maternity ward, there are drugs that we have a specific protocol to prevent any complication that a person may have related to the adverse effects or excess of medication, so there are protocols for some medications" (P10).
"We see here, cardiac compression in 93, 95 year old patients or terminal cancer patients receiving beyond comfort measures, receiving unnecessary medications or undergoing surgeries and procedures that you know the prognosis is not good that maybe it would be better to consider before these interventions happen" (P11).
"[...] the hospital has a program in terms of working with iatrogenesis, including these times ago was nutrition, to prevent malnutrition in the in-hospital environment, besides discussing how to prevent it" (P12).
<b>Social interactions of professionals regarding quaternary prevention</b>
"[...] the whole team has to really look at the question of the dose, the amount, the time, the way of administering, the drug incompatibilities" (P4).

Table 1 – Cont.

"[...] some already have this awareness and reflect before requesting exams or making interventions, for example, the elderly patients with reserved prognosis are already possible to observe that many professionals already respect more that moment of terminality and avoid some situations, so this is already possible to observe, however the excess of interventions still prevails" (P5).
"Sometimes patients in terminal care situations that the family asks to invest everything, you see it is bad for the patient, I consider it a form of iatrogenesis as well and this practice is very common in services" (P6).
"In my current reality quaternary prevention is practiced with great difficulty, because culturally the population does not accept it" (P8).

## DISCUSSION

The health professionals' meanings about QP emerged as a highlight. In general, professionals demonstrated knowledge about the concept of QP. They associate this type of prevention with a set of actions and practices in health care aimed at minimizing harm to patients and avoiding iatrogenesis. The concepts about QP also highlighted the need to avoid excessive interventions to the patient, having implicitly its purpose based on the idea that this practice provides benefits to the patient, corresponding to an effective and ethical clinical performance.

Despite the great majority of professionals showing shy knowledge about QP, a minority reported lack of knowledge about the concept or incomprehension of its realization in clinical practice, and in many cases, they associated QP with errors made during care.

Science has discussed that excessive medical interventions and health professionals without a precise theoretical basis can produce iatrogenesis. This perception has contributed to the emergence of a logic of thought that has sought to protect patients from the excess of technical and mechanized attitudes of professionals. And this nuclear idea is what sustains the theoretical framework built to support the QP actions.<sup>1</sup> The analysis of the interviewed professionals' statements allows us to infer that this knowledge is common to most of them.

The evolution of medicine and its procedures has produced a clinical practice that has contributed to the routine request of complementary and laboratory tests, often unnecessary. This process also favors over-diagnosis and polypharmacy, besides the practice of procedures and treatments that cause suffering without benefit to the patient. Progressively, technology has created an imaginary of healing that overlaps the relationship between professional and patient.<sup>1</sup>

From this perspective, as can be gathered from the speeches of the professionals, QP, whose objective is not to harm the patient, is something necessary for current health care. However, it seems to us that this concept and its use in clinical practice have evolved at a slow pace and this becomes explicit in the absence of basic knowledge about such concepts expressed by some professionals.

The knowledge about QP should produce a reflection on the requirement that health practices should not cause any harm to the patient, and for this, professionals need to restrain themselves from producing excessive interventions. In this sense, hypermedicalization and invasive practices must be avoided, besides suggesting ethically acceptable conducts. The concept is applicable to any intervention in any area, either individually

or collectively, in preventive and curative actions, in the various levels of care in public or private services.<sup>2</sup>

Discussions about QP are still incipient and this is due to organizational and institutional challenges. Despite more than 30 years of the concept having materialized, some factors such as management, difficulties in teamwork, and a still deficient education on preventive concepts justify such a reality. Added to this is the social, cultural, and economic heterogeneity of the Brazilian population.<sup>15</sup>

The speeches of the professionals interviewed indicate a concern for the damage produced to patients. It is noteworthy that QP seeks the prevention of human suffering in the face of illness. In this expanded vision, the actions of health professionals are not restricted to the simple search for the treatment of the sick body, but transcend in the possibility of relieving human suffering.<sup>16</sup>

It is noteworthy that the complexity in the implementation of QP actions refers to the need to rebuild the critical and epistemological capacity of health professionals. However, what we have seen in recent years is a decline in these capabilities resulting from recent transformations in medicine. This reality is revealed by the predominance of standardization in protocols that produces a standardization and generalization of treatments. Such logic is based on the search for homogenization of behaviors in opposition to personal singularity, the personalization of interpretations and care. Thus, the QP would seek to protect patients from the excesses produced by the automatism of the incessant search for diagnosis and therapy.<sup>17</sup>

Thus, the professionals' reports denounce the experience of iatrogenesis in their daily work. Many even report that iatrogenics are very common, being part of their daily routine. Conduct errors and their excesses, hypermedicalization, complications of clinical conditions resulting from excessive and inadequate interventions were reported.

It is important to emphasize that QP aims to prevent the occurrence of these situations that are reported as daily in the clinical practices of health professionals. For this, the principles of proportionality, in which the damage should not exceed the risks, and precaution, which reinforces the initial idea that patients should not be harmed, need to be effective so that this reality can be different. Thus, bioethical principles in health care should prevail, so that professionals may be aware of overdiagnosis and overmedicalization, and thus avoid inadequate and unnecessary treatments.<sup>18</sup>

A reflection is produced between the presence of incipient knowledge about QP and the frequent experiences of negative experiences. The QP determines the need for the professional to update his knowledge and to focus on the risk-benefit ratio based

on the screenings. This amounts to reaffirming that evidence-based practice should technically and ethically order the actions of health professionals.

The failures in risk assessment of patients and in the choice of treatments and treatment strategies, as well as the widespread medicalization, are explained by the training of these professionals. Thus, in many specialties, the focus is on the treatment of the disease, without reference to the integral context of the person. QP helps to reduce or even eliminate the iatrogenies that are very common in professional clinical practices.<sup>18</sup>

The lack of professional training is pointed out as one of the factors that justify the difficulties encountered by health professionals to implement the QP. These weaknesses have been pointed out in studies and reveal the need to think of continuing education as a continuous process in health services.<sup>6,19-21</sup>

Positive experiences about the QP in work processes were also reported by professionals and are represented by the attempts and efforts made by health professionals to avoid iatrogenic practices. Reports of attempts to review conducts, avoid excesses, seek patient safety, institution of programs aimed at minimizing harm, and discussions emerged. Nevertheless, the report that excesses exist persist.

Health professionals need to keep in mind ethical and technical assumptions about preventive conducts that diverge from the care implemented for the disease. Thus, the clinical method must be based on two moments: that of diagnosis and explanation and then that of care plan and clinical management that must seek a reduction in the use of technologies that aim to medicalize the experience of illness.<sup>17</sup>

As a consequence, the QP emerges as a guideline that seeks a dynamic and functional conception to approach patients' problems and illnesses. It is necessary to value the discourse of the sick subjects, to value their subjective experiences facing the disease, and to build contextualized interpretations that are able to make a connection with the subjects' stories, thus contributing to a quality therapy.<sup>17</sup> It is emphasized that these complex processes converge in a clinical difficulty imposed on the professionals' practices and, consequently, in the maintenance of iatrogenic practices, even if some efforts have been made by the professionals.

Overdiagnosis and hyperpreventivism, in turn, are responsible for serious ethical implications. The extent of harm to many patients, formalized by the labeling of risk or a disease, can generate fear and reduce the patient's well-being. Another consequence is to establish the direct relationship between overdiagnosis and underdiagnosis, since whenever a diagnosis is pointed out, naturally attention and resources are inevitably redirected to them. Finally, there is the marginalization and ignorance of the causes and social determinants of health problems produced by accentuated technicism.<sup>21</sup>

The positive experiences of professionals express an attempt to produce a practice that reflects the production, systematization, and collectivization of technical and caring knowledge. Thus, it is notable an effort to produce ethical behaviors that guide the

professional and institutional preventive actions whose result is the prevention and reduction of harm to patients, most of the time not measured by the services and institutions. Social interactions between the multiprofessional team, colleagues, family members and society itself are pointed out as factors that interfere in the institution of QP in the care practice.

Another important ethical issue to be highlighted is that the QP aims at the search for patient autonomy, implying the possibility of accepting or not the therapeutic or preventive options.<sup>22</sup>

It is important to say again that QP arises from the understanding and the need to expand and with versatility analyze the expanded conceptions of health-illness, deviating from biomedical nosology, without ignoring or undervaluing it. Thus, it is oriented toward a position of communication and consensual idealization with users regarding what is health and disease.<sup>23</sup>

The Patient-Centered Clinical Method is pointed out as one of the possible means to reorient the clinical practice of professionals both technically and ethically, in order to favor QHP actions at all levels of care.<sup>24</sup>

## CONCLUDING REMARKS

In opposition to medicine centered in interventionism, in protocols, and in the homogenization of conducts that favor excess and harm to the patient, in the last years, QP has emerged. To realize this proposal, it is necessary that a reorientation of the clinical practice of professionals be sought through desirable technical and ethical conducts.

This study has shown that most professionals know the concepts of QP, although this is not unanimous. Paradoxically, negative experiences were reported that denounce the experience of iatrogenesis in the daily life of professionals. The reports of iatrogenesis are very common and are expressed by conduct errors and their excesses, the hypermedicalization, and the complications of clinical pictures resulting from excessive and inadequate interventions.

Positive experiences, on the other hand, were also reported, being represented by the attempts and efforts made by health professionals to avoid iatrogenic practices. The attempts to review conducts, avoid excesses, seek patient safety, the institution of programs aimed at minimizing harm, and discussions emerged. Despite this, the report that excesses exist persists.

We envision that this reality can be transformed by the reflections produced about the problem. For this, in a first moment it is necessary to admit that the incidents are part of the professionals' routine. We emphasize that there is still a lot of difficulty on the part of professionals and institutions to work with QP. In general, the hospital institutions do not adequately evaluate their work processes, the search for the creation of routines that favor patient safety is incipient, and many services do not work adequately with indicators. In addition, rigid and authoritarian practices prevail to the detriment of the inclusion of patients in decision-making.

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