



QUATERNARY PREVENTION IN THE MANAGEMENT OF PRIMARY HEALTH CARE: INTEGRATIVE REVIEW

PREVENÇÃO QUATERNÁRIA NA GESTÃO DA ATENÇÃO PRIMÁRIA À SAÚDE: REVISÃO INTEGRATIVA

PREVENCIÓN CUATERNÁRIA EN LA GESTIÓN DE LA ATENCIÓN PRIMARIA A LA SALUD: REVISIÓN INTEGRADORA

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ABSTRACT

Objectives: to identify the Quaternary prevention (QP) and discuss the ways of integration into primary health care. **Method:** an integrative review with collecting data from 09.01.14 to 10.01.15 in the databases: LILACS, IBECs, PubMed/MEDLINE, virtual library SciELO, Journal CAPES, Minerva-UFRJ and between 2004-2014 to answer the guiding question << How QP is included in the primary health care through the main databases? >> **Results:** eight articles were highlighted: the iatrogenic in inappropriate treatment and rehabilitation that does not prioritize family support; the term QP. It can avoid congestion in the health system as well as reduce spending on family planning. There is an emphasis on actions in the family health care with less invasive intensity. **Conclusion:** gaps in knowledge are more ethical professional positioning and less corporatist, as well as the inclusion of patients in its therapeutic process. **Descriptors:** Primary Health Care; Unified Health System; Nursing; Health Services Administration.

RESUMO

Objetivos: identificar a Prevenção Quaternária (PQ) e discutir suas formas de inserção na atenção primária à saúde. **Método:** revisão integrativa com coleta dados de 01/09/14 a 10/01/15 nas bases de dados: LILACS, IBECs, PUBMED/MEDLINE, biblioteca virtual SciELO, Periódico CAPES, Minerva-UFRJ e entre 2004 a 2014, com finalidade de responder à questão norteadora << Como a PQ se insere na atenção primária à saúde através das principais bases de dados? >> **Resultados:** destacaram-se oito artigos: as iatrogenias nos tratamentos inadequados e reabilitação que não prioriza o apoio familiar; o conceito de PQ. Esta pode evitar o congestionamento no sistema de saúde e reduzir os gastos no planejamento familiar. Há a ênfase nas ações de cuidado na saúde da família com menor intensidade invasiva. **Conclusão:** as lacunas dos conhecimentos são um posicionamento profissional mais ético e menos corporativista, assim como a inclusão do paciente em seu processo terapêutico. **Descritores:** Atenção Primária à Saúde; Sistema Único de Saúde; Enfermagem; Administração de Serviços de Saúde.

RESUMEN

Objetivos: identificar la prevención cuaternaria (PC) y discutir sus formas de inserción en la atención primaria a la salud. **Método:** revisión integradora con recolección de datos de 01/09/14 a 10/01/15 en las bases de datos: LILACS, IBECs, PUBMED/MEDLINE, biblioteca virtual SciELO, Periódico CAPES, Minerva-UFRJ y entre 2004 a 2014, con la finalidad de responder a la pregunta guiadora << ¿Cómo la PC se insiere en la atención primaria a la salud a través de las principales bases de datos? >> **Resultados:** ocho artículos seleccionados fueron destaques: las iatrogenias en los tratamientos inadecuados y la rehabilitación que no prioriza el apoyo familiar; el concepto de PC. Puede evitar el congestionamiento en el sistema de salud así como reducir los gastos en el planeamiento familiar. Hay énfasis em las acciones en el cuidado a la salud de la familia con menor intensidad invasiva. **Conclusión:** las lagunas de los conocimientos son un posicionamiento profesional más ético y menos corporativista, así como la inclusión del paciente en su proceso terapéutico. **Descriptor:** Atención Primaria de Salud; Sistema Único de Salud; Enfermería; Administración de los Servicios de Salud.

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INTRODUCTION

The Primary Health Care (PHC) should be the organizing point of health systems, with responsibility for all traditional levels of prevention - primary, secondary and tertiary. As an additional level, the concept of quaternary prevention shows the concern to prevent the medicalization of care and avoid unnecessary interventions, reducing damage through technical and qualified and personalized care practices, having close relation to work in primary care, in particular, the aspects relating to over-diagnosis.¹

Over-diagnosis is the term used when a disease was not diagnosed, did not cause symptoms or death.² It occurs when people without symptoms are diagnosed with a disease that ultimately they do not have symptoms or die early.³ In a broader concept, Over-diagnosis refers to problems caused by excessive medicalization, or subsequent overtreatment of over-diagnosis, as well as all processes that help to reclassify healthy people with small or low-risk problems.⁴

Many factors are leading to over-diagnosis, including commercial and professional interests, legal incentives and cultural issues, as increasingly sensitive tests are detecting smaller and smaller “changes”, they will never progress, broadening the definitions of diseases and reducing the thresholds treatment, spreading the idea of being at risk of is having the disease.⁴

The concept of quaternary prevention created by Marc Jamoulle in mid-1986, Belgian was built by the World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians (WONCA). The term names the concern to prevent the medicalization of care and avoid unnecessary interventions, reducing damage through technical and qualified and personalized care practices.⁵

The most effective means of achieving quaternary prevention would be: better listen to our patients, to adapt the sanitary possible to individually necessary and desired, making this concept a key part in the service and, as a desirable side effect, which occurs a considerable reduction of costs in care in primary health care at no preventive treatment of diseases that do not cause symptoms or death.

Therefore, the **object of this study** is the Quaternary prevention in primary health care.

The question that is guiding this study is: how the quaternary prevention is included in the primary health care through the main

databases? Then, the **objective** is to identify the quaternary prevention in the main databases and to discuss its forms of integration into primary health care.

As relevance and justification, it is observed the quaternary prevention as a key concept to improve the population’s quality of life as well as to avoid spending the health system with the medicalization and consequently a careful care. Therefore, to evaluate the development of targeted strategies for quaternary prevention, it can prevent the emergence of more damage than benefits regarding medical treatment, as it can help to reduce morbidity and mortality from the actions and preventive nursing care of the patient.

Also, this study may help in the understanding of the quaternary prevention and what are the possible applicability in primary health care, which should contribute to reflection and benefits of the actions of the patient care process, as well as in their health promotion.

OBJECTIVES

- To identify the quaternary prevention (QP).
- To discuss forms of integration into primary health care.

METHOD

Integrative review study⁶ with a quantitative and qualitative approach, of the national and international scientific production, produced from 01.01.2004 to 30.11.2014, held from 01.09.14 to 01.10.15 on the following databases: LILACS (Latin American and Caribbean Health Sciences), IBECs (Bibliographical Index Spanish Health Sciences) and PubMed/MEDLINE (Online System Search and Medical Literature Analysis), and virtual library SCIELO (Scientific Electronic Library Online - Scientific Electronic Library Online); Periodicals CAPES / MEC; Minerva base of Federal University of Rio de Janeiro/UFRJ; in order to analyze on the Quaternary prevention in primary health care.

The keywords used were “Quaternary Prevention,” Health and Primary Health Care Services Administration. In VHL, the Journal CAPES and Minerva UFRJ the keywords used were as follows: (“Quaternary prevention”) AND (primary health care OR health services administration). In PUBMED the keywords were used as follows: (“quaternary prevention”) AND (primary health care [MeSH Terms] OR health services administration [MeSH Terms]).

Although the quaternary prevention was a concept almost 30 years ago, it is still under review for inclusion as health keyword, so that we could search based on that term, we used the term in quotation marks, providing the appearance of the search words only quaternary prevention when used together and after that.

In March 2014, the Journal of Family and Community Medicine (RBMFC) on behalf of the Brazilian Society of Family and Community Medicine (SBMFC), was responsible for the inclusion of the keyword “Quaternary Prevention” in the list for evaluation by BIREME and Public Health School experts of USP.⁷

Inclusion criteria were the adherence to the objective and the theme proposed, articles published in Portuguese, English, French and Spanish; full articles which reflect the theme of the Quaternary prevention and management of health services and published and indexed articles in these databases in the last 10 years (2004-2014).

Exclusion criteria were published articles that were repeated, articles in other languages, items not addressed to this theme of Quaternary prevention and management articles that were not published in full and that its approach does not contribute to the knowledge of the intended area.

The Virtual Health Library (VHL) with keywords (“quaternary prevention”) AND (primary health care OR health services administration) the following information was obtained: 4 articles were found, 2 of IBECS and 7 PUBMED/MEDLINE; after fluent reading, all the items were selected. In Capes Portal, there was a search with keywords (“quaternary prevention”) AND (primary health care), finding 6 articles and a search with keywords (“quaternary prevention”) AND (health services administration), 1 article was found. Following the removal of the repeated articles, there was a total of 4 articles, and after all fluent reading, all were used. In Minerva database with the following keywords: (“quaternary prevention”) AND (primary health care OR health services administration), no articles were found.

In PubMed/MEDLINE database, there was a search with keywords (“quaternary prevention”) AND (primary health care [MeSH Terms] OR health services administration [MeSH Terms]), in the last 10 years, and 7 articles were found in which after fluent reading, 4 articles were selected.

Database/Virtual Library	Syntaxes Search
LILACS	("quaternary prevention") AND (primary health care OR health services administration)
IBECS	("quaternary prevention") AND (primary health care OR health services administration)
SCIELO	("quaternary prevention") AND (primary health care OR health services administration)
PUBMED/MEDLINE	("quaternary prevention") AND (primary health care OR health services administration) ("quaternary prevention"[All Fields] AND ("primary health care"[MeSH Terms] OR "health services administration"[MeSH Terms])) AND ("2004/01/01"[PDat] : "2014/11/30"[PDat])
MINERVA	("quaternary prevention") AND (primary health care OR health services administration)
Portal de periódicos CAPES	[any] [containing] ("quaternary prevention") [any] [containing] (primary health care) [any] [containing] ("quaternary prevention") [any] [containing] (health services administration)

Figure 1. Search strategies in electronic databases

Faced with such searches, the total quantity of articles that met the criteria were 8 articles.

The data collection instrument used for organizing the content obtained in the references was a table containing the following: year, author, title, language, type of publication and methodological approach, the essence of content, knowledge production, database, and recommendations of the authors.

It is noteworthy that the two themes that emerged from the analysis of the authors in the discussion of this article were: The Primary Health Care (PHC) and the Panorama of Quaternary prevention in Brazilian PHC.

RESULTS

The first analysis of the studies was carried out after choice of keywords and their application, in Portuguese and English, in the period from 20 October to 30 November 2014, in the databases listed in the VHL (LILACS and

IBECS) and virtual library SCIELO); in
PUBMED/MEDLINE; in Minerva; and Journals

Portal Capes totaling 16 articles.

Databases/Virtual Library	Total of references located
IBECS	2
LILACS	0
PUBMED/MEDLINE	7
MINERVA	0
PORTAL CAPES	7
SCIELO	0
Total	16

Figure 2. Summation of localized references

From a pre-reading of the abstracts, in searchable publications, and using the keywords and the criteria for inclusion and exclusion established, there were found seven references in PubMed/MEDLINE, and from 5 only 4 were selected; 2 references in IBECS where both references were selected; 7 references found in Journals Portal Capes, and from 7 only 4 were selected, no reference in LILACS, Minerva and SCIELO library.

After a detailed reading of the references, some articles were discarded due to the exclusion criteria as repetition in the database not published in full, no adherence to the objective, being published in other languages than Portuguese, English, Spanish or French and not published between 2004 and 2014.

The selected references were analyzed and organized in a figure as the year and type of publication and methods/techniques, the

essence of content and production of knowledge, database and recommendations of the authors.

Of the 16 studies located in databases surveyed, the total of 2 studies that had duplicated the same environments and 3 that were repeated between different environments were excluded, remaining then 9 studies for analysis.

Of the 9 pre-selected studies, there was also 1 article excluded, which used the term quaternary prevention in a different sense discussed in this review, remaining 8 studies that have been read and analyzed in full, being included in the literature.

Thus, of 16 surveyed references, 8 references were included in this study, including 1 reference is in Portuguese, four in Spanish, two in English and one in French (Figure 3).

Publication language	Total of References
Portuguese	1
English	2
Spanish	4
French	1
Total	8

Figure 3. Publications by Language of selected articles (n=8)

Figure 4 shows the publications per year.

Publication year	Total of references located
2006	1
2011	1
2012	2
2013	2
2014	2
Total	8

Figure 4. Publications per year of the articles selected (n=8).

As for the quantitative references per year, the following results were found: 2011 and 2006 corresponded to 12.5% (n=2) each of the selected publications. The years 2012, 2013 and 2014 corresponded to 25% (n=6) each. This shows that most research on the subject

had more emphasis and development from 2012, which shows greater progress in studies of Quaternary prevention, its applicability and the results from this year. Figure 5 shows the articles found.

Year/Author/ Title/Language	Type of Publication and methodology approach	Essence Content/Knowledge Production	Databases	Recommendations of the author(s)
2011 Lobo, Alberto Ortiz; Rojo, Vicente Ibáñez. Iatrogenic y prevención quaternary en salud mental [Iatrogenic and quaternary prevention in mental health] SPANISH	Special Collaboration Article/Review describing on primary prevention and iatrogenic cases mainly in mental health, showing the need for the use of quaternary prevention in the care process.	The author describes the several types of iatrogenic in mental health care: iatrogenic treatment with prescription of inappropriate treatments and indication of origin and excess treatment; therapeutic whether or not with medicine that is defined without evaluation of possible adverse effects, medicalization in excess and guided in confusing and flawed diagnoses; rehabilitation that does not include family support and social issues involved.	IBECS	From the perspective of Quaternary prevention, it should be avoided to provide immediate treatment when there is no certainty of diagnosis; it should be considered waiting for more concrete symptoms. The care system should be implemented to define intervention thresholds considering that no treatment can prevent the negative effects of the unnecessary intervention.
2014 Widmer D; Herzig L; Jamoulle M. Prévention quaternaire: agir est-il toujours justifié en médecine de famille? [Quaternary prevention: Is act always justified in family medicine? FRENCH	Descriptive article	Review of the concept of quaternary prevention, detailing its insertion in the other three levels of prevention (primary, secondary and tertiary), with the assessment that the four of the junction describe all the family doctor's activities, and considerations about how the position of quaternary prevention, prudence and critical works with scientific and philosophical paradigms alternative to the dominant (that would be centered on the doctor, the hospital, in technology, in the sickness and in the “client- consumer”).	PUBMED	Attention to the fact that the technological and scientific development often leads to a disastrous over- medicalization. Understanding of the Quaternary prevention reflects on the merits of the medical act, preventing the excess to medicine at the same time ensuring ethical care quality. The choices of prevention, research and treatment are made considering the agenda of the patient.
2013 Cucalón, J. M; Guiu, M. El enigma de la prevención cuaternaria en atención primaria. Cuándo hacer y cuándo no hacer (a propósito de 2 casos) [The enigma of Quaternary prevention in primary care. When to do and when not to do (about 2 cases)] SPANISH	Study case.	Primary care according to the author should be considered as the level where prevention reaches its maximum application potential, and the world using major technological arsenal for diagnosis and treatment in health should be a field where the Quaternary prevention should have priority which can avoid congestion in the system as well as reduce spending.	IBECS	The professionals should always ask whether the proposed treatment will affect the quality of life of patients and affect even being beneficial with the consequences of these choices.
2012 Faúndes A.	Review article on the topic describing	The author describes the three levels of prevention and how abortion is inserted at these levels and puts the	MEDLINE, CAPES	Increasing the supply of contraceptive methods, to stimulate health education in PHC, better

Strategies for the prevention of unsafe abortion. [Strategies for the prevention of unsafe abortion.] ENGLISH	the prevention of unsafe abortion in all levels of care.	quaternary prevention as preventing of a repeat abortion. Abortion shows the ineffectiveness of the methods used in PHC or misuses them, then according to the author, a post-abortion work it is necessary to involve family planning and full understanding of contraceptive methods, as well as make the woman know her fertility flow and learn to avoid an unwanted pregnancy in the most comfortable way possible, so she can choose the best method, which will impact less in her way of living and not a imposed method.		train professionals to understand only system costs and how the actions of these professionals can reduce these costs, increasing the understanding of health professional education to know how to deal with social barriers that patients bring.
2013 Carlo A. Liverani The four steps in the prevention of human papillomavirus-associated neoplasia: considerations for preventive measures, screening, disease impact, and potential overtreatments in HPV-related pathology. ENGLISH	Descriptive article about HPV and its related diseases. Discussing levels of prevention about HPV and its methods.	The author describes the prevention of HPV and related diseases in 4 levels of prevention. In the primary level, he emphasizes immunization against HPV and its relationship to coverage, age and gender of patients with the cost of the system and the benefit to the population. At the secondary level of prevention, he highlights the cytopathology and screening, and the correct use of global protocols that call for the age and interval between collections, to obtain a more reliable result and avoid extra costs to the system. The tertiary level prevention the author reports the immunohistochemically staining procedure as a simple alternative and inexpensive to identify the potential evolution of lesions to cervical cancer. Quaternary prevention in the case of HPV is to evaluate previously over-medication and unnecessary or ineffective treatments and their negative implications for the quality of life of patients.	PUBMED and CAPES	The author recommends a health education process to emphasize that the mere presence of HPV alone can will not lead to cancer and the widespread use of HPV testing outside of public guidelines will expand the definition of the disease both in patients and in health professionals, causing waste of time and money, and potentially harming patients.
2009 Norman AH, Tesser CD. Quaternary prevention in primary care: a necessity for the Brazilian Unified National Health System PORTUGUESE	Descriptive article with the aim of presenting the Quaternary prevention co-relating with the Brazilian health system, focusing on the care provided by family health.	It describes the Quaternary prevention actions, with emphasis on health actions related to the provision of care in family health, such as excessive screening, over-medicalization, excess complementary tests.	PUBMEDMEDLINE and CAPES	Use of the evidence to strengthen primary care with the use of watchful waiting ("assisted wait") and put the patient and their subjectivities first and to take the disease focus on treatment.
2006	Descriptive article to	The author defines the Quaternary prevention taking	PUBMED	The author advocates the expanded use of

Gérvas J. Moderación en la actividad médica preventiva y curativa. Cuatro ejemplos de necesidad de prevención cuaternaria en España [Moderate activity of diagnosis and therapy. Quaternary genetic and Prevention.] SPANISH	analyze the urgent need to integrate Quaternary prevention in daily medical practice, with an emphasis on current problems (cardiovascular prevention, and prescription antidepressants and antibiotics) and the foreseeable effect of genetics was on people's health and individuals.	to care needed with minimum intervention, low-level care, and high quality. In this way, the author describes the misuse of drugs as the case of antibiotics in indiscriminate use increases bacterial resistance, the increase in prescriptions of antidepressants due to ill-defined concepts and increasingly comprehensive depression, the use of antihypertensive drugs banned in many countries. There is also a critique of genetic screening since the genome project is not completed and already carries drug treatments and even bizarre surgical interventions for possible diagnoses that is not a certainty.		Quaternary prevention in the Spanish health system at all levels of care.
2014 Martínez González, C.; Riaño Galán, I.; Sánchez Jacob, M.; González de Dios, J. Prevención cuaternaria. La contención como imperativo ético. [Quaternary prevention. Containment as an ethical imperative.] SPANISH	Descriptive article, with the aim of presenting the theme of Quaternary prevention in three areas of pediatrics, with the government's responsibility that deserves further examination.	The author points out that developing the Quaternary prevention is an urgent need for developed societies since the over-consumption helped distort the concept and the way of "doing health", where individuals involved in the care process became intolerant of any discomfort requiring medical solutions to problems that are not diseases, transforming normal in pathological. The author relates the neonatal screening, neonatal and child care as a field of activity of quaternary prevention, emphasizing the PHC as a large field of activity by involving the family in treatment. It stresses that PHC has to do with the management of limited resources exemplifying the time as one of them since sophisticated tests and treatments request more expensive and overcrowd the system and is configured as one of the biggest complaints of health professionals.	CAPES	The author points out that professionals should be more critical in their work, and make decisions based on justice and non-maleficence, taking on the responsibility of the decision-making about treatment, not leaving the pharmaceutical industry dictate therapies be proposed. He points out that professionals should feel responsible for the social costs of the health system since the conception of the work is micro managers of scarce public resources to health.

Figura 5. Características das publicações.

According to the table above for the type of publication and the methodological approach, it was found that 7 (87.5%) articles are reviewed, and 5 of them (62.5%) were descriptive. However, only 1 (12.5%) article was a case study approach.

On the essence of the content, there were highlights: the types of iatrogenic regarding the inadequate treatment and rehabilitation that does not prioritize family support; the

importance of the concept of Quaternary Prevention and considerations on the position of the Quaternary prevention, prudence and critical works with scientific and philosophical paradigms alternative to the dominant (that would be centered on the doctor, the hospital, in technology, in sickness and in "client -consumer").

Still, on the nature of the content Quaternary Prevention, it is seen through two

case studies that priority since it can avoid congestion in the health system as well as reduce spending. Quaternary Prevention (QP) is also displayed on the post-abortion involving family planning and full understanding of contraceptive methods, as well as make the woman know her fertility flow and learn to avoid an unwanted pregnancy in the most comfortable way possible, so she can choose the best method, which will impact less in her way of living and not an imposed method.

Furthermore, we see the QP on the issue of human papillomavirus (HPV) and the issue of over-medicalization. There is also the issue of QP with emphasis on actions in the care of family health to necessary care and less invasive intensity. It is highlighted the importance of QP in Primary Health Care (PHC).

Regarding the recommendations of the authors from the perspective of Quaternary prevention is to avoid immediate treatment when there is a diagnosis. Therefore, it is necessary to define the intervention care limits so that they are not wrong and can affect the quality of life of patients. For both the technological and scientific development leads to over-medicalization and avoid the same preventive measures are necessary.

Another relevant aspect of the recommendations of the authors is, in fact, stimulate PHC with training measures for health professionals for short treatments. This evidence strengthening the PHC taking the disease focus on treatment. Thus, it is required critical health professionals in health care on QP and consequently their extensive use.

DISCUSSION

♦ The Primary Health Care (PHC)

Primary care should be considered as the level at which the prevention reaches its maximum meaning and its maximum extent in its application.⁸

This makes primary health care a complex field where care should be planned to guarantee the population's quality of life, as set out in the principles and guidelines of the Brazilian Health System. There is the unavoidable and healthy need for interdisciplinary work in the Family Health Strategy, which innovatively in Brazilian primary care, enabling and facilitates the decentralization of care medical intervention (known medicalized) through teamwork.¹

Unfortunately, the increase of heavy technologies used in treatments in health and

the screening, as well as an increase of drugs available on the market associated with the uncontrolled increase of misunderstood information, misdirected or even manipulated has contributed to the mischaracterization of this to health care model. Finally, common sense and lay invade and press professionals, requesting tests "just in case" or "routine", or by difficulty in defining diagnosis due to non-specific clinical conditions, frequent in primary health care.¹

Since the Quaternary prevention intervention that aims to prevent the occurrence or the effects of these situations, it is based on two fundamental principles: proportionality (gains must outweigh the risks) and precaution (practice version of *primum non nocere*, or first non-damage).¹ Following the ethical principles of health-related activities, the PHC professionals should pay attention to over-diagnosis and over-medicalization since it may bring less benefit to patients who have their quality of life impaired often for unnecessary treatments that once absent would not have a major impact on the health conditions of these users.

Quaternary prevention imposes a strict need professional be updated on scientific studies of good quality aimed to assess the risk-benefit balance of the traces, which means needing to use evidence-based medicine, inexorably, to well to base, technical and ethical its decision to track.¹

Much of this lack of risk assessment when choosing a treatment, or to track diagnostic, as well as extensive medicalization come from the training of these professionals. There are several specialties that treat "of his illness," without a clear reference to the full context of the person without life expectancy more than reasonable quality criteria.⁸

In other words, the practice of Quaternary prevention is the practice of the principle of "first non-damage" (*primum non nocere*), recognized as one of the foundations that guide health practices.⁹

The formation of guided professionals for various medical specialties directs the diagnostic screening to exclude diseases pointed specialty instead of closing an accurate diagnosis. Once waiting for the appearance of new symptoms can and should help in finding a diagnosis, as well as the vulnerabilities of the territory, social history, and the family relationship and other factors that may be inserted in the health condition of each.

This comprehensive look that PHC needs often is not associated with the training of professionals who often centered on professional medical treatment to be associated with the patient. Also, having much of their learning load in the hospital. Nursing is aware that the complexity of the challenge and his speech detaches his willingness to take the security lead, with the essential elements of training, research, evidence-based practice and the idea that patient safety is the security of us all.¹⁰

The development and education on a large scale of Quaternary prevention can and should become a true strategic for the lifelong education in the SUS and training of health professionals, so that best practice in primary health care can be developed and consolidated in the Family Health Strategy, which reduces the medicalization and iatrogenic care, yet relatively little perceived in Brazil.¹

The application of Quaternary prevention in health services helps to reduce or even eliminate this iatrogenic in medical procedures. Lobo and Rojo (2011) assert that therapeutic interventions may cause damage to patients in various ways, among which distinguishes three types of iatrogenic: no merits treatment indication, excessive treatment or quantity, and technically inadequate treatments.

In mental health, the therapeutic risk assessments are trended the subjectivities of both the professional and the patient, causing obscuration of any predictive ability, and that the therapeutic goal is always to improve patient care, and do not justify the current status of certain health interventions and the indication of a "no treatment" being a huge intervention and maximum point of quaternary prevention.¹¹

♦ Panorama of Quaternary prevention in Brazilian PHC

The complexity of the situation has increased with population aging and the conjunction of old diseases (infectious, endemic, among others.) as chronic and emerging, overlapping in many countries, such as Brazil. Also, there are major social and economic inequities, perhaps the largest generators of morbidity and mortality. Another problem is the disproportion between exponentially increasing cost of biomedical care and small additional improvement in morbidity and mortality and quality of life.¹²

Excess prevention also sets iatrogenic form and as flagships of the need for Quaternary prevention in PHC are some linked to

population programs, such as tracking cancer and immunization.

In the first programs, it must be feared primarily over-diagnosis and consequent overtreatment, since traces protocols are used in diagnostic tests often difficult to interpret and may cause the trader to misdiagnosis, or even make the excessive screening.¹³ On vaccination, the biggest problem is the use of a technology that has not had its proven, being open the possibility that their direct and indirect side effects outweigh its supposed benefit.

The development and education on a large scale Quaternary prevention can and should become a true strategic for the lifelong education in the SUS and training of health professionals, so that best practice in primary health care can be developed and consolidated in the Family Health Strategy, which reduces the medicalization and iatrogenic care, yet relatively little perceived in Brazil.¹

However, PHC in its current structure, and the economic, socio-cultural, demographic, both in Brazil and in the world requires the work of professionals trained in PHC as a prerequisite for top-level professional family health teams -, especially residency programs. To this end, discussions as government regulation of the number of vacancies of various specialties should be stopped, as well as an increase of the theoretical load and practice graduation, so that professionals have come out to the labor market with a more holistic approach that allows them to understand the SUS in all its lines of action.

Health education should be carried out constantly not only the population level, but also in technical and scientific training of all professionals who make up the Family Health teams and managers, and professionals from other areas of the SUS, for the system of reference and counter-reference can be effective, providing a comprehensive patient care, helping to harvest a larger number of information about the patient's health and contributing to the minimization of diagnostic errors proposed by quaternary prevention.

The Brazilian PHC is only about 60-65% of the population, of variable quality and, in general, relatively poor. Despite the successful expansion of the Family Health Strategy (FHS), this covers only about 50% of the population. In addition to the necessary expansion of PHC for at least 80-90% of the population, it is necessary to structure and expand the secondary and hospital care with personalized expert support. The matricial by Nucleus Support for Family Health (NASF) is

the only feasible scheme in this direction so far. Very promising, however incipient, since it excludes the NASF much of the specialized medical care that could be organized, with the necessary adaptations, this custom scheme. That is, there is a universe of basic questions that have not been touched for construction and qualification of care.¹²

It can be argued, though, the impact of this kind of attention on system costs: Although this is not the initial focus, a careful care in the implementation of public policies, both incidents on the population and its application - or not - individual can save expenses to be better applied in other areas (the concept of opportunity cost). Thus, there must be a more rigorous approval and ongoing review of public health policies, considering the point of view of quaternary prevention.

Quaternary prevention requires resisting the fashions dictated by consensus, protocols, practical guides without proper scientific rigor. The key Quaternary prevention is not initiated a cascade not classify patients. It forces to resist professionals, technologies and pharmaceutical industries and also the media and even the “patients” consumers of this information.¹⁴

The lack of professional training has been identified as responsible for the difficulties encountered by health professionals. This weakness shown in studies leads us to believe in continuing education as a solution for professional training and therefore reliability in assisting customers.¹⁵

CONCLUSION

From this study, it was possible to identify the Quaternary prevention and discuss what forms of integration into Primary Health Care. It is observed as a limitation evident the need for action on Quaternary prevention in health services, especially in primary health care which currently focuses a large number of diseases in the same individual. Its preventive meets the principles set out in the design of the family health strategy, which in turn to implement a character of care not only preventive but also for the rehabilitation encourages an interdisciplinary approach that helps avoid potential iatrogenic complications that commonly occur in centered medical treatment.

Gaps in knowledge observed in the study do not depend only on the implementation of managers but in a professional position more ethical and less corporatist, as well as the inclusion of patients in its therapeutic process. The patient should empower

therapeutic choices proposed by the multidisciplinary team, demonstrating their aspirations, vulnerabilities and social possibilities, financial and even cultural keep getting treatment.

It is necessary the commitment, involvement and initiative of health professionals, as well as government agencies, to ensure the implementation of significant interventions for Quaternary prevention and so consequent improvement in the quality of life, changes in behavior and self-awareness of health professionals and patients about their comorbidities.

The public health policies should guide the Quaternary prevention as one of the guiding principles of its composition, thus to propose strategies for prevention and performance to assess risk programs - benefits of its actions to consider the system users their entirety as well as their individuality.

In this context, the Quaternary prevention proves essential tool not only to primary health care as the whole Health System, since eliminated treatments and scans unnecessary diagnostic, as well as eliminating the over-medicalization, but system health care costs also tend to decrease, allowing a better use of available resources in the current economic scenario.

REFERENCES

1. Norman AH, Tesser CD. Quaternary prevention in primary care: a necessity for the Brazilian Unifi ed National Health System. Cad. Saúde Pública [Internet]. 2009 Set [cited 2015 Apr 05]; 25(9): 2012-20. Available from: https://cursos.atencaobasica.org.br/sites/default/files/texto_8_-_prevencao_quaternaria.pdf

2. Gotzsche P, Nielsen M. Screening for breast cancer with mammography. Cochrane Database Syst Rev [Internet]. 2011 Jan [cited 2015 Apr 05]. Available from: <http://www.harding-center.com/index.php/en/what-you-should-know/facts-boxes/mammography>

3. Welch G, Black W. Overdiagnosis in Cancer. J Natl Cancer Inst [Internet]. 2010 May [cited 2015 Apr 05];102(9):605-13. Available from: <http://jnci.oxfordjournals.org/content/102/9/605.full.pdf+html>

4. Moynihan R, Doust J, Henry D. Preventing overdiagnosis: How to Stop Harming Healthy People. British Medical Journal Brasil [Internet]. 2013 Dec [cited 2015 Apr 05];64. Available from: <http://www.grupoa.com.br/revista->

bmj/artigo/7382/prevenindo-o-sobrediagnostico-como-parar-de-prejudicar-pessoas-saudaveis.aspx

5. Jamouille M. Prevenção quaternária: a propósito de um desenho. *Rev Port Med Geral Fam* [Internet]. 2012 Jan [cited 2015 Apr 05];28:398-9. Available from: <http://www.scielo.mec.pt/pdf/rpmgf/v28n6/v28n6a02.pdf>

6. Souza MT, Silva MD, Carvalho R. Integrative review: what is it? How to do it? *Eistein* [Internet]. 2010 Jan [cited 2015 Apr 05];8(1):102-6. Available from: http://astresmetodologias.com/material/O_que_e_RIL.pdf

7. RBMFC. Revista Brasileira de Medicina de Família e Comunidade contribui com atualização do DeCS. *Rev Bras Med Fam Comunidade* [Internet]. 2014 Mar [cited 2015 Apr 05]; Available from: <http://www.rbmf.org.br/rbmfc/announcement/view/22>

8. Cucalón JM, Guiu M. The enigma of quaternary prevention in Primary Care. When and when not to do it (presentation of two cases). *Semergen* [Internet]. 2013 Sept [cited 2015 Apr 05]; 39(6):313-15. Available from: http://apps.elsevier.es/watermark/ctl_servlet?_f=10&pidet_articulo=90226257&pidet_usuario=0&pcontactid=&pidet_revista=40&ty=159&accion=L&origen=zonadelectura&web=www.elsevier.es&lan=es&fichero=40v39n06a90226257pdf001.pdf

9. Souza JP, Pileggi-Castro C. On labor and childbirth: the importance of quaternary prevention. *Cad. Saúde Pública* [Internet]. 2014 Dec [cited 2015 Apr 05];30(Sup):S11-S13. Available from: <http://www.scielo.br/pdf/csp/v30s1/0102-311X-csp-30-s1-0011.pdf>

10. Ques AAM, Montoro CH, González GG. Strengths and Threats Regarding the Patient's Safety: Nursing Professionals' Opinion. *Rev. Latino-Am. Enfermagem* [Internet]. 2010 May [cited 2015 Apr 05]; 18(3): 42-9. Available from: http://www.scielo.br/pdf/rlae/v18n3/pt_07.pdf

11. Lobo AO, Rojo VI. Iatrogeniay Prevención Cuaternaria en Saludmental. *Rev Esp Salud Pública* [Internet]. 2011 Nov [cited 2015 Apr 05];85:513-23. Available from: http://www.scielosp.org/pdf/resp/v85n6/02_colaboracion_especial1.pdf

12. Tesser CD. Quaternary Prevention for the humanization of Primary Health Care. *O Mundo da Saúde* [Internet]. 2012 Sep [cited 2015 Apr 05];36(3):416-26. Available from:

http://www.saocamilo-sp.br/pdf/mundo_saude/95/3.pdf

13. Filho MN. Rastreamento em câncer e prevenção quaternária em saúde. *GAIS Informa* [Internet]. 2011 Aug [cited 2015 Apr 05];3(7):1-5. Available from: http://portal.saude.sp.gov.br/resources/ses/perfil/gestor/destaques/gais-informa/gais_jornal_7.pdf

14. De Vito E. Quaternary prevention, a term not yet included in the Medical Subject Heading (MESH). *Medicina (B Aires)* [Internet]. 2013 May [cited 2015 Apr 05]; 73(2):187-90. Available from: <http://www.medicinabuenosaires.com/PMID/23570772.pdf>

15. Joaquim FL, Braga ALS, Andrade M, Marques D, Camacho ACLF. Information system of primary care: an integrative review about employment in family health. *Rev enferm UFPE on line* [Internet]. 2014 Feb [cited 2015 Apr 05];8(2):424-32. Available from: <http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/5055/pdf/4603>

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