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Quaternary prevention: a gaze on medicalization in the practice of family doctors

Prevenção quaternária: um olhar sobre a medicalização na prática dos médicos de família

Prevención cuaternaria: una mirada a la medicalización en la práctica de los médicos de familia

Raquel Vaz Cardoso. Family and Community doctor. Universidade de Brasília (UnB). Brasília, DF, Brasil.
raquelvc.mfc@gmail.com *(Corresponding author)*

Abstract

The medicalization is a complex and widespread social phenomenon which involves different agents and institutions, such as the pharmaceutical and medical industry, governments, health systems, health professionals, and citizens. In this regard, doctors and health professionals play an important role in reproducing and struggling with medicalization, by recognizing that medicine and health care can generate as much harm as benefits. Family doctors have to deal with overmedicalization and its associated phenomena (i.e. overdiagnosis, overtreatment, disease mongering) on a daily basis as they act as gatekeepers of health systems. As the first point of contact, family physicians and their health teams get the demands and social needs brought by individuals and communities under their care, which usually are influenced by the health marketing and an interventionist medical perspective. This article discusses some key concepts of medicalization and its determinants, especially the contributions of biomedical science and its epistemological basis to the phenomenon. It also briefly develops some thoughts on the medicalization, in the Brazilian context. Finally, it analyses the quaternary prevention approach to medicalization which proposes changes in its object and attitude to medical practice in order to avoid unnecessary interventions, thus, protecting patients from the excesses of medicine.

Keywords:
Medicalization
Overmedicalization
Physician-Patient Relations
Quaternary Prevention
Family Medicine

Resumo

A medicalização é um fenômeno social complexo e disseminado no qual estão envolvidos diferentes agentes e instituições, tais como a indústria médica/farmacêutica, governos, profissionais/sistemas de saúde e cidadãos. Por sua vez, médicos e profissionais de saúde desempenham importante papel na reprodução e no enfrentamento da medicalização, haja visto que a medicina e os cuidados em saúde podem gerar tanto danos como benefícios. Médicos de família lidam diariamente com a sobremedicalização e seus fenômenos associados (i.e. sobrediagnóstico, sobretratamento, comercialização de doenças) por desempenharem função-filtro nos sistemas de saúde. Por ser o primeiro ponto de contato, esses profissionais e suas equipes acolhem as demandas e necessidades sociais trazidas pelas pessoas e comunidades sob seus cuidados, que comumente estão influenciadas por uma perspectiva médica intervencionista e pelo marketing da saúde. Este artigo discute alguns conceitos principais da medicalização e seus determinantes, em especial as contribuições da ciência biomédica e suas bases epistemológicas para o fenômeno. Ele também desenvolve, sucintamente, algumas reflexões sobre a medicalização na prática do médico de família e comunidade, no contexto brasileiro. Por fim, analisa o enfoque da prevenção quaternária acerca da medicalização, que propõe mudanças de objeto e de atitude na prática médica, evitando, assim, intervenções desnecessárias e protegendo os pacientes dos excessos da medicina.

Palavras-chave:
Medicalização
Sobremedicalização
Relações Médico-Paciente
Prevenção quaternária
Medicina de Família e Comunidade

Resumen

La medicalización es un fenómeno social complejo y diseminado que involucra a diferentes agentes e instituciones, tales como la industria farmacéutica y médica, los gobiernos, los profesionales/sistemas de salud y los ciudadanos. En este sentido, los médicos y profesionales de la salud desempeñan un papel importante en la reproducción y en el enfrentamiento de la medicalización, dado el hecho de que la medicina y la asistencia sanitaria pueden generar tanto daños como beneficios. Los médicos de familia tienen que lidiar diariamente con la sobremedicalización y sus fenómenos asociados (es decir, el sobrediagnóstico, sobretratamiento, tráfico de enfermedades), ya que desempeñan función-filtro en los sistemas de salud. Como primer punto de contacto, estos profesionales y sus equipos de salud reciben las demandas y necesidades sociales interpuestos por las personas y comunidades bajo su cuidado, que suelen ser influenciados por la comercialización de la salud y una perspectiva médico-intervencionista. Este artículo discute algunos conceptos clave de la medicalización y sus determinantes, en especial las contribuciones de la ciencia biomédica y su base epistemológica para el fenómeno. También desarrolla brevemente algunas reflexiones sobre la medicalización de la práctica diaria de los médicos de familia y comunidad en el contexto brasileño. Por último, se analiza el enfoque de la prevención cuaternaria a la medicalización, que propone cambios en su objeto y en la actitud de la práctica médica con el fin de evitar intervenciones innecesarias, y por lo tanto, proteger a los pacientes de los excesos de la medicina.

Palabras clave:
Medicalización
Sobremedicalización
Relaciones Médico-Paciente
Prevención Cuaternaria
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Introduction

> *A newcomer family in the community (a couple with five to six children/adolescents) sought medical assistance in the health centre, all with the same complaints: "headache, stomach pain and nervousness". This, in advance, caught our attention. The thirteen years old daughter and the twenty years old son were seen by me. A colleague took care of the eight years old boy accompanied by his mother. With the teenage girl, I managed to expand my approach, addressing some of her concerns with no need for drug prescriptions, suffice some advice and guidance. In regard to the young man, my assessment was that he was having a mood problem and "stomach pain". I have explored his food intake pattern, labour and financial issues, family relationship, but nothing remarkable was appointed out by him. So, I ended up prescribing him a proton pump inhibitor (free of charge in our health centre pharmacy), making several dietary and other related orientations. What a surprise when my colleague - who saw the boy accompanied by his mother, complaining the same symptoms of my two patients – told me that they were going hungry. The child spoke as follows: - "I already know all that doctors are telling us to eat every three hours, but at home we only eat twice a day...". Children usually tell the truth. Were the others ashamed to talk about such deprivation even when being asked about it? Did I have the skills required to address such issues? I felt really bad, "I'm treating hunger with omeprazole...". Author's narrative about a medical consultation performed during her specialty training programme.* (Adapted from Cardoso).[1]

To investigate the medicalization in the context of Primary Health Care (PHC) may seem, at first, paying attention to a less significant process in this level of attention and more expressive in hospital and specialised (consultant-based) care. However, as we live in an industrialized, secular, globalized and, according to several authors, medicalized world, as well as PHC is the gateway to the national health systems, we can consider that medicalization is equally (or more) present in this level of attention as it is in others.[2-4]

Indeed, the medicalization process is significant in PHC and, depending on the knowledge, practices, forms of organisation of services and institutions - and the consequent relationships established between people - health professionals and other staff who work in the health field, including family doctors, can medicalize more, or less. It is important to recognize the complexity and multiplicity of available scenarios and that besides the coexistence of medicalization and the demedicalization in the same situation, we may find circumstances where doctors medicalize to demedicalize and vice-versa. The phenomenon and its antithesis are always associated and varying in degrees of prevalence.[5-7]

Excessive use of *hard technologies* such as tests/examinations, medications, procedures - the maximalist medicine - is one of the expressions of medicalization, but not the phenomenon as a whole. It can be based on "social control" (control of people's lives by health institutions and government), on people's dependence of health professionals and services, on people's knowledge expropriation about their own health, on the use of medical technologies to treat psychosocial suffering, among other expressions of this phenomenon, with profound impact on contemporary social setting, generating not only clinical, but also social and cultural iatrogenics.[1,3]

Large part of family doctors realise these dynamics in their daily practice and, although the study of medicalization has arisen in the social sciences in the mid-twentieth century, it is within family medicine and public/collective health that have emerged great contributions in this area.[8-10] Family and Community Medicine (FCM), in particular, has proposed some theoretical models and methods that look for ways to face this process in clinical practice, among which stands out the quaternary prevention.[11,12]

This article aims to discuss the concept of medicalization and some aspects of this phenomenon in primary health care in Brazilian context. Provides a brief analysis of how quaternary prevention perceives the phenomenon and makes some reflections for the transformation of the scenario in the clinical field. It derives from a qualitative study carried out by the author during her master's degree, for which was used a literature review on the topic and a case study with participant observation (in a family health team in a small town in the interior of Brazil) to apprehend some forms of medicalization in Brazilian PHC.[1]

Conceptualizing medicalization

The term Medicalization has arisen and consolidated between the 1960s and 1970s to refer to a social phenomenon emerging with the advent of scientific medicine and the establishment of medical profession/institution and its association with state policies.[3,13-16] The term was a synonym to the expansion of the limits of medicine, "a medical invasion" into the context of everyday life, body and behaviour, through the power achieved by medical corporation over health-disease definition and the intervention on this process. It specially referred to "social control" – enhanced with the birth of social medicine – and to the impacts of biomedicine and its clinical model focused on diseases.[3,17] Currently, medicalization is related to the greater influence of medicine in people's lives, with outstanding importance of agents outside medical profession, such as medical and pharmaceutical industry, healthcare services, mass media, citizens, consumers and the government.[16,18-23]

Therefore, medicalization, a complex social process which may refer either to the phenomenon, as well as to the causes and consequences of it, has multiple meanings. In general, the literature acknowledge the contribution of biomedicine - and its epistemological foundations and praxis - to the genesis of medicalization (Table 1).[3, 24-30]

The characteristics listed in Table 1 show a knowledge-practice with great potential for medicalization. Among them, the concealment of social conflicts and problems (with their consequent individualization and depoliticization) is one of the most questionable aspects of ethical and social justice, subsequent to the *modus operandi* of biomedicine. The "control of the social" is still a relevant process of medicalization, although the medical power and its discourse are diffuse among different agents and institutions in the contemporary world, no longer concentrated in medical institutions and the State.[17,18,26]

In trying to find a unique concept, Peter Conrad, an authority on the subject, presents the medical definition as the central element of medicalization: *"medicalization occurs when a medical frame or definition has been applied to understand or manage a problem"* (p. 211),[31] or moreover, "*a process by which nonmedical problems become defined and treated as medical problems, usually in terms of illnesses or disorders*" (p. 209).[31] These concepts are quite relevant to the medical literature as they refer to the creation of new diseases and the expansion of their limits (e.g. "pre-diseases") in the era of clinical epidemiology, big pharmas and relevant medical classifications such as the *Diagnostic and Statistical Manual of Mental Disorders (DSM)*. These understandings of medicalization are well incorporated by the discussion of *disease mongering*.[32-34]

Table 1. Epistemological basis and characteristics of biomedical praxis that predispose it to medicalize.

Epistemological basis
Positivism.
Biological reductionism.
Production of generalized abstractions about sickness.
Dualistic division between mind and body.
Metaphor of human body as a machine.
Ontological conception of disease.
Disconnection between "illness" and "disease".
Standardization of pathological and normal according to biomedical and quantitative parameters independent of the existence of suffering ("*pathos*", *illness*).
Praxis characteristics
Prioritization of (label) diagnosis to therapy.
Undervaluing the psychosocial dimensions of illness and the singularity of the ailment or illness process.
Assumption of disease abstractions as "real".
Simplification of the clinic, focused on objective and quantifiable parameters ("clinimetrics").
Development of a reductionist therapy (almost restricted to pharmaceutical or behavioural prescriptions).
Reaffirmation of heteronomy and asymmetry in the doctor-patient relationship with enhanced dependence.
Appreciation of *hard technologies* (tests, drugs, procedures) over *soft technologies* (doctor-patient relationship, psychosocial interventions, etc).
Disqualification of illness in the absence of a recognised disease (treating it as syndromes, somatization or denying patients' suffering).
Concealment of psychosocial causation of disease by overemphasizing biological factors

Source: elaborated by the author based on references 3, 24-30.

Nevertheless, there has been increasing concerns about medicalization definition as it refers to a social process that can produce as many benefits as harms. Some authors use the term "overmedicalization" to communicate" an over-expansion of medicine's professional jurisdiction", and an excess of healthcare related to market expansion, such as treatment (and pathologization) of risk factors, behaviours, social suffering, and natural/physiological stages of life (i.e. childbirth, aging and bereavement), in order to generate profit instead of addressing healthcare needs. [3,4(p. 1943),15]

Therefore, *overmedicalization* could also be defined as an excess of exposure to or seeking for health care to the extent that it does not confer any benefit in terms of health and well-being (Gavilán and Jamoulle, 2014, personal communication, see Acknowledgments*). This term is directly related to overscreening, overdiagnosis, overtreatment, overmedication, overprevention and many other neologisms under increasing attention in medical literature. All these terms refer to "clinical issues" of the medicalization phenomenon, and the daily challenges faced by family doctors.

Figure 1 highlights the dimensions of medicalization: conceptual, institutional and interactional;[31] and contain some key features, such as resulting practices, social agents (institutions), epistemological framework of biomedical science, macro-structural and micro determinants (interactional), which co-produce and determine it, acting sometimes as cause, either as consequence.[1,31,35] This combination of elements points to the complexity of medicalization.

According to Conrad and Schneider (1980 apud Conrad, 1992)[31] the conceptual dimension is the use of vocabulary or medical model to define a problem that would not necessarily have an applicable medical treatment. In the institutional dimension, organisations would adopt a medical approach to treat a variety of problems, whereas the interactional dimension occurs in the doctor-patient encounter, "*when a physician defines a problem as medical (i.e. gives a medical diagnosis) or treats a "social" problem with a medical form of treatment."* (p. 211).[31]

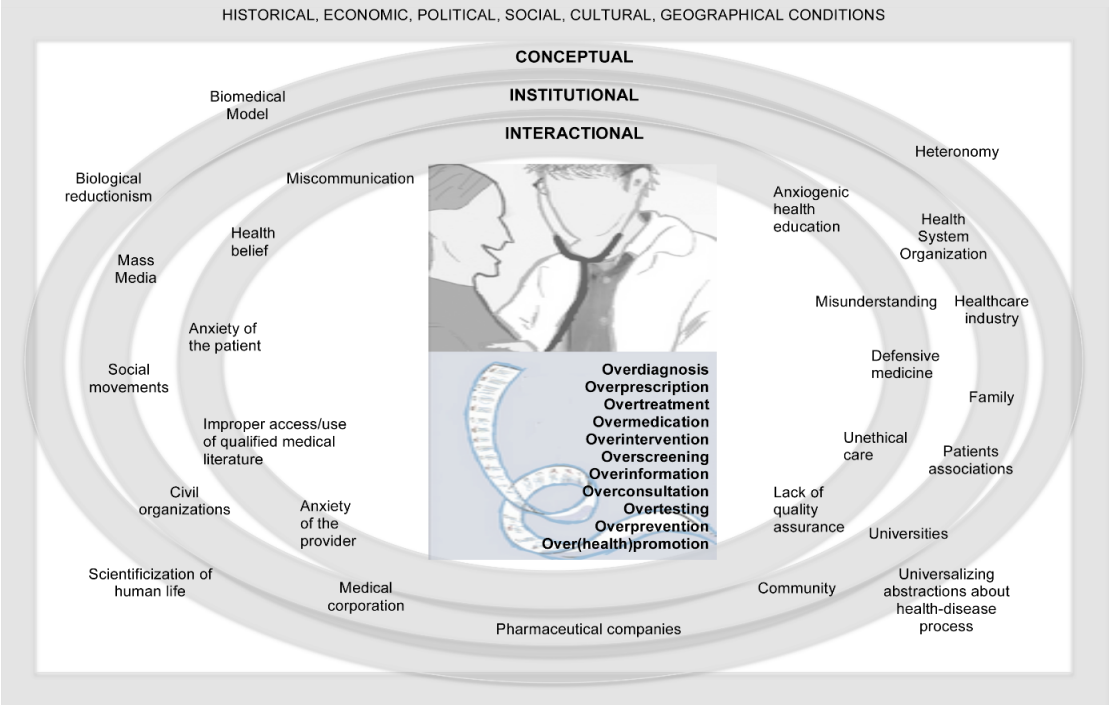

Figure 1. Medicalization dimensions from the perspective of family doctors: the resulting phenomena and their causes/determinants and agents.
Source: developed by the author based on Conrad,[31] Jamoulle,[35] and Cardoso.[1]

Medicalization in the practice of family and community doctors

Although doctors are still important agents in the medicalization process and deal with it daily, medicalization may not be easily perceived, and therefore faced, in PHC clinical practice. In this context, medicalization has been commonly associated with excessive and inappropriate use of medications (prescribed or not) and clinical malpractice (related to ethical violations or insufficient biomedical knowledge) with medicalized people and pharmaceutical industry as its main agents. However, the phenomenon has deeper roots in science itself, being widespread in many levels, institutions and discourses of contemporary society.

Even PHC attributes can either favour the confrontation of medicalization or strengthen it. If the care provided in this level of attention is strictly focused on disease and its biological dimension (and other practice characteristics cited in Table 1), broad access and multiple contacts along one or more episodes of care might lead not only to clinical harms, as well as social and cultural damages. Illich[5] argues that the doctor-patient relationship, and the pastoral care (exhortation of lifestyles, habits and self-care) by itself, already expropriate the knowledge-power of people about their self-care:

> [...] *There is no doubt that most of this care convinces the patients that whatever they themselves have changed in their life-style they owe to you* [the doctor]. *Rather than being healthier, which always means being more autonomous, your client, through your care, becomes more dependent, more a patient. Most general care advances the medicalization of the patient's life.* (p. 464-465)[5]

In the Brazilian National Health System (SUS), family doctors, nurses and community health workers (CHW) are the front-line professionals. This Family Health Strategy (FHS) team has been understood as a dispositive for overcoming the doctor-centred health care (focused on the disease) and for developing practices under the biopsychosocial model.[36] However, it is recognized that the multidisciplinary team as the main strategy is insufficient to address the medicalization. Health professions, in general, share the same epistemological basis of biomedicine, a common social scenario of market interests, institutional settings and management that would favour medicalization, even though considering ethical professional practices.[1,37,38]

In Brazil, the proportion of doctor-people registered (average of 3000 or 4000 people per FHS team) hinders not only the user access to PHC services, but also a comprehensive, coordinated and continued health care. Additionally, non-medical professionals still play a marginal role in substitutive tasks, working predominantly with preventive and surveillance activities.[37,39,40]

The inadequate team dimensioning favours an excessive demand pressure - and the perception of an inexhaustible demand - increasing the medicalization due to the following situations: (1) the access restriction to PHC, which induces people to seek healthcare attention elsewhere in more iatrogenic levels of care, such as emergency rooms, hospitals, specialty clinics and private services; (2) the high pressure for health assistance that favours a reductionist, interventionist and low quality clinical care in PHC, which diverts professionals' attention to acute conditions, risk factors and diseases of epidemiological interest, losing the comprehensiveness and patient-centred approach; and (3) the predominance of preventive actions over curative ones - in Brazilian government official guidelines and many clinical settings - points to the dispute between overmedicalization and undermedicalization and the consequent ethical dilemma of providing attention to healthy people instead of focusing our efforts on caring for the sick ones.[1,41,42] It is important to acknowledge the existence of institutional iatrogenic in this context, secondary to the health system inadequacies. An over-emphasis on inadequate quantitative targets and on fragmented, unethical and anxiogenic screening campaigns can also result in institutional iatrogenesis.[35,43]

Beyond the health system influences, citizens and health professionals act in a dialectic relationship between medicalization and demedicalization. The technological fetish, the impulse/need for consumption and the atmosphere/marketing created by the private sector, foster the dependence, generating unrealistic expectations by patients about the benefits and harms of medical interventions and the demand for access to consumer goods (i.e. consultations, medical procedures).[33,44] This demand for consumption is renamed as autonomy in a complex relationship in which family doctors and the users of health services are deeply intertwined.

Doctors have great difficulty in dealing with patients' expectations and their health needs: "The demands generate anxiety and anguish among health staff either due to its quantity (unmet demand, unhealthier population by living conditions, demand for technological consumption, etc) as for its content (pain, suffering, poverty, violence, madness, etc)" (p. 16).[45] Professionals justify the excessive intervention by the lack of time to address the causes of problems, the inability to intervene in psychosocial causal problems, and also by the imperative to respond to peoples' expectations.[1,12] Indeed, the challenges are great in responding to health needs and demands since:

> [...] *interests and desires cannot be purely fought or ignored in the day-to-day health care* [activities]*, as these can escalate into violence, broken relationship, etc., neither be reinforced or met globally, since this would only further medicalize the situation, resulting in counterproductivity and more dependence.* (p. 142).[30]

The inability of health professionals (even those working in PHC) in dealing with disease complexity is evident, and even more challenging to dialogue with people and their illnesses in contexts of great socio-economic and cultural vulnerability. This requires skills and competencies from doctors and other health professionals that have not been necessarily taught-learned during their professional training.

Quaternary prevention and overmedicalization

The concept of quaternary prevention (P4) was born from a real and practical need of family medicine, especially in dealing with people and their illnesses in situations *"that completely escape any statistical authority and any predictability"* (p. 398).[11] Proposed by the Belgium GP Marc Jamoulle,[11] quaternary prevention relates to the other levels of prevention proposed by Leavell and Clark, and establishes a set of public health efforts aiming to identify people at risk for excessive medicalization (overmedicalization) in order to protect them from "new medical invasions" and to suggest ethically acceptable interventions, stemming from different perspectives and the relation between people (patients) and doctors (Figure 2).[11,46]

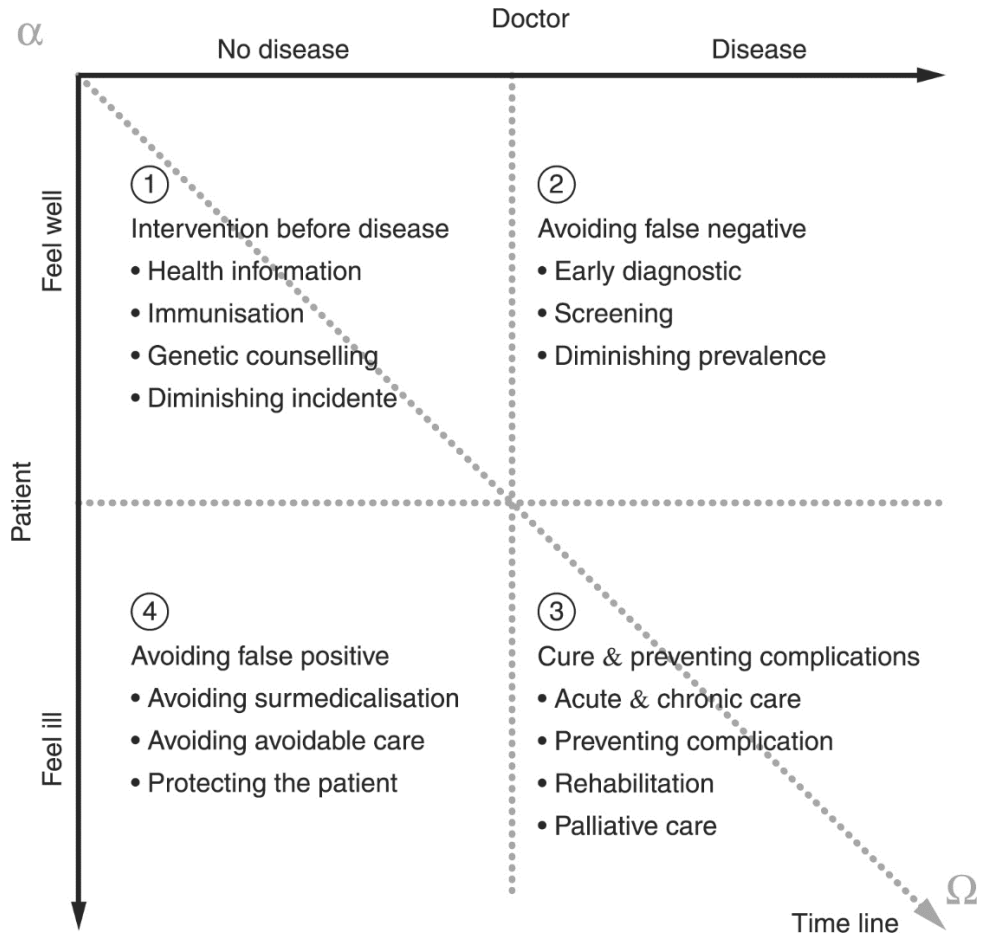

Figure 2. Specification of health activities according to four levels of prevention in the quaternary prevention model. Source: adapted from Jamoulle and Roland.[46]

Quaternary prevention recognizes medicalization in one of its earlier understandings, as "invasion" or "medical imperialism", although its concept and graphical representation in a table 2x2 (Figures 2 and 3) allow for comprehending medicalization in all its complexity, even in its most contemporary expressions that emphasize the importance of a "medical definition". Quaternary prevention also exposes possible outcomes (and harms) of different perceptions of health-disease process in clinical practice, *illness* ("feeling sick") and *disease* ("disease from a medical gaze"), under the risk of disease and its ontologization taking priority over individuals patients and their suffering. This constitutes a central element of the medicalization process.[1] Therefore, P4 identifies the "feeling sick", in the absence of "disease from a medical gaze" as the most susceptible moment for overmedicalization; hence, vulnerable to unnecessary interventions, labels and inappropriate diagnosis, as well as to the medicalization of psychosocial suffering/problems.[30]

Although in its graphic representation the actions of "avoid unnecessary care" seem limited only to quadrant 4, the P4 points to other levels of prevention as responsible for people feeling ill and also for iatrogeny, without, however, ignoring patients' active role in the medicalization process (Figure 3).[35] Quaternary prevention actions should be carried out in different stages of the health-disease process, whereby individuals are at "risk of overmedicalization" at any time of their health care.

Norman and Tesser[47] propose guidelines for P4 operationalization in the practice of family and community doctors. According to the authors, the more the potential for people's suffering is projected into the "future" the more the need for P4 actions, thus indicating a hierarchy of these actions. For instance, they are most needed in primary and secondary prevention levels, exploring future illnesses and risk factors (quadrants 1 and 2 in Figure 2). These actions can also be used in tertiary prevention level, which deals with people with medical conditions ranging from moderate to well-defined

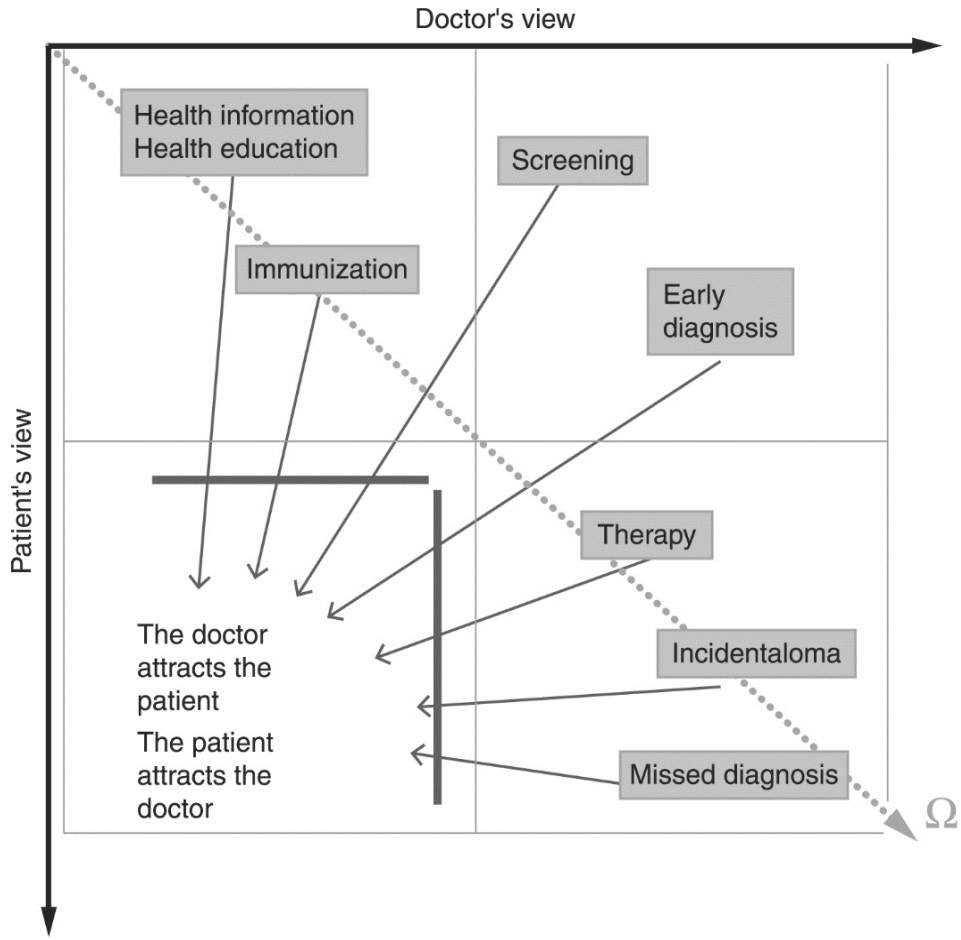

Figure 3. Preventive actions that lead health professionals and users to the scope of quaternary prevention.
Source: adapted from Jamoulle.[35]

in biomedicine (quadrant 3 in Figure 2). However, between these extremes there is an array of clinical conditions with semiological expression of complex and undefined signs/symptoms that also require intense P4 actions (quadrant 4 in Figure 2).[25,47] This analysis points to the differences between "preventive contract" and "curative contract" in the clinical relationship and P4 activities: limiting damage and reducing interventions in preventive actions are compelling ethical duties (prevention tolerates no damage), while curative actions carry a higher damage tolerance threshold, justified by the intention to recover health.[42]

Quaternary prevention also highlights the importance of the doctor-patient relationship by: (a) recognising person's uniqueness and autonomy; (b) valuing a shared decision-making process; (c) adopting a clinical method focused on the person;[10] and (d) developing relational and communicational skills in the clinical encounter, that can result either in medicalization or coproduction of health and autonomy.[12] P4 particularly systematizes actions to challenge the interactional dimension of medicalization, although it also contributes to the recognition and critics to its conceptual and institutional dimensions (Figure 1).

In quaternary prevention it is common the presence of "P4 fighters" (as the P4 enthusiasts define themselves)that emphasize the market's needs and evidence-based medicine data (the latter as an antidote) in the battle against overmedicalization, though, with little attention to clinical relationship. As stated by Jamoulle:

> *There is no difference between the* [socially organised] *movements on the issue of overdiagnosis and selling-sickness* [disease mongering] *and the battle against health gangsters (such as those gangster, banksters,* [and] *drugsters* [TV] *series). To emphasize the approach on "over"* [diagnosis, treatment, etc.] *is really important, and in fact, one of the axes of P4. But I ask you to not forget the soul of P4, which is the patient-doctor relationship. Please consider the axis of the patient* (see acknowledgments to Jamoulle, 2013**).

In fact, the occurrence of medicalization at the "interactional level, derives less from a lack of recognition that there are other factors co-producing illness, than from techniques, knowledge, emotional resources and organisational conditions to deal with it". In other words, P4 set of actions "is less cognitive [...] and more related to the skills, attitudes, and feelings of professionals, as well as to the context of services", that mediate the relationship between doctors and the people under their care (p. 207-208).[1]

Conclusion

The medicalization phenomenon has achieved great attention in family medicine. In this sense, quaternary prevention proposes a series of actions to family and community doctors to "protect the patient of medical excesses" and to prevent themselves of overmedicalizing. Quaternary prevention has taken a lead role as an important movement in medicine that goes beyond the dissemination of medical knowledge and its limits. Its great contribuition lies in repositioning health professionals' practices main object, not focused anymore on disease - its quantification or diagnostic methods - but on individuals and their sufferings/illnesses.

McWhinney[24] emphasizes the protagonist role of family medicine to the necessary changes in science and medical practices, by highlighting its potencies for this transformation, such as: the doctor-patient relationship, the overcoming of mind-body dualism and mechanistic view of life, the attention to the person's singularity, the adoption of complex thought, and the person-centred clinical method.[10] Although a person-centred approach is needed it is insufficient to meet these challenges, since there are other unsolved social needs that cross medical practice, also a social practice.

Family and community doctors are potential agents of medicalization and, therefore, it is necessary to adopt an ethical, reflective, critical and person-centred approach in practice in order to minimize the damage of their actions. Quaternary prevention requires that doctors have a permanent and longitudinal self-assessment that brings to their consciousness the potential biopsychosocial harms that they can cause to patients, families and communities under their care, even if not intentional.[12]

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