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**Articles** 

# Quaternary prevention and medicalisation: inseparable concepts

Prevenção quaternária e medicalização: conceitos inseparáveis (resumo: p. 15) Prevención cuaternaria y medicalización: conceptos inseparables (resumen: p. 15)

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Quaternary Prevention (P4) is an action taken to identify patients at risk of overmedicalisation, to protect them from new medical invasions, and to suggest interventions ethically acceptable. Recently, three European articles have proposed a new definition: "to protect individuals from more harmful than beneficial interventions". The objective is to discuss this proposal critically. We have identified and analysed seven criticisms to P4 original definition. Five are unfounded: (1) Ethically vague; (2) Restricted scope; (3) Creation of an unnecessary step; (4) Focus on medicalisation; (5) Demedicalisation non-scientific based. The remaining two do not justify a new definition: (6) Changing visual representation; (7) Centeredness on Evidence-Based Medicine (EBM). The new proposal reduces the scope of P4 and the professional role. The original definition is robust and incorporates the challenge of social/cultural iatrogeny resulting from overmedicalisation, partially unattainable via FBM.

**Keywords:** Quaternary prevention. Family practice. Medicalisation. Evidence-based medicine. Primary health care.



## Introduction

The iatrogenic potential of clinical and health/preventive interventions have grown with the technological development of biomedicine, drawing more and more attention to it<sup>1</sup>. This concerning phenomenon has prompted European family physicians and general practitioners to propose a new concept and practice aiming to prevent medical harms, called 'quaternary prevention' (P4)<sup>2</sup>. The World Organisation of Family Physicians (WONCA) defines P4 as an action

[...] taken to identify patient at risk of overmedicalisation, to protect him from new medical invasion, and to suggest to him interventions, which are ethically acceptable<sup>2</sup>. (p. 110)

Built in P4 is the concept of overmedicalisation, which is

[...] 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 [...]. This term is directly related to overscreening, overdiagnosis, overtreatment, overmedication, overprevention and many other neologisms under increasing attention in medical literature<sup>3</sup>. (p. 4)

Such issues have gained progressive relevance in recent years, especially overdiagnosis, considered a problem both for public health<sup>4</sup> and primary health care (PHC)<sup>5,6</sup>.

Although the reduction of iatrogeny is not explicitly in WONCA's definition, there is a consensus that this is inherent in P4 definition. This adds an ethical concern to preventive and clinical care within the doctor-patient relationship. The P4 is "aimed more at the doctor than the patient [...] is a new term for an old concept: first, do not harm" (p. 1).

In recent years, European authors have proposed a new definition of P4 that excludes the concept of medicalisation<sup>8-10</sup>, which might have implications to P4's scope in the daily practice of health professionals.

This article revisits the proposed new definition of P4. Firstly, we present the conceptual ideas that underpin the medicalisation and its relationship with overmedicalisation. Secondly, we organise the critics made by European authors to the current P4 definition, as well as to the proposed changes to it. Thirdly, we address each of the criticisms directed towards WONCA's P4 concept, which in turn highlight that the proposed "new" P4 definition is weaker than the original one. Finally, we argue that clarity about the meaning and relevance of the elements, concepts, and phenomena involved in P4 definition is necessary and relevant to its practice in PHC.



#### Medicalisation and overmedicalisation

Social medicalisation, or simply medicalisation, is academically recognised since the 1970s. It consists in expanding the jurisdiction of biomedical knowledge and technologies to issues that were traditionally interpreted and managed outside the remit of health services<sup>11</sup>. Medicalisation carries a great potential of adverse effects and iatrogenesis. Thus, it is intrinsically related to the concept of P4.

The idea of medicalisation, although not mentioned in P4 definition, is clearly implicit in it and is inherent to overmedicalisation such as in overdiagnosis, overtreatment, etc. "All these terms refer to 'clinical issues' of the medicalisation phenomenon, and the daily challenges faced by family doctors" (p. 4). Overmedicalisation is a particular case of medicalisation and has high prevalence in clinical care. It could be understood as an excessive medicalisation that is more harmful than beneficial. Overdiagnosis is the most famous example of overmedicalisation in the literature.

Medicalisation refers to a historical, intricate, complex, and expanding phenomenon initially conceptualised in Europe, but today it has been recognised globally with several social agents involved in it. In theory, medicalisation can be harmful or beneficial, constructed and deconstructed, as in de-pathologising homosexuality. Conrad<sup>11</sup> describes three dimensions of medicalisation: conceptual, institutional, and interactional. In the latter, doctors tend to be protagonists. For example, without realising that the patient's main problem is lack of food (hunger not reported), the physician treats a person complaining of stomach pain with proton pump inhibitor<sup>3</sup>.

The diagnoses and treatments produced by the biomedical approach tend to be reductionists. This approach usually disconnect patients' complaints and symptoms from the social, existential, moral, spiritual, economic, cultural, familial, and psychological context, interpreting them in accordance to a biological body-disease framework (i.e., pathologies, syndromes, dysfunctions, and disorders).

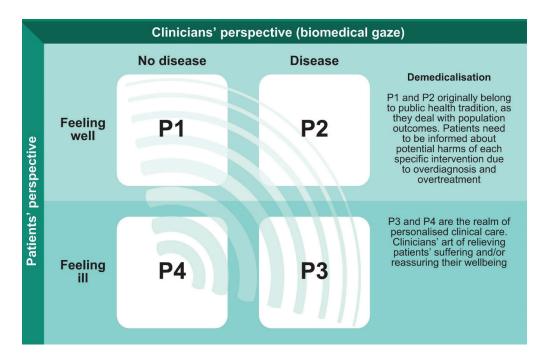
In addition to clinical iatrogenesis, Ivan Illich<sup>12</sup> warned the scientific community that medicalisation comprises iatrogenic effects at cultural and social levels, i.e, reducing individuals' competence to deal autonomously with most of the pains, sufferings, and life's crises. These generate and increase the demand for professional care, which tend to stimulate passive behaviours by patients in face of such sufferings. The cultural and social medicalisation process contributes, therefore, to an imbalance between autonomous and heteronomous care. Unfortunately, the pendulum tends to swing biasedly towards the latter end, transferring the management of many life's problems and situations to health professional interventions. This reflects, in part, the increasing and growing demand by patients for medical care in PHC. If these health demands are medicalised, they feedback a counterproductive vicious circle in the whole system. Hence, it is justifiable and appropriate that health professionals should be aware about their role in demedicalising each patient encounter as much as possible.

In addition, other health professions and other knowledge/practices about health-disease dyad coexist with biomedicine. The concept of medicalisation has been expanded to embrace different branches of health knowledge, including complementary and alternative medicine<sup>13</sup>, regardless of their political and scientific status<sup>14</sup>.



# Critiques to the original definition of P4

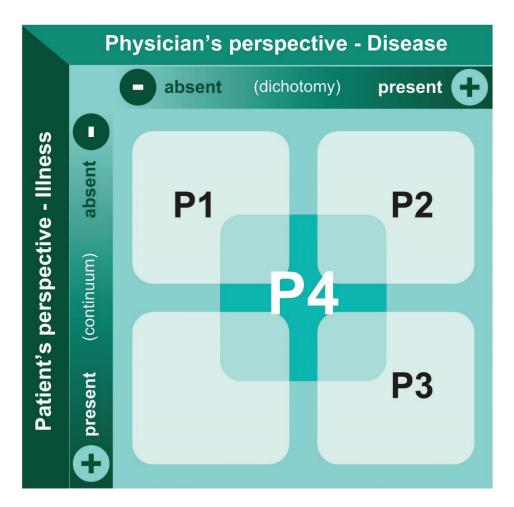
The WONCA's P4 definition embraces three main domains: (a) risk of overmedicalisation; (b) patients' protection; and (c) sound ethical alternatives. This definition is generally illustrated by Marc Jamoulle's insightful 2x2 table figure, which visually reorganises Leavell and Clarke's classic levels of prevention. These levels were originally based on disease evolution over time. However, Jamoulle proposes a new relational perspective to prevention. It focuses on doctor-patient relationship by crossing two perspectives: (1) Doctors' knowledge (columns) and (2) Patients' well-being (rows) (Figure 1). To the original Jamoulle's 2x2 table, we have added a third column on the far right end of Figure 1. It facilitates the understanding of the differences between the bottom and top rows of the 2x2 table. There are distinctions in P4 strategies when dealing with patients who feel unwell and/or have a known disease (bottom row) than those situations where individuals are asymptomatic (top row). The former is the domain of clinical medicine, which requires individualised and crafted approaches to patients' sufferings. The latter is the domain of Public Health, which entails population preventive initiatives such as vaccination campaigns and organised screening programmes. This is in line with Jamoulle's P4 concept<sup>15,16</sup>.



**Figure 1.** Graphic representation of quaternary prevention similar to Marc Jamoulle's. P1= primary prevention; P2= secondary prevention; P3= tertiary prevention; P4= quaternary prevention. Source: elaborated by the authors, based on Jamoulle<sup>7</sup>, Norman and Tesser<sup>16</sup>.



The proposed new P4 definition refers to "action taken to protect individuals (persons/ patients) from medical interventions that are likely to cause more harm than good"<sup>8-10</sup> (p. 3, 108, 614). According to Martins *et al.* <sup>10</sup> the goal of P4 is to reduce overmedicalisation (overdiagnosis and overtreatment) and iatrogenic harms. This resulted in a new graphic representation within which P4 has been displaced from quadrant four to the centre of Jamoulle's 2x2 table. (Figure 2).



**Figure 2.** Proposal for the new graphic representation of quaternary prevention. P1= primary prevention; P2= secondary prevention; P3= tertiary prevention; P4= quaternary prevention Source: elaborated by the authors, based on Brodersen *et al.*<sup>8</sup>, Martins *et al.*<sup>9,10</sup>.

Both definitions focus on clinical practice and patients' safety/protection. However, there are important differences. The proposed new definition, for example, blurs Jamoulle's P4 original emphasis on doctor-patient relationship, by highlighting the benefit/harm ratio via evidence-based medicine (EBM). Additionally, the new proposal eliminates from the definition the reference to overmedicalisation, which remains only as the main 'goal' of  $P4^{9,10}$ . This was crafted in three papers were the authors criticise WONCA's P4 definition (Frame 1).



#### Frame 1. Critiques to the original definition of P4.

#### Brodersen et al.8

- a) "The first part of the definition 'patients at risk of overmedicalisation' creates an unnecessary step for doctors deciding who is at risk of overmedicalization" (p. 3).
- b) "The latter part of WONCA's definition '[...], and to suggest to him interventions, which are ethically acceptable' is too narrow. It really only applies to the bottom left square people who feel sick, but where no biomedical disease can be 'objectified' (measured, visualized, cultivated, etc.)" (p. 3).

#### Martins et al.9

c) "The current definition of quaternary prevention may have some limitations because it excludes patients and medical interventions where a quaternary prevention perspective would be needed and useful to protect patients from harm." (p. 106). "In Jamoulle's elaboration of the model, the field of action of quaternary prevention would be the only situation in which the patient would have illness without having disease" (p. 107).

#### Martins et al.10

- d) "[The new definition] puts forward the idea that preventing medical harm must be present in all aspects of clinical activity (primary, secondary, tertiary, and quaternary prevention) more explicit. That is why in the visual representation of the definition, 'quaternary prevention' was moved from quadrant 4 to the centre of the figure." (p. 614).
- e) "The [new definition] places more emphasis on clinicians [...] it depicts the relationship between quaternary prevention and the evidence-based practice movement [...] the focus is to prevent medical interventions likely to cause more harm than good. This definition incorporates the need for evidence-based clinical practice and implies that each medical intervention must be analysed according to this paradigm" (p. 614).
- f) "Demedicalisation is often not a science-based concept" (p. 614).
- g) "By putting the focus on demedicalisation, we increase the risk of removing some medical interventions that could be more beneficial than harmful for patients, and by doing so we would indeed harm patients" (p. 614).

Source: elaborated by the authors, based on Brodersen et al.8, Martins et al.9,10

#### **Discussion**

Before addressing the critique to WONCA's P4 definition, we briefly contextualise the articles used to elaborate Frame 1. In 2014, Brodersen *et al.*<sup>8</sup>, while discussing the problem of overdiagnosis in cancer screening provide a relatively short paragraph criticising WONCA's P4 concept and suggesting the need for a new P4 definition: statements (a) and (b) in Frame 1. In 2018, Martins *et al.*<sup>9</sup>, in partnership with Brodersen, span a whole article on the proposed new definition of P4 on the European Journal of General Practice. In 2019, the same authors<sup>10</sup> published an article in response to a sentence in an article published in the British Journal of General Practice by Norman and Tesser<sup>16</sup> who have claimed that WONCA's P4 definition "is more comprehensive than the recent initiative to redefine it in terms of the harm/benefit ratio" (p. 29).



# **Imaginary step**

In the imagination of Brodersen *et al.*<sup>8</sup>, the WONCA's P4 definition creates a step within which physicians have to gauge who are at risk of overmedicalisation (critique [a] Frame 1). This stage seems more chimeric than operational, since all patients possess this risk. There is a strong trend in medical practice, especially in prevention, to overmedicalise. However, at no point in the discussions about P4 is there a proposal to create such a "step". The original definition implies that professionals should assess the degree of medicalisation of each clinical encounter to avoid and/or reduce it, if applicable. This is not a "step", but rather embedded in the elaboration of the diagnostic interpretation as an integral part of the shared therapeutic plan with the patient.

# Ethically acceptable alternatives

In a multitude of undifferentiated clinical scenarios (or possible diagnosis) intertwined with preventive activities, it seems that reducing P4 definition to 'harm/benefit ratio' is a narrower approach than to ethically span different potential therapeutic interventions. According to Starfield *et al.*<sup>17</sup>, 40% of clinical encounters in the USA are due to check-ups. In patient centred medicine, family doctors need more than 'harm/benefit ratio' of an intervention to ponder with patients' real concerns about disease screening. Patients are not just worried about probabilities, statistics, and numbers. They have personal experiences leading to anxieties and fear about certain diseases, or even concern about their future health. Some of these are realistic and other not. In addition, those individuals without disease who feel ill (fourth quadrant - Figure 1) are a common event in PHC. This context, which inspired the concept of P4, highlights one of the facets of general practice. Family doctors need to adjust constantly their lens to be less iatrogenic and less medicalising while interpreting patients' complaints and symptoms. It is possible to criticise the original P4 definition due to its excessive generality, as this ethical requirement exists in every clinical decision, not only in P4. Nevertheless, this does not diminish the WONCA's P4 definition. On the contrary, in the face of a general culture and socio-institutional environment that favours biomedical interventions, it seems particularly appropriate to emphasise the ethical dimension in P4 definition.

#### Scope of the definition

The intersection of patients' illness perspective with physician's no disease gaze (fourth quadrant – Figure 1) was just the starting and insightful fact that gave rise to P4 definition. However, Martins *et al.*<sup>10</sup> take this point of intersection to build their critique to WONCA's P4 definition:

[...] in contrast to the original definition, the one we support puts forward the idea that preventing medical harm must be present in all aspects of clinical activity (P1, P2, P3 and P4) more explicit<sup>10</sup>. (p. 614)



It seems that placing emphasis on the balance between harms and benefits of an intervention would "make the [P4] impact stronger" (p. 3). Martins et al. are mistaken since P4 definition is not confined to its graphic representation. The origin of P4 definition might help us clarify this issue. Marc Jamoulle's 1986<sup>18</sup> and 1994<sup>19</sup> first writings do not provide a formal P4 definition. He introduced the current P4 definition to the Hong Kong WONCA Classification Committee in 1995. Since its inception, P4 definition was broad in its scope to accommodate all levels of preventions and clinical activities. It is an umbrella definition. The authors confuse a specific aspect of P4 practice with depth in P4 definition. The former entails balancing the harm/benefit ratio of biomedical interventions. The latter refers to the wide-ranging scope of WONCA's P4 definition that encompasses the cultural, social, relational, and ethical aspects of medicalisation. This implies a profound ethical change of professionals' stance in regards to doctor-patient relationship. Therefore, instead of expanding the scope of P4, the proposed new definition restricts it, making its impact less robust by eliminating the reference to overmedicalisation. The concern with excessive medicalisation is an inherent feature of P4 definition and one of its scientific foundations (further discussed), as acknowledged in almost all P4 scientific literature.

The fourth quadrant that gave birth to P4 also illustrates Jamoulle's generalist thinking. As explained in the previous subsection, general practitioners' clinical activities involve a myriad of undifferentiated presentations within which preventive activities have been blended with clinical care. Thus, P4 concept has always been comprehensive and this has even been acknowledged by Martins *et al.*<sup>9</sup> (p. 109) themselves.

## P4 graphic representation

In Jamoulle's original graphic representation<sup>7</sup> there is a circular arrow that starts on P4 and crosses the other quadrants (P1, P2 and P3), indicating that P4 encompasses all preventive and curative activities. Martins *et al.*<sup>10</sup> criticise this arrow since

[...] it could cause some confusion as it may be interpreted as indicating the sequence of prevention levels starting with quaternary prevention, then continuing to primary, secondary prevention and, finally, tertiary prevention. (p. 614)

On the contrary, the circular arrow is an attempt to show that P4 is not "confined to the quadrant with patients that feel ill and do not have a disease" (p. 614) as have been interpreted by Martins *et al.*<sup>8-10</sup>.

We agree that other forms of illustration might have solved P4 inclusiveness to other preventive and clinical activities in a better way. For instance, the static circular arrow in Jamoulle's original graphic representation has been replaced by the "ripple effect" in Figure 1. This is an effort to better illustrate that P4 includes other preventive and curative activities in a non-sequential fashion. Regardless of the quality of the new visual representation proposed by Brodersen *et al.*<sup>8</sup> and Martins *et al.*<sup>9,10</sup>, the limits of the original figure are not an argument or a reason for a new P4 definition. In addition, Figure 2 has also problems. For example, it leaves a void in P4's insightful origin (fourth quadrant), which was used to indicate a special concern for those people who feel unwell,



but have no disease. The fourth quadrant works as a sort of "red-flag" of unnecessary medicalisation and iatrogenesis in these clinical situations. We acknowledge that every clinical encounter poses some risk of medicalisation and iatrogenic effects. Nonetheless, the fourth quadrant highlights those individuals who are particularly susceptible to overmedicalisation and iatrogenesis. This includes those individuals presenting with mental health problems.

Furthermore, the new graphic representation of P4 (Figure 2) obscures differences in the top and bottom rows of the original P4 framework (Figure 1). The top row situations (P1 and P2) are more involved with the public health tradition and generally concern large-scale iatrogenic harm, although they are also important in individual care. For instance, organised screening programmes carry the potential of overdiagnosis and overtreatment to large number of healthy individuals. The bottom row is the illness context, which requires the art of clinical and patient-centred care<sup>16</sup>. There are important bioethical requirements and differences between preventive initiatives and clinical care. Clinicians' attitudes should change when dealing with people who are well (P1 and P2) and those who feel ill or have a known disease (P4 and P3). The former requires evidence of great net benefit and minimal harms of the preventive intervention via EBM paradigm. In this context, the bioethics of non-maleficence is of paramount importance; the latter needs individualised and crafted use of the available biomedical evidence, clinical reasoning, and the art of care to alleviate patients' suffering. In this case, the bioethics of beneficence should prevail<sup>20</sup>. Therefore, the rigour to which EBM paradigm is applied can vary greatly depending on the quadrants of Jamoulle's 2x2 table and the clinical context. The original P4 definition makes it easier to recognise these differences and to develop clinical management strategies, as well as specific research agendas for them. According to the original definition of P4, such nuances in clinical situations require specific knowledge and techniques to minimise harms and de-medicalise as much as possible. These potentials of the original graphic representation of P4 are strengths that should not be overlooked.

#### The role of Evidence-Based Medicine

Martins *et al.*<sup>9,10</sup> believe that the proposed new definition is superior because it depicts the relationship between P4 and evidence-based practice movement. However, the EBM paradigm adds nothing to what P4 entails, as all health interventions should be based on the best available evidence. Reducing P4 to harm/benefit ratio via EBM seems too simplistic. It sounds as an appeal to apply EBM more often, which may be justifiable, given that not all health services are grounded on the EBM best practice model. We agree that EBM is a powerful tool for clinical decision-making; however, this does not lead to a change in P4 definition. In contrast, WONCA's P4 definition surpasses EBM model by adding the complexity of social and cultural iatrogenic harm derived from an increased medicalised social context, largely unattainable by EBM paradigm. The growing and problematic use of psychotropic drugs in contemporary societies epitomises this fact<sup>21</sup>.



Additionally, EBM is not a neutral phenomenon, but also a socially constructed approach to authority over medical knowledge<sup>22</sup>. EBM has transferred a substantial part of clinicians' power to experts on EBM such as reviewers, focal specialists, and epidemiologists linked to institutions, task forces, expert committees, and scientific journals. These groups are susceptible to political and economic influences. Unfortunately, there are vested interests in biomedical research and its agenda is loaded with values<sup>23</sup>. This has generated crises in the EBM movement<sup>24</sup>. Moreover, the artificial single-disease scenarios created by randomised controlled trials usually exclude the complex and multimorbid patients, as well as the elderly. In complex cases, chronic diseases, and medically unexplained symptoms, polypharmacy tends to be the norm. They need a careful and individualised assessment, in which EBM is necessary but insufficient. The fact that there are situations in which the benefit of the intervention outweighs the potential harms (clinical, social, and cultural iatrogeny) does not diminish the relevance of maintaining overmedicalisation as one of the reference points of P4 definition. EBM is just one more tool. Even Ivan Ilich<sup>12</sup> critically applied the available scientific evidence at his time to discuss benefits and harms of medical interventions. The author has used this approach in the first part of his classic book on medicalisation, focused on clinical iatrogenesis, to support his ideas. Thus, the proponents of P4 new definition are misleading to state that P4 is more than demedicalisation. As we have already said, the proposed change to P4 concept reduces its scope by eliminating the meaning of overmedicalisation from WONCA's P4 definition.

# Scientificity of medicalisation

The statement that medicalisation (or demedicalisation) has no scientific basis (Frame 1) is empirically and academically refutable. Multiple aspects of medicalisation have been discussed for decades and investigated by authors such as Foucault<sup>25</sup>, Zola<sup>26</sup>, Szaz<sup>27</sup>, Illich<sup>12</sup>, Skrabanek<sup>28</sup>, Rose<sup>29</sup>, Conrad<sup>11</sup> and Clarke *et al.*<sup>30</sup>. Therefore, medicalisation is an important and scientifically well-established subject. Illich<sup>12</sup> pioneered the reasons why medicalisation should be avoided as much as possible. He analysed three types of iatrogenesis: clinical, cultural and social. Medicalisation and its three types of iatrogeny act as a disciplinary biotechnological dispositive. This can lead to a cultural and psychological impoverishment in people's behaviour in managing their sufferings, pains, and life cycle's normative crises. Thus, medicalisation creates a snowball effect of illusory expectations both in professionals and patients alike about medical interventions, overloading primary health care services with check-ups requests and, probably, unnecessary clinical visits.

Although researches on medicalisation may be more often found in other realms of scientific knowledge as in Sociology, Anthropology, History, Philosophy, and Ethics, this does not mean lack of scientific basis. Studies on medicalisation span from mental health, sexuality, risk factors, underuse of medical resources, manipulation and spurious interpretations of scientific evidence, creation of diseases, chronicity and catastrophisation of common problems (e.g. low back pain, etc.), as well as over-labelling of medically unexplained symptoms. Countless are the themes in which excessive medicalisation and iatrogenesis occur in the daily practice of family physicians.



#### Focus on demedicalisation

Martins *et al.*<sup>10</sup> attribute to Norman and Tesser<sup>16</sup> the idea that de-medicalisation would be the "main characteristic of P4" (p. 614). Decades ago, Ivan Illich discussed medicalisation in primary care at the Royal College of General Practitioners<sup>31</sup>. Norman and Tesser just used Illich's ideas to introduce the subject of P4 in the British Journal of General Practice as Illich held a paradoxical belief that family doctors could contribute to demedicalisation. These authors have not stated or implied that demedicalisation is the main feature of P4.

P4 demands a contextualised patient-centred medicine to enhance patients' values and autonomy. If on the one hand, WONCA's P4 definition does not prioritise demedicalisation, on the other hand by keeping overmedicalisation within its definition, broadens health professional's gaze. This does not mean depriving patients of good medical interventions. The complexities in assessing the harm/benefit ratio of health interventions require a systematised knowledge via EBM. However, EBM is not enough for the realisation of P4, since it disregards much of the social and cultural iatrogeny resulting from the current excessive medicalisation in contemporary societies.

WONCA's P4 definition seen as a process of de-medicalisation may sound as an unrealistic approach, as being medicalised is an essential aspect of what constitutes the contemporary urbanised human being in the Western world. Since the 18<sup>th</sup> century, biomedicine has played a key role in the politics' of life itself. Human beings have become objects of scientific research<sup>29</sup>. From birth to grave, biomedicine has contributed to organising the way we live: modelling, supervising, controlling, disciplining and producing the "homo medicandus"<sup>12</sup>. Thus, it may seem logical to reduce P4 definition to a binary thought of net harm/benefit ratio for biomedical interventions. This would be more in line with the positivist tradition of biomedicine, which is the basis for structuring EBM<sup>32</sup>. However, the focus on individualised and contextualised type of practice in PHC makes EBM relevant, but insufficient for delivering increasingly necessary personalised medical care<sup>32</sup>. Thus, P4 involves avoiding overmedicalisation or excessive medicalisation, but it fundamentally points to the need for deep reflection on the doctor-patient relationship. This is essential to an improvement on physicians' ethical and attitudinal standard.

# Conclusion

The interest in P4 is gradually growing. In 2016, the "Special Interest Group: Quaternary Prevention & Overmedicalisation"<sup>33</sup> was created within WONCA. The name of the group highlights that overmedicalisation is already in its title, thus, considering it as an essential aspect of P4 concept. To imagine P4 purified from the complex discussion of overmedicalisation and the ethical challenges of the doctor-patient relationship as an improvement of its definition seems to be a backfire, a remedy worse than the disease<sup>34</sup>. If the assessment of the degree of medicalisation in each clinical encounter requires a tailored approach to patients' context, this does not indicate a lack of scientific basis of medicalisation nor does it support its elimination from WONCA's P4 definition. On the contrary, this indicates the need for critical thinking and deep



ethics apprehension by health professionals with the doctor-patient relationship at the centre of P4. Improvements in P4 initiatives require studies that can contribute to its operationalisation in clinical practice. This might facilitate recognition and better management of situations and contexts within which there are great potential of iatrogenic harm and overmedicalisation.

#### Authors' contributions

Charles Dalcanale Tesser conceived and wrote the first draft and participated in the successive versions of the article. Armando Henrique Norman actively participated in the critical review and writing of the successive versions, leading the elaboration of the figures. Both approved the final version.

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#### Conflict of interest

The authors have no conflict of interest to declare.

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Prevenção Quaternária (P4) é a ação de identificar pacientes em risco de sobremedicalização, para protegê-los de novas invasões médicas e sugerir-lhes intervenções eticamente aceitáveis. Recentemente, três artigos europeus propuseram uma nova definição: "proteger indivíduos de intervenções mais danosas que benéficas". O objetivo é discutir criticamente essa proposta. Sete críticas à definição original foram identificadas e analisadas. Cinco são improcedentes: (1) Eticamente vaga; (2) Escopo restrito; (3) Cria etapa desnecessária; (4) Focalização na medicalização; (5) Desmedicalização sem base científica. As remanescentes não justificam uma nova definição: (6) Mudança na representação visual; (7) Foco na Medicina Baseada em Evidências (MBE). A nova proposta reduz o escopo da P4 e o protagonismo do profissional. A definição original é robusta e desafia a evitar a iatrogenia social/cultural decorrente da sobremedicalização, parcialmente inapreensível via MBE.

Palavras-chave: Prevenção quaternária. Medicina de família e comunidade. Medicalização. Medicina baseada em evidência. Atenção primária à saúde.

Prevención Cuaternaria (P4) es la acción de identificar pacientes en riesgo de sobremedicalización, para protegerlos de nuevas invasiones médicas y sugerirles intervenciones éticamente aceptables. Recientemente, tres artículos europeos propusieron una nueva definición: "proteger a los individuos de intervenciones más dañosas que benéficas". El objetivo es discutir críticamente esa propuesta. Se identificaron y analizaron siete críticas a la definición original. Cinco son improcedentes: (1) Éticamente vaga; (2) Alcance restringido; (3) Crea etapa innecesaria; (4) Enfoque en la medicalización; (5) Desmedicalización sin base científica. Las restantes no justifican una nueva definición: (6) Cambio en la representación visual; (7) Enfoque en la Medicina Basada en Evidencias (MBE). La nueva propuesta reduce el alcance de la P4 y el protagonismo del profesional. La definición original es robusta y desafía la iatrogenia social/cultural proveniente de la sobremedicalización, parcialmente inalcanzable vía la MBE.

Palabras clave: Prevención cuaternaria. Medicina de familia y comunidad. Medicalización. Medicina basada en evidencias. Atención primaria de la salud.