

## What are the topics of definition for multimorbidity recognized in polish general practice?

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#### ▶ To cite this version:

Alexandra Modorcea Mitran. What are the topics of definition for multimorbidity recognized in polish general practice? Human health and pathology. 2014. dumas-01121199

#### HAL Id: dumas-01121199 https://dumas.ccsd.cnrs.fr/dumas-01121199

Submitted on 27 Feb 2015

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# UNIVERSITÉ de BRETAGNE OCCIDENTALE FACULTÉ DE MÉDECINE

ANNÉE 2014  $N^{\circ}$ 

#### THÈSE D'EXERCICE

## Pour le

### DOCTORAT DE MÉDECINE DE SPÉCIALITÉ MÉDECINE GÉNÉRALE

Par

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PRÉSENTÉE ET SOUTENUE PUBLIQUEMENT LE

Jeudi 18 Décembre 2014

What are the Topics of Definition for Multimorbidity Recognized in Polish General Practice?

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#### Remerciements

Je remercie les membres de mon jury :

#### Monsieur le Professeur LE RESTE Jean Yves

Médecin Généraliste à Lanmeur

Maitre de stage

Professeur des universités à la faculté de médecine de Brest

Pour m'avoir fait l'honneur de présider cette thèse et pour tout le soutien qu'il m'a offert au long du travail de recherche réalisé.

Soyez assuré de ma profonde reconnaissance.

#### **Monsieur le Docteur NABBE Patrice**

Médecin Généraliste à Plounéour-Trez

Maître de stage

Maître de conférences associé à la faculté de médecine de Brest

Pour m'avoir fait l'honneur d'accepter d'être membre du jury pour cette thèse

Soyez assuré de ma reconnaissance et de tout mon respect.

#### Monsieur le Chef de Clinique des Universités DERRIENIC Jérémy

Chef de clinique Assistant auprès de DUMG de la faculté de médecine de Brest

Pour m'avoir fait l'honneur de juger cette thèse.

Soyez assuré de ma profonde reconnaissance.

Merci à mon mari de m'avoir soutenu et accompagné tout au long de cette aventure.

Merci à ma famille et particulièrement à mes parents pour avoir investi beaucoup d'énergie et de ressources tout au long de mes études.

A tous mes amis pour leurs soutiens et leurs encouragements.

#### Résumé

Introduction: L'organisation mondiale de la santé définit la multimorbidité par l'association d'au moins deux conditions médicales chroniques chez la même personne. L'European General Practice Research Network (EGPRN) a établi une nouvelle définition qui a été ensuite traduite en 10 langues européennes. La Pologne était un des pays participants. L'objectif de cette étude était d'évaluer quels étaient les critères de multimorbidité reconnus par les médecins généralistes polonais afin de savoir s'ils différaient de ceux de la définition académique.

*Méthode*: Onze entretiens individuels semi-dirigés ont intégré des médecins généralistes polonais. Le recueil des données respectait les critères de variation maximale des échantillons et de saturation des données. Un codage ouvert, puis un codage axial et thématique a été réalisé afin de pouvoir identifier les critères de multimorbidité pour les médecins généralistes polonais. La définition académique de la multimorbidité (traduite en Polonais) a été utilisée comme modèle pour l'analyse en théorie fondée.

**Résultats**: 501 codes sont ressortis de 11 entretiens individuels. La totalité des thèmes proposée par EGPRN a été retrouvée. Deux nouveaux thèmes étaient identifiés : l'expertise du médecin généraliste et la relation médecin-patient.

**Discussion**: Tous les thèmes intégrés dans la définition de la multimorbidité ont été identifiés par les médecins généralistes polonais. Deux nouveaux thèmes se sont ajoutés. La définition est étroitement liée aux soins primaires et elle peut trouver son utilité dans les soins de longue durée.

#### **Abstract:**

*Introduction:* Multimorbidity is defined according to the World Health Organization as the occurrence of two or more chronic conditions in one individual. The European General Practice Research Network (EGPRN) designed a new definition of multimorbidity, which was translated into 10 European languages. Polish is one of the participant countries. The aim of this study was to ensure that the definition is clear and useful. The research question was: What are the topics for multimorbidity recognized in Polish general practice?

**Method:** Eleven semi-structured interviews with Polish general practitioners (GPs) were carried out. Data collection proceeded until saturation was reached. An open, axial and thematic coding was done in order to identify the criteria of multimorbidity for GPs. The multimorbidity academic definition (translated into polish language) was the model to perform the analysis using a grounded theory framework.

**Results:** 501 codes were extracted after 11 interviews. All the themes proposed by the EGPRN's definition were identified. Two new themes regarding GPs were identified: GP's expertise and Doctor-patient relationship dynamic.

*Conclusion:* All the definition themes have been recognized by the Polish GPs. Two new themes appeared. The definition is closely related to primary care and could be useful in Long Term Care.

#### 1.Introduction

The concept of multimorbidity was published for the very first time in a German publication. It was an addition to the concept of comorbidity. Feinstein defined comorbidity as "any distinct additional clinical entity that has existed or may occur during the clinical course of a patient who has the index disease under study" [1]. In 1990 the concept became internationally recognized through research [2]. The progress of modern medicine has substantially increased life expectancy and improved the outcome of previously fatal disease. As a consequence, chronic medical conditions and multimorbidity are increasing.

Today, multimorbidity is turning into a major medical issue for both, individuals and health care providers. Multimorbidity has been defined by the World Health Organisation (WHO) as the co-existence of two or more chronic diseases [3] where one is not necessarily more central than the others [4-7]. This definition becomes simplistic and inadequate [8]. Because there is a lack of agreement on definitions of complexity and not all current definitions include non-medical dimensions, this term is considered challenging. A more holistic definition is required.

For that, in 2012, a research team, including 8 national groups (Belgian, French, German, Greek, Italian, Dutch, Polish, and Spanish), all active within the EGPRN, defined multimorbidity in an academic way: *Multimorbidity is defined as any combination of chronic disease with at least another disease (acute or chronic) or a bio psychosocial factor (associated or not) or somatic factor. Bio psychosocial factor, risk factor, social network, burden of diseases, health care consumption and patient's coping strategies may function as modifier. Multimorbidity may modify the health outcomes and lead to an increased disability or a decreased quality of life or frailty [9], [10]. This new definition helps general practitioners (GPs) to identify multimorbid patients [9]. Understanding how to manage care and design the health system for patients with multimorbidity may lead to improvements in quality of life (QOL), utilization of healthcare, safety, and mortality [11].* 

The simultaneous occurrence of various health problems in a given individual, which is defined as multimorbidity, has become the norm rather than the exception [12, 13]. A review conducted by Marengoni showed that the prevalence of multimorbidity in the elderly population is as high as 98% [14]. However, this phenomenon is not confined to elderly populations; its prevalence is also higher than expected for younger age groups and for both sexes [12, 15].

Multimorbidity has extraordinary importance not only for the general population but also for healthcare systems. It has been shown to be associated with increased mortality [16], poor functional status [17], lower quality of life [18], overloaded care, especially at the primary care level [19] but also in the emergency room [20], and the greater use of specialized care [21]. Patients with multimorbidity account for most consultations in primary care [22]; they present more intercurrent morbidity in doctor

visits than patients with single diseases [23], and GPs deal with the majority of these 'additional' patient visits [24].

Lately multimorbidity became a central item for research. Poland is one of the eight participating countries at the European research. In Poland, after the Second World War, primary care was delivered by a wide range of specialists. The basis for GP practice in the new reformed system was created in the years 1993–1994 and finally introduced in 1999 and doctors became self-employed. Polish primary care is still under development [25]. The population is registered with a single GP which provides a new opportunity for both systematic and opportunistic health promotion [25].

Once having defined multimorbidity, and translated the definition into each of the languages of the national groups, qualitative research was planned. The aim of this paper was to ensure that the definition is clear and useful for Polish GPs. The research question is: What are the topics for multimorbidity recognized in Polish general practice?

#### 2. Method

#### Study design and participants

Employing a qualitative research design a study with Polish GPs was performed in order to explore the full range of meaning of the concept of multimorbidity for GPs. New topics about GP's multimorbidity definition and the added value, of the concept for Polish GPs was also researched. The multimorbidity academic definition (translated into polish language) was the model to perform the analysis in a deductive way.

Semi-structured interviews with Polish GPs were carried out. An interview guide is used to cover items addressing the research question (Table 1). Its construction was based on discussions in the research team and a test session with junior researchers and residents in the university department of general practice. Member checking to improve validity was performed informally during focus group sessions [26]. Participants were recruited among GPs through telephone contact. All GPs consented to participate and anonymity and confidentiality were ensured. During the interviews the interviewer puts himself in a listening strategy and he took notes. When the interviewees stopped talking, the interviewer referred to the information he had gained so far and he stimulated the interviewees to go deeply into details. Also, external open-ended questions, formulated prior to the interview, were asked [27]. All interviews were audio taped and transcribed verbatim. The interviewees had the possibility to read the verbatim and confirm it. The aim of clustering together the interviews was triangulation [28, 29] to obtain the GP's different points of view.

#### Data analysis

The interviews were carried out until data saturation was reached. Data saturation refers to the point at which additional interviews do not provide any new insights into the topic [30]. Stepwise sampling was performed [31], as in qualitative research, sampling, data collection and analysis typically occur in an iterative process.

To analyze data a phenomenological perspective was applied [28], using a grounded theory framework [30]. Firstly, open coding, to conceptualize the data. Codes was performed and then connected in an axial coding phase. At the highest level of abstraction a selective coding was achieved, in which the core data led to additional, related coding.

The first level multimorbidity codebooks was done in native language. Then each code was related to one or several identical concepts in the verbatim. The Polish team translated that level of coding and sent it to the French team as their first coding book. Consensus between the French and the Polish teams and validation of codes were achieved via mail. During the meeting the final coding book was finalized and validated. Thematic coding was confronted with the definition of multimorbidity which

was used as concept maps. The concept maps are tools that allow graphical representation of concepts and their relationships by a connecting line [32].

Table 1: Interview Guide

Interview Guide					
1 <sup>st</sup> Question	We have described what multimorbidity definition is. Could you describe one case of a multimorbid patient that comes from your practice?				
2 <sup>nd</sup> Question	Do patients need peculiar management?				
3 <sup>rd</sup> Question	How do you identify these patients?				
4 <sup>th</sup> Question	How do you feel these patients?				
5 <sup>th</sup> Question	These patients are difficult to spot or locate. What additional means could help you to do so?				

#### 3. Results

#### Sample description

Field work took place in July 2012 in Poland. Eleven Polish GPs were interviewed. The researchers presented themselves at the appointment. A purposive sampling strategy was applied to ensure heterogeneity in characteristics such as age, sex, and urbanization among the participants.

Of all 11 interviewed GPs 8 were female and 3 male. The mean age of the interviewed was 44.5 years (range 32-58 years). Characteristics of the participants are presented in <u>Table 2</u>.

Table 2

	Characteristics	of the 11 participating GPs		
Sex				
Male		3		
Female		8		
Practice type				
Single		3		
Duo or group		8		
Rural area		1		
Urbanised rural area		3		
Urban area		7		
Mean age, years		44.5		
(range)		(32-58)		
Mean experience as GP, years	S	8		
(range)		(1-15)		

#### **Presentation of results**

After eleven interviews data saturation was reached. Five hundred and one codes were extracted. Three hundred and eighty-one codes were allocated to the 11<sup>th</sup> existent themes (listed in <u>Table 3</u>). All the themes integrated in the academic definition were found in the verbatim.

Table 3: Thematic and axial coding of the results corresponding to the academic definition

Academic themes	Axial Codes		
1. Chronic disease	Chronic condition/symptoms signs		
	complaints		
	Chronic disease		
	Complexity characteristics of chronic		
	disease		
	Acute disease		
2. Acute disease	Reaction to severe stress and acute		
	disorders		
	Demographic risk factor		
	Lifestyle		
3. Biopsychosocial factors and somatic risk factors	Patient's beliefs/expectations/culture		
	Psychological risk factor		
	Psychosocial risk factor		
	Socio-demographic characteristics		
	Somatic risk factor		
	(Behavioral and psychological) coping		
4. Coping	strategies		
	Patient's basic compliance		
5. Burden of diseases	Disease comorbidity		
	Disease complication		
6. Health care consumption	(Multidisciplinary) disease management		
	Cost of care		
	Health care		
	Health care policy		
	Health care services		
	Health services/setting/treatment		
	Malpractice		
	Management		
	Medical history		
	Medical procedure		
	Pain		
	Polypharmacy (including polymedicatio		
	Prevention/education/detection		
	Symptoms/signs/complaints (not pain)		
	Treatment		
	Use of caregivers		
7. Disability	Functional impairments		
8. Quality of life	Health status		
	Impairment implications		
9. Frailty	Frailty		
10. Social network	Dependence on the network		
	Family coping strategies		
	Social isolation		
	Support from the network		
11. Health outcomes	Classification of morbidity statistics		
	Medical research, epidemiology		
	Health outcome		

One hundred and twenty codes were allocated to the two new themes and their axial codes - Table 4.

Table 4: New themes and axial codes

Academic Themes	Axial Codes		
	Comprehensive approach		
	Holistic approach		
FP's expertise	Intuition/gut feeling		
	Person centered care		
	Primary care management		
	Specific problem solving skills		
	Communication challenge		
Patient-doctor relationship dynamics	GP's and patient's experience		

All themes and codes proposed by the multimorbidity academic definition and the new themes and codes found in this study are detailed below.

#### 1. <u>Chronic disease</u>

<u>Chronic condition/symptoms signs complaints</u> – those are represented by the "sleep problems".

<u>Chronic diseases</u> are represented by conditions seen in general practice: "polymetabolic syndrome", "hypertension", "diabetic polyneuropathy, emphysema".

<u>Psychosomatic diseases</u> – "anxiety and depressive disorders", "The main disorders are depressive disorders and a lot of accompanying symptoms in a mental sense".

<u>Complexity characteristics of chronic disease</u> tally with alcoholic addiction "an alcohol addict", and "multiple pathology, many diseases".

#### 2. Acute disease

<u>Acute disease</u> refers to "urinary tract infection", "stroke disorders".

<u>Reaction to severe stress and acute disorders</u> – mainly hypochondria "hypochondria: she treats diseases seriously".

#### 3. <u>Bio-psycho-social factors and somatic risk factor</u>

<u>Demographic risk factor</u> – the age span was mentioned "a young woman", "elderly patients" but also "middle age".

<u>Lifestyle</u> - Inactivity "unoccupied: all her days she spends at the window" or "bad lifestyle".

<u>Patient's beliefs/ expectations/ culture</u> - Mainly mentioned: "expectation of additional tests", "expectation of referrals", and "(the patients) want someone to confide in them".

<u>Psychological risk factor</u> – "low mood", "stress", "withdrawn patient" were named.

<u>Psychosocial risk factor</u> – the economic situation and family environment were found as risk factors: "interrelation of many diseases against the socio-economic-situational backdrop", "unemployment can be a factor in causing many conditions", "the sick in the family".

<u>Socio-demographic characteristics</u> – old age "age, an elderly woman".

<u>Somatic risk factors</u> - somatic disorders "more somatic problems".

#### 4. Coping

(<u>Behavioral and psychological</u>) <u>coping strategies</u> – those aspects were found: "Mothers often project their own anxiety onto their children", "If they are over stimulated, these people are simply gone and do something", "visit as a therapy". Also the risk behaviors were found: "drinking family members".

<u>Patient's basic compliance</u> – "undisciplined patient", "no diet", "lack of exercise".

#### 5. <u>Burden of diseases</u>

<u>Disease complication</u> – it was the consequences of multimorbidity: "in multimorbidity there's some impotence", "additional depression".

<u>Disease comorbidity</u> – "several diagnoses", "additional diseases".

#### 6. Healthcare consumption

(<u>Multidisciplinary</u>)Disease management – "bad cooperation with specialists".

<u>Cost of care</u> – mainly expensive cost of care: "cost expansion economically the patient is expensive", "cost expansion: greater financial outlays".

*Health care* – "not for money".

<u>Health care policy</u> – the lack of solution of the health care policy was mentioned: "there's lack of screening tests", "the need of contact with healthcare system".

<u>Healthcare services</u> – consists of visits: "I meet (these patients) more often than othersevery 2 or 3 weeks", "time-consuming: longer time of the visits".

<u>Health services/setting/treatment</u> – extra-examinations, the visits of specialists and medicines were included: "a multidisciplinary approach", "they look for help in different places and are left alone".

<u>Malpractice</u> – "difficulty of diagnosis".

<u>Management</u> – management difficulties for GPs were found: "up to date practice for those patients: good documentation", "I've learned how to manage them".

<u>Medical history</u> – the importance and complexity of medical history of the patient: "the interview is the most important".

<u>Medical procedure</u> – all complementary investigations, and the need for thinking about their utility for the patient were mentioned: "extra tests", "need of psychologist", "no improvement no additional examinations".

<u>Pain</u> – follow up: "mostly (they feel) pain".

<u>Polypharmacy</u> – heavy treatments are mentioned: "they are fed up with pharmacotherapy", "ten medicaments".

<u>Prevention/education/detection</u> – these notions were discussed: "difficulty of diagnosing patients unwilling to fill in such questionnaires".

<u>Symptoms/signs/complaints</u> - "complain about old age".

<u>Treatment</u> – non drug or drug treatment: "is not only pharmacotherapy", "temporary application of medicines".

<u>Use of caregivers</u> – the frequency of consultations: "frequent visit at the doctor's", "they used every opportunity to visit other doctors", the implication of other specialists: "collaboration with a psychologist".

#### 7. <u>Disability</u>

<u>Impairments</u> – mainly functional impairments as a consequence of multimorbidity: "inability to get pregnant", "degenerative disease".

#### 8. Quality of life

<u>Health status</u> - as perception: "I've got so many diseases", "they feel there's no medicine that could cure them".

*Impairments implications* - as a personal consequence: "they can't cope in life".

#### 9. Frailty

Frailty as a global consequence of multimorbidity: "when they suffer from these diseases they are acute and they get over them badly".

#### 10. Social network

<u>Dependence on the network</u> – this includes medical staff: "community nurses".

<u>Family coping</u> - includes coping strategies adapted or not: "looking after her mother, who's chronically ill", "if her daughter stays with her she's in better condition".

<u>Social isolation</u> – "she lives alone", "children don't look after her".

<u>Support from the network</u> – supporting network: "support group in the elderly surely play a role", "meetings with patients". Also a failing network was mentioned: "the need of attention, psychological needs unfulfilled".

#### 11. Health outcomes

<u>Classification of morbidity statistics</u> – it's a need for level of multimorbidity: "a classification of diseases which allows coding the symptoms", "I've got one such patient I don't know if 10 diseases would be enough".

<u>Medical research epidemiology</u> – the need of instrument for identification and epidemiological purpose was expressed: "The new MM definition is right (necessary)."

<u>Health outcome</u> – "The MM definition is rightly extended".

#### 12. FP's expertise

<u>Comprehensive approach</u> - as a core competency of the GP: "comprehensive care".

<u>Holistic approach</u> – the medical decision based on different arguments was recurrent: "the concept of an organic disease in family medicine is not enough", "it's impossible to treat any of these diseases (conditions) separately".

<u>Intuition/gut feeling</u> - as a factor of detection of multimorbidity: "we diagnose diseases that haven't been diagnosed so far".

<u>Person centered care</u> - as a tool to detect or fallow multimorbidity: "adapted care ruled out by the physician careful listening (to the patient)", "a tailor-made approach to the patient".

<u>Primary care management</u> – "showing the bright sides", "the right attitude, without medicines".

<u>Specific problem solving skills</u> – adopting a specific approach to the patient: "the necessity of (finding) a solution", "a broad, calm approach".

#### 13. <u>Doctor- patient relationship dynamics</u>

<u>Communication challenge</u> - in order to detect multimorbidity a fair communication process seems important: "mental gymnastics, more effort is required on the doctor's part", "direct communication".

<u>GP's and patient's experience</u> – The holistic approach of multimorbid patients is very complex by its duration of follow up: "I've known them for 16 years"," children and neighbors are my patients", positive feelings: "I empathize with the patient" or negative feelings: "I feel furious", "(these patients) get on nerves".

#### 4.Discussion

#### Overview of results

The aim of this qualitative study was to identify the topics for multimorbidity in Polish general practice. Data analysis was based on grounded theory. Thematic coding of 11 interviews led to the identification of all 11<sup>th</sup> academic themes. Moreover, two more themes were extracted and added: FP's expertise and Doctor-patient relationship dynamics.

#### Strengths and limitations

Information bias

Verbatim codes were validated by interviewed GPs. Coding was realized independently by two researchers pooling of the results. The researchers took part in group workshops which were directed by an EGPRN member. All these steps limited the information bias.

Confusion bias

Reference themes and codes were in English as so thematic and axial coding. Subcodes were in native language (Polish). An expert translated the verbatim. Some translations could be debatable.

Sample characteristics

The selection criteria (sex, practice type, urbanization, and experience) were chosen in order to ensure a maximal variation sample.

#### **Study contribution**

This study reveals 13 integrated themes in the definition of multimorbidity for Polish GPs. Some academic codes were suppressed (Psychological distress, Aging, Physiology, Family history, Assessment, Indicator). Many academic codes were not identified. Polish GPs didn't mention: Psychosomatic disease/physical implications, acute condition, complexity characteristics of acute disease, physiopathology, functional impairments, mortality, quality of life, community orientation. There are also few changes regarding academic themes. The participant experts at the Polish translation procedure proposed some linguistic alterations of two concepts: "somatic" and "frailty". During the Delphi consensus [33, 34] the greatest challenge for Polish translators was to find the right equivalence for notions like "frailty" or "social network" taking into account their absenteeism from the Polish medical literature [35]. Hereby "frailty" was replaced by "weakness" and the attribute "somatic" was deleted from the risk factor because in Polish language it doesn't have the meaning of real illness [35]. So these modifications were related to the Polish cultural context, and at the end the structure of the definition of multimorbidity was not changed.

When compared to the EGPRN definition, two new themes appeared: GP's expertise and patient-doctor relationship dynamics.

Poland like all Central and Eastern Europe (CEE) have gone through dramatic changes in the end of 20<sup>th</sup> century after the collapse of the communist regime. The transformation of the health care system is the greatest far-reaching change particularly in primary care. Family medicine experienced a rapid development since its implementation in 1994 in Poland. GPs are primary care physicians and gate-keepers [36] aiming to improve the quality of medical services [37, 38]. Poland became a member of the world organization of family doctors. GPs had to learn the integrative approach and a new medical language which involves the bio-psycho-social model till now nonexistent [35].

One of the academic themes of the study, GP's expertise is a concept recently appeared in specialized literature [39]. In daily practice GPs are confronted with difficult situations and difficult decision making processes. Therefore primary care is very complex and it demands expertise to detect or manage patients with multimorbidity. Due to its prevalence [40] multimorbidity is routine for the primary care professionals. Consequently they developed a different approach to manage these patients. Core competencies of GPs and "gut feeling" come in addition to the diagnostic flow chart. Core competencies as they were defined by WONCA [41] are essentials for the management of multimorbid patients. Primary care management, person-centered care, specific problem solving skills, comprehensive approach, integrative modeling were frequently named by interviewed GPs. It was not surprising to observe that community orientation wasn't named given the fact that the study is about multimorbid patients.

Patient-doctor relationship dynamics were represented by communication challenge and GP's and patient's experience. The patient-doctor relationship directly affects multimorbidity by supporting or restricting the care for the patient. These findings could help to explore the multiple demands of multimorbid patients by utilizing communication techniques [42]. Polish GPs described some challenges in communication, such-as problems of co-ordination or the impact of cognitive capacity. Prioritizing in medical procession or negotiating with the patient depends on the doctor-patient relationship.

#### Integrating the definition in a concept map

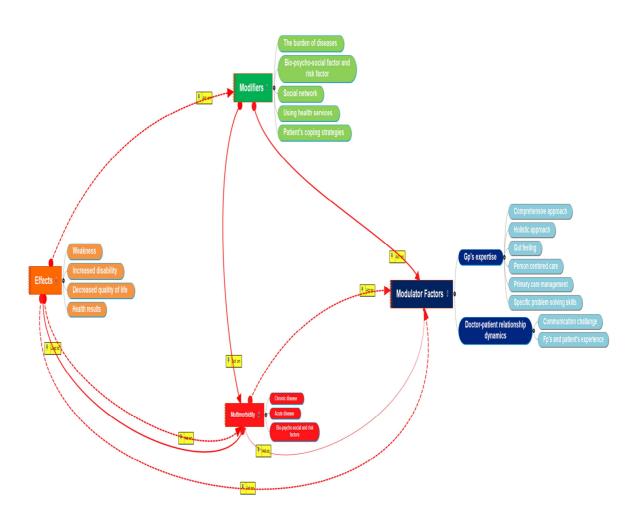
Academic themes and sub-themes integrated in the multimorbidity definition and their connections are represented below in <u>Figure 1</u> based on a concept maps [32]. This lightens the multimorbidity definition. Chronic disease, acute disease, bio-psychosocial factors and risk factors are assimilated in the intern definition. Others act like modifiers: bio-psychosocial factor, risk factor, the social network, the burden of disease, using health care services, and the patient's coping strategies. The effects of multimorbidity are: an increased disability, decreased quality of life, weakness. These may modify health status. Only the bio-psycho-social factors and risk factors integrate

in the same time the multimorbidity intern definition and modifiers. GP's expertise and doctor-patient relationship dynamics play as modulator factors of multimorbidity.

A conceptual map of multimorbidity was designed as a result of interaction of these four concepts. There is a correlation between the effects, modifiers and modulator factors: the management of a weak patient is different from a healthy patient. Firstly, it leads to a care management modification and then to an echo on the patient health status. Also the combination of a chronic disease with one or many modifiers develops multimorbidity which leads to weakness, increased healthcare consumption and decreased quality of life. In the meantime these modifiers could increase multimorbidity. Having a tool to identify and help multimorbid patients could be useful for GPs. It was highlighted that the needs of multimorbid patients can cause many possible outcomes of multimorbidity. At the present time researchers try to understand how this could be useful for family medicine and long-term care.

Figure 1: Concept Map of Multimorbidity using MidView 5 Business Copyright © 2002/2013

MatchView A/S



#### **5.Conclusion**

This study found all 11<sup>th</sup> multimorbidity themes defined by the literature review. Two more themes were added: GP's expertise and Doctor-patient relationship dynamics.

The forward-backward translation as a result of a Delphi procedure brought some minor linguistic alterations: GPs preferred "weakness" rather than "frailty" and the attribute "somatic" (risk factor) was omitted.

The Polish definition of multimorbidity could be:

"Wielochorobowość jest definiowana jako jakiekolwiek połączenie choroby przewlekłej z przynajmniej jeszcze jedną chorobą (ostrą lub przewlekłą) lub z czynnikami bio-psycho-społecznymi (związanymi z nią lubnie) lub z czynnikami ryzyka.

Jakikolwiek czynnik bio-psycho-społeczny, czynnik ryzyka, sieć społeczna, obciążenie chorobami, korzystanie z opieki zdrowotnej i strategie radzenia sobie przez pacjenta mogą funkcjonować jako modyfikatory.

Wielochorobowość może modyfikować wyniki zdrowotne i prowadzić do zwiększonej niepełnosprawności lub obniżenia jakości życia lub osłabienia [35]."

The Polish final version translated into English:

"Multimorbidity is defined as any combination of chronic disease with at least one or more disease (acute or chronic) or with bio-psycho-social factors (related to it or not), or with risk factors. Any bio-psycho-social factor, any risk factor, the social network, the burden of diseases, using health services, and the patient's coping strategies may function as modifiers as it also does the GP's expertise and doctor-patient relationship dynamic. Multimorbidity may modify health results and lead to an increased disability or a decreased quality of life, or weakness [35]."

This new definition is intended to help Polish GPs to identify multimorbid patients. Qualitative research is needed in order to find the added value by GPs in the concept of multimorbidity.

#### **References**

- [1] Feinstein AR. The pre-therapeutic classification of co-morbidity in chronic disease. J Chron Dis.1970; 23:455-468.
- [2] Heuft G. Future research perspectives of a psychoanalytical geronto-psychophysiology- personality and the aging process. Z Gerontol. 1990; 23(5):262–266.
- [3] World Health Organization. The World Health Report 2008. Primary health Care Now more than ever, New York: The World Health Report 2008; 148.
- [4] Fortin M, Soubhi H, Hudon C, Bayliss EA, van den Akker M. Multimorbidity's many challenges. BMJ. 2007; 334:1016-1017.
- [5] Van den Akker M, Buntinx F, Knottnerus JA. Comorbidity or multimorbidity: What's in a name? Eur J Gen Pract 1996; 2:65-70.
- [6] Boyd CM, Ritchie CS, Tipton EF, Studenski SA, Wieland D. From bedside to bench: Summary from the American Geriatrics Society/National Institute on Aging Research conference on comorbidity and multiple morbidity in older adults. Aging Clin Exp Res 2008; 20:181-188.
- [7] Valderas JM, Starfield B, Sibbald B, Salisbury C, Roland M. Defining comorbidity: Implications for understanding health and health services. Ann Fam Med 2009; 7:357-363.
- [8] Stewart WM, Smith S, Wykec S, O'Dowdb T, Watt GCM. Multimorbidity in primary care: developing the research agenda. Oxford Journals Family Practice 2009; 26(2):79-80.
- [9] Le Reste JY, Nabbe P, Manceau B, and al. The European General Practice Research Network presents a comprehensive definition of Multimorbidity in Family Medicine and Log-Term Care, following a sistematic review of relevant literature. JAMDA 2013; 14:319-325.
- [10] Le Reste JY, Nabbe P, Lygidakis C, and al. A research group from European General Practice Research Network (EGPRN) explores the concept of multimorbidity for further research into long-term care. JAMDA 2013; 14:132-133.
- [11] Grau L, Kovner C. Comorbidity, age, and hospital use among elderly Medicare patients. J Aging Health. 1991; 3:352-367.
- [12] van den Akker M, Buntinx F, Metsemakers JF, Roos S, Knottnerus JA. Multimorbidity in general practice: prevalence, incidence, and determinants of co-occurring chronic and recurrent diseases. J Clin Epidemiol 1998; 51:367–375.
- [13] van den Akker M, Buntinx F, Roos S, Knottnerus JA. Problems in determining occurrence rates of multimorbidity. J Clin Epidemiol 2001; 54:675–679.

- [14] Marengoni A, Angleman S, Melis R, Mangialasche F, Karp A, et al. Aging with multimorbidity: A systematic review of the literature. Ageing Res Rev 2011; 10:430–439.
- [15] Fortin M, Lapointe L, Hudon C, Vanasse A. Multimorbidity is common to family practice: is it commonly researched? Can Fam Physician 2005; 51:244–245.
- [16] Gijsen R, Hoeymans N, Schellevis FG, Ruwaard D, Satariano WA, et al. Causes and consequences of comorbidity: a review. J Clin Epidemiol 2001; 54:661–674.
- [17] Bayliss EA, Steiner JF, Fernald DH, Crane LA, Main DS. Descriptions of barriers to self-care by persons with comorbid chronic diseases. Ann FamMed 2003; 1:15–21.
- [18] Fortin M, Bravo G, Hudon C, Lapointe L, Almirall J, et al. Relationship between multimorbidity and health-related quality of life of patients in primary care. Qual Life Res 2006; 15:83–91.
- [19] Palomo L, Rubio C, Gervas J. The comorbidity in primary care. Gac Sanit 2001; Suppl 1:182–191.
- [20] Hansagi H, Olsson M, Sjoberg S, Tomson Y, Goransson S. Frequent use of the hospital emergency department is indicative of high use of other health care services. Ann Emerg Med 2001; 37:561–567.
- [21] Starfield B, Lemke KW, Herbert R, Pavlovich WD, Anderson G. Comorbidity and the use of primary care and specialist care in the elderly. Ann Fam Med 2005; 3:215–222.
- [22] Salisbury C, Johnson L, Purdy S, et al. Epidemiology and impact of multimorbidity in primary care: a retrospective cohort study. Br J Gen Pract 2011; 61(582): e12–e21.
- [23] Schellevis FG, Van de Lisdonk EH, Van der Velden J, e t a l . Consultation rates and incidence of intercurrent morbidity among patients with chronic disease in general practice. Br J Gen Pract 1994; 44(383):259–262.
- [24] Starfield B, Lemke KW, Bernhardt T, et al. Comorbidity: implications for the importance of primary care in 'case' management. Ann Fam Med 2003; 1(1):8–14.
- [25] Gowin E, Pawlikowska T, Horst-Sikorska W, Michalak M. British and Polish general practitioners' opinions on the importance of preventive medicine. Health Promotion International, 2011; 26 (2):171-176.
- [26] Cohen DJ, Crab tree BF. Evaluative criteria for qualitative research in health care: controversies and recommendations. Ann Fam Med 2008; 6(4):331-339.
- [27] Jovchelovitch S, Bauer MW. Narrative interviewing in Qualitative Researching with text, image and sound: a practical handbook. Edited by Bauer MW, Gaskell G, Thousand Oaks, London, New Delhi: Sage Publications; 2000, 57-75.

- [28] Aubin-Auger I, Mercier A, Baumann L, and al. Introduction à la recherche qualitative. Exercer 2008; 84:142-145.
- [29] Bekhet A, Zauszniewski J. Methodological triangulation: an approach to understanding data. Nurse Researcher 2012, 20(2):40-43.
- [30] Glaser BG, Strauss AL. The Discovery of Grounded Theory. Strategies for Qualitative Research. New York: de Gruyter; 1967, 28-52.
- [31] Malterud K. Qualitative Research: standards, challenges, and guidelines. Lancet 2001, 358(9280):483-488.
- [32] Novak J, Cañas N, Cañas A. The Theory Underlying Concept Maps and How to Construct and Use Them. Technical Report IHMC CmapTools 2006-01 Rev 01-2008. Florida Institute for Human and Machine Cognition 2008; 1–36.
- [33] Sumsion T. The Delphi technique: An adaptive research tool. Br J Occup Ther, 1998; 61:153 156.
- [34] Hasson F, Keeney S, McKenna H. Research guidelines for Delphi survey technique. J Adv Nurs 2000; 32:312-317.
- [35] Czachowski S, Le Reste JY, Sowińska A, Nabbe P, and co. The EGPRN new concept of multimorbidity in General Practice. The Polish study. Problemy Medycyny Rodzinnej, March 2014, Vol. XV, No. 3, 77-80.
- [36] Oleszczyk M, Svab I, Seifert B, Krztoń-Królewiecka A, and co. Family medicine in post-communist Europe needs a boost. Exploring the position of family medicine in healthcare systems of Central and Eastern Europe and Russia. BMC Family Practice 2012, 13:15.
- [37] Pawlikowska, TRB, Walker J.J, Nowak P.R, Szumilo-Grzesik W. Patient involvement in assessing consultation quality: a quantitative study of the Patient Enablement Instrument in Poland. Health Expect 2010; 13:13-23.
- [38] Windak A, Tomasik T, Kryj-Radziszewska E. The Polish experience of quality improvement in primary care. Jt Comm J Qual Improv 1998; 24:232 239.
- [39] Smith S, O'Kelly S., O'Dowd T. GPs' and pharmacists' experiences of managing multimorbidity: a 'Pandora's box'. Br J Gen Pract 2010; e285–e294.
- [40] Uijen A, Van De Lisdonk E.H. Multimorbidity in primary care: prevalence and trend over the last 20 years. The European journal of general practice, 2008, Vol. 14 (suppl1), 28-32.
- [41] Allen J, Gay B, Crebolder H, Heyrman J, Svab I, Ram P. The European definitions of the key features of the discipline of general practice: the role of the GP and core competencies. Br J Gen Pract 2002; 52:526-527.

[42] Mauksch L.B, Dugdale D.C, Dodson S, Epstein R. Relationship, communication, and efficiency in the medical encounter. Arch Intern Med, July 14 2008; Vol 168 (13), 1387-1395.

# Faculté de Médecine & des Sciences de la Santé

#### AUTORISATION D'IMPRIMER

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Présentée par M le Professeur

Titre de la thèse :

What are the topics for multimorbidity recognized in Polish general practice?

ACCORD DU PRESIDENT DU JURY DE THESE SUR L'IMPRESSION DE LA

#### THESE

En foi de quoi la présente autorisation d'imprimer sa thèse est délivrée à Madame MODORCEA MITRAN Alexandra, interne en médecine générale.

Fait à BREST, le

VISA du Doyen de la faculté

Le Président du Jury de

Thèse, A BREST, le

Le Doyen, Professeur

C. BERTHOU

## MODORCEA MITRAN (Alexandra) - What are the topics for multimorbidity recognized in Polish general practice?

Th.: Méd.: Brest 2014

#### ABSTRACT:

Introduction: Multimorbidity is defined according to the World Health Organization as the occurrence of two or more chronic conditions in one individual. The European General Practice Research Network (EGPRN) designed a new definition of multimorbidity, which was translated into 10 European languages. Polish is one of the participant countries. The aim of this study was to ensure that the definition is clear and useful. The research question was: What are the topics for multimorbidity recognized in Polish general practice? \*Method:\* Eleven semi-structured interviews with Polish general practitioners (GPs) were carried out. Data collection proceeded until saturation was reached. An open, axial and thematic coding was done in order to identify the criteria of multimorbidity for GPs. The multimorbidity academic definition (translated into polish language) was the model to perform the analysis using a grounded theory framework. \*Results:\* 501 codes were extracted after 11 interviews. All the themes proposed by the EGPRN's definition were identified. Two new themes regarding GPs were identified: GP's expertise and Doctor-patient relationship dynamic. \*Conclusion:\* All the definition themes have been recognized by the Polish GPs. Two new themes appeared. The definition is closely related to primary care and could be useful in Long Term Care.

#### **RESUME:**

Introduction: L'organisation mondiale de la santé définit la multimorbidité par l'association d'au moins deux conditions médicales chroniques chez la même personne. L'European General Practice Research Network (EGPRN) a établi une nouvelle définition qui a été ensuite traduite en 10 langues européennes. La Pologne était un des pays participants. L'objectif de cette étude était d'évaluer quels étaient les critères de multimorbidité reconnus par les médecins généralistes polonais afin de savoir s'ils différaient de ceux de la définition académique. Méthode: Onze entretiens individuels semi-dirigés ont intégré des médecins généralistes polonais. Le recueil des données respectait les critères de variation maximale des échantillons et de saturation des données. Un codage ouvert, puis un codage axial et thématique a été réalisé afin de pouvoir identifier les critères de multimorbidité pour les médecins généralistes polonais. La définition académique de la multimorbidité (traduite en Polonais) a été utilisée comme modèle pour l'analyse en théorie fondée. Résultats: 501 codes sont ressortis de 11 entretiens individuels. La totalité des thèmes proposée par EGPRN a été retrouvée. Deux nouveaux thèmes étaient identifiés: l'expertise du médecin généraliste et la relation médecin-patient. Discussion: Tous les thèmes intégrés dans la définition de la multimorbidité ont été identifiés par les médecins généralistes polonais. Deux nouveaux thèmes se sont ajoutés. La définition est étroitement liée aux soins primaires et elle peut trouver son utilité dans les soins de longue durée.

#### **MOTS CLES**:

MULTIMORBIDITY; GENERAL PRACTICE; DEFINITION; PRIMARY CARE

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