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LA HABANA - CUBA

LAS CONDICIONES CRÓNICAS MÚLTIPLES Y SU "MARIDAJE" HACIA LA DISCAPACIDAD

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Imagen: *disability* de *anjan58 (CC BY-NC -ND 2.0)*

Objetivos

1. Describir evidencias que asocian CCM con discapacidad.
2. Mencionar propuestas de las relaciones entre CCM, fragilidad y discapacidad.
3. Nombrar limitaciones metodológicas en la investigación epidemiológica de las CCM, fragilidad y discapacidad.

CCM: condiciones crónicas múltiples.

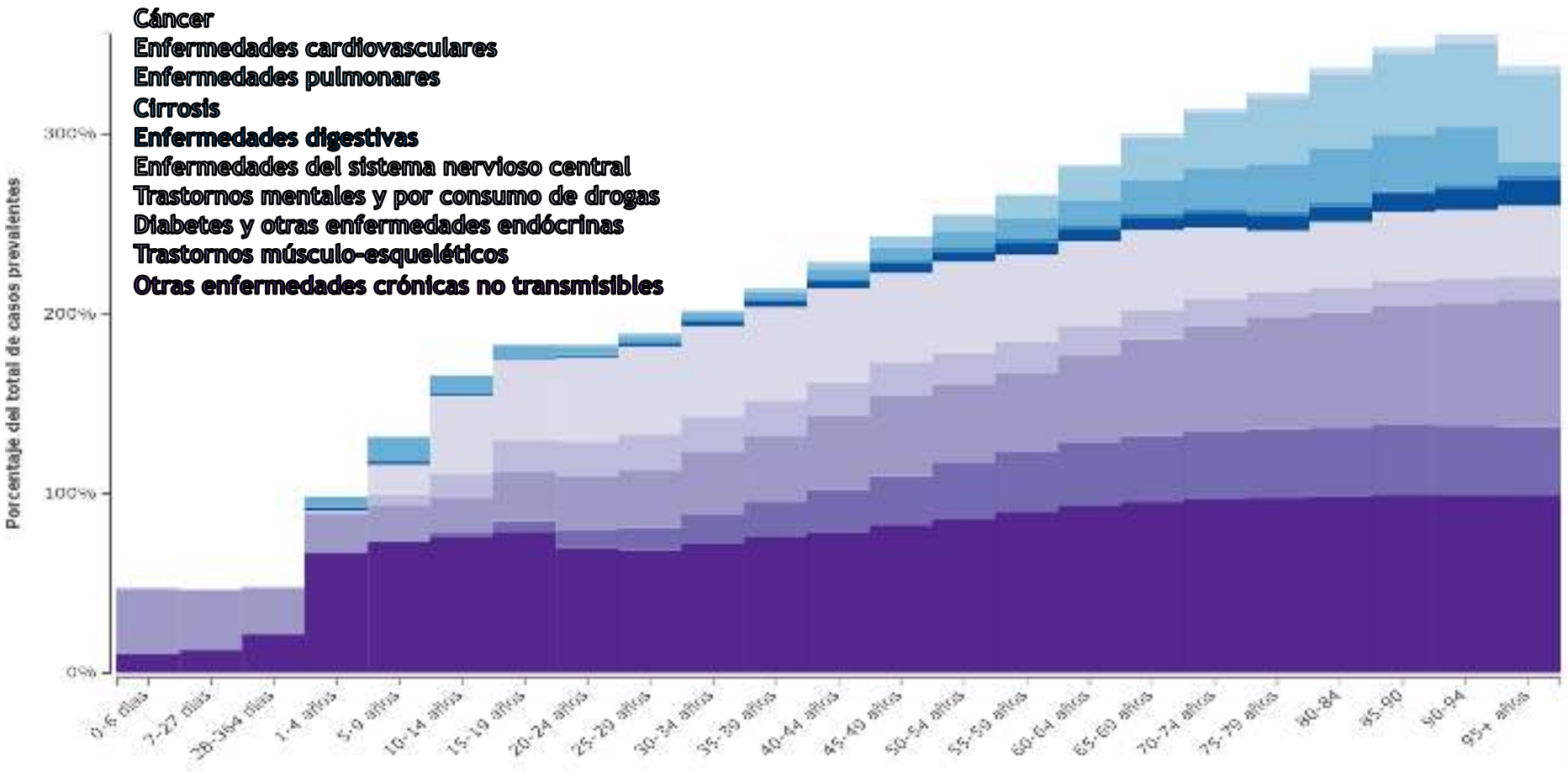
Condiciones crónicas múltiples

Dos o más condiciones crónicas que se espera duren al menos 12 meses y que confieran un riesgo significativo de muerte, de descompensación o de disminución del funcionamiento.

Dattalo M, et ál. J Am Geriatr Soc. 2017; 65(4):712. PMID: 28205206

Carga morbilidad en ALyC

MUJERES Y HOMBRES EN 2016



IHME. Global Burden Disease Compare. 2016 [internet]

Maridaje

De *maridar.*

1. m. Enlace, unión y conformidad de los casados.

2. m. Unión, analogía o conformidad con que algunas cosas se enlazan o corresponden entre sí.

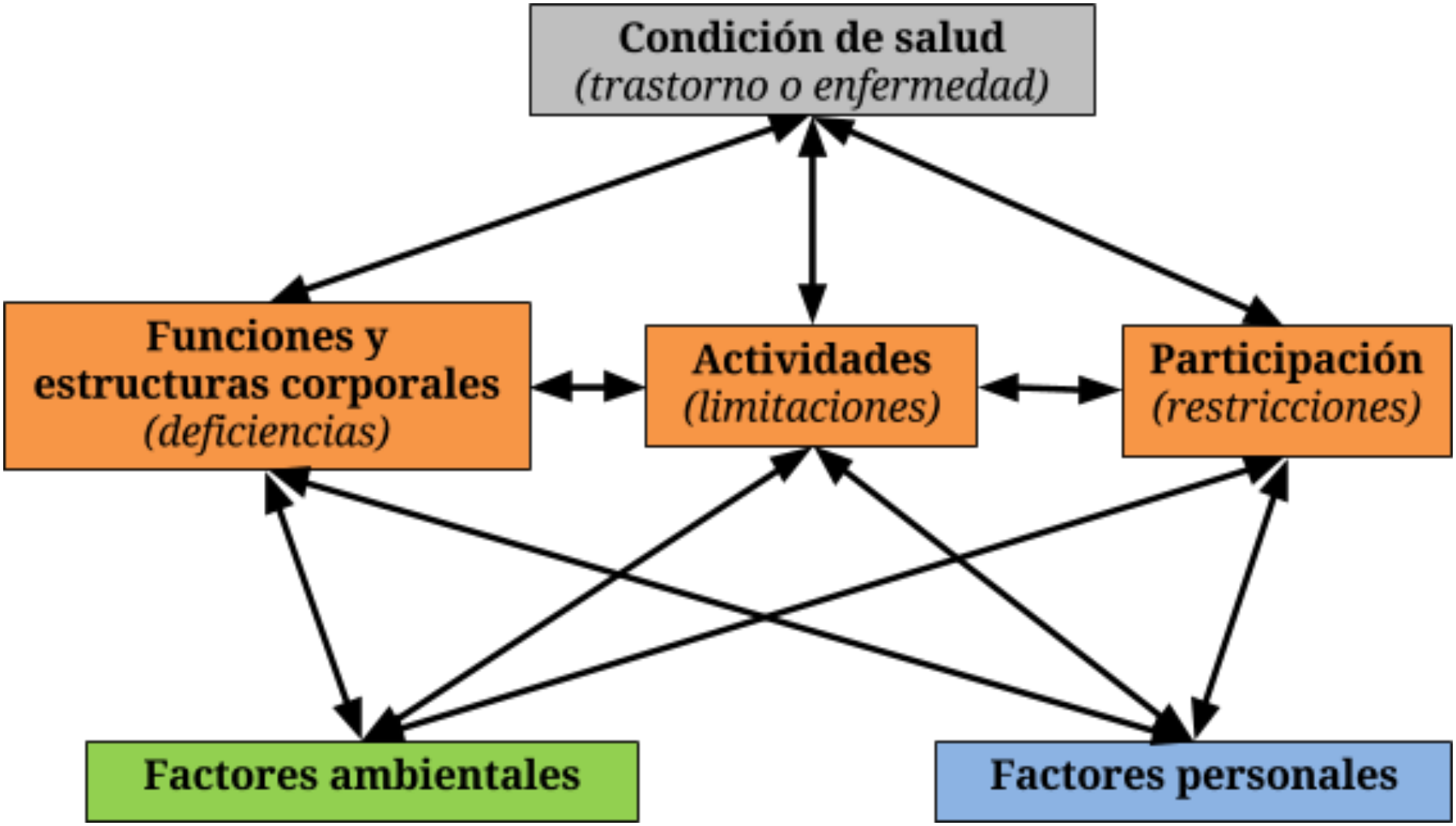
Diccionario de la Lengua Española 23ª edición [internet]

Discapacidad

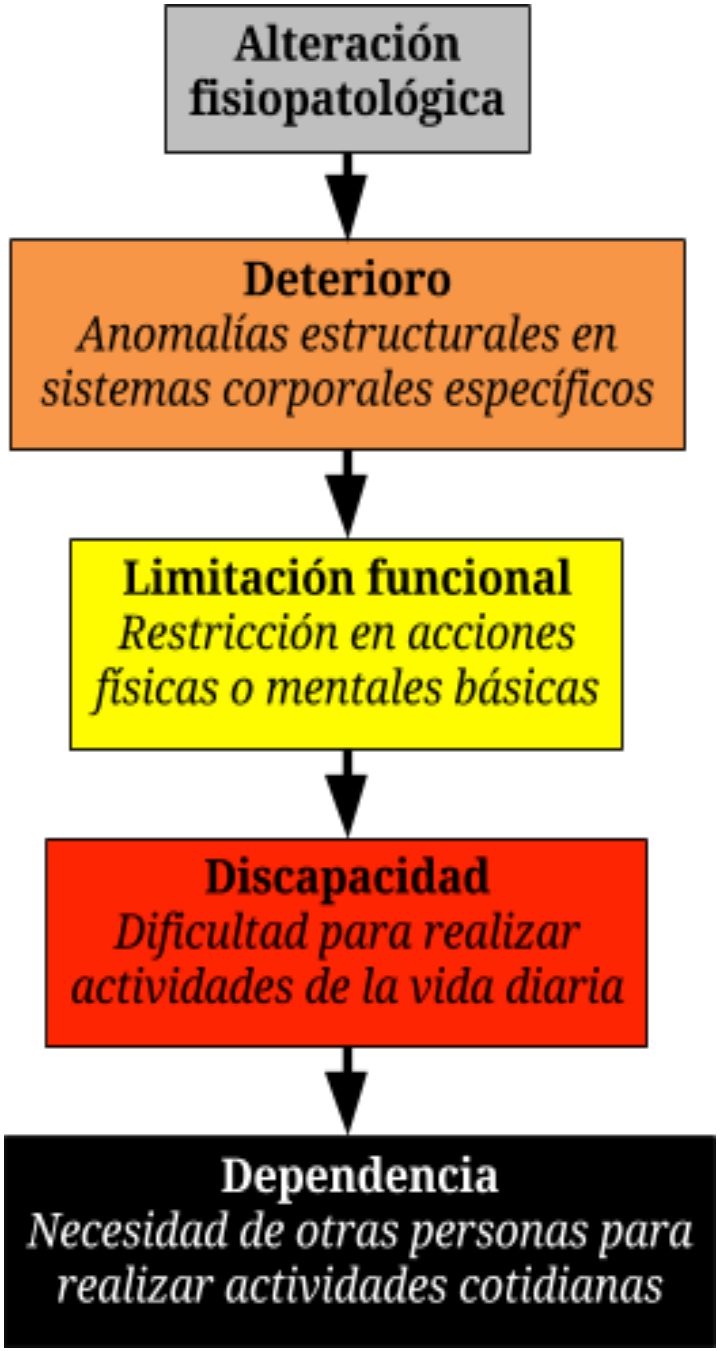
Dificultad en la ejecución de las actividades en la forma o dentro del rango considerado normal para un ser humano.

Incluye las deficiencias físicas o mentales, las limitaciones en actividades y las restricciones de participación.

OMS. Informe mundial sobre el envejecimiento y la salud. 2015.
OMS. Clasificación internacional de funcionamiento, discapacidad y salud. 2001.



OMS. Clasificación internacional de funcionamiento, discapacidad y salud. 2001.


Alteración fisiopatológica
Deterioro
Anomalías estructurales en sistemas corporales específicos
Limitación funcional
Restricción en acciones físicas o mentales básicas
Discapacidad
Dificultad para realizar actividades de la vida diaria
Dependencia
Necesidad de otras personas para realizar actividades cotidianas

Preguntas orientadoras

¿Cuál es el papel de las CCM en la discapacidad y dependencia?

¿Cómo se combinan las CCM, cuál asociación discapacita más, son suma o potencia?

¿Cuál es el peso de cada enfermedad en la multimorbilidad?

THE JOURNAL OF NUTRITION, HEALTH & AGING©

AGE, FRAILTY, DISABILITY, INSTITUTIONALIZATION, MULTIMORBIDITY OR COMORBIDITY. WHICH ARE THE MAIN TARGETS IN OLDER ADULTS?

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Abstract: *Objectives:* Age, frailty, disability, institutionalization, multimorbidity or comorbidity are main risk factors for serious health adverse outcomes in older adults. However, the adjusted relevance of each of them in order to determine which characteristics must be of importance for health policies in this population group, has not been established. *Design:* Concurrent population based cohort study. *Setting:* Albacete city, Spain. *Participants:* 842 participants over age 70 from the FRADEA Study. *Measurements:* Age, gender, institutionalization, frailty (Fried's criteria), previous disability in basic activities of daily living (BADL) (Barthel index), comorbidity (Charlson index), and multimorbidity (≥ 2 from 11 selected diseases) were recorded in the basal visit. The combined event of mortality or incident disability in BADL was determined in the follow-up visit. The risk of presenting adverse events was determined by Kaplan-Meier analysis and logistic regression adjusted for age, sex, and institutionalization. *Results:* Mean follow up 520 days. 63 participants died (7.5%). Among the remaining 779, 191 lost at least one BADL (24.5%). The combined event of mortality or disability was present in 254 participants (30.2%). Age (OR 1.10, 95%CI 1.06-1.14), frailty (OR 3.07, 95%CI 1.63-5.77), disability (OR 2.19, 95%CI 1.43-3.36) and institutionalization (OR 2.73, 95%CI 1.68-4.44) were independently associated with the combined adverse event, but not comorbidity or multimorbidity. In subjects younger than 80, only frailty, disability and institutionalization were risk factors, and in those aged ≥ 80, only age, disability and institutionalization were. *Conclusions:* Health policies for older adults must take into account mainly frailty and disability in subjects younger than 80 and disability in those older than 80.

Key words: Frailty, multimorbidities, disablement process.

	Mortality OR (95%CI)	Incident disability OR (95%CI)	Combined event OR (95%CI)	Combined event OR (95%CI) Age < 80	Combined event OR (95%CI) Age ≥ 80
			Model 1		
Age	1.07 (1.02-1.12) †	1.09 (1.06-1.13) ‡	1.10 (1.06-1.14) ‡	1.06 (0.96-1.16)	1.13 (1.05-1.21) †
Female sex	0.34 (0.19-0.62)‡	1.16 (0.77-1.74)	0.90 (0.62-1.31)	1.04 (0.60-1.79)	0.81 (0.48-1.36)
Institutionalization	1.58 (0.83-3.03)	2.69 (1.59-4.55) ‡	2.73 (1.68-4.44) ‡	3.69 (1.33-10.23) *	2.29 (1.31-3.98) †
Frailty status					
Prefrail	3.16 (0.90-11.04)	1.93 (1.12-3.31) *	2.14 (1.28-3.57) ‡	3.64 (1.70-7.78) †	1.05 (0.49-2.23)
Frail	4.18 (1.09-16.04)*	2.51 (1.27-4.93) †	3.07 (1.63-5.77) ‡	6.87 (2.58-18.31) ‡	1.33 (0.56-3.19)
Disability in BADL	4.24 (2.07-8.71)‡	1.71 (1.07-2.75) *	2.19 (1.43-3.36) ‡	1.91 (0.96-3.78)	2.42 (1.38-4.23) †
High comorbidity	1.45 (0.74-2.84)	1.21 (0.72-2.03)	1.28 (0.80-2.06)	1.62 (0.82-3.21)	0.97 (0.51-1.85)
			Model 2		
Age	1.07 (1.02-1.12) †	1.09 (1.06-1.13) ‡	1.10 (1.06-1.13) ‡	1.05 (0.96-1.16)	1.13 (1.05-1.21) †
Female sex	0.31 (0.18-0.56)‡	1.13 (0.75-1.69)	0.87 (0.60-1.25)	0.94 (0.55-1.60)	0.82 (0.49-1.36)
Institutionalization	1.53 (0.80-2.94)	2.66 (1.57-4.49) ‡	2.69 (1.66-4.37) ‡	3.64 (1.14-10.07) *	2.34 (1.34-4.08) †
Frailty status					
Prefrail	3.26 (0.93-11.40)	1.93 (1.12-3.32) *	2.15 (1.29-3.59) ‡	3.60 (1.68-7.71) †	1.07 (0.50-2.29)
Frail	4.38 (1.14-16.87)*	2.55 (1.30-5.02) †	3.15 (1.67-5.92) ‡	6.88 (2.59-18.27) ‡	1.37 (0.57-3.29)
Disability in BADL	4.53 (2.22-9.23)‡	1.76 (1.10-2.81) *	2.26 (1.48-3.45) ‡	1.98 (1.01-3.91) *	2.45 (1.41-4.24) †
Multimorbidity 14	1.09 (0.55-2.14)	0.88 (0.68-1.57)	1.06 (0.72-1.57)	1.50 (0.83-2.70)	0.74 (0.42-1.28)

Model 1: High comorbidity is considered as a Charlson index score ≥ 3. Model 2: Multimorbidity is considered when 2 or more of the 14 selected diseases are present. Disability in BADL is considered when lower scores on the Barthel Index in bathing, grooming, dressing, feeding, or toilet use are present in the follow up visit compared to the baseline visit. OR: Odds Ratio. 95%CI: 95% Confidence interval. BADL: Basic activities of daily living. ‡ p≤0.001, †p≤0.01, * p≤0.05.

Observational Study

Medicine

OPEN

The multimorbidity interaction severity index (MISI)

A proof of concept study

Dimitri Gassmann, MMed[a,c], Marcus Cheetham, PhD[a,b,c], Karissa Siebenhuener, MD[a,b], Barbara M. Holzer, PhD[a,c], Claudine Meinel Tridez, MD[a,b], Florian T. Hildenbrand, MD[a,b], Vanessa Virgini, MD[a], Mike Martin, PhD[a,b,c], Edouard Battegay, M.D. FACP[a,b,c]

Abstract

Therapeutic decision-making for patients with multimorbidity (MM) is challenging. Clinical practice guidelines inadequately address harmful interactions and resulting therapeutic conflicts within and among diseases. A patient-specific measure of MM severity that takes account of this conflict is needed.

As a proof of concept, we evaluated whether the new Multimorbidity Interaction Severity Index (MISI) could be used to reliably differentiate patients in terms of lower versus higher potential for harmful interactions.

Two hypothetical patient cases were generated, each with 6 concurrent morbidities. One case had a low (i.e., low conflict case) and the other a high (i.e., high conflict case) potential for harmful interactions. All possible interactions between conditions and treatments were extracted from each case's record into a multimorbidity interaction matrix. Experienced general internists (N = 18) judged each interaction in the matrix in terms of likely resources utilization needed to manage the interaction. Based on these judgements, a composite index of MM interaction severity, that is, the MISI, was generated for each physician and case.

The differences between each physician's MISI score for the 2 cases ($MISI_{\Delta V}$) was computed. Based on $MISI_{\Delta V}$, the high conflict case was judged to be of significantly greater MM severity than was the low conflict case. The positive values of the interquartile range, a measure of variation or disagreement between the 2 cases, indicated general consistency of individual physicians in judging MM severity.

The data indicate that the MISI can be used to reliably differentiate hypothetical multimorbid patients in terms of lesser versus greater severity of potentially harmful interactive effects. On this basis, the MISI will be further developed for use in patient-specific assessment and management of MM. The clinical relevance of the MISI as an alternative approach to defining MM severity is discussed.

Abbreviations: CSS = cascading style sheets, DDI = disease–disease, drug–disease, and drug–drug interactions, DG = Dimitri Gassmann, EB = Edouard Battegay, HTML = HyperText Markup Language, MISI = multimorbidity interaction severity index, MM = multimorbidity.

Keywords: computerized decision support, drug–disease interactions, drug–drug interactions, MISI, multimorbidity severity index, therapeutic conflict

Gassmann D, et ál. Medicine (Baltimore). 2017 Feb;96(8):e6144. PMID: 28225495

The table shows an example of the composition of the MISI on the basis of one of the participant's ratings of a low and a high conflict case.

	MISI composition	Low conflict case	High conflict case
General relevance	Number of conditions	6	6
	Number of medications	6	6
Current relevance	Active conditions	5	4
	Modified medications	0	5
Harmful DDIs*	Severity ratings of individual DDIs	10	38
MISI	Overall impact of DDIs	27	59

The MISI is computed by summing up the total number of conditions, medications, active conditions, modified medications, and the number of all interactions. The interactions were rated in terms of severity as minor, as major (multiplied by 3), and as life threatening (multiplied by 10). The result in this participant's example is MISI = 27 for the low conflict case (with little risk of harmful interactions) and MISI = 59 for the high conflict case (with a high risk of harmful interactions).

* DDI = disease–disease, drug–disease, and drug–drug interactions. MISI = multimorbidity interaction severity index.

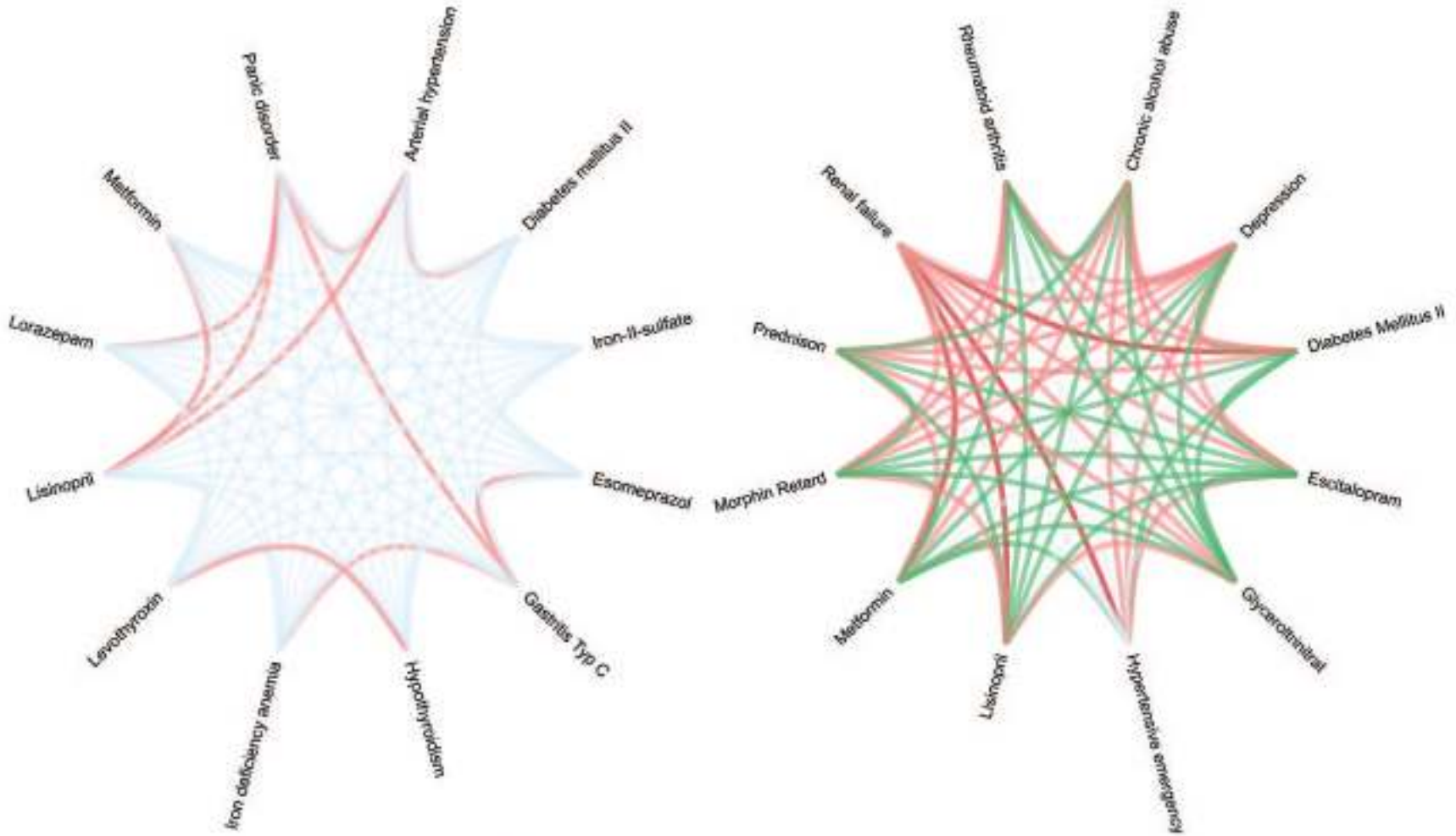


Figure 1. Network graph generated from the multimorbidity interaction matrix on the basis of the participants' ratings of interaction severity, showing (A) the graph for the low conflict case with little risk of harmful interactions, and (B) the graph for the high conflict case with a high risk of harmful interactions.

BRIEF REPORT

Effect of Chronic Diseases and Multimorbidity on Survival and Functioning in Elderly Adults

Debora Rizzuto, PhD,[*] René J.F. Melis, PhD,[†] Sara Angleman, PhD,[‡] Chengxuan Qiu, PhD,[§] and Alessandra Marengoni, PhD[∥]*

OBJECTIVES: To determine the effect of chronic disorders and their co-occurrence on survival and functioning in community-dwelling elderly adults.

DESIGN: Population-based cohort study.

SETTING: Kungsholmen, Stockholm, Sweden.

PARTICIPANTS: Individuals aged 78 and older examined by physicians four times over 11 years (N = 1,099).

MEASUREMENTS: Chronic diseases (grouped according to 10 organ systems according to the International Classification of Diseases, Tenth Revision, code) and multimorbidity (≥2 coexisting chronic diseases) were evaluated in terms of mortality, population attributable risk of death, median years of life lost, and median survival time with and without disability (need of assistance in >1 activities of daily living).

RESULTS: Approximately one in four deaths were attributable to cardiovascular and one in six to neuropsychiatric diseases. Malignancy was the condition with the shortest survival time (2.5 years). Malignancies and cardiovascular disorders each accounted for approximately 5 years of life lost. In contrast, musculoskeletal and neuropsychiatric conditions had the largest median survival time (≥6 years), and affected people were disabled for more than half of this time. The most-prevalent and -burdensome condition was multimorbidity, affecting 70.4% of the population, occurring for 69.3% of total deaths, and causing 4.5 years of life lost. Finally, people with multimorbidity lived 81% of their remaining years of life with disability (median 8.3 years).

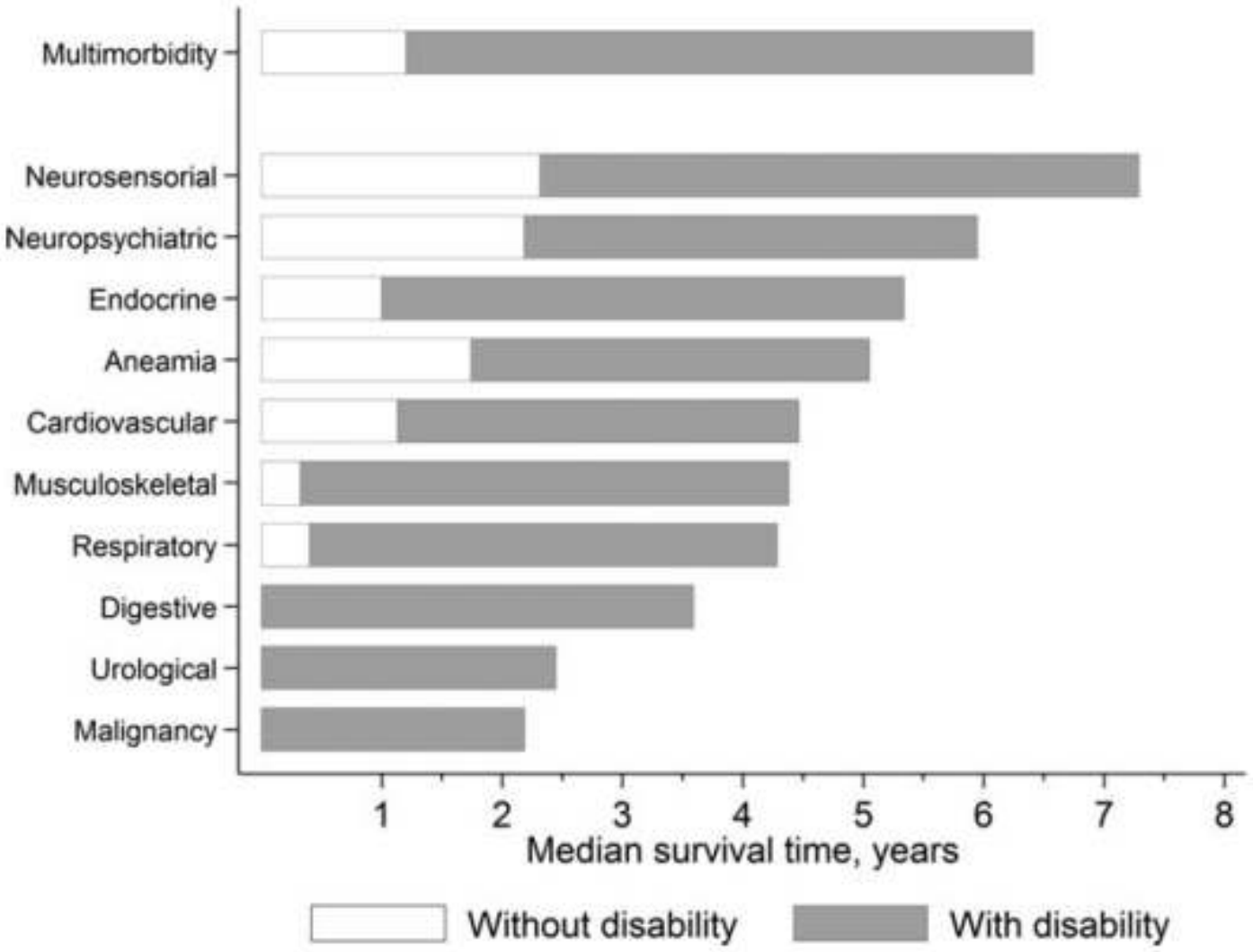
CONCLUSION: Survival in older adults differs in length and quality depending on specific conditions. The greatest negative effect on the individual (shorter life, greater dependence) and societal (number of attributable deaths, years spent with disability) level was from multimorbidity, which has made multimorbidity a clinical and public health priority. J Am Geriatr Soc 2017.

Key words: chronic conditions; multimorbidity; disability; median survival time; population attributable risk

In recent decades, the number of people with chronic disorders has dramatically increased in several countries, mostly due to the aging of the population.[1] Cardiovascular disease, cancer, diabetes mellitus, and dementia are the most common chronic diseases in elderly persons,[2] leading to impaired physical function, disturbance, high care costs, and shorter survival.

Different studies have estimated the proportion of deaths attributable to specific diseases. Dementia, for example, has been estimated to account for 11% to 17% of all deaths of elderly adults, and it has been predicted to increase with increasing age.[3–5] Similar figures were found for cardiac diseases, which account for 17% to 37% of all deaths.[3,5] The percentage of deaths attributable to other diseases is lower: cancer (6–20%),[4,5] endocrine diseases (3.6–8%),[5,7] respiratory diseases (2.1–3.2%).[5] Less attention has been paid to the effect of chronic multimorbidity on years of remaining life. Recently, researchers reported that the average decline in life expectancy after age 67 was 1.8 years for each additional chronic condition.[8] One study[9] estimated that there was a minimum reduction of 33% (4 years) in survival for people with a diagnosis of cardiovascular disease, mental health problems, or diabetes mellitus. Another study[10] found

Rizzuto D, et ál. J Am Geriatr Soc. 2017; 65(5):1056. PMID: 28306158



Rizzuto D, et ál. J Am Geriatr Soc. 2017; 65(5):1056. PMID: 28306158

LETTERS TO THE EDITOR

FUNCTION BUT NOT MULTIMORBIDITY AT THE CORNERSTONE OF GERIATRIC MEDICINE

To the Editor: We have read with interest the article of Rizzuto D. et al., "Effect of chronic diseases and multimorbidity on survival and functioning in elderly adults."[1] We agree with the authors that multimorbidity should be explored in older adults. However, the isolated analysis of this entity in this population may lead to misinterpretations. The authors have presented a simple analysis, non-adjusted for other well-contrasted and confounding variables in older adults, including age, sex, frailty, function, cognition, affect, polypharmacy, or geriatric syndromes. This is especially worrying for the case of the function, which may account for the effect of comorbidity on relevant outcomes, including incident disability or mortality.[2]

The World Health Organization (WHO) has recently confirmed in its World Report on Aging and Health[3] that intrinsic capacity, that is phenotipically expressed by means of the functional status, is the cornerstone of geriatric medicine. In addition to gender, ethnics, social conditions, genetics, physiologic changes of aging, healthy lifestyles, health conditions, risk factors, frailty, and geriatric syndromes, chronic disease is only one of the factors that modulate intrinsic capacity and function. This intrinsic capacity allows older adults to face the challenges of environment, driving to disability when it fails.[4]

Furthermore, multimorbidity is not the most important factor modulating the intrinsic capacity. We have recently published that frailty, disability, age, and institutionalization are of greater relevance than chronic disease the main features of older adults' healthcare, described in the precedent paragraphs of this writing, with a special mention to function. Although the authors have measured functional status (using the Katz index), they have not included it in the final model of adjustment, preventing to consider some of their findings reliable. This is possibly the case for the finding, in their work, a lower survival time of urological and digestive diseases when compared to cardiovascular or neuropsychiatric diseases.

It is increasingly clear that functional issues are the key factors that account for the substantial differences between adult and older people when becoming sick and, as a consequence, in the clinical practice and organization of the models of healthcare available to them. By driving to achieve misleading conclusions with a high risk for bias, ignoring this fact can be dangerous. Accordingly, the WHO model, based on frailty and function, is being adopted not only by geriatricians all around the world, but also from other specialists, including cardiologists, nephrologists, oncologists, or surgeons[9] that are implementing frailty and function to stratify older adults for clinical decision making.

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Abizanda P and Rodríguez-Mañas L. J Am Geriatr Soc. 2017; 65(10):2333. PMID: 28832930

Diabetologia (2004) 47:1957–1962
DOI 10.1007/s00125-004-1556-8

Diabetologia

Short Communication

Physical disability among older Italians with diabetes. The ILSA Study

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Abstract

Aims/hypothesis. We studied the role of diabetic complications and comorbidity in the association between diabetes and disability in the elderly.

Methods. Data were from a nationally representative sample of 5632 older Italians, aged 65 years and older, and who participated in the Italian Longitudinal Study on Aging. Clinical diagnoses of diabetes and other major chronic conditions were made by a physician, while disability was assessed by self reported information on activities of daily living and physical performance tests.

Results. After adjusting for age, education and BMI, disability on the basis of activities of daily living was associated with diabetes in women, but not in men (odds ratio [OR] 1.65, CI: 1.22–2.23 and OR 1.21, CI: 0.84–1.75 respectively). In contrast, the association between severe and/or total disability on the basis of physical performance tests and diabetes was strong in both sexes (OR 2.81, CI: 1.44–5.41 and OR 2.16, CI: 1.25–3.73 respectively). Adjusting for traditional complications and comorbidity reduced the excess odds of disability by 38% in women and by 16% in men.

Conclusions/interpretation. Disability in older Italians with diabetes is frequent and only partially attributable to traditional diabetic complications and comorbidity.

Keywords Ageing · Comorbidity · Diabetes · Physical disability.

Table 4. Effect of separately controlling for diabetic comorbidities on the percentage of excess odds of overall disability associated with diabetes

Model	Women			Men		
	Any disability		Reduction in excess odds (%)	Any disability		Reduction in excess odds (%)
Diabetes	180	(131–247)	–	139	(100–192)	–
Diabetes + BMI	151	(108–211)	16	128	(90–181)	8
Diabetes + arthrosis	175	(126–243)	3	132	(95–185)	5
Diabetes + myocardial infarction	179	(130–246)	1	134	(97–186)	4
Diabetes + angina	181	(132–249)	0	136	(99–189)	2
Diabetes + heart failure	168	(122–231)	7	139	(100–192)	0
Diabetes + stroke	171	(124–235)	5	137	(99–191)	1
Diabetes + CVD	170	(124–235)	6	132	(95–184)	5
Diabetes + CVD + BMI	145	(103–203)	19	123	(86–176)	12
Diabetes + peripheral neuropathy	162	(117–225)	10	129	(92–181)	7
Diabetes + depressive symptoms	162	(117–224)	10	133	(95–186)	4
Diabetes + incontinence	171	(124–235)	5	137	(99–191)	1
Diabetes + all comorbidities	112	(77–163)	38	117	(78–175)	16

Disability was defined according to physical performance test. Data are ILSA-weighted data. CVD, cardiovascular disease

Maggi S, et ál. Diabetologia. 2004;47(11):1957. PMID: 15599698

PREVENTING CHRONIC DISEASE
PUBLIC HEALTH RESEARCH, PRACTICE, AND POLICY
Volume 13, E151 NOVEMBER 2016

ORIGINAL RESEARCH

Multimorbidity and Functional Limitations Among Adults 65 or Older, NHANES 2005–2012

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Suggested citation for this article: Jindai K, Nielson CM, Vorderstrasse BA, Quiñones AR. Multimorbidity and Functional Limitations Among Adults 65 or Older, NHANES 2005–2012. Prev Chronic Dis 2016;13:160174. DOI: http://dx.doi.org/10.5888/pcd13.160174.

PEER REVIEWED

Abstract

Introduction

The association of functional limitations among adults aged 65 or older has profound effects on individual and societal outcomes. Increased understanding of the relationship between functional limitations and co-occurring chronic diseases (multimorbidity) is an emerging area of interest. The objective of this study was to investigate the association between multimorbidity and functional limitations among community-dwelling people 65 or older in the United States and explore factors that modify this association.

Methods

We conducted a cross-sectional analysis of 3,615 aged 65 or older using data from the National Health and Nutrition Examination Survey (NHANES) from 2005 through 2012. We used negative binomial regression to estimate the association between multimorbidity (≥2 concurrent diseases) and functional limitations and to determine whether the association differed by sex or age.

were 1.32 (95% CI, 1.25–1.41) times the number of functional limitations for men and 1.62 times (95% CI, 1.51–2.02) the number of functional limitations for women. For those 75 or older, the associations increased to 1.71 (95% CI, 1.35–2.16) for men and 2.06 (95% CI, 1.81–2.45) for women for the same level of multimorbidity.

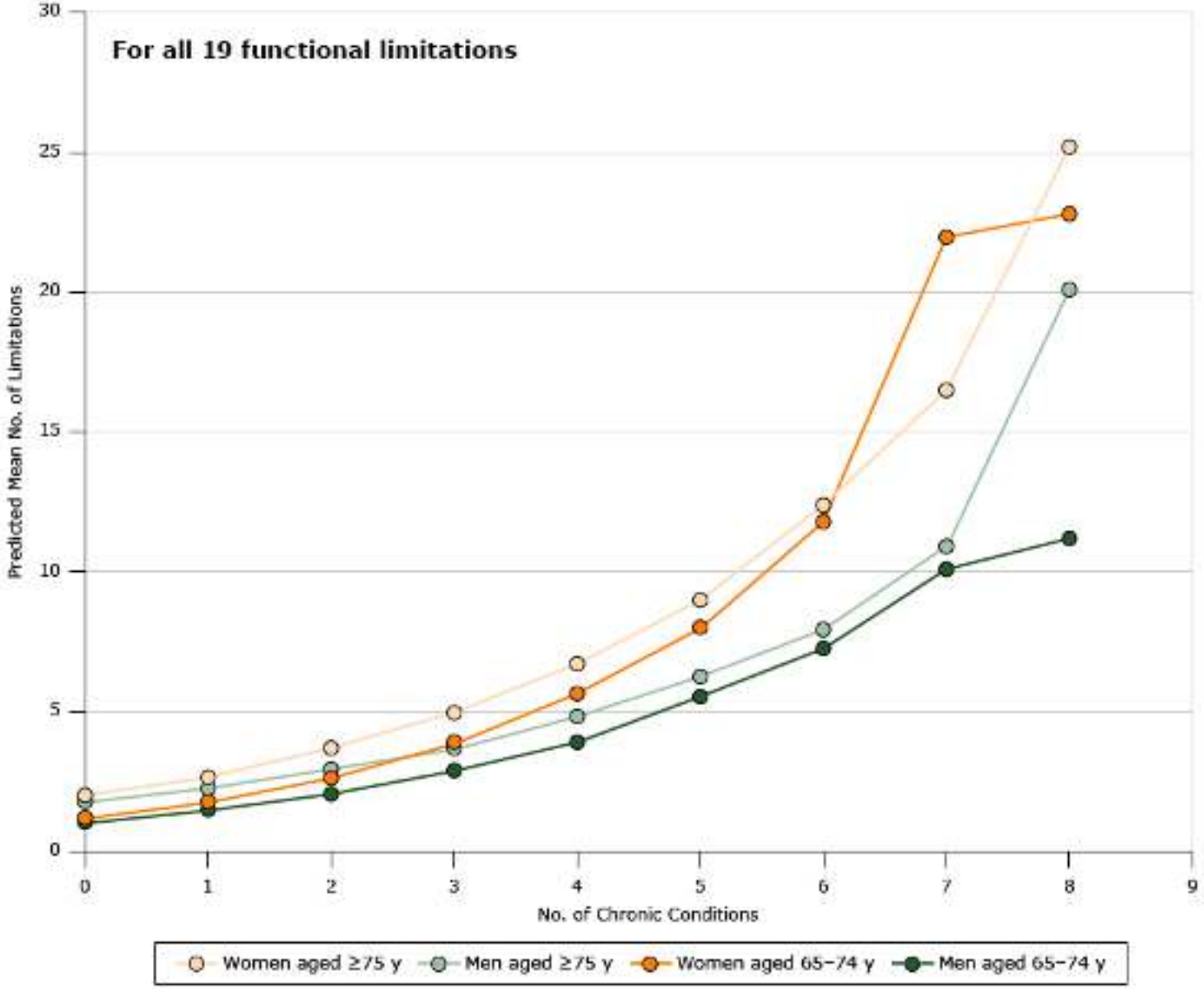
Conclusion

Multimorbidity was associated with increases in functional limitations, and the associations were stronger among women than among men and among adults aged 75 or older than among those aged 65 to 74. These findings underscore the importance of addressing age and sex differences when formulating prevention strategies.

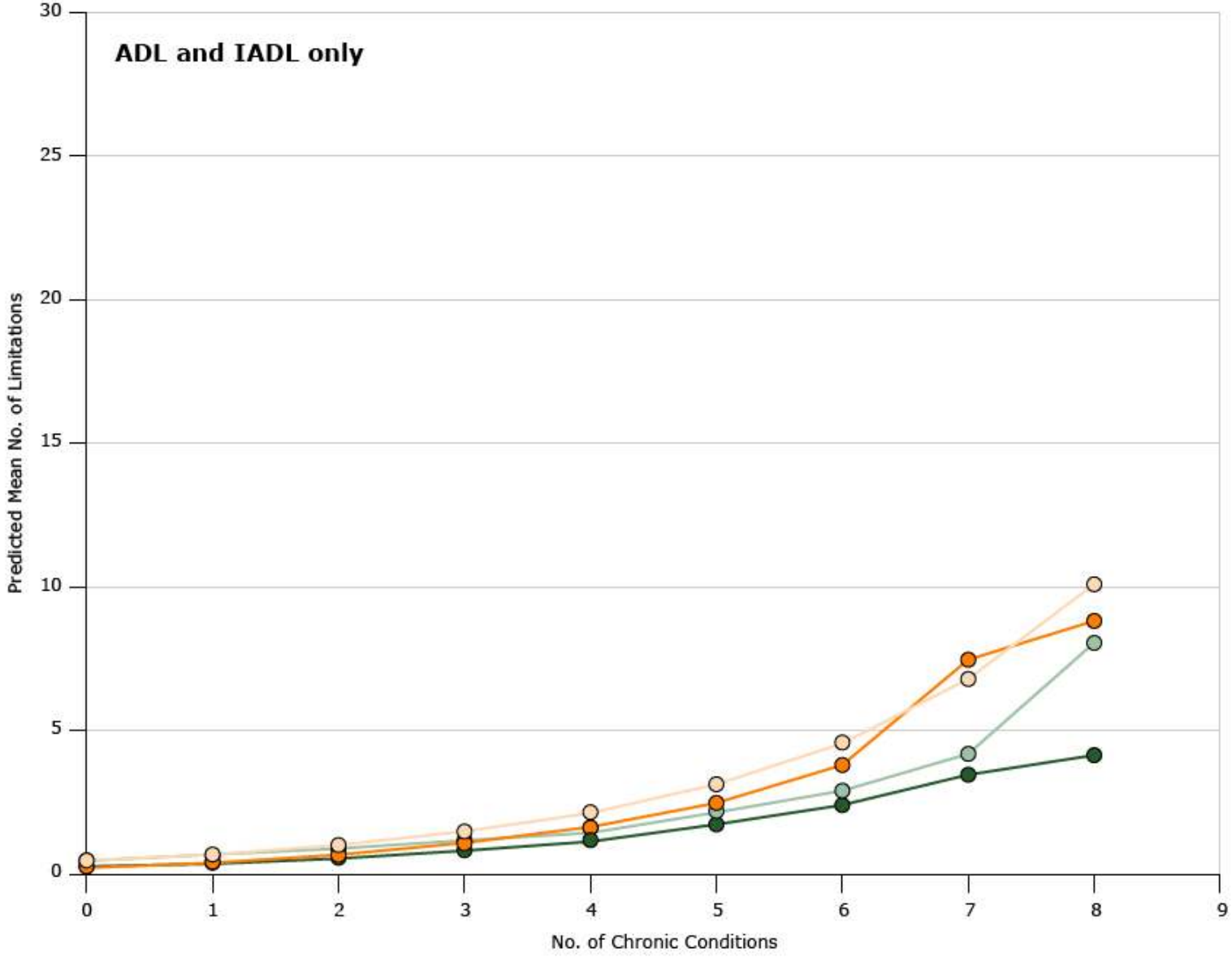
Introduction

Older adults are at greater risk of developing chronic illnesses and related functional limitations (1,2). Healthy People 2020 prioritizes the reduction in the proportion of older adults with moderate to severe functional limitations from 20.3% in 2007 to 20.4% in 2020 (3). Achieving this goal necessitates identifying contributors to functioning among these adults and using this information to refine future prevention programs.

The association between disability and a high number of chronic diseases is documented (4,5). Often, the etiologic pathway from disease to disability is conceptualized as a trajectory from disease pathology to impairment, functional limitation, and finally, to dis-



Jindai K, et ál. Prev Chronic Dis. 2016 Nov 3;13:E151. PMID: 27809419.



Jindai K, et ál. Prev Chronic Dis. 2016 Nov 3;13:E151. PMID: 27809419.

¿Cómo se combinan las CCM, cuál asociación discapacita más, son suma o potencia?



JAMDA

Original Study

Frailty as a Major Factor in the Increased Risk of Death and Disability in Older People With Diabetes

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Keywords
Older adults
frailty
disability
mortality
type 2 diabetes
risk factors

ABSTRACT

Objectives: To assess the role of frailty in predicting death and incident disability in older adults with type 2 diabetes mellitus.

Design: Prospective cohort study.

Setting: Community dwelling.

Participants: A total of 1029 individuals ≥65 years old recruited between June 2008 and September 2009 were followed for a median of 3.5 years for mortality and 4.08 years for incident functional disability in activities of daily living. Self-reported diseases, comorbidities (Charlson index), geriatric and geriatric-specific diseases, drug treatments, frailty Fried Score (FFS) and Frailty Index (FI), risk factors (frailty factors, heart rate, and blood pressure) among others were collected at baseline.

Statistical analysis: Survival analysis (Kaplan-Meier), adjusted for propensity-based scores, and binary logistic regression were used to assess the relationship between frailty, comorbidity, and geriatric diseases and time to death and incident disability.

Results: A total of 903 people had diabetes. Among them, 85 deaths and 81 cases of incident disability occurred during follow-up. People with diabetes had more comorbidity than those without diabetes [hazard ratio = 1.36 95% confidence interval (CI) 1.03–1.75, P = .032] showing a poorer functional status at baseline. Several markers showed a relationship between frailty and time to death in the adjusted Cox models, only age and frailty indices but not comorbidity or cardiovascular diseases, were associated with the incidence of disability. The hazard ratio for death was 1.21 (95% CI 1.20–1.27) and 1.58 (95% CI 1.49–2.26) for each 10 cumulative points in the FFS and FI, respectively. Odds ratio for incident disability was 1.04 (95% CI 1.03–1.05) and 1.15 (95% CI 1.08–1.18) for each 10 cumulative points in the FFS and FI, respectively.

Conclusions: Frailty is an important risk factor for death and disability in older adults with diabetes, superseding the role of comorbidities. The frailty status should be considered in the assessment of these patients.

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Castro-Rodríguez M, et ál.. J Am Med Dir Assoc. 2016; 17(10):949. PMID: 27600194

Adjusted Models With the Potential Risk Factors for Incident Disability

	Variables	Basic Model			Basic Model + FTS			Basic Model + FI		
		OR	LL	UL	OR	LL	UL	OR	LL	UL
Charlson index	Age	1.126	1.073	1.182	1.079	1.021	1.140	1.105	1.051	1.162
	Female Sex	2.048	1.232	3.404	1.299	0.727	2.322	1.922	1.140	3.241
	Charlson I.	1.176	1.027	1.347	1.128	0.973	1.307	1.052	0.908	1.220
	Frailty*				1.348	1.096	1.658	1.665	1.238	2.240
	AIC	373.4			300.4			361.0		
	AUC	0.693	0.621	0.764	0.712	0.642	0.782	0.732	0.664	0.801
	Variable	Basic model			Basic model + FTS			Basic model + FI		
		OR	LL	UL	OR	LL	UL	OR	LL	UL
CVD and CeVD	Age	1.121	1.068	1.175	1.071	1.015	1.132	1.103	1.050	1.159
	Female sex	2.387	1.438	3.964	1.440	0.803	2.583	2.039	1.205	3.450
	CVD	0.934	0.489	1.781	0.807	0.394	1.653	0.793	0.407	1.547
	CeVD	3.236	1.190	8.800	2.801	0.917	8.562	2.129	0.728	6.226
	Frailty*				1.404	1.146	1.722	1.723	1.295	2.292
	AIC	378.0			304.7			363.7		
	AUC	0.704	0.633	0.775	0.725	0.656	0.794	0.743	0.675	0.810

AIC, akaike information criteria; CeVD, cerebrovascular disease; CVD, cardiovascular disease; HR, hazard ratio; IAUC, incremental area under the curve; LL, lower limit of 95% CI; NI, not included; OR, odds ratio; UL, upper limit of 95% CI.

*Increment of 10 points (over 100) in the scale score.

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Controversies in Long-term Care

Frailty and Multimorbidity: Different Ways of Thinking About Geriatrics

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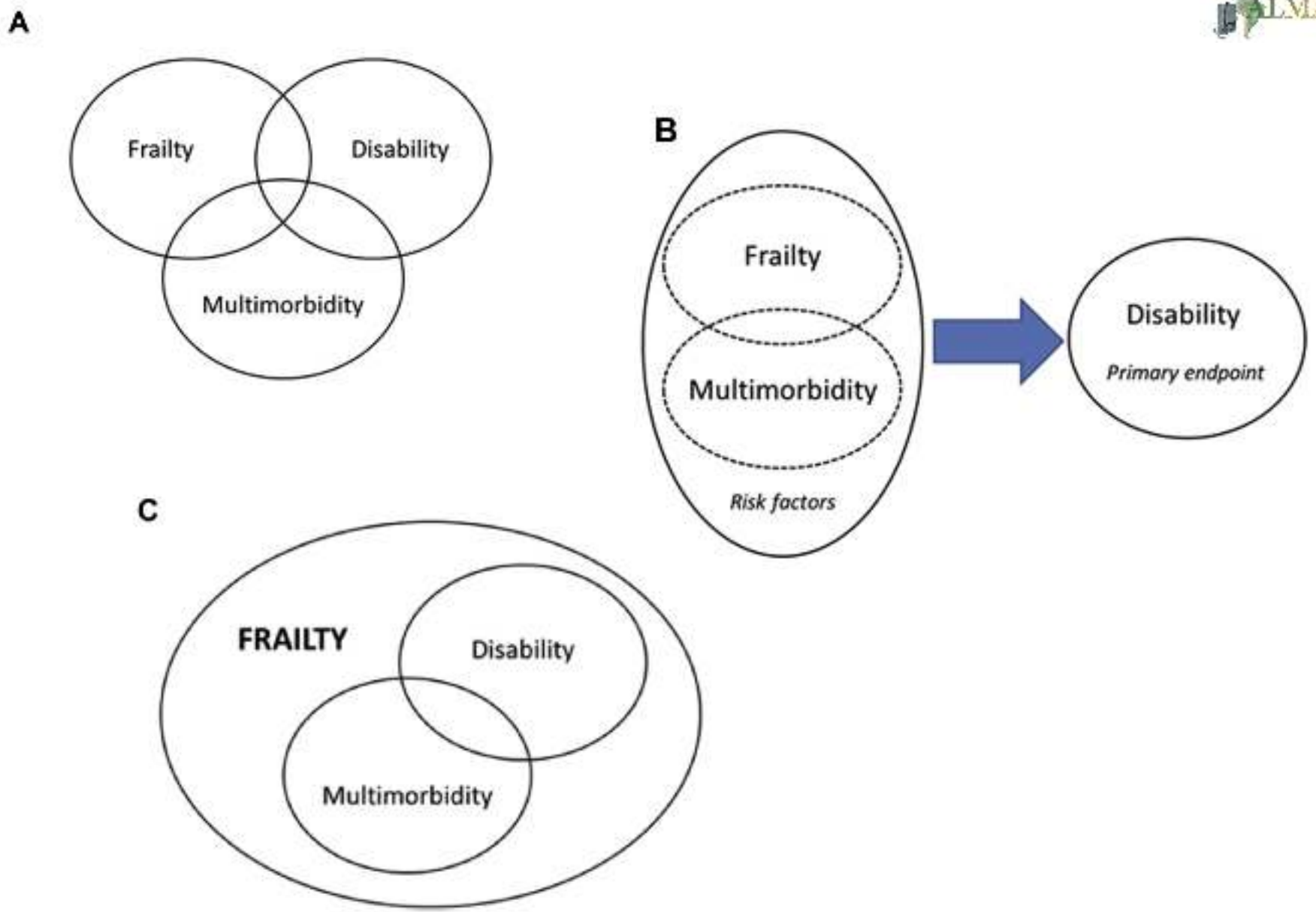
Keywords:
Diseases
comprehensive geriatric assessment
aging
public health

ABSTRACT

The terms *multimorbidity* and *frailty* are increasingly used in the medical literature to measure the risk profile of an older individual in order to support clinical decisions and design ad hoc interventions. The construct of multimorbidity was initially developed and used in nongeriatric settings. It generates a monodimensional nosological risk profile, grounding its roots in the somewhat inadequate framework of disease. On the other hand, frailty is a geriatric concept that implies a more exhaustive and comprehensive assessment of the individual and his/her environment, facilitating the implementation of multidimensional and tailored interventions. This article aims to promote among geriatricians the use of terms that may better enhance their background and provide more value to their unrivaled expertise in caring for biologically aged persons.

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Cesari M, et ál. J Am Med Dir Assoc. 2017; 18(4):361. PMID: 28279606

Endocrinología y Nutrición

REVIEW ARTICLE

Impact of frailty in older patients with diabetes mellitus: An overview

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KEYWORDS
Diabetes;
Hyperglycemia;
Frailty;
Sarcopenia;
Older people

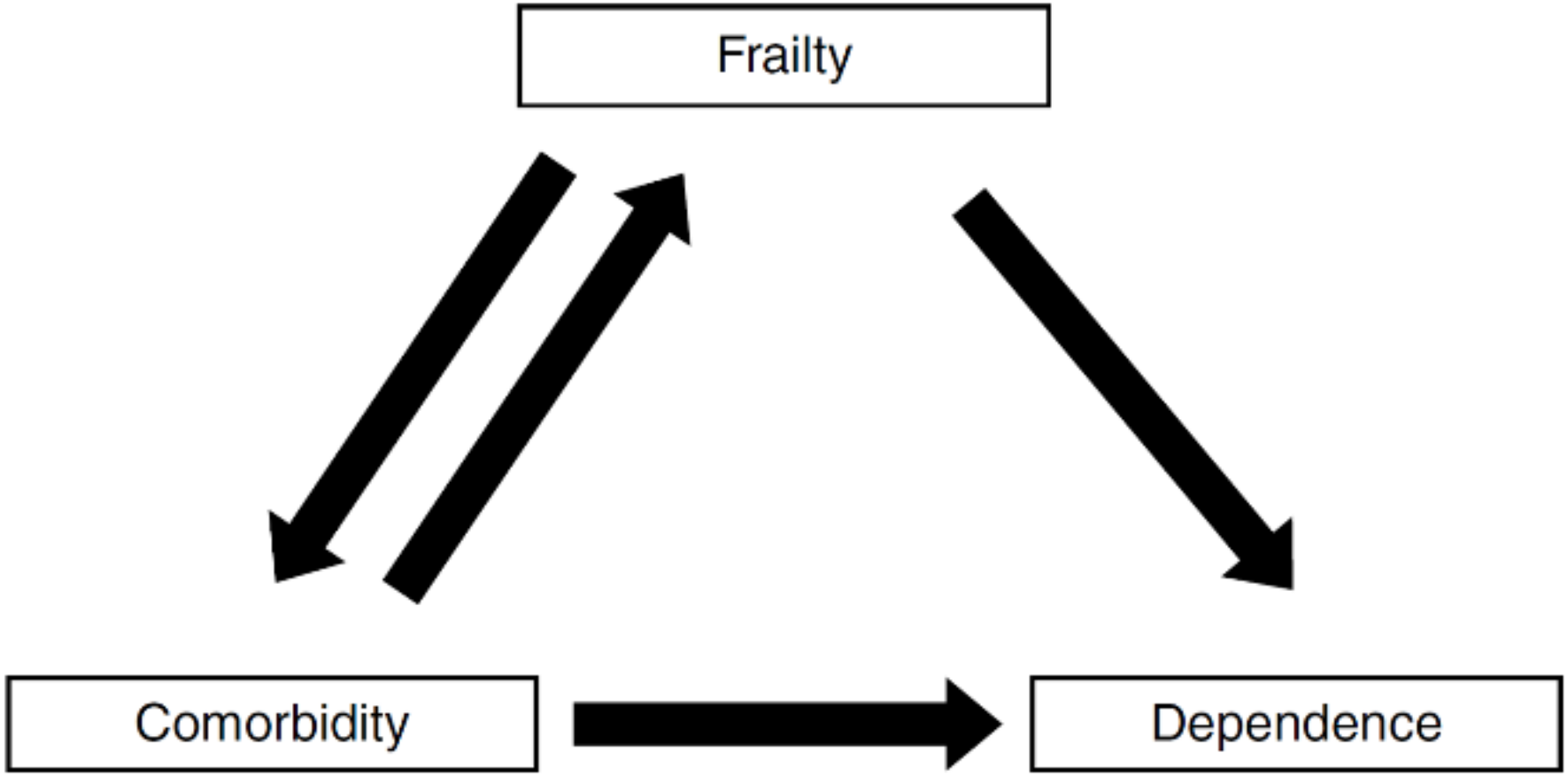
Abstract Diabetes and frailty are two conditions that frequently occur concurrently and are increasingly prevalent in the older patient. We review the concept, epidemiology and consequences of frailty and the implications of the presence of frailty in the management of diabetes. Frailty is associated with decreased quality of life, a risk of falls, new or increased disability, hospitalization, and increased mortality. All of these factors affect the management of diabetes in older patients. It is important to rule out frailty in all diabetic patients aged >70 years; if frailty is suspected, a comprehensive and multidisciplinary medical and functional assessment of the patient should be conducted to develop an individualized treatment plan. This plan should include nutritional measures, physical activity, and medical treatment of self-care of diabetes; drugs should not be used without a clear indication. Antihyperglycemic drugs that may cause excessive weight loss and/or are associated with a high risk of hypoglycemia should be avoided.
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PALABRAS CLAVE
Diabetes;
Hiperglucemia;
Fragilidad;
Sarcopenia;
Personas mayores

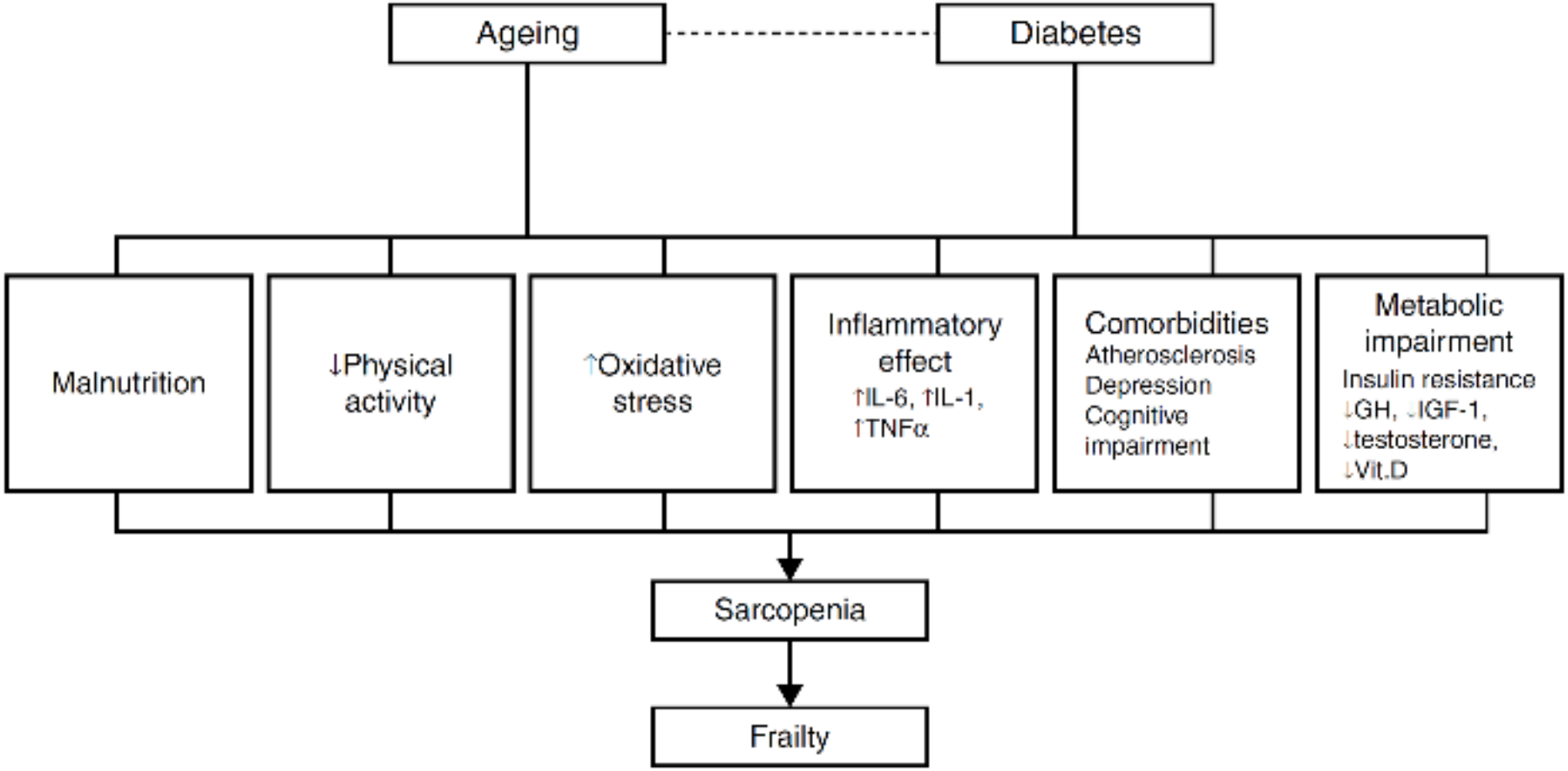
Efectos de la fragilidad en los pacientes mayores con diabetes: Una revisión

Resumen La diabetes y la fragilidad son 2 procesos que se producen a menudo simultáneamente y son cada vez más prevalentes en los pacientes mayores. Revisamos aquí el concepto, la epidemiología y las consecuencias de la fragilidad, y las implicaciones de la presencia de fragilidad en el tratamiento de la diabetes. La fragilidad se asocia con un empeoramiento de la calidad de vida, riesgo de caídas, aparición o aumento de la discapacidad, hospitalización y aumento de la mortalidad. Todos estos factores afectan al tratamiento de la diabetes en los pacientes de mayor edad. Es importante descartar la existencia de fragilidad en todos los pacientes diabéticos de más de 70 años de edad; si se sospecha fragilidad, debe efectuarse una valoración médica y funcional exhaustiva multidisciplinaria del paciente para desarrollar un plan de tratamiento individualizado. Este plan debe incluir medidas nutricionales, actividad física y educación sobre los

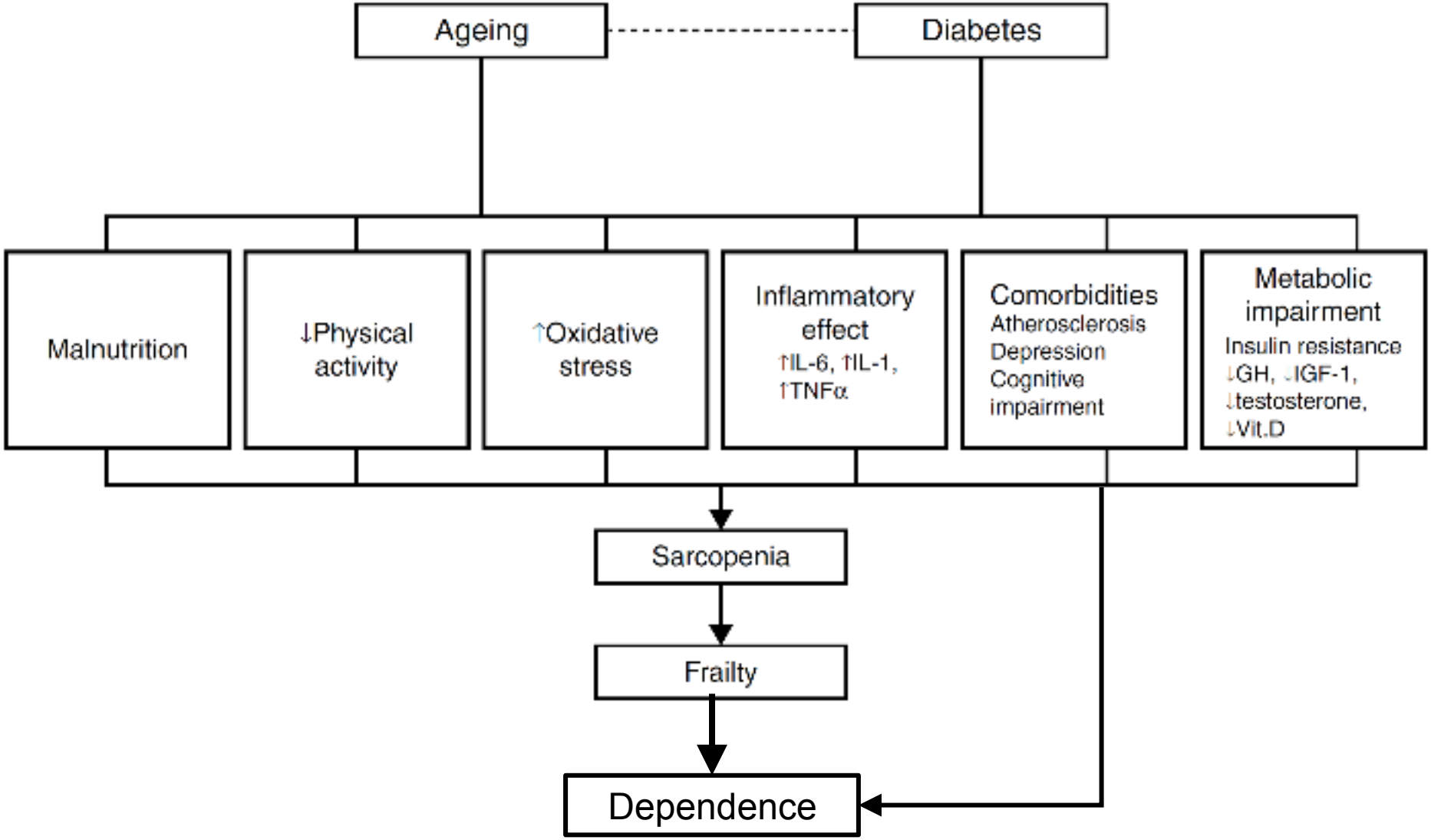
Cobo A, et ál. Endocrinol Nutr. 2016 Jul;63(6):291. PMID: 26971016



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Review article

Frailty and multimorbidity: Two related yet different concepts

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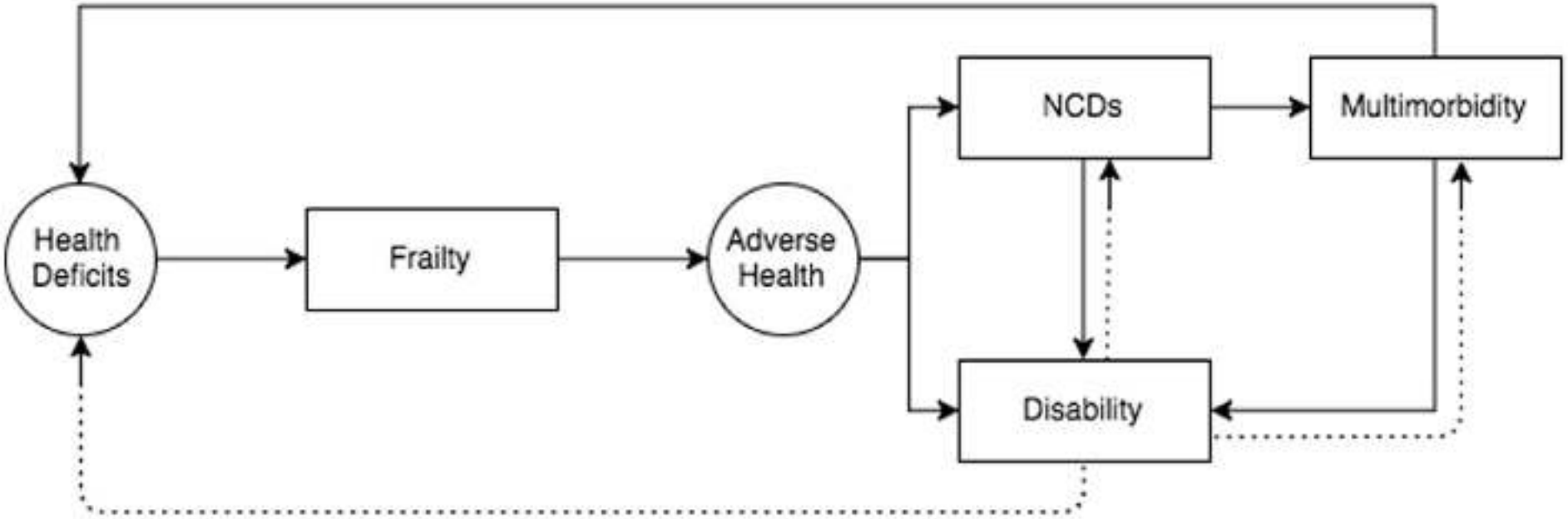
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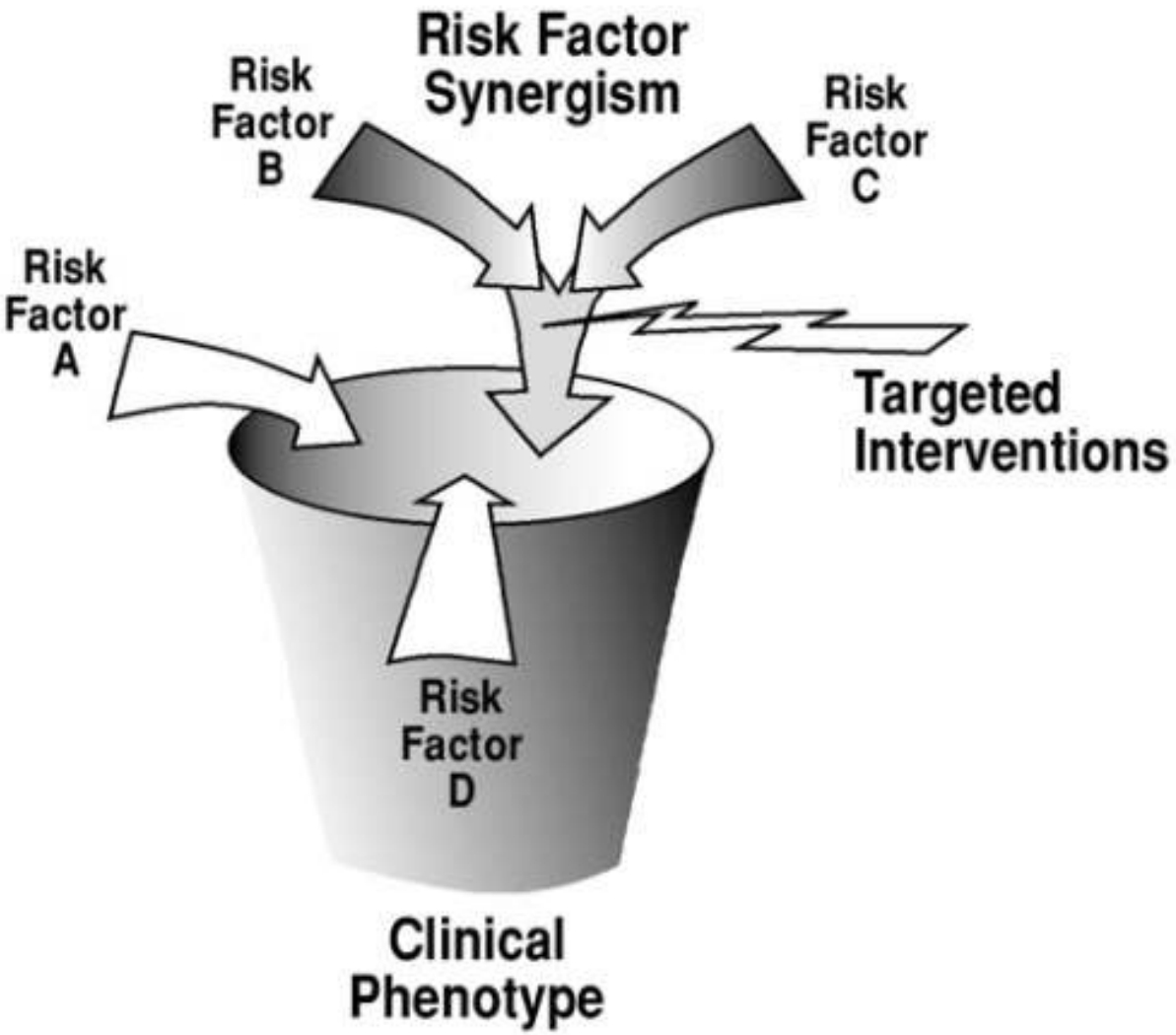
ABSTRACT

The extension of life expectancy is a global phenomenon. The growth in the ageing population has created a new health scenario in which there is a higher prevalence of frailty and multimorbidity. The attention received by both conditions derives from their strong association with disability, hospitalization, and death. The aim of the present paper is to conceptualize and differentiate these terms and to discuss their interrelations. We conclude that, yet related, they represent two different clinical conditions. Frailty identifies the increased vulnerability to stressors due to a dynamic, non-linear, and multidimensional depletion of physiological reserve and redundancy, whereas multimorbidity refers to the coexistence of two or more clinically manifest chronic diseases.

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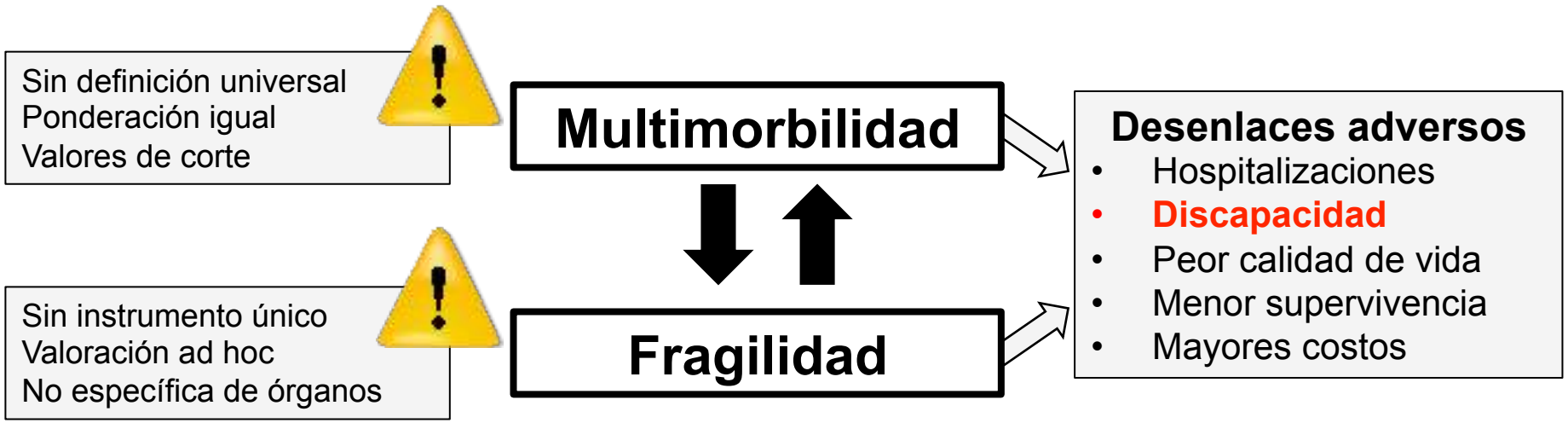


Villacampa-Fernández P, et ál. Maturitas. 2017; 95:31. PMID: 27889050



Inouye SK, et ál. J Am Geriatr Soc. 2007;55:780. PMID: 17493201

Similitudes



Vetrano DL, et ál. J Gerontol A Biol Sci Med Sci. 2017; PMID: 28957993



Reserva fisiológica disminuida

Fragilidad preclínica

Fragilidad clínica

Morbilidad crónica y aguda

Otros síndromes geriátricos

Deterioro funcional

Discapacidad

Dependencia

Muerte



Reserva fisiológica disminuida

Fragilidad preclínica

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Morbilidad crónica y aguda

Otros síndromes geriátricos

Deterioro funcional

Discapacidad

Dependencia

Muerte

Conclusiones

- Las condiciones crónicas múltiples durante el envejecimiento contribuyen al desarrollo de fragilidad, lo cual a su vez se relaciona con discapacidad y dependencia para la realización de actividades de la vida diaria.

Conclusiones

- Es posible que la asociación entre multimorbilidad crónica, fragilidad y discapacidad sea multidireccional.

Conclusiones

- El tipo de enfermedades, su duración y gravedad pueden influir en la fuerza de la asociación entre tener múltiples condiciones crónicas y presentar discapacidad.

Conclusiones

- Se requiere más investigación en otras poblaciones, con periodos de seguimiento más largos y con registros más detallados de las condiciones crónicas de salud para caracterizar mejor la asociación entre la multimorbilidad crónica, fragilidad y la discapacidad en personas mayores.