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Filipe Langlois Costa

**ESTRUTURAÇÃO DE
PROGRAMAS DE TREINAMENTO
MULTICOMPONENTE PARA A
CAPACIDADE FUNCIONAL DE
IDOSOS FRÁGEIS: REVISÃO
SISTEMÁTICA**

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Dissertação submetida ao
Programa de Pós-Graduação em
Ciências da Reabilitação da
Universidade Federal de
Ciências da Saúde de Porto
Alegre como requisito para a
obtenção do grau de Mestre

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Filipe Langlois Costa

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Dedico esse trabalho à minha esposa,
Sheila e aos meus filhos, Sara, Cecília e
Rodrigo que tiveram que lidar com minhas
constantes ausências, mesmo quando
fisicamente presente, nesse projeto que
sempre foi um meio e não um fim.

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“Ninguém pode servir a dois senhores. Porque, ou odiará a um e amará o outro, ou será fiel a um e desprezará o outro. Vocês não podem servir a Deus e às riquezas.” (Mt 6, 24-26)

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“Na vida, tudo é Graça.”
Santa Teresinha de Lisieux

EPÍGRAFE

“Não esqueças que antes de ensinar, é preciso fazer. –‘Coepit facere et docere’, de Jesus Cristo a Sagrada Escritura: começou a fazer e a ensinar.

- Primeiro, fazer. Para que tu e eu aprendamos.

Josémaria Escrivá - Caminho, 342

“Na biologia, nada faz sentido exceto à luz da evolução.”

Theodosius Dobzhanski

RESUMO

Introdução: O treinamento multicomponente é a modalidade terapêutica mais indicada para idosos frágeis, capaz de reverter o grau de fragilidade embora não exista uma diretriz orientando a melhor forma de estruturar um programa de exercícios multicomponente (PEMC). **Objetivos:** Revisar de forma sistemática os efeitos de PEMC sobre a capacidade funcional (CF) em idosos frágeis e comparar a estruturação dos protocolos de treinamento. **Métodos:** Revisão sistemática (PROSPERO CRD42020162781) entre novembro e dezembro de 2019. As buscas ocorreram nas bases de dados Cochrane (CENTRAL), PubMed (MEDLINE), BVS (LILACS), PEDro, ScienceDirect, Scopus, SPORTDiscus (EBSCO) e Web of Science. Os critérios de inclusão foram ensaio clínico randomizado, idosos com definição de fragilidade, submetidos a treinamento multicomponente com no mínimo 3 componentes, com desfecho, primário ou secundário, na CF. Dois revisores independentes realizaram as buscas e extraíram os dados, contatando os autores quando necessário. **Resultados:** A estratégia de busca identificou 2652 artigos, excluindo 714 duplicatas e 1912 na leitura de título e resumo, por não preencherem os critérios de elegibilidade. Para a leitura completa restaram 26 artigos, e 21 foram excluídos, restando 5 artigos para estudo e análise dos protocolos. Os resultados heterogêneos impossibilitaram a metanálise, inclusive a avaliação por subgrupos. Os protocolos dos estudos analisados estão direcionados principalmente para melhora da capacidade física, contemplando o treinamento de função com uma intervenção pobre e limitada a poucos exercícios. **Conclusão:** Os protocolos de treinamento das intervenções baseadas em exercício estão bastante focados nos aspectos físicos da CF deixando os aspectos cognitivo, emocional e social de lado. O ganho de funcionalidade para atividades básicas, instrumentais e avançadas, ABVD, AIVD e AAVD, respectivamente, através do treinamento funcional para atividades diárias precisa ser melhorado nos próximos estudos para que idosos frágeis possam ter maiores níveis de autonomia, independência e interação social.

Palavras-Chave: Envelhecimento. Idoso Frágil. Exercício Multicomponente. Capacidade Funcional

ABSTRACT

Background: Multicomponent training is the most suitable therapeutic modality for frail elderly people, capable of reversing frailty degree, although there is no guideline for the best way to structure a multicomponent exercise program (MCEP). **Objectives:** To systematically review the effect of MCEP on the functional capacity (FC) of frail elderly people and to compare the structure of training protocols. **Methods:** Systematic review (PROSPERO CRD42020162781) with a search for articles, between November and December 2019. Searches occurred on Cochrane (CENTRAL), PubMed (MEDLINE), BVS (LILACS), PEDro, ScienceDirect, Scopus, SPORTDiscus (EBSCO) and Web of Science databases. The inclusion criteria were randomized clinical trials, older adults with a frailty definition, submitted to a multicomponent training with at least 3 components, with the outcome either primary or secondary on FC. Two independent reviewers performed the searches and extracted the data. The authors were contacted when necessary. **Results:** The search strategy identified 2652 articles, excluding 714 duplicates, and 1912 on the title and abstract reading, as they did not meet the eligibility criteria. The full-text reading, 26 articles remained, and 21 were excluded, leaving 5 articles for study and analysis of protocols. The heterogeneous results do not allow a meta-analysis, including a subgroups evaluation. The protocols of the analyzed studies are mainly aimed at improving physical function, including function training with poor intervention and limited to a few exercises. **Conclusion:** The training protocols for exercised-based interventions are very focused on the physical aspects of FC, leaving the cognitive, emotional, and social aspects aside. Improving functionality for basic, instrumental and, advanced, BADL, IADL, and AADL, respectively, through function training needs to be improved on future studies so that frail elderly can have higher levels of autonomy, independence, and social interaction.

Keywords: Aging. Frail Elderly. Multicomponent Exercise. Functional Capacity

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LISTA DE ABREVIATURAS

1 RM	1 Repetição Máxima
ACSM	<i>American College of Sports Medicine</i>
ADM	Amplitude de Movimento
AVD	Atividades de Vida Diária
ABVD	Atividades Básicas de Vida Diária
AIVD	Atividades Instrumentais de Vida Diária
AAVD	Atividades Avançadas de Vida Diária
ASTM	Área de Secção Transversa Muscular
BDNF	<i>Brain-Derived Neurotrophic Factor</i>
CF	Capacidade Funcional
DCV	Doenças Cardiovasculares
DMT2	Diabete Melito Tipo 2
EUA	Estados Unidos da América
ECR	Ensaio Clínico Randomizado
FC	<i>Functional Capacity</i>
IBGE	Instituto Brasileiro de Geografia e Estatística
ONU	Organização das Nações Unidas
OMS	Organização Mundial da Saúde
SABE	Estudo Saúde, Bem-Estar e Envelhecimento
VO ₂ max	Consumo de Oxigênio

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INTRODUÇÃO

O aumento da expectativa de vida e o envelhecimento populacional proporcionaram um crescimento significativo no número de idosos na população mundial¹. Tal mudança demográfica faz com que projeções indiquem 1,4 bilhão de idosos nos próximos 10 anos^{31,32}, elevando substancialmente o número de problemas de saúde relacionados ao envelhecimento, como a síndrome da fragilidade.

A fragilidade é uma síndrome biológica relacionada ao envelhecimento, caracterizada pela diminuição das reservas energéticas nos múltiplos sistemas e funções corporais¹. Esta síndrome deixa o idoso mais vulnerável a um resultado negativo, mesmo quando exposto a agentes estressores de baixa complexidade, e aumenta o risco para quedas, fraturas, hospitalizações, baixa velocidade de recuperação, maior uso dos serviços de saúde, institucionalização e morte¹.

A prevalência da fragilidade varia de acordo com a população estudada, o critério ou ferramenta utilizada e aumenta com a idade. É mais prevalente em mulheres, e países subdesenvolvidos com influência direta do nível socioeconômico^{2,3}, podendo variar de 12,7% a 35,9% conforme o padrão de definição de fragilidade³. O número de idosos frágeis e o subsequente custo com serviços de saúde tendem a sofrer um impacto significativo com o aumento da expectativa de vida^{4,73}, embora intervenções para a reversão da fragilidade apresentem uma relação custo-benefício positiva⁴.

A fisiopatologia da síndrome da fragilidade ocorre de acordo com o estilo de vida e é muito influenciada pelo nível de atividade física e padrão alimentar⁵, mas sua patogênese envolve um mecanismo multifatorial, incluindo a sarcopenia, doença muscular multifatorial e principal componente da síndrome da fragilidade, considerando o papel endócrino do sistema musculoesquelético, conforme ilustrado na **FIGURA 1**⁶⁻¹⁰.

A sarcopenia também é influenciada pela atividade física e nutrição, mas tem outros fatores, como o próprio envelhecimento, diminuição da concentração hormonal, perfil inflamatório crônico, estresse oxidativo, desequilíbrio entre proteossíntese e degradação protéica, diminuição do número de motoneurônios alfa e doenças associadas, como diabetes^{11,12}.

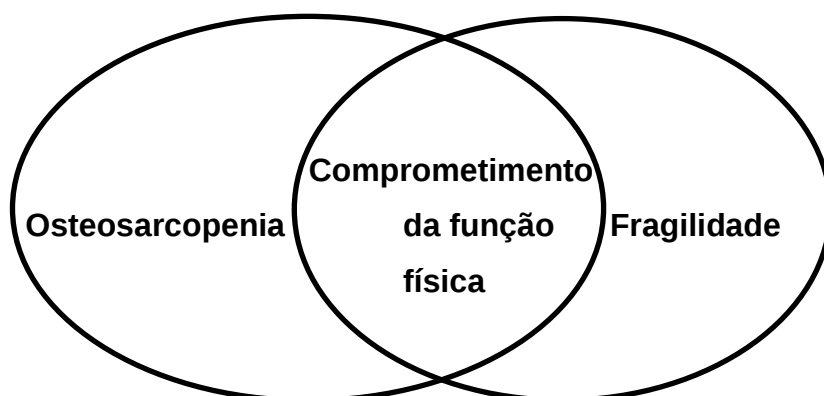


FIGURA 1. Relação entre osteosarcopenia, fragilidade e comprometimento da função física. Adaptado de Cesari 2014 e Kirk 2019.

O sedentarismo desempenha um papel chave no desenvolvimento da fragilidade, pois proporciona menor velocidade de marcha e baixo nível de atividade física, podendo ainda estar associado à solidão e isolamento social¹³. Esses, somados à diminuição da força e função muscular, desnutrição crônica e perda de peso não intencional formam o fenótipo da fragilidade¹⁴, que ainda é corroborado pelo declínio da função cognitiva, potencializando o risco para isolamento social e agravamento de doenças associadas¹⁵⁻¹⁹.

A saúde do idoso é determinada por sua capacidade funcional, e esta pode ser definida como a aptidão para executar uma tarefa ou ação relacionada à sua rotina, no maior grau possível de funcionalidade, de forma autônoma e independente^{20,21}, sendo representada pelas atividades básicas (ABVD), instrumentais (AIVD) e avançadas (AAVD) de vida diária, ao mesmo tempo em que pode ser dividida pelos aspectos físico, social, cognitivo e emocional²². A autonomia ainda é subdividida em cognição e humor, e a independência em mobilidade e comunicação. O funcionamento harmônico desses quatro aspectos regula a capacidade do idoso de executar essas tarefas no dia-dia e sua diminuição relacionada à fragilidade influencia direta e negativamente nas atividades de vida diária (AVD), colocando o idoso em uma espiral descendente²³.

A literatura dispõe de evidências robustas sobre o efeito benéfico das intervenções cinesioterapêuticas na capacidade funcional dos idosos, com ganho de força e potência muscular, melhor equilíbrio e velocidade de marcha,

redução no medo e número de quedas, além de atenuação ou reversão da fragilidade, maior gasto energético relacionado à atividade física, maiores níveis de socialização e menor uso dos serviços de saúde²⁴⁻³⁰.

Programas de treinamento baseados em exercício multicomponente, de forma estruturada, são as intervenções mais indicada para essa população, pois são capazes de atuar nos diversos sistemas acometidos pela fragilidade, podendo ser composto de três ou mais modalidades terapêuticas²⁹, embora não exista na literatura uma definição padrão, podendo ser oferecido de diferentes maneiras, e se encontram diversos trabalhos com resultados significativos nessa população.

Uma revisão da Cochrane aponta-o como alternativa considerável para prevenção de quedas, as quais repercutem na funcionalidade do idoso, diminuindo o isolamento social³⁰. Outra revisão comparou diferentes modalidades de exercício sobre o risco de quedas, marcha, força e equilíbrio em idosos frágeis e também encontrou que programas de exercícios multicomponente que incluem exercícios de força e potência são mais efetivos na melhora da capacidade funcional²⁸. Na revisão feita por de Vries et., al. (2012), sobre diferentes formas de exercício físico em idosos com prejuízo na mobilidade, incapacidade física e multi-morbidade, os autores também encontraram que o fortalecimento muscular deve fazer parte dos programas de treinamento e que exercícios de alta intensidade tem uma pequena vantagem nos ganhos funcionais²⁴. No estudo de Giné-Garriga et., al. (2014), os autores compararam o efeito de intervenções com exercício físico, encontrando melhoras na velocidade de marcha e em medidas de função física baseadas em performance, concluindo a favor do treinamento multicomponente.

As revisões sistemáticas disponíveis na literatura focam em sua maioria, sobre os aspectos físicos da capacidade funcional, deixando os outros dois componentes, cognitivo, emocional e social, de lado. Muitos artigos demonstram no treinamento multicomponente, porém até o momento desse estudo, nenhuma revisão sistemática comparou exclusivamente ensaios clínicos randomizados com programas de treinamento multicomponente sobre a capacidade funcional de idosos frágeis.

A partir desse contexto, o objetivo do presente estudo portanto, foi revisar de forma sistemática o uso do treinamento multicomponente para a melhora da capacidade funcional de idosos frágeis.

2 REVISÃO DE LITERATURA

2.1 ENVELHECIMENTO

O aumento da expectativa de vida está levando a população mundial a uma taxa de envelhecimento sem precedentes, pois atualmente 8% dessa tem mais de 85 anos^{31,32}, o que torna esse grupo o que mais cresce no mundo³³. No Brasil, a população envelheceu mais de 15% nos últimos 20 anos³⁴, e a participação de idosos na composição populacional brasileira passou de 9,8% em 2005, para 14,3% em 2015³⁵, sendo mais de 12% o grupo acima dos 80 anos²¹, superando os 30 milhões³⁶.

Segundo a Organização das Nações Unidas (ONU), esse grupo de pessoas irá alcançar 1,4 bilhão em 2030 e os 2 bilhões até 2050, representando 20% da população mundial³². Cerca de 80% das pessoas mais velhas do mundo viverão em países em desenvolvimento e a população com mais de 60 anos de idade será maior do que a população com menos de 15 anos³⁷.

O envelhecimento biológico é um processo individual, inexorável, progressivo e irreversível. É caracterizado por uma mudança estrutural e morfológica significativa no corpo humano^{38,39}, com declínio progressivo das funções corporais^{11,40-42}. A partir da terceira década de vida a capacidade aeróbica começa a diminuir⁴³, a função muscular declina 1% ao ano⁴⁴, os níveis de BDNF (*Brain-Derived Neurotrophic Factor*) se alteram negativamente⁴⁵ e ocorrem perdas na marcha e no equilíbrio⁴⁶. Todos os órgãos e tecidos são afetados pelo envelhecimento⁴⁷, e essas perdas fisiológicas afetam diretamente a mobilidade, pois incluem tanto músculos, como ossos, tendões, ligamentos, fâscias, articulações e pele⁴⁸⁻⁵⁰, diminuindo a capacidade funcional, e o desempenho cognitivo²⁷.

Esse quadro repercute negativamente na imunidade e funcionalidade, que dificulta a marcha e reduz a independência e a interação social^{38,40,51}, facilitando episódios de quedas, fraturas, hospitalizações e o surgimento de comorbidades^{24,52}.

A redução da força e massa muscular, associada à baixa performance funcional caracterizam a sarcopenia⁷ e a inatividade física tem grande influência nesse cenário⁵³. Esses fatores, associados à perda de peso³³ e

fadiga ao mínimo esforço, caracterizam o fenótipo da Síndrome da Fragilidade¹⁴. Baert (2011) e Cavil (2018) relatam que a dor, “falta de tempo” e barreiras psicológicas como falta de motivação, medo da dor, cinesiofobia e a não percepção dos benefícios do exercício apresentam-se como obstáculo para começar uma atividade física⁵⁴⁻⁵⁶.

Esta etapa apresenta-se como um desafio aos profissionais da saúde, pois vem acompanhada do histórico de vida, a carga genética, muitas comorbidades associadas⁵⁷, e exposição a diversos fatores de risco para quedas⁵⁸, gerando um grande impacto aos sistemas de saúde⁵⁸.

2.2 ADAPTAÇÕES DO ENVELHECIMENTO

O processo de envelhecimento é contínuo e faz parte do desenvolvimento do ser humano. Ele é composto de diversas etapas e requer uma capacidade de adaptação às mudanças, que nessa fase da vida tendem a ser, em sua maioria, adaptações deletérias, incluindo sistemas orgânicos, como fisiológico, psicológico e cognitivo, além da esfera social⁶⁷.

Nas alterações fisiológicas, nota-se menor capacidade regenerativa, cognitiva, neuromuscular e sensorial⁴⁰, desorganização do sarcômero e menor excitabilidade da membrana plasmática^{11,41,42}, mudança na diferença arteriovenosa e redução da ejeção cardíaca, diminuição da área de secção transversa muscular (ASTM), do tamanho das fibras musculares e da ativação neural voluntária^{11,40,59}.

Dentre as diversas repercussões fisiológicas do envelhecimento, ainda visualizamos a perda de motoneurônios espinhais, diminuição de fatores de crescimento relacionado à insulina⁶⁰, declínio na produção de óxido nítrico⁶¹, com redução do fluxo sanguíneo nos capilares do tecido muscular, conversão das fibras musculares do tipo 2 rápidas em fibras do tipo 1 lentas⁴⁰ e deposição de lipídeos no tecido muscular⁶².

A sarcopenia resulta em uma perda funcional considerável nas AVDs e diminui o desempenho muscular em diversas aptidões físicas, como capacidade de produção de força, potência, velocidade de contração⁶³ e reações antecipatórias⁶⁴. Esses fatores induzem a disfunções físico-funcionais

e doenças relacionadas à idade, dificultando atividades simples como a marcha, equilíbrio, subir e descer escadas, mover objetos, levantar-se da cama ou do chão, limpar a casa, banhar-se ou vestir-se, além de ser uma grande causadora de quedas^{58,61}.

O processo de envelhecimento ainda é acompanhado de perdas psicológicas e cognitivas, que estão associadas à fragilidade e aumentam o risco para incapacidade funcional, baixa qualidade de vida e óbito^{65,66}. A incapacidade cognitiva, com doenças como demência, depressão, *delirium* e Alzheimer são algumas das disfunções encefálicas superiores presentes no envelhecimento⁶⁷. Alterações como déficit de memória, aprendizado e função executiva aumentam o estado de vulnerabilidade dos idosos⁶⁵, prejudicando sua capacidade funcional⁶⁷. Os principais mecanismos envolvidos nesse processo envolvem mudanças morfológicas no cérebro, como menor volume cerebral, disfunção no eixo hipotalâmico-pituitário e inflamação crônica^{66,68}.

Alterações emocionais como a depressão, sentimentos de culpa, perda de energia e interesse influenciam na capacidade funcional do idoso, podendo estar relacionada ao isolamento social e outras co-morbidades em até 57% dos casos^{13,69}. A prevalência de depressão e fragilidade pode variar de 16,4% a 31,0%, podendo estar associadas já na linha de base. Ambas são fatores de risco e consequência uma da outra⁷⁰.

Com essas perdas, forma-se o comportamento de evitação, causada pela dor ou medo de quedas⁷¹, com um padrão de medo excessivo e grande restrição de movimentos e atividades, comprometendo a qualidade de vida^{51,54,55} e a função cognitiva⁷². Esse conjunto de adaptações foi definido como Incapacidade Pré-Clínica, em 1991¹⁴.

É importante ressaltar que as alterações mencionadas acima são decorrências naturais e esperadas do processo de envelhecimento, mas são potencializadas por um estilo de vida sedentário e com hábitos alimentares não saudáveis.

2.3 SÍNDROME DA FRAGILIDADE

A síndrome da fragilidade é um conjunto de alterações deletérias nas reservas fisiológicas deixando o idoso suscetível a um resultado adverso mesmo quando exposto a um agente agressor de baixa complexidade¹. Essa susceptibilidade torna o processo de recuperação mais lento, aumentando o uso e o custo dos serviços de saúde, gerando um grande impacto socioeconômico^{73,74} e sobrecarrega os familiares e cuidadores no manejo das AVD^{75,76}.

Sua prevalência varia conforme a população, número de co-morbidades e o critério utilizado, e aumenta com a idade, podendo chegar a 7,4%⁵², 19,1%⁷⁷, ou ainda 59,1%⁷⁸. Dois estudos brasileiros encontraram diferentes prevalências de fragilidade. Carneiro et al. (2017) avaliaram 360 idosos na cidade de Montes Claros-MG, cidade com aproximadamente 400.00 habitantes com a Escala de Fragilidade de Edmonton e encontrou uma prevalência de fragilidade de 47,2%⁷⁹.

Enquanto que Duarte et al. (2018) com uma amostra de aproximadamente 1400 idosos, dos 1.019.243 residentes na cidade, provenientes do Estudo SABE, no município de São Paulo, utilizando o Critério do Fenótipo de Fried, encontraram diferentes valores por idade, sendo 4,1% para sexagenários, 8,4% para septuagenários, 28% nos octogenários e 55,9% entre nonagenários e centenários, sendo influenciados por fatores como idosos residindo sem companheiro, baixa escolaridade, multimorbidade, depressão, comprometimento funcional nas ABVD e AIVD, quedas e hospitalizações⁸⁰.

Essa síndrome ainda não possui uma definição oficial, o que dificulta uma categorização do idoso como frágil conforme a CID⁸¹, e os modelos conceituais existentes são relativamente semelhantes^{1,6,82}. O critério do fenótipo da fragilidade¹⁴ é bastante utilizado e avalia o estado nutricional, o gasto energético, o nível de atividade física, a mobilidade e força muscular¹, mas não contempla o declínio da função cognitiva, sendo que está fortemente associado com a fragilidade e aumenta o risco para incapacidade funcional, baixa qualidade de vida e outras doenças neurológicas, como Alzheimer, por exemplo^{27,66,83-86}.

Por ser uma entidade multifatorial, diversos sistemas com sua função prejudicada pela senescência e senilidade, desempenham um papel importante na patogênese da síndrome^{82,87,88}. A sarcopenia, doença muscular

caracterizada pela perda de massa e força muscular^{7,8,88}, é uma dos principais fatores, mas não exclusivo preditor de fragilidade e, consequentemente, de incapacidade²³. Desempenha um papel chave na patogênese da síndrome, pois está diretamente relacionada com maior número de internações hospitalares e eventos adversos^{89,90}, estando presente em 60% a 70%⁹¹, e 69,4%⁸⁰ das pessoas frágeis, e também tem forte relação com o desempenho cognitivo⁹², como velocidade de processamento e memória²⁷. É possível encontrar um idoso frágil e não sarcopênico⁹³, embora pouco provável, pois fragilidade e sarcopenia compartilham alguns mecanismos patogênicos e possuem critérios de definição semelhantes^{6,7,89}.

A baixa velocidade de marcha é outro fator importante relacionado à fragilidade^{5,16,19}, pois além de diminuir a participação social do idoso na comunidade, indica um grande risco de mortalidade cardiovascular⁹⁴, declínio da função cognitiva⁹⁵, fator de risco para quedas, fraturas e hospitalizações, indicação cirúrgica ou não, e também está relacionada com o déficit cognitivo, em 55% dos idosos frágeis⁸⁰. A perda de peso não intencional no último ano, 4,5Kg¹⁴, apresenta um risco para fragilidade em função da depleção das reservas energéticas, como adipócitos e massa muscular magra⁸, osteosarcopenia - perda de massa óssea⁹, e da falta de micro e macronutrientes⁹⁶⁻⁹⁸.

Fadiga e baixo nível de atividade física são fatores correlacionados, como se um fosse barreira para o outro^{55,99}, tornando o estilo de vida sedentário, que agrava os outros componentes do fenótipo e aumenta a incidência de co-morbidades^{8,89,100-102}. Os cinco itens do fenótipo da fragilidade, somados ao declínio da função cognitiva interagem entre si, diminuindo a autonomia e independência na AVD, agravando os sintomas psicológicos, proporcionando isolamento social e menor motivação para viver, formando uma espiral descendente na funcionalidade do idoso^{95,103}. Esse quadro aumenta significativamente o risco para quedas e os possíveis eventos associados^{5,6,104}, gerando um alto custo para os sistemas de saúde⁷⁴.

Como descrito acima, a síndrome da fragilidade é influenciada por diversos fatores, sendo a maior parte intrínsecos ao ser humano. Dos fatores extrínsecos, modificáveis pelo indivíduo, os mais relevantes na fisiopatologia

são estilo de vida sedentário e hábitos alimentares não saudáveis, conforme ilustrado na **FIGURA 2A** e **2B**^{12,98,105-108}.

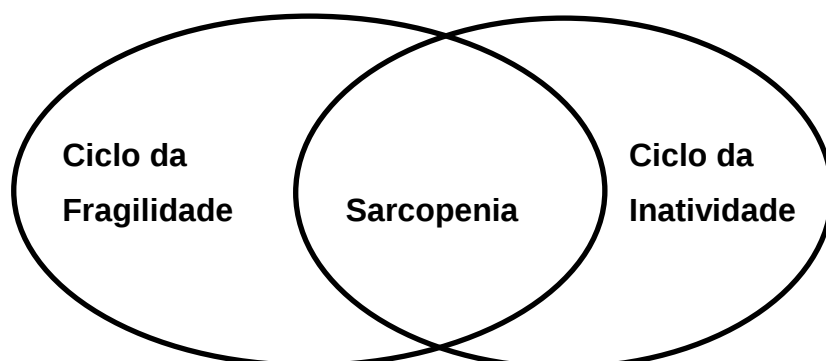


FIGURA 2A. Ciclo da inatividade e fragilidade convergindo à sarcopenia como base das manifestações fenotípicas. Adaptado de Ângulo (2016).

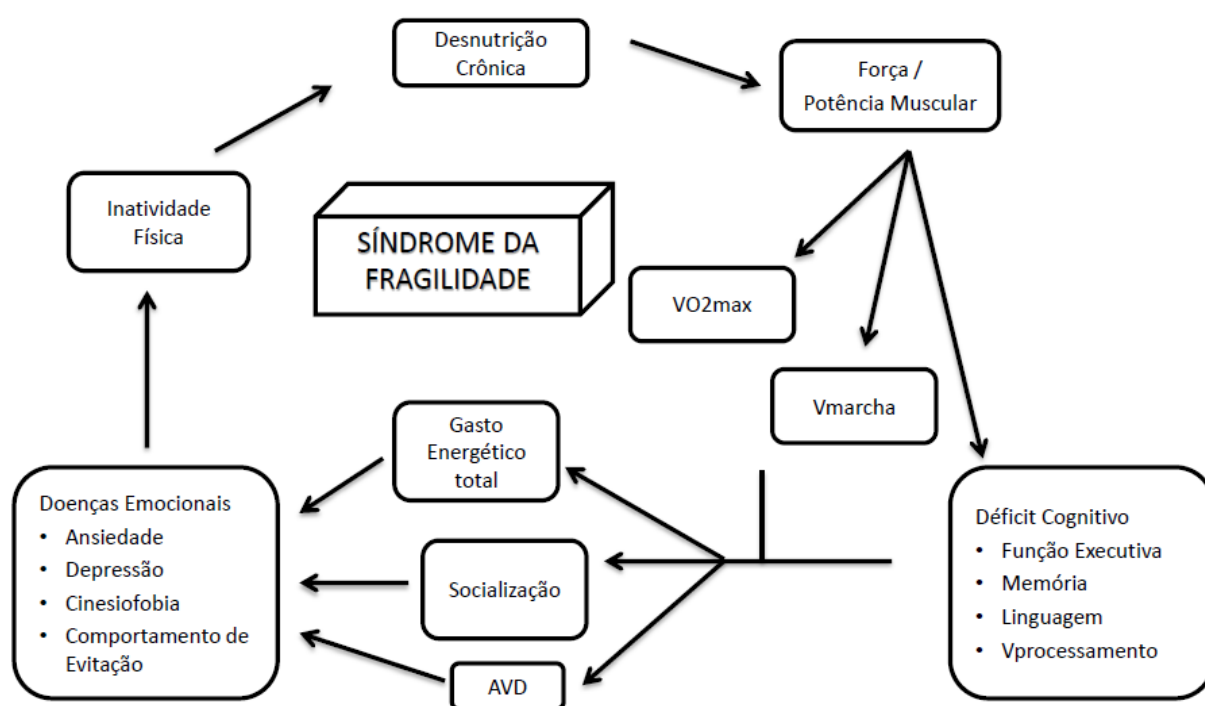


FIGURA 2B. Ciclo da síndrome da fragilidade. Adaptado de Fried (2001).

2.3.1 ASPECTOS BIOANTROPOLÓGICOS

A patogênese da síndrome da fragilidade constitui um processo progressivo relacionado à idade e ao estilo de vida, com a acumulação de déficits, sem a obrigatoriedade de alguma doença específica¹³⁰. O indivíduo torna-se idoso ao completar 60 ou 65 anos, mas torna-se frágil ao longo da vida, de acordo com seus hábitos alimentares e de atividade física. Vivemos uma pandemia de sedentarismo e obesidade¹³¹, com a tecnologia nos proporcionando uma vida cada vez mais confortável.

As revoluções culturais foram grandes marcos na sociedade, causando rupturas marcantes no nosso estilo de vida ao mesmo tempo em que proporcionou um significativo aumento populacional. O ser humano começou a desenvolver a fragilidade há cerca de 10.000/12.000 anos atrás com a Revolução Agrícola, cerca de 350 gerações, quando deixou de ser um caçador-coletor para tornar-se um agricultor e domesticar plantas e animais^{109,132,133}. Essa revolução cultural permitiu ao homem aumentar e armazenar maior quantidade de alimento com menor gasto energético e a geração de mais descendentes. Com esse avanço, vieram algumas pragas e uma menor diversificação alimentar, compensadas pela maior sobrevivência e número de descendentes.

A partir da Revolução Industrial, no século 19 (7 gerações), o estilo de vida continuou a mudar, com uma quantidade ainda menor de atividade física diária e um padrão alimentar nutritivamente mais pobre, rico em carboidratos, ao mesmo tempo que proporcionou avanços significativos na expectativa de vida^{109,132,133}. A terceira revolução cultural, a Revolução Tecnológica (2 gerações) continuou a diminuir a quantidade de energia gasta com atividade física e alimentação, à medida que o mercado de trabalho passa a ser regulado principalmente por serviços e não mais por produtos, oferecendo uma vida ainda mais confortável, sedentária e com alimentos multiprocessados ricos em gordura e açúcar¹³².

Como resultado da evolução tecnológica, notam-se os benefícios à saúde, como o aumento da longevidade, a descoberta das vacinas, o telescópio e a existência de micro-organismos responsáveis por doenças e óbitos, o saneamento básico e maior capacidade de produção, transporte e armazenamento dos alimentos com a invenção ou aprimoramento da

meteorologia e climatologia, veículos de transporte além de freezers e geladeiras, respectivamente.

Por outro lado, a diminuição progressiva do gasto energético diário com a constante invenção de produtos como veículos de transporte, aspirador automático, em vez de vassoura, máquina de lavar roupa e louça, cafeteira, micro-ondas e automação domiciliar nos proporciona uma vida mais cômoda com um excesso de conforto. Este tem repercussão direta sobre a funcionalidade do idoso, pois nossa herança genética de aproximadamente 84.000 gerações nos adaptou para sermos fisicamente ativos, capazes de deslocamentos de grande distância e alta variabilidade alimentar^{109,132,133}.

Quando dissociamos a relação atividade física e alimentação, e nos deparamos com o conforto gerado pela evolução cultural que oferece longos períodos de inatividade muscular, com produtos como sofás, cadeiras, televisão e celular, além de muitas horas sentado por dia, temos um grande fator de risco para doenças cardiovasculares (DCV), o sedentarismo^{109,112,116,134,135}, e o declínio cognitivo pelo desuso das tarefas.

O próprio ar condicionado altera nossa capacidade de termorregulação, adquirida ao longo da evolução do *Homo sapiens* com os deslocamentos no clima árido e semi-árido¹³⁶⁻¹³⁸. O excesso desse conforto tecnológico nos deixa viciado na sensação de prazer e bem estar por uma constante ativação dos mecanismos de recompensas cerebrais e crescentes níveis de dopamina, o que pode levar à desregulação desses mecanismos de recompensa, diminui os níveis do neurotransmissor, a própria sensação de bem estar e a capacidade de responder ao estresse^{131,139,140}, favorecendo quadros de desmotivação, ansiedade e depressão.

Até algumas gerações atrás, as pessoas tinham uma rotina com altos níveis de atividade física diária, plantando, colhendo e realizando serviços domésticos, o que mantinha o estímulo às ABVD e AIVD. Devido os poucos recursos tecnológicos disponíveis, a composição familiar e o menor tamanho das cidades, a interação social era basicamente presencial, estimulando as AAVD, com menores níveis de isolamento social. Os idosos que presenciaram esse estilo de vida sofreram grandes rupturas nos seus hábitos diários, e assim como as gerações futuras, ambos não estão geneticamente adaptados para uma quantidade tão baixa de movimento^{109,132,133}, ao contrário de tribos de

caçadores-coletores, como os Hadza da Tanzânia¹³⁵ ou os índios mexicanos Tarahumara¹⁴¹, que apesar de descansarem quase 10h por dia, é um repouso ativo, com posturas como cócoras e diversas formas de ajoelhar, por exemplo, e no chão, que requer uma atividade muscular maior que cadeiras ou sofás¹³⁵.

Os padrões de movimento que realizamos na rotina de uma sociedade ocidental são bastante limitados e praticamente todas as atividades são realizadas na posição sentada, como as refeições, o deslocamento com automóvel, o posto de trabalho e estudo, e o lazer através do entretenimento com telas. O baixo nível de atividade física associado à baixa variabilidade motora proporcionada pelo ambiente são fatores patogênicos para as doenças de incompatibilidade ambiental, e a síndrome da fragilidade, assim como diminuída funcionalidade, e outras doenças modernas terão suas prevalências aumentadas constantemente^{135,142}.

A transmissão da cultura do sedentarismo e herança genética, com a mudança fenotípica causada pelos benefícios ou prejuízos cardiovasculares, musculoesqueléticos e cognitivos de uma vida com altos ou baixos níveis de atividade física são repassados geneticamente ao longo das gerações¹⁴³⁻¹⁴⁵.

2.3.2 COMPORTAMENTO SEDENTÁRIO

Simultaneamente com o aumento de dados na literatura sobre a importância da atividade física e do exercício na prevenção, promoção e recuperação da saúde^{45,53,109-111}, nota-se que a evolução dos recursos tecnológicos promove um número significativo de pessoas com comportamentos de inatividade muscular^{110,112-114}, fato que causa um aumento significativo no risco de mortalidade para todas as causas, incidência de DCV, diabetes melito tipo 2 (DMT2), alterações morfológicas, sarcopenia, fragilidade e limitações funcionais a longo prazo^{27,39,53,115-119} gerando um custo de 117 bilhões de dólares associado com atividade física inadequada, apenas nos EUA¹¹¹.

O estilo de vida sedentário, mesmo em praticantes de alguma modalidade esportiva, tem uma relação estreita com morbidade e mortalidade cardiovascular^{114,120-123}, pois o tempo gasto com atividade física diária pode ser

insuficiente, dado o tempo significativo que os adultos tendem a passar sentados em frente a uma tela^{113,116,124}.

Indivíduos sedentários com DCV tendem a apresentar patologias associadas como insuficiência renal crônica além de baixa força e massa muscular^{114,115,125}. Essas e outras doenças, como aterosclerose, tem como mecanismo patogênico a inflamação sistêmica crônica^{38,126}, causada pelo desequilíbrio na produção de citocinas pró-inflamatórias e anti-inflamatórias que desempenham papel chave na perda de massa muscular relacionada à idade^{8,38} alterando o metabolismo celular protéico favorecendo a proteólise em vez da síntese¹²⁷ devido à alta sensibilidade do tecido muscular⁶¹.

O estresse oxidativo é um dos fatores que influencia diretamente no envelhecimento, inclusive no tecido muscular⁶¹, com a produção elevada de espécies reativas a oxigênio⁸. Segundo Bowen (2015) a inatividade física já se encontra aumentada na presença de doenças crônicas e aumenta com a idade⁶¹.

Com o envelhecimento, o nível de socialização do idoso diminui e o tempo sedentário aumenta¹³, o que acentua as perdas biopsicossociais e prejudica a funcionalidade. Esta é concomitantemente influenciada por diversos fatores, como genética, dieta, condições socioeconômicas e doenças relacionadas à senilidade, além dos hábitos de vida na infância, adolescência e adulto^{43,119, 128,129}.

2.4 CAPACIDADE FUNCIONAL

O movimento humano é um subproduto da cognição, podendo ser definido como alguma moção que cria uma mudança na forma de um corpo ou partes dele e facilita o funcionamento de praticamente todos os sistemas humanos, como imunológico, digestivo, nervoso e vascular^{146,147}. O ser humano é o animal com maior capacidade e variabilidade de movimentação, sendo capaz de diversos padrões de movimento.

O movimento se dá pela interação de três fatores e seus subitens: indivíduo (ação, cognição e percepção), tarefa (estabilidade, mobilidade e manipulação) e ambiente (reguladores e não reguladores)^{148,149}. Os fatores

individuais estão ligados à percepção, interpretação e execução do movimento, já os ambientais são fatores externos, podendo ser regulados ou não pelo indivíduo, como peso e forma de objetos a serem manipulados ou número de pessoas em um local e ruídos do ambiente, respectivamente. O fator tarefa remete à função propriamente dita, em termos de ações cotidianas, como as ABVD, AIVD e em certo grau, as AAVD (**FIGURA 3A**). Dentro da grande esfera movimento, temos uma esfera intermediária – atividade física, e uma menor – exercício, ilustrado na **FIGURA 3B**¹⁴⁷.

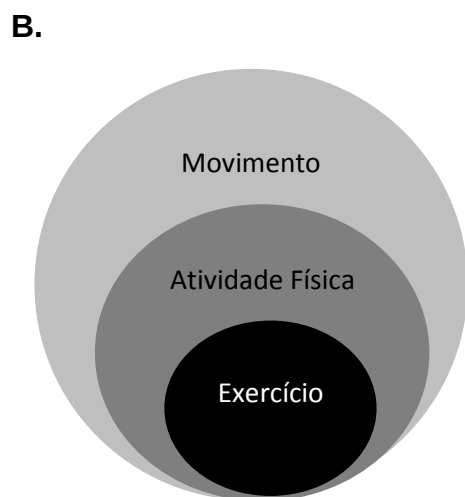
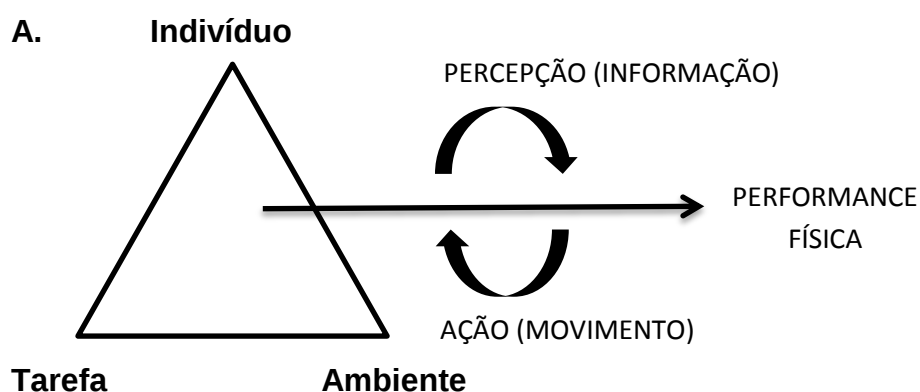
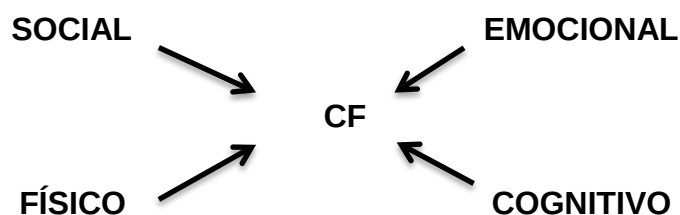


FIGURA 3A. Interação dos fatores Indivíduo, Tarefa e Ambiente influenciando na variabilidade da performance física. Adaptado de Davids (2003) **3B.** Relação movimento, atividade física e exercício. Adaptado de Bowman (2017).

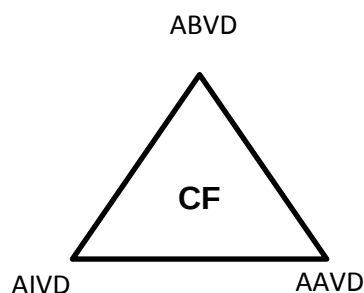
Atividade física é definida como qualquer movimento corporal produzido pelo sistema musculoesquelético que resulta em gasto energético, e exercício é uma subcategoria da atividade física, executada de forma planejada, estruturada, com repetições e um propósito¹⁵⁰, na forma de Programas de Treinamento com Exercício Multicomponente capaz de atenuar ou reverter a fragilidade e aumentar a CF²⁶. A funcionalidade é um termo amplo que engloba todas as funções do corpo, subdividida em sistemas orgânicos e estruturais, e atividade e participação, sob uma perspectiva individual e social. Estas podem ser representadas pela capacidade funcional, ou seja, a habilidade de um indivíduo desempenhar padrões de movimentos na forma de tarefas, como as ABVD, AIVD e AAVD (**FIGURA 4B**), podendo ser classificadas como atividade física diária²⁰.

A funcionalidade de um idoso está diretamente relacionada à sua capacidade funcional (CF), ou seja, o nível de aptidão para gerir a própria vida ou cuidar de si mesmo, sendo considerado saudável enquanto este for capaz de funcionar sozinho, de forma independente e autônoma⁶⁷. A capacidade funcional de um idoso é um conceito de quatro pilares interdependentes, formado pelas esferas Físico, Social, Cognitivo e Emocional. Esta aptidão exige uma interação dos centros motores para que as tarefas básicas, instrumentais e sociais sejam bem sucedidas, conforme ilustrado na **FIGURA 4 (A, B e C)**.

A.



B.



C.

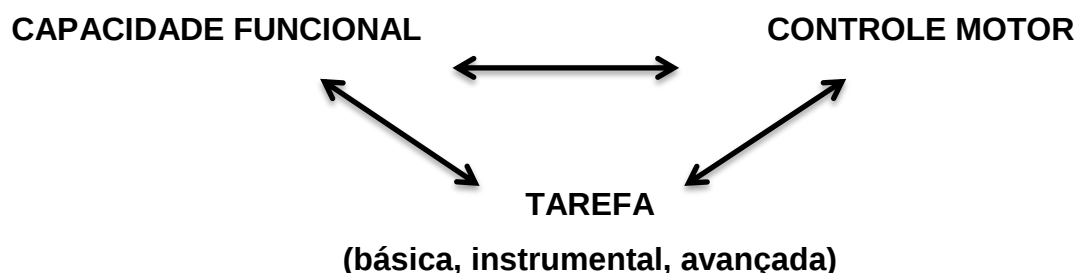


FIGURA 4. A. Interação dos aspectos físico, cognitivo, social e emocional na composição da capacidade funcional. Adaptado de Moraes (2010). **B.** Relação interdependente das AVD na capacidade funcional. Adaptado de Jette (1987). **C.** Interrelação entre capacidade funcional, controle motor e tarefa (AVD). Adaptado de Shumway-Cook e Woollacott (2010).

A autonomia é a capacidade individual de decisão e comando de suas ações, dependendo diretamente da cognição e humor. Independência refere-se à capacidade de realizar algo com os próprios meios e depende diretamente da mobilidade e comunicação⁶⁷. Idosos frágeis apresentam diminuição da capacidade funcional e déficit cognitivo²⁷, o que repercute diretamente na capacidade de interação social^{13,69,70, 151} e agrava os sintomas da síndrome da fragilidade.

A saúde do idoso é definida pela capacidade funcional, ou seja, o grau de interação entre os quatro pilares. O aspecto físico, composto por itens de força, potência, condicionamento aeróbico, equilíbrio e padrão de marcha. O aspecto cognitivo pela velocidade de processamento, funções de linguagem e memória. O aspecto emocional, pela forma de enfrentamento da vida e as perdas decorrentes do processo de envelhecimento. E o aspecto social, relacionado à capacidade de interação social⁶⁷ (**FIGURA 4A**).

Baseando-se na teoria do controle motor, a aquisição de uma nova habilidade, ou recuperação de uma perda, requer repetição e especificidade^{166,167}. Sendo a capacidade funcional a interação das funções físicas, emocionais, cognitivas e sociais, reguladas pelo controle motor e influenciada pelo ambiente e pela tarefa (**FIGURA 4C**), para reconquistar a autonomia e independência, é necessário uma grande diversidade de estímulos específicos norteados pelas tarefas diárias com um grande volume de treinamento¹⁰⁶.

2.5 TREINAMENTO MULTICOMPONENTE

Para uma síndrome multidimensional, na qual diversos sistemas são afetados uns pelos outros, o programa de reabilitação deve ser multimodal, interdisciplinar e multiprofissional^{152,153}, gerenciando a saúde do idoso com diversos olhares, desde a arquitetura domiciliar, revisão farmacológica, dieta variada e equilibrada em ação conjunta aos fonoaudiólogos, e principalmente, com a participação da família⁶⁷. Quanto à capacidade funcional, cabe aos profissionais do movimento, fisioterapeutas e professores de educação física intervir com programas baseados em exercícios para recuperar ou diminuir a velocidade do declínio funcional.

As diversas revisões sobre intervenções com idosos frágeis apontam o importante papel do exercício nessa população^{24,25,27-29,99,154-156}, mostrando o efeito para ganho de força e potência muscular com treinamento resistido¹⁵⁷, melhora da capacidade aeróbica e velocidade de marcha^{26,157}, melhora do equilíbrio e diminuição do risco de quedas³⁰, exercícios com dupla tarefa e priorização de tarefa para treinamento da função executiva^{158,159}. A evidência robusta das várias modalidades terapêuticas sobre a capacidade funcional nos idosos frágeis é corroborada pelo estudo de Bouaziz et al (2016) e Lopez et al. (2018), levando à literatura à recomendar fortemente o treinamento multicomponente para essa população^{173, 174}.

O exercício resistido é capaz de aumentar a capacidade de produção de força e potência muscular, diminuir a infiltração lipídica¹⁵⁷ e perfil inflamatório¹⁰, melhorar a performance, além de aumentar a produção de BDNF⁴⁵, diminuir a

taxa de declínio funcional e promover maior nível de dependência²⁶, conforme mostra o estudo de Cadore et al (2014)¹⁵⁷.

O treinamento aeróbico promove maior consumo de oxigênio, maior densidade e atividade mitocondrial, melhora da sensibilidade à insulina e diminuição do acúmulo de gordura intramuscular⁸. Tais adaptações ao exercício cardiorrespiratório são responsáveis por maior velocidade de marcha¹⁵ e menor risco de quedas¹⁵⁷.

O treinamento de equilíbrio forma um tripé básico para programas de exercício multicomponente^{28,29}, e apresenta uma forte correlação com redução no índice de quedas^{30,58}, e no medo de quedas⁷¹, ao executar diversos padrões de movimentos com diferentes velocidades e bases de suporte^{58,157}.

Como a síndrome da fragilidade apresenta o componente cognitivo^{65,66}, o reaprendizado da marcha é bastante indicado para promover maior capacidade de deslocamento, com maior velocidade¹⁵⁷ e estabilidade¹⁵, através de exercícios de marcha, com mudanças de ritmo e direção⁶³. Bem como exercícios com dupla tarefa, com maior demanda das funções executivas, que podem diminuir a incidência de quedas¹⁵⁷.

Todas as formas de exercício apresentam ganhos cognitivos, porém atividades que envolvam aprendizado, ou reaprendizado, potencializam esse efeito, devido a plasticidade neural¹⁴³.

Até o momento não existe uma definição oficial de como deve ser um programa de treinamento multicomponente, entretanto, segundo o ACSM (1999) um programa de intervenção amplo, sem o termo “multicomponente” pode ser composto de treinamento resistido, marcha, equilíbrio e transferências de peso. Já conforme o *Physical Activity Guidelines Advisory Committee Scientific Report (2018)* ele deve ser composto por mais de um tipo, ou modalidade de atividade física, com os mais comuns sendo exercício aeróbico, fortalecimento muscular, equilíbrio^{28,29,160,161}, mas pode ser acrescido de outras modalidades como flexibilidade e propriocepção²⁶, treinamento de função e marcha^{27,29,154}, ou ainda a dupla tarefa, com a colaboração de terapeutas ocupacionais, para treinamento da função cognitiva^{29,159}.

Essa variedade de exercícios vai ao encontro do proposto pelo *Grupo de Trabalho Intervenções sobre Fragilidade*¹⁶² que preconiza a realização de ensaios clínicos com uma intervenção ampla e variada, com foco na prevenção

da incapacidade progressiva, capaz de contemplar os aspectos físicos do fenótipo físico da fragilidade, como mobilidade, equilíbrio, força muscular, resistência aeróbica, nutrição, atividade física, cognição e processamento motor, e é corroborado pelo estudo de coorte com mulheres japonesas¹⁶³, que encontrou menor incidência de fragilidade no grupo que tinha hábitos de vida com maior variedade de exercícios e alimentar.

Sendo o controle do movimento dependente da tarefa, e regulado como uma rede bayesiana a partir de uma série de conexões sinápticas entre córtex somatossensorial e motor, gânglios da base e cerebelo¹⁶⁴⁻¹⁶⁷, associar exercícios cognitivos, como a dupla tarefa, e funcionais para simular as atividades realizadas diariamente, em um programa de treinamento multicomponente para idosos frágeis pode induzir ganhos neuromotores, reduzindo ou até mesmo revertendo o grau da fragilidade, e incidência de quedas, que pode aumentar após a intervenção física¹⁶⁸, e maior volume de massa cinzenta e melhor performance em testes funcionais^{26,92}.

As revisões sistemáticas disponíveis na literatura concordam que programas de treinamento multicomponente são os mais eficazes para obter ganhos na funcionalidade, e mesmo as que fizeram metanálise^{24,25, 169}, não apontam como é estruturado o programa mais eficaz, ao não comparar os protocolos das intervenções. Talvez pelo fato que mesmo programas de treinamento com doses abaixo do recomendado pelas diretrizes e pessoas com baixos níveis de atividade física, incluindo intensidade leve, apresentam algum benefício, como redução na taxa de mortalidade^{170,171}.

Esses achados são importantes para levantar a questão de que para melhora da CF e diminuição da mortalidade, talvez não exista uma organização ideal, respeitada uma composição mínima¹⁷², porém para ganho na capacidade funcional, que facilita ao idoso frágil manter-se ativo, ainda não há um consenso da melhor composição do programa de exercícios.

2.6 JUSTIFICATIVA

O envelhecimento é uma etapa do ciclo vital caracterizado por inúmeras doenças crônico-degenerativas, que incidem diretamente na funcionalidade do idoso. Esse quadro é cada vez mais comum no cotidiano, devido ao aumento

tecnológico e da expectativa de vida da população, fato que resulta em um número crescente de sujeitos dependentes de auxílio com um alto custo para as autoridades competentes. Novas políticas públicas serão necessárias para a população idosa brasileira que se encontra mal assistida e estará em maior número na sociedade.

O estilo de vida sedentário da população é um desafio a essas políticas, visto que este fator está entre as principais causas de adoecimento e risco aumentado de quedas e lesões, principalmente em idosos. Combatê-los é uma importante meta para alcançar o nível de saúde visto em países desenvolvidos.

As complicações da fragilidade se estendem aos diferentes sistemas do corpo humano, podendo, inclusive, levar à morte. Alto risco de quedas, fraturas, limitações cardiorrespiratórias e musculoesqueléticas, baixa qualidade de vida, isolamento social e suicídio são consequências comuns desse perfil.

Muitas pesquisas apresentam resultados satisfatórios no tratamento da fragilidade, porém não se encontra um consenso sobre a melhor forma de intervenção para essa população. Algumas revisões já foram realizadas com o treinamento multicomponente e idoso frágil, entretanto, a comparação dos programas de treinamento sobre a capacidade funcional ainda é pouco pesquisado.

Artigos com sua metodologia de treinamento e periodização de exercícios bem descrita são escassos na literatura, o que dificulta a sua reprodutibilidade, assim como os que comparam dois grupos de intervenção nessa população, dificultando a comparação dos protocolos na identificação da estruturação mais eficaz para a elaboração de programas baseados em exercícios para idosos.

Assim, este estudo se justifica pela necessidade de ampliarmos o conhecimento sobre o efeito da manipulação da ordem dos exercícios em protocolos multicomponente, tendo em vista intervenções mais efetivas na redução ou amenização da incidência e gravidade dos sintomas da fragilidade, melhora da capacidade funcional e potencialização da qualidade de vida dos idosos.

2.7 OBJETIVOS

2.7.1 OBJETIVO GERAL

Revisar de forma sistemática o efeito de programas de exercício multicomponente sobre a capacidade funcional de idosos frágeis, quando comparados ao grupo controle.

2.7.2 OBJETIVOS ESPECÍFICOS

- Reunir evidências científicas dentre os estudos a fim de identificar como é estruturado um programa de treinamento multicomponente para o idoso frágil.

- Avaliar o efeito de formas de organização dos programas de treinamento com exercício multicomponente.

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4 ARTIGO

STRUCTURING MULTICOMPONENT TRAINING PROGRAMAS FOR FUNCTIONAL CAPACITY OF FRAIL ELDERLY: SYSTEMATIC REVIEW

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ABSTRACT

Background: Multicomponent training (MCT) is the most suitable therapeutic modality for frail elderly, able to reversing frailty degree. There is no guideline for the best structure of a multicomponent exercise program (MCEP). **Objectives:** To review the effect of MCEP on the functional capacity (FC) of frail elderly and compare the training protocols structure. **Methods:** Cochrane (CENTRAL), PubMed (MEDLINE), BVS (LILACS), PEDro, ScienceDirect, Scopus, SPORTDiscus (EBSCO) and, Web of Science databases were searched for RCTs. The inclusion criteria were frailty definition older adults, submitted to an at least 3 components-MCT, the primary or secondary outcome on FC. Two independent reviewers performed the searches and extracted the data. **Results:** 5 studies were included in this review. Heterogeneous results did not allow a meta-analysis and subgroup evaluation. The analyzed protocols are mainly aimed at improving physical function, and functional training contains a low variety of exercises. **Conclusion:** The training protocols for exercise-based interventions are very focused on FC physical aspects, leaving the cognitive, emotional, and social aspects aside. Improving functionality for BADL, IADL, and AADL through function training needs to be improved on future studies so that frail elderly can have higher levels of autonomy, independence, and social interaction.

Keywords: Aging. Activities of Daily Living. Frail Elderly. Exercise. Multicomponent Exercise. Functional Capacity.

BACKGROUND

Life expectancy increase provides a great number of elderly people in our society, but this data is not accompanied by years of disability-free living (OMS. ORGANIZAÇÃO MUNDIAL DA SAÚDE, 2015). Some projections indicate 1.4 billion elderly people for 2030 (PARISH *et al.*, 2019) and twice as many people over 60 by 2050 (OMS. ORGANIZAÇÃO MUNDIAL DA SAÚDE, 2015). Frailty is an age-related geriatric syndrome, characterized by a cumulative decline in multiple body systems and functions (CRUZ-JENTOFT *et al.*, 2018).

Frail elderly people have low physical and functional resistance and are exposed to major risk factors for disability, falls followed by fractures (e.g hip fractures), hospitalization, and death (LOURENÇO *et al.*, 2018). It is associated with a high number of co-morbidities (ANGULO; EL ASSAR; RODRÍGUEZ-MAÑAS, 2016; DE LABRA *et al.*, 2015), in different body systems, such as cardiorespiratory, neuromuscular, and musculoskeletal, with a high cost to health and social systems (DE LABRA *et al.*, 2015). It affects several domains such as gait ability, mobility, balance, muscle strength, aerobic capacity, cognitive function, such as motor processing speed, and physical activity levels (DE LABRA *et al.*, 2015; FOUGÈRE *et al.*, 2018; FREIBERGER *et al.*, 2016).

Multicomponent training, usually composed of strength, aerobic and balance exercises is widely indicated for the frail population (CADOORE *et al.*, 2013; CADOORE; SÁEZ DE ASTEASU; IZQUIERDO, 2019; GINÉ-GARRIGA *et al.*, 2014; PIERCY *et al.*, 2018; US DEPARTMENT OF HEALTH AND HUMAN SERVICES, 2018). Although there is no guideline guiding the best way to structure a multicomponent exercise program, this therapeutic methodology is able to mitigate and even reverse the frailty degree (CADOORE; SÁEZ DE ASTEASU; IZQUIERDO, 2019; IZQUIERDO *et al.*, 2016; TARAZONA-SANTABALBINA *et al.*, 2016). One of our objectives with this review is to formulate this guideline to guide professionals in the best design of multicomponent training programs.

DESCRIPTION OF THE CONDITION

Frailty syndrome is a set of deleterious changes in physiological reserves, leaving older adults susceptible to a negative outcome even when exposed to a low complexity stressor agent (CRUZ-JENTOFT *et al.*, 2018; FOUGÈRE *et al.*, 2018; LOURENÇO *et al.*, 2018). This susceptibility generates a great socioeconomic impact on health systems (FOUGÈRE *et al.*, 2018; GOATES *et al.*, 2019; SIRVEN; RAPP, 2017) and burdens family members and caregivers in activities of daily living (ADLs) management.

Frailty prevalence varies according to the population and screening tool, increasing with age, reaching 7.4% (KOJIMA *et al.*, 2017), 19.1% (VERLAAN *et al.*, 2017), 47% (CARNEIRO *et al.*, 2017), or 59.1% (COLLARD *et al.*, 2012). This syndrome does not have an official definition, but the existing ones are very similar (JUNIUS-WALKER *et al.*, 2018).

The frailty physical phenotype (FRIED *et al.*, 2001) includes muscle weakness, fatigue, low gait speed, low level of physical activity, and unintentional weight loss. However, all organs and systems of human body are affected by aging and frailty, and cognitive aspects are not covered by Fried's definition. The cognitive function decline is strongly associated with frailty (CADORE; SÁEZ DE ASTEASU; IZQUIERDO, 2019; LANGLOIS *et al.*, 2012; MA; CHAN, 2020; MANINI; HONG; CLARK, 2013).

This multifactorial syndrome, with several systems and functions impaired by senescence and senility, play all an important role in the syndrome pathogenesis (FOUGÈRE *et al.*, 2015; GANZ, 2019; JUNIUS-WALKER *et al.*, 2018). Loss of muscle mass and strength, sarcopenia (CRUZ-JENTOFT *et al.*, 2018; GANZ, 2019; MORLEY; LITTLE; BERG-WEGER, 2017; NASCIMENTO *et al.*, 2019), play a key role, as they are directly related to a greater number of hospital admissions and adverse events (ANGULO; EL ASSAR; RODRÍGUEZ-MAÑAS, 2016; RAMÍREZ-VÉLEZ *et al.*, 2019), being present in 60% to 70% of frail people (MORLEY; LITTLE; BERG-WEGER, 2017), and has a strong relationship with cognitive performance (BOURDEL-MARCHASSON *et al.*, 2019) as processing speed and memory (CADORE; SÁEZ DE ASTEASU; IZQUIERDO, 2019).

Low gait speed is another important factor frailty-related because decreasing social participation community, it indicates a high risk of cardiovascular mortality (EGGENBERGER *et al.*, 2017), a risk factor for falls, fractures, hospitalizations, surgical indication or not, and it is also related to the cognitive deficit (FOUGÈRE *et al.*, 2018; VAN KAN *et al.*, 2009). Unintentional weight loss in the last year, 4,5kg (FRIED *et al.*, 2001), presents a frailty risk due to energy reserves depletion, such as adipocytes and lean muscle mass (NASCIMENTO *et al.*, 2019), bone loss (KIRK *et al.*, 2020), and the lack of micro and macronutrients (DE JONG 2000; BONNEFOY 2015; CRUZ-JENTOFT 2017).

Fatigue and low level of physical activity are correlated factors as if one were a barrier to the other (BAERT *et al.*, 2011; FREIBERGER *et al.*, 2016; SCHRACK; SIMONSICK; GLYNN, 2020), increasing physical inactivity rates and worsening other components of phenotype, which increases comorbidities incidence (ANGULO; EL ASSAR; RODRÍGUEZ-MAÑAS, 2016; BOOTH; ROBERTS; LAYE, 2012; GURALNIK; SIMONSICK, 1993; NASCIMENTO *et al.*, 2019; NUNES *et al.*, 2016). The five items of the frailty phenotype, added to the cognitive function decline, interact with each other, providing social isolation and

less motivation to live, forming a downward spiral in the older adults' functionality.

DESCRIPTION OF THE INTERVENTION

For a multidimensional syndrome, with different systems affected by each other, the rehabilitation program must be multimodal and interdisciplinary (FAIRHALL *et al.*, 2017). For functional capacity improvement, multicomponent training is widely indicated by the literature (CADORE *et al.*, 2013; CHIN A PAW *et al.*, 2008; DANIELS *et al.*, 2008; DE VRIES *et al.*, 2012; FREIBERGER *et al.*, 2016; GINÉ-GARRIGA *et al.*, 2014; IZQUIERDO *et al.*, 2016; TARAZONA-SANTABALBINA *et al.*, 2016; THEOU *et al.*, 2011; US DEPARTMENT OF HEALTH AND HUMAN SERVICES, 2018); as this is able to act positively in different affected areas by frailty.

So far, there is no official definition of what a multicomponent training program should be like, however, according to the *Physical Activity Guidelines Advisory Committee Scientific Report* (2018), it must be composed of more than one type, or physical activity modality, with the most common being aerobic exercise, muscle strengthening, balance (CADORE *et al.*, 2013; LANDI *et al.*, 2017; US DEPARTMENT OF HEALTH AND HUMAN SERVICES, 2018), but can be added to other modalities such as flexibility and proprioception (TARAZONA-SANTABALBINA *et al.*, 2016), functional and gait retraining (CADORE; SÁEZ DE ASTEASU; IZQUIERDO, 2019; CHIN A PAW *et al.*, 2008), or the dual-task for cognitive function training (REZOLA-PARDO *et al.*, 2019; US DEPARTMENT OF HEALTH AND HUMAN SERVICES, 2018).

This variety of exercises is in line with that proposed by the Interventions on Frailty Working Group (FERRUCCI *et al.*, 2004), which advocates the realization of clinical trials with a wide and varied intervention, focusing on progressive disability prevention, capable of contemplating the physical aspects of the frailty physical phenotype, such as mobility, balance, muscle strength, endurance, nutrition, physical activity, cognition, and motor processing. It is corroborated by a Japanese women cohort study (OSUKA *et al.*, 2019), which found a lower frailty incidence in the group with a greater variety of exercises and food intake.

As the motor control and posture is regulated through a series of synaptic connections between somatosensory and motor cortex, basal ganglia and cerebellum (TAKAKUSAKI *et al.*, 2004; WOOLLACOTT; SHUMWAY-COOK, 2002), add cognitive exercises, as the dual-task, in a multicomponent training program for frail elderly can induce neuromotor gains, reducing or even reversing frailty degrees, such as greater gray matter volume and better performance in functional tests (BOURDEL-MARCHASSON *et al.*, 2019; TARAZONA-SANTABALBINA *et al.*, 2016).

Systematic reviews on interventions with frail elderly people agree that multicomponent training programs are the most effective to achieve gains in functionality, but even those that have done meta-analysis (CHOU; HWANG; WU, 2012; DE VRIES *et al.*, 2012; GINÉ-GARRIGA *et al.*, 2014), do not indicate how is the most effective program. It is very difficult to find papers with well-described training methodology and exercise periodization, comparing two intervention groups, so one of the objectives of our study is to review how multicomponent training protocols are developed with frail older adults functional capacity as an outcome.

This systematic review aims to verify which training methodology presents the greatest effect on functional capacity and to offer a training guideline for this population.

HOW THE INTERVENTION MIGHT WORK

Frailty is an age-related biological syndrome, developed throughout life, according to lifestyle. It is highly influenced by physical activity level and dietary pattern (LOURENÇO *et al.*, 2018; VERLAAN *et al.*, 2017), but its pathogenesis involves several mechanisms, such as sarcopenia (NASCIMENTO *et al.*, 2019). This multifactorial muscle disease (CRUZ-JENTOFT *et al.*, 2018) is the frailty syndrome's main component. Sarcopenia is also influenced by physical activity and nutrition, but it has other factors, such as aging itself, decreased hormonal concentration, low-grade inflammation, associated diseases, such as diabetes, oxidative stress, proteosynthesis and protein degradation imbalance, decreased number of alpha motoneurons (LANDI *et al.*, 2016).

Sedentary lifestyle plays a key role in the frailty development, as it provides lower gait speed and low level of physical activity, two other components of the frailty phenotype (FRIED *et al.*, 2001), which are risk factors for social isolation, falls, fractures, hospitalizations, and death (ENGLAND; GRANATA, 2007; SHERRINGTON *et al.*, 2019; VAN DER PLOEG; VAN DER VELDE; GOBBENS, 2017; VAN KAN *et al.*, 2009, 2010). The functionality decreased frailty-related influences directly and negatively ADLs performance, placing older adults in a downward spiral. Multicomponent training can be offered in different ways, and yet it presents significant results in this population.

A Cochrane review shows it as a considerable alternative for fall prevention, improving elderly functionality, and reducing social isolation (SHERRINGTON *et al.*, 2019). Another review compared different therapeutic modalities on the risk of falls, gait, strength, and balance in frail elderly people and also found that multi-component exercise programs that include strength exercises are more effective in improving functionality (CADORE *et al.*, 2013). In the review by de Vries *et al.*, *al.* (2012), about different forms of physical exercise in the impaired mobility older adults, physical disability and

multimorbidity, the authors also found that muscle strengthening should be part of training programs and that high-intensity exercises have a small advantage in functional gains (DE VRIES *et al.*, 2012). In the study by Giné-Garriga *et al.* (2014), the authors aimed to compare the effect of interventions with physical exercise on measures of physical function based on performance, finding improvements in gait speed, and SPPB, concluding in favor of multicomponent training.

Many studies believe in multicomponent training, but at the time of this study, no review has compared exclusively randomized controlled trials with multicomponent training programs on frail elderly functionality.

WHY IS IT IMPORTANT TO DO THIS REVIEW?

Life expectancy increase is directly accompanied by higher Frailty Syndrome (FS) incidence, with growing rates in older ages. These data shows the low functional capacity (FC) of the affected population, bring some difficulties for family members and caregivers to handling the consequences, with high costs for health systems and services worldwide.

Several populations have their protocols and guidelines to develop an evidence-based training program for recovery and optimization of functional status, such as children, adolescents, older adults, low back pain, pregnant, cardiac and lung disease patients, cerebrovascular diseases, cardiovascular and metabolic diseases (ACSM. AMERICAN COLLEGE OF SPORTS MEDICINE, 2018), sedentary and athletes with knee and/or hip pain (Cibulka *et al.* 2017; Gabbett 2019; Teo *et al.* 2019; Willy, Høglund and Barton 2019), but in the frail elderly population many of these co-morbidities coexist (Gingrich *et al.*, 2019) and randomized controlled trials (RCT) tend to exclude a big number of confounding factors with a large exclusion criteria list that compromises the generalization of results (Ferrucci *et al.* 2004).

Main guidelines for physical activity (ACSM. AMERICAN COLLEGE OF SPORTS MEDICINE, 2018; US DEPARTMENT OF HEALTH AND HUMAN SERVICES, 2018; Arnett *et al.* 2019) recommend an average of 300 min/wk light-moderate physical activity, 150 min/wk moderate-vigorous physical activity, 75 min/wk vigorous physical activity or even an equivalent combination to decrease the CVD risk, although recent studies (Ekelund *et al.* 2019; Hupin *et al.* 2015) show lower doses of exercise, are enough to mitigate this risk. Does the frail population have a dose-response relationship for multicomponent exercise training (MCET) and improve in FC? Do training sessions with higher volumes or higher intensities have a better result? Is there an ideal order for the exercises?

OBJECTIVES

To systematically review the effect of multicomponent exercise programs (MCEP) on the FC of frail elderly people.

Our secondary objective is to analyze how the different multicomponent exercise programs are structured to optimize the frail elderly FC.

METHODS

This review is part of a post graduate program of Federal University of Health Sciences of Porto Alegre. It has the protocol registered (050/2019), and then it was included and approved on PROSPERO (CRD42020162781) .

INCLUSION CRITERIA

TYPE OF STUDY

Were reviewed only RCT, with no restriction on publication date or language, in order to reach the largest number of publications on the research topic. Studies with other designs, such as cross-sectional, cohort, case reports, study protocols, doctoral theses, master's dissertations, guidelines, book chapters and letters to the editor, ongoing RCT, and studies without randomization, were excluded in order to standardize information and to compare training methodologies.

TYPE OF POPULATION

Were included only studies with frail elderly people, with a clear frailty definition, as done by Giné-Garriga *et al.* (2014), using a predetermined scale or physiological criteria. Without setting restriction of participants, they might be community-dwelling, hospitalized, or even institutionalized. Non-frail and pre-frail elderly people, with neurological diseases such as Alzheimer's, Parkinson's, Multiple Sclerosis, Stroke, CKD, cancer, rheumatological or autoimmune diseases, and animal studies were excluded.

TYPE OF INTERVENTION

Were included studies with MCEP as an intervention program, comprising at least three components, according to the *2018 Physical Activity Guidelines Advisory Committee Report* and *National Strength And Conditioning*

Association (US DEPARTMENT OF HEALTH AND HUMAN SERVICES, 2018; Fragala *et al.* 2019). Studies with intervention group composed of less than 3 components, cognitive-behavioral approach, medication review or home environment intervention, dance, music, art therapy, food and/or protein supplementation were excluded to decrease a potential risk of bias and because the aim of this study is to identify the effect of exercise-based programs. The comparative group can be formed by no intervention or other therapeutic forms. Intervention groups of articles that are not for training or control were not analyzed.

TYPE OF OUTCOME

The main outcome of the study is the effect of multicomponent training on the FC of frail elderly people, composed of physical, social, cognitive, and emotional aspects (Jette and Cleary 1987; Moraes, Marino and Santos 2010), which can be a primary or secondary outcome. Studies with scales for measuring FC, which assess BADL, IADLs, and/or AADL were included.

PRIMARY OUTCOME

Systematic reviews on exercise interventions in frail elderly people conclude that MCET is the most suitable for this population, being able to mitigate or reverse frailty (Tarazona-Santabalbina *et al.* 2016). To author's knowledge, there is no review with RCTs composed exclusively of MCEP in the literature. The available studies target their intervention programs basically to the physical aspects of FC, leaving the other three undertrained, therefore, to analyze the training effect most indicated by the literature on global functionality becomes not yet researched.

SECONDARY OUTCOME

The secondary outcome of this review is to compare the different interventions with MCET, as well as their parameters used and results achieved, in order to define a guideline on how to develop a more effective multicomponent training program, analyzing volume and intensity of training protocols, even because studies often compare an exercise group with a group without exercise.

SEARCH METHODS

Were searched in the following databases: BVS (LILACS), PubMed (MEDLINE), Cochrane (CENTRAL), PEDro, ScienceDirect, Scopus, SPORTDiscus (EBSCO), e Web of Science.

ELETRONIC SEARCHES

Consultations were carried out on the terminologies to be used in the survey of publications in the databases searched through MeSH and DeCS (*ATTACHMENTS*). Each database is organized in a different way from the others, so the search strategy developed was adapted according to the guidelines provided by the database itself, to find the largest possible number of articles of interest published in indexed journals, in addition to the filter Robinson and Dickersin (2002) in order to increase sensitivity for randomized controlled trials.

DATA COLLECTION AND ANALYZIS

The selected studies in the databases followed that recommended by the *Cochrane Handbook for Systematic Reviews of Interventions*, v. 6.0, and have been exported to the EndNote X8 reference manager

SELECTION OF STUDIES

Two independent reviewers (FLC) and (EKC) carried out the studies selection, and a third reviewer (LHTR) was consulted in case of disagreements, following a standardized protocol containing items such as (1) multiplicity of publication, (2) type of study, (3) type of participant, (4) type of intervention and (5) type of outcome. Duplicates were excluded and after the first analysis, articles excluded from each database were recorded according to the reason for exclusion, for greater control of the study.

DATA EXTRACTION AND MANAGEMENT

Data extraction was performed by two independent reviewers (FLC) and (EKC), in a standardized spreadsheet, and in case of disagreement about information collected, a third reviewer (LHTR) was consulted. In cases of lack of information or conflicting data, the authors were contacted via email for further clarification. Two attempts were made to contact and in the absence of a response, the article was excluded. We collected information such as population type, sample size, frailty criteria used, intervention protocol and time,

the profile of intervention and comparative groups, FC assessment, adverse effects and results.

ASSESSMENT OF RISK OF BIAS IN INCLUDED STUDIES

The risk of bias assessment was performed using the RoB 2 tool, divided into 5 domains (randomization process, deviations from the intended interventions, missing outcome data, measurement of the outcome and selection of the reported result) and questions available according to the answers offered, classifying in low risk of bias, some concerns and high risk of bias. This tool is in line with the recommended by PRISMA (Liberati *et al.* 2009), but in a seven items table, since blinding was divided into three, evaluating random sequence generation, allocation concealment, blinding (participants, personnel, and outcome assessment), intention-to-treat analysis and description of losses and exclusions. Blinding of participants is something very difficult to do in intervention studies in this population, thus, the authors already expect this item to be difficult to contemplate. In case the procedure is not explicit in the study, it was considered unclear.

RESULTS

DESCRIPTION OF STUDIES

We had been used a descriptive analysis to evaluate the included components in the studies' training protocols. The effect size was assessed individually.

RESULTS OF THE SEARCH

The searches took place between November and December 2019 (Fig. 1). The search strategy identified 2652 citations from the following databases: Cochrane (CENTRAL): 136 records, PubMed (MEDLINE): 27 records, BVS (LILACS): 33 records, Physiotherapy Evidence Database (PEDro): 28 records, Scopus: 2049 records, ScienceDirect: 230 records, Web of Science: 140 records and SPORTDiscus (EBSCO): 9 records. After the exclusion of duplicates, 714 records, 1938 remained for reading the title and abstract, 1912 records were excluded for not meeting the inclusion criteria. The excluded articles were registered in an excel spreadsheet according to the reason for exclusion (*Supplementary data.1*). After this registration, the remaining articles

were to full-text reading to assess the methodological quality and data extraction, made in RoB 2 and in another excel spreadsheet, respectively. In this record, information about methodological procedures and protocols was extracted, such as exercise prescription and periodization, volume, and intensity. Those who did not meet the criteria (21) were excluded, but some ended up having their data analyzed, but not compared. Unfortunately, only 5 articles had their protocols compared in order to analyze the training dose-response relationship and effect on FC. The assessment tools, adverse effects, and results were compared. Some articles made the protocol available in a table, with data and illustrations, and others just described it.

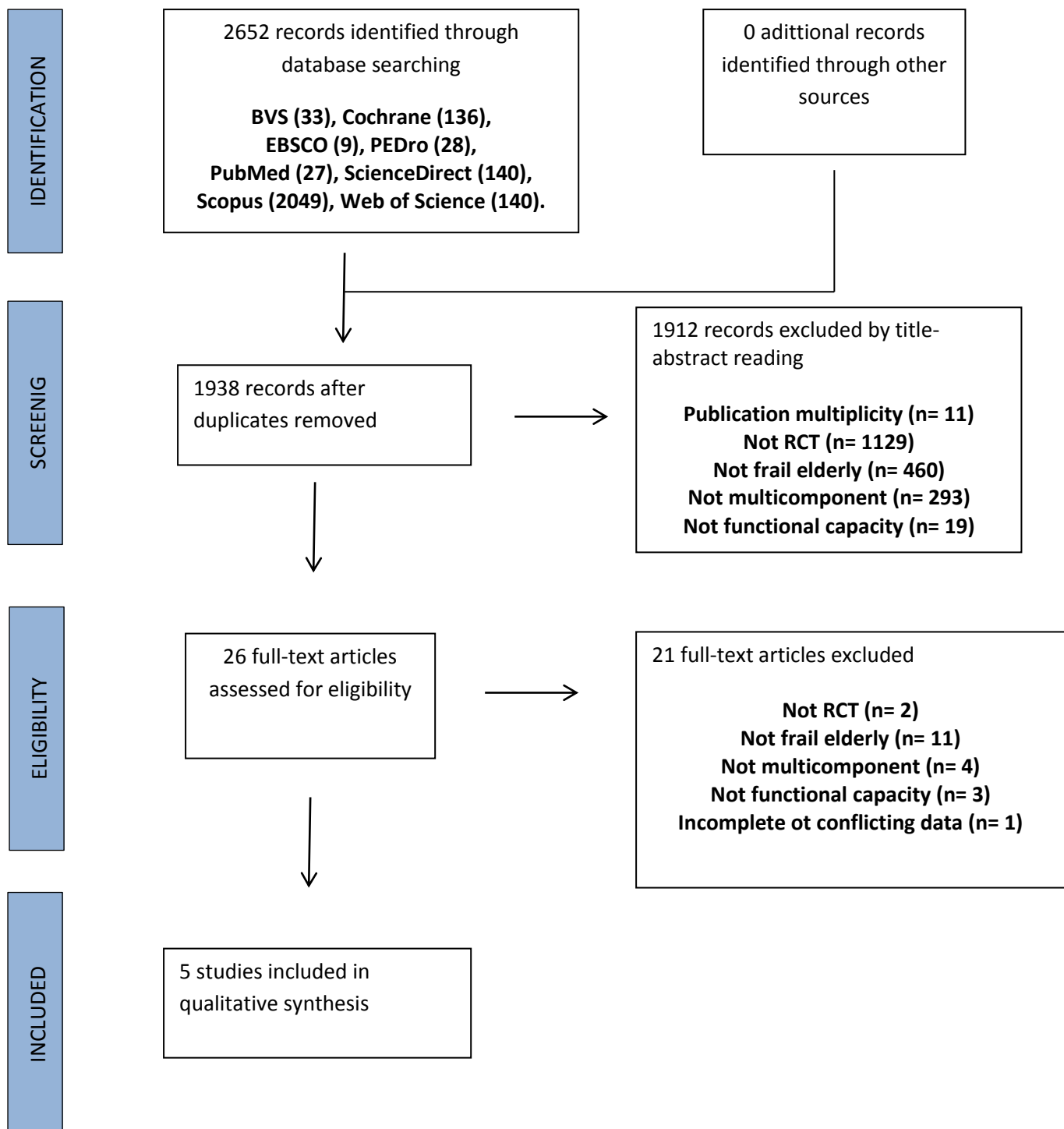


Fig. 1. Study flow diagram

INCLUDED STUDIES

After title and abstract reading, 26 articles remained for full-text reading. Of these, 16 took place on the European continent, of which 1 was a multicenter trial. 3 took place in Oceania, 5 in North America and 2 in South America, 1 in Brazil. Regarding the type of population, 16 were elderly people from community-dwelling, 7 in LTCF, and 3 hospital or outpatient setting. After full-text reading, 21 were excluded, leaving only 5 studies (464 individuals) for analysis of the training protocol and evaluation on the FC effect (Table 1).

The studies had their protocols compared as recommended by the guidelines and their prescriptions were analyzed by components (Table 2) and by parameters (Table 3). Two studies took place in the LTCF setting (Cadore *et al.* 2014a and Ferreira *et al.* 2018), 3 in a community-dwelling setting (Binder *et al.* 2002 and Tarazona-Santabalbina *et al.* 2016), but one of these was in a home-based environment Gill *et al.* (2004), with home visits by physiotherapists, for training and enabling older adults in a self-management health program to functional decline prevention. 2 occurred in Spain, 2 in the United States and 1 in Brazil.

Of the five studies, five different ways of evaluating the outcome were found. One study has presented the Barthel Index, Lawton and Brody Scale, and Duke Social Support Index, Tarazona-Santabalbina *et al.* (2016), one presented the result as a difference in functional decline in Barthel Index Cadore *et al.* (2014a), one has assessed dependency in a dichotomous way with Katz Index, Ferreira *et al.* (2018), one study has used the Older American Resources and Services (OARS) multidimensional functional assessment questionnaire Binder *et al.* (2002), and one created a summary score for self-reported 5-IADL disability Gill *et al.* (2004).

The frailty criteria used also varied in the studies found, 2 with physiological and functional criteria, and 3 with scales. Binder *et al.* (2002) has established as frailty criteria if they met 2 of 3 criteria, with a score between 18 and 32 in the modified physical performance test (mPPT) version, reported difficulty or need for assistance in up to 2 IADLs or 1 BADL and VO_{2peak} between 10 and 18 mL/Kg/min on the treadmill. Gill *et al.* (2004) has considered them frail with 2 physical capability tests, with a time greater than 10 seconds in the rapid gait test (RGT), walking as fast as possible, back and forth for 3m, and could not stand from a hard-back chair with arms folded. Fried's phenotype has been used in 3 of the studies (Cadore *et al.* 2014a and Ferreira *et al.* 2018), with 1 Tarazona-Santabalbina *et al.* (2016) still using the Edmonton Frailty Scale. Interestingly, the Fragility Index (Rockwood *et al.*, 1999) and the FRAIL scale (Morley; Little and Berg-Weger, 2017) were not used.

As the studies did not have a protocol clear description, the volume was calculated using weekly training time. An article, Binder *et al.* (2002), did not present a clear description of the training volume and intensity, but by the protocol provided, it was possible to infer that the volume was adequate due to

the quantity and variety of exercises offered. In another article, Ferreira *et al.* (2018), the volume was below that recommended by the literature (ACSM. AMERICAN COLLEGE OF SPORTS MEDICINE, 2018; US DEPARTMENT OF HEALTH AND HUMAN SERVICES, 2018; Arnett *et al.* 2019), as well as the prescribed intensity.

Due to great heterogeneity of results found, it was not possible to perform a meta-analysis with the studies, but it is possible to identify the benefits with the training through the interpretation of the data provided in the baseline and the results obtained in the last evaluation. Research with elderly people of community-dwelling, bedridden on home-based or institutionalized, managed to mitigate or reverse some symptoms of frailty, with gains in muscle strength and power, greater gait speed, even with dual tasks, better scores on functional and balance performance tests. A single study, Tarazona-Santabalbina *et al.* (2016) analyzed energy expenditure related to physical activity and level of socialization, presenting excellent results in the individual analysis.

EXCLUDED STUDIES

26 articles were included in this review for full-text reading and data extraction, 21 were excluded for not meeting criteria such as not having randomization (2), the population is not frail elderly or does not have a frailty definition (11), intervention is not MCET (4), the outcome, even if secondary, is not FC (3) and has incomplete or conflicting data and there was no response from the authors (1).

Unfortunately, the four components of FC are rarely included in exercise-based interventions, although it is a relatively complex task to offer training modalities to improving socialization, cognitive, and emotional function levels.

We found articles with good methodological quality, but they focus their interventions on muscle strength, especially lower limbs, and when they approached the elderly function training, it was reduced to sitting and getting up from the chair. One of the excluded articles had an intervention protocol composed of only two exercises, both for muscle strength and for the same muscle group. Another had its intervention program composed of several movement patterns, such as squatting, catching, throwing, kicking and bending, to address strength, flexibility, endurance, and coordination capabilities, however, its intervention did not include specific exercises (Bowman, 2017; Caspersen; Powell and Christenson, 1985) for muscle strength and power, with repetitions, intervals, and overload principle. It was excluded due to the fragmentation of results in several articles from a doctoral thesis. Other studies, of an epidemiological nature, did not present group randomization.

A clear definition of frail elderly was one of the inclusion criteria, without a definition profile imposed, which may be through questionnaires or physiological

markers, even so, 11 articles have been excluded. We defined a multicomponent exercise intervention as guided by the literature (US DEPARTMENT OF HEALTH AND HUMAN SERVICES, 2018; Fragala *et al.* 2019), thus, articles with a pharmacological review, interventions in home architecture, cognitive-behavioral and protein or nutritional supplementation, which could act as confounding factors in our outcome, were excluded, even though knowing that individuals with few movements rates, tend to eat fewer calorie amounts and it works like a downward spiral of food intake and energy expenditure related to physical activity (de Jong *et al.*, 2000).

RISK OF BIAS IN INCLUDED STUDIES

We assessed studies for risk of bias and the results are reported in Fig. 2. All of them presented random sequence generation, and as expected, no article was able to blind the participants. 1 article presented allocation concealment and another was not clear. 2 had their investigators blinded and three, the outcome assessments. 2 underwent for intention-to-treat analysis and 1 did not describe the reason for the losses and exclusions. According to the Rob 2 tool, 60% of the studies were classified as low risk of bias and 40% with some concerns.

Fig. 2. 'Risk of bias' summary: authors' judgments about each risk of bias item for each included study

Study ID	Experimental	Comparator	Outcome	Weight	Randomization process	Deviations from intended intervention	Missing outcome data	Measurement of the outcome	Selection of the reported result	Overall	
Binder 2002				1	+	+	+	+	+	!	+
Cadore 2014				1	+	+	+	+	+	+	+
Ferreira 2018				1	?	+	+	+	+	!	?
Gill 2004				1	+	+	+	+	+	+	+
Tarazona-Santabalbina 2016				1	+	+	+	+	+	+	+

 Low risk
 Some concerns
 High risk

SELECTION BIAS

In the evaluation of the randomization process, 80% of the studies had a low risk of bias, and only one registered some concerns for not making it clear about the allocation sequence concealment prior to the definition of the groups. An article randomized the intervention centers, instead of the participants, which favors a reality and population bias, as well as one that investigated older adults home-based.

PERFORMANCE AND DETECTION BIAS

Regarding the blinding of participants and personnel, 40% of the studies were able to blind the researchers and none were able to blind the participants. Despite different types of population settings in each study, they were classified as low risk of bias by Rob 2. Two had investigated institutionalized elderly people, which makes blinding difficult. One study was carried out with elderly people from community-dwelling, in a home-based setting, inferring that participants were blinded about the group's allocation, as well as in the study that has randomized the intervention centers. There remains only one study that has carried out in a research center, but it is not clear the process of blinding participants and researchers. As for the blinding of outcome assessments, 60% of the articles managed to perform the blinding, and in two it is not clear.

ATTRITION BIAS

One study, Binder *et al.* (2002), did not present the data found in the evaluation of the human assistance or assistive technology use for BADLs and IADLs but have been reported no significant changes, and another study, Gill *et al.* (2004), could not have its data inserted in the subgroups evaluations because of its results description. As the results are described in a very heterogeneous way, some dichotomous and others continuous, it is not possible to compare interventions to assess the FC effect size. Despite this, Rob 2 classified all articles with a low risk of bias.

REPORTING BIAS

One study, Binder *et al.* (2002), has reported that his intervention did not change significantly and did not present the data. Another, Ferreira *et al.* (2018), did not find any difference in results between men and women and did not describe such results, even so, RoB 2 classified all articles as low risk of bias.

OTHER POTENCIAL SOURCES OF BIAS

A very common difficulty found in intervention studies is its reproducibility. The training protocol is rarely clearly described as seen in Tarazona-Santabalbina *et al.* (2016), without a description and progression of each exercise. We often find non-specific training methodologies, (e.g. Ferreira *et al.* (2018)) that *"the exercises were directed at the main muscle groups of the upper and lower limbs, with the use of dumbbells, free weights, and elastic bands, progressing in difficulty as tolerated."* This could characterize a reproduction bias. In the included studies, some did not contain the description of worked muscle groups, neither training volume with the number of sets and repetitions.

EFFECT OF INTERVENTIONS

As anticipated above, interventions with MCET in this population hardly will not result in a positive effect, so much so, that it is a gold standard intervention for frail elderly people, even though there is no current definition of how a MCEP should be structured. Therefore, we have a possible confounding factor when comparing a group exposed to an intervention and another group not (Izquierdo *et al.* 2016a), including the fact that the frailer individual is, the greater the gain tends to be (Glasziou and Irwig, 1995).

Due to the small number of studies that met the criteria and the great heterogeneity of the results, we performed an individual analysis. It was observed results with different effect sizes according to Cohen's d (Lindenau and Guimarães, 2012), ranging from ES: 0.83, $p=0.002$ (FSQ, Binder *et al.* (2002)) to ES: 2.7, $p<0.001$ (incidence of falls, Cadore *et al.* (2014a)). Both high-intensity interventions (Cadore *et al.* 2014a) and large volumes Tarazona-Santabalbina *et al.* (2016) of training showed significant results and, even those that had their exercise protocols below recommended by physical activity guidelines (Gill *et al.* 2004 Ferreira *et al.* 2018) achieved a statistically significant result, with ES: 2.5, $p<0.01$ (handgrip, Ferreira *et al.* 2018).

Despite this heterogeneity, the IG and CG of included studies were homogeneous. It allowed an intergroup comparison of how IG would be if it not had been exposed to training, and the effect difference between groups. The IG showed an improvement of 9.6 in the Barthel Index and 1.2 in Lawton Scale Tarazona-Santabalbina *et al.* (2016). The deterioration in the Barthel Index was fewer ($0.09 + 0.3$ vs $0.6 + 0.52$) after the intervention (Cadore *et al.* 2014a), as like the functional incapacity in IADLs remained stable in the IG, while the CG had a 20% increase in the authors' score (Gill *et al.* 2004). The number of dependent elderly people decreased by 100% while the CG did not show any significant change Ferreira *et al.* (2018).

The protocol analysis, it was possible to identify that the included studies do not mention physical activity guidelines for their training programs elaboration, and are very focused on aspects related to mobility, such as lower limb performance, gait abnormalities, muscle weakness, low exercise tolerance, unstable balance, and factors related to body composition such as weight loss, malnutrition, sarcopenia, lipid infiltration and biological markers (Ferrucci *et al.* 2004).

TABLE 1. CHARACTERISTICS OF INCLUDED STUDIES

Author, Date	1. N (IG/CG) 2. Participants 3. Frailty Criteria 4. Intervention time	Intervention Group	Comparative Group	FC Assessment	Adverse effects	Results
Binder, 2002	1. 66/49 2. Community-dwelling 3. 2 of 3 criteria: score between 18 e 32 on mPPT; VO _{2peak} between 10-18mL/Kg/min; Self-report of difficulty or assistance with 1 BADL or 2 IADL 4. 9m: 3 Phases of 3mo (108 sessions)	3x/wk. P1: 22 exercises (FT+ BT+ COOT+ SR + strength). P2: PRT, 1-2 sets, 6-8R 65% 1RM; 3 sets, 8-12R 85%-100% 1RM + short P1; P3: ET (TBR) 65%-70% VO _{2peak} . 15' increasing to 20', then IT (3-5' bouts, 85%-90% VO _{2peak} /2-3' rest), 30' + short P1 and P2	9/22 P1 FT 2-3x/wk. Exercises for 3 consecutive 3-month intervals	OARS Multidimensional Functional Assessment Questionnaire	IG: 1 subject sustained a rotator cuff injury and other worsened existing shoulder problem.	No significant changes on OARS scale. Data not shown IG: ↑ mPPT, VO _{2peak} (13% women and 14% men), FSQ
Cadore, 2014	1. 11/13 2. LTCF 3. Fried's criteria 4. 12wk (24 sessions)	2x/wk, 40'; 5' warm, 10' BT+ GR, 20' RT e 5' cool-down. 8-10R 40%-60% 1RM, combined with BT+GR, FE. 2 LL (Leg and knee extension, 1 UL (seated bench press). Music during sessions	MOB 30'/d, 4x/wk, active and passive movements, light intensity.	Barthel Index	5 deaths unrelated to the intervention	IG: ↑ 5mt GVT, TUG, TUG DT, 30" chair test, balance and fall incidence. Less deterioration on Barthel Index (0,09±0,3 vs 0,6±0,52, p<0,001).
Ferreira, 2018	1. 13/24 2. LTCF 3. Fried's criteria 4. 12wk (36 sessions)	3x/wk, 40'; MOB+ FT, RT+ ET. 4wk MOB (15'-20'). FT (10') 3 rd wk, RT (15', 20', 25' e 30') 5 th wk. ET all period (10'-20'). 5-7 SPE. Group-based (1:5)	Usual activities	Katz Index	No adverse effects mentioned	IG: ↑ handgrip, TUG, biochemical and inflammatory traits (glucose, insuline, total cholesterol, triglycerides, VIT D ₃ e CRP). Significant decrease on intergroups dependence (0,0% vs 20,8%).
Gill, 2004	1. 94/94 2. Community (Home-based) 3. 2 tests of physical cabability: 1. > 10" on RGT (walk back and forth over 3mt); 2. Could not stand from a hard-back chair with their arms 4. 6mo (~72 sessios)	16 HV 45'-60', FT+BT(1x/d, 10'), ET (3x/sem, 30')+ RT (2 sets,10R). With elastic bands.	HV 45' - 60' General health practices and health promotion. Nutrition, medication management, physical activity, sleep hygiene, and immunizations	5 self-reported IADL scale scored 0: did without human help; 1: did with human help; 2: did not do.	No adverse effects mentioned	IG: ↑ mPPT, 30" chair test; Less functional decline (17,7%, p=0,03).

PPT, physical performance test; mPPT, modified PPT; VO_{2peak} , peak of oxygen uptake; BADL, basic activities of daily living; IADL, instrumental activities of daily living; “, seconds; ‘, minutes; d, day; wk, weeks; mo, months; ‘/d, minutes per training day; x/d, number of training sessions per day; x/wk, number of training sessions per week; PRT, progressive resistance training; Ph, phase of intervention; R, repetitions; 1RM, 1-repetition maximum; OARS, Older American Resources and Services; ↑, increase; ↓, reduction; FSQ, functional status questionnaire; IG, intervention group; CG, comparative group; LTCF: Long Term Care Facilities; HV, home visit; UL, upper limbs; LL, lower limbs; mt, meters; GVT, gait velocity test; RGT, rapid gait test; TUG, time up and go; DT, dual task; CRP, C-reactive protein; HRmax, maximal heart rate; SPPB, Short Physical Performance Battery; BDNF, brain derived neurotrophic factor; *, not significant increased; GDS, geriatric depressive symptoms; MMSE, mini mental state examination; DSSI, Duke Social Support Index; EQ-5D, EuroQol quality of life scale; FT, flexibility training; BT, balance training; GR, Gait retraining; FE, functional exercise; COOT, coordination training; SR, speed of reaction training; RT, resistance training; ET, endurance training; IT, interval training; TBR, treadmill, bicycles, rowing; MOB, mobilization; PCP, number of visits to primary care physician;

TABLE 2. EXERCISE PRESCRIPTION FOR FRAIL ELDERLY BY COMPONENTS

Study	Resistance	Muscle power	Endurance	Balance	Mobility-Flexibility	Functional	Cognitive
Guidelines¹	2-3x/wk 3x 8–12R. Initially 20-30%, 1RM progressing to 80% 1RM	30 - 60% 1RM	Starts after strength and balance improvement. May include changes in rhythm, pace, and direction. Treadmill walking, bicycle, step-ups, stair climbing, and stationary cycling. Initially 5'-10' progressing to 15'-30'. 12-14/20 or 3-4,5/10 Borg RPE is indicated. >5x/wk of moderated intensity, >3x/wk de vigorous intensity, 3 - 5x/wk equivalent combination	Several exercise stimuli, such as line walking, tandem foot standing with feet close together, one-leg standing, walking with heel-toes, stepping practice, and weight transfers from one leg to the other.	2x/wk, 30' – 60", slow movements, static stretching until light discomfort	Exercises in which daily activities are simulated, such as the sit-to-stand exercise	Dual-task, combining cognitive and physical activity, such as arithmetics (counting backward) or verbal fluency (naming colors and objects). For trained subjects
Binder 2002	1-2 sets, 6–8R 65% 1RM (Ph2 nd); 3 sets, 8–12R 85% - 100% 1RM (Ph2 nd)	Not mentioned	Treadmill, bicycles, rowing machines. 65%-70% VO _{2peak} . 15' increasing to 20', then IT (3-5' bouts 85%-90% VO _{2peak} /2-3' rest), reaching to 30' (Ph3 _{rd})	Non especificed. 22 exercises focused on improving flexibility, balance, coordination, and speed of reaction		Only sit-to-stand exercise is mentioned	Not mentioned
Cadore 2014	Not mentioned	20', 8-10R 40-60% 1RM 2 exercises for leg extensor muscles and 1 for UL (seated bench press). High velocity of motion. Combined with BT and GR.	10', walking with small obstacles, unstable surfaces and proprioceptive exercises (line walking, semitandem foot standing, stepping practice)		5' stretching (cool-down)	Rise from a chair, altering the base of support, weight transfer	Not mentioned
Ferreira 2018	15' increasing to 20', 25' and 30' (5 th wk)	Not mentioned	Endurance training during all period (10' - 20')	Not mentioned	Mobility 1 ^a a 4 ^a sem (15'-20') Flexibility 3 ^a a 8 ^a sem (10')	Not mentioned	Not mentioned
Gill 2004	30', 3x/wk, 2 sets 10R. UL flexor and extensor diagonals and LL (hip flexors, abductors, knee extensor)	Not mentioned	Without specific training	Feet side by side, semitandem, tandem, unilateral stance, associated movements (1x/d, 10'), proprioception	Joint ROM 1x/d, (ankle, knee, hip and shoulder)	Weight transfers, bed mobility, carrying objects on stairs, sit to stand, GR (indoor and outdoor)	Motor dual task, task prioritization
Tarazona-Santabalbina 2016	Isometric, concentric and eccentric exercises. Hands, UL, LL. 25-	Not mentioned	Walking around a circuit, climbing stairs, free-active UL movements (40', 40-65% HRmax)	Postural sway, dynamic balance, COOT, lumbo-pelvic (10-15')	Without specific training	Not mentioned	Not mentioned

75% 1RM

¹ ACSM. AMERICAN COLLEGE OF SPORTS MEDICINE (2018); US DEPARTMENT OF HEALTH AND HUMAN SERVICES (2018); Arnett *et al.* (2019); Fragala *et al.* (2019); Borg (1998); Cadore *et al.* 2014b); * Recommendation for older adults, it does not mention frail elderly; x/wk, number of training sessions per week; wk, week; R, repetition; 1RM, 1 repetition maximum; ', minutes; ", seconds; VO_{2peak}, peak of oxygen uptake; UL, upper limbs; LL, lower limbs; ROM, range of motion; HRmax, maximal heart rate; COOT, coordination training; GR, gait retraining.

TABLE 3. EXERCISE PRESCRIPTION FOR FRAIL ELDERLY BY PARAMETERS

Study	Progression	Volume-intensity relationship	Frequency
Guidelines¹	Gradual increases in the volume, intensity, and complexity	75'/wk of PA vigorous intensity 60-85% VO _{2max} ; 150'/wk of PA moderate intensity 40-60% VO _{2max} ; 300'/wk of PA light intensity; Equivalent combination of vigorous-moderate intensity	30-45', 3x/wk, 3-5 months; Or 60-90', 5x/wk, 3-12 months.
Binder 2002	Month-based progression according to prescription	Non specified. Volume seems to be adequate and intensity is above of recommended	3x/wk
Cadore 2014	Gradual progression	80'/wk equivalent intensity	40', 2x/wk
Ferreira 2018	According to SPE	120'/wk intensity above of recommended	40', 3x/wk
Gill 2004	Gradual progression	140'/wk	16 HV in 6 months (45-60')
Tarazona-Santabalbina 2016	Gradual progression	325'/wk equivalent intensity	65', 5x/wk

¹ ACSM. AMERICAN COLLEGE OF SPORTS MEDICINE (2018); US DEPARTMENT OF HEALTH AND HUMAN SERVICES (2018); Arnett *et al.* (2019); Fragala *et al.* (2019); Borg (1998); Cadore *et al.* 2014b);* Recommendation for older adults, it does not mention frail elderly; ', minutes; wk, weeks; '/wk, minutes per week; PA, Physical activity; VO_{2max}, maximal oxygen uptake; x/wk, number of training sessions per week; SPE, subjective perception of effort; HV, home visit.

MULTIPLE COMPONENTS TRAINING

MCET is very indicated for frail elderly population because it offers several and different stimuli in the same exercise-based training program. As more complete this exercise program is, richer it will be for aged people. In the protocol analysis included in this review, we found that only a few components were covered by all studies (**Table 2**). Other components have not been worked on, or have been trained in an alternative way.

STRENGTH COMPONENT

This component is the cornerstone of several training programs for recovery and health promotion, with sufficient evidence in the literature on its importance (Maestroni *et al.* 2020). All studies had included this component in their protocols, however, the study by Cadore *et al.* (2014a) was the only one to do strength training with muscle power way, with an intensity of 40% to 60% 1RM and fast concentric contractions. Binder *et al.* (2002) has divided its 9 month IG protocol into 3-months phases, with strength training added in the 1st month of the 2nd phase, with 65% 1RM, and has maintained it in the 3rd phase, but in a short form, with 85% to 100% of the initial 1RM. Ferreira *et al.* (2018) does not specify the resistance training setting and describes the training intensity by the subjective perception of effort, as well as Gill *et al.* (2004), who leaves to the physiotherapist judgment, the exercise progression, performed with elastic bands. Tarazona-Santabalbina *et al.* (2016) in its 24-week intervention, progresses from 25% to 75% 1RM. When specified by authors, the exercises target the main muscle groups of upper and lower limbs.

ENDURANCE COMPONENT

For a long time, this was the only component indicated for aged people as physical activity for health promotion. In our analyzes, we found that all studies included this component in their protocols, and in a very varied way. Binder *et al.* (2002) has used treadmill, bicycle, and rowing machines, in the 3rd phase, with an intensity of 65% to 70% $\text{VO}_{2\text{peak}}$, beginning with 15 minutes, progressing to 20 minutes and reaching 30 minutes, like interval training with 3 to 5-minute exercise bouts, 85% at 90% $\text{VO}_{2\text{peak}}$, and 2 to 3 minutes of rest. Cadore *et al.* (2014a) combines balance and gait training combined with muscle power training, without equipment such as a treadmill or bicycle. Its protocol consisted of walking in line, unstable surfaces, obstacles, and stepping practice. Ferreira *et al.* (2018) does not describe the exercises used but does it throughout all intervention time. Gill *et al.* (2004)'s home-based intervention does not offer specific aerobic training but uses stairs, carrying up objects, and

gait retraining indoor and outdoor home. Tarazona-Santabalbina *et al.* (2016) proposes circuit walking, with upper limbs free-active movements and stairs, with 40% to 65% HR_{max} .

BALANCE COMPONENT

Balance component composes an intervention basic tripod for frail elderly, by associating it with endurance and resistance training. Despite this, it has not been included in all the studies analyzed. Ferreira *et al.* (2018) does not mention this component in its intervention protocol. Binder *et al.* (2002) does not specify its protocol but associates it with flexibility, coordination, and speed of reaction exercises, as well as Tarazona-Santabalbina *et al.* (2016), with postural oscillation, proprioception, and dynamic balance exercises. Gill *et al.* (2004) has used close feet, tandem and, semitandem sequence, as well as Cadore *et al.* (2014a), which also adds proprioception exercises.

MOBILITY AND FLEXIBILITY COMPONENTS

This component was the third to be covered by all protocols and is not very well described by authors. Cadore *et al.* (2014a) has used stretching at the end of the session as cool-down. Binder *et al.* (2002) and Ferreira *et al.* (2018) did not describe how it had been performed. Tarazona-Santabalbina *et al.* (2016) offers exercises for lumbopelvic flexibility and Gill *et al.* (2004) mentions ROM exercises for the shoulder and lower limb joints.

COGNITIVE COMPONENT

All physical exercises have a multisystemic influence, reaching more than one body system, which can be vascular, musculoskeletal, or neurological. We have denominated as cognitive component some exercise that offer a greatest demand for executive functions, such as dual-task, which can combine cognitive tasks (e.g. verbal fluency, naming objects and/or colors or arithmetic, counting backward) or motor tasks, with task prioritization (US DEPARTMENT OF HEALTH AND HUMAN SERVICES, 2018). This component was mentioned only by Gill *et al.* (2004), with activities such as task prioritization, carrying objects on the stairs.

FUNCTIONAL COMPONENT

The *2018 Physical Activity Guidelines Advisory Committee Report* recommends functional training, as something that simulates daily activities and often mentions sitting and standing exercises, as seen in Binder *et al.* (2002). Based on this, we had defined the functional component as some combined exercise type that acts as daily movements and improves something in addition to the worked structure with a positive effect on FC. Ferreira *et al.* (2018) was the only one that has not been contemplated this component. Tarazona-Santabalbina *et al.* (2016) did not have any specific training, but the endurance training carried out had a functional character. The same was done by Cadore *et al.* (2014a), with rising up from a chair, changing the support base, and weight transfers. Gill *et al.* (2004)'s protocol had all these exercises already mentioned, plus bed mobility and weight transfer such as getting up off the floor.

OTHER COMPONENTS

As mentioned above, as more components in the MCEP, more complete it will be. Cadore *et al.* (2014a) performed its exercises with music (Delabary *et al.*, 2020). Group activities for aged people, as done by everyone, except Gill *et al.* (2004), contribute to socialization gains, as evidenced by Tarazona-Santabalbina *et al.* (2016) and cited by Binder *et al.* (2002). The motivational component is important to be considered when the outcome is FC, as many elderly people present psychological barriers to exercise training (Cavill and Foster, 2018).

The training difficulty progression has been cited as gradual, according to the participants' tolerance. Binder *et al.* (2002) and Tarazona-Santabalbina *et al.* (2016) showed a clear description of exercise prescription.

DISCUSSION

SUMMARY OF MAIN RESULTS

Several MCEP address only the physical component of FC of frail elderly people, leaving the other three aspects untrained, but despite this, as recommended by some guidelines, MCET really brings great benefits to this population, confirming that exercise is the best form of intervention to attenuate or reverse frailty syndrome (Izquierdo *et al.* 2016b). Elderly people who actually engage in training programs, with an attendance rate of at least 50% of the prescribed volume, are able to reverse the symptoms of frailty (Tarazona-Santabalbina *et al.* 2016), decrease the rate of functional decline (Gill *et al.*

2004 and Cadore *et al.* 2014a) and achieve a better score on functionality scales (Fairhall *et al.* 2017; Haider; Grabovac; Dorner, 2019).

The analyzed protocols were very effective to increase the physical function of frail elderly, but little effective in FC. Frail elderly's FC (Jette and Cleary, 1987) refers to a four pillars concept of function composed of physical, social, cognitive, and emotional function. For a total contemplation of this concept, in neurobiomechanical and physiological terms, a broad-based coordinated movement pattern is necessary, simulating activities of daily living, both basic, as well as instrumental and advanced (Sposito, Neri and Yassuda, 2016), after all the movement control is given by a motor centers interaction in a Bayesian network, according to the motor demand task-related to be performed (Gallivan *et al.*, 2018; Wolpert and Landy, 2012).

Their interventions were aimed at improving the body structure and function, and some activities, but left participation little explored (WHO. WORLD HEALTH ORGANIZATION, 2004). They occurred in different environments, but with few variations. Cadore and Ferreira intervened at LTCF, and perhaps with different realities (Spain and Brazil). Binder only mentions that IG older adults had greater social interaction than the CG, due to the greater number of meetings. Tarazona assesses the work in group ability, as the environment of his research, a community home, allows this possibility. And Gill makes his intervention on demand, considering personal factors, with some activities on the street, offering different environments. There are 5 studies and 4 different environments.

With the age-related neuromotor decline, there is an increased variability of motor unit recruitment, in the neuromuscular junction distance, and less cortical activation (Hunter, Pereira and Keenan, 2016). The principle of specificity allows us to train different muscle groups according to the desired task. To improve FC, the training protocols need to include exercises such as long-distance walks, at different speeds and intensities (Binder *et al.*, 2002) preferably on the ground for a greater hip extensors muscle activation (Lieberman *et al.* 2006; van Hooren *et al.* 2019; Wang, Hong and Xian Li 2014) and decrease risk fracture fall-related due to muscle hypotrophy on the hip propulsion complex, caused by a sedentary lifestyle and aging (Chi *et al.* 2016), although some of these studies have been with young adults.

Walking training can take place on the street (Gill *et al.*, 2004), outdoors to promote socialization, favor the vitamin D absorption, and gain in cognitive function (Chew and Sengelaub 2020). Despite the key role played by strengthening, it must also contain activities such as varied squats, different isometric postures, carrying objects, bending, holding on and suspending own body, in addition to throwing objects (Chin A Paw *et al.* 2001), without leaving aside the physical capacities as muscle power, endurance and balance.

Similar to concurrent training (Cadore *et al.* 2014b) cross-training or interval training appears as an option for MCEP prescription (Gibala *et al.* 2012; Gillen and Gibala 2014; O'Keefe *et al.* 2010), enabling the alternation between

aerobic and anaerobic physical capacities, composing a training session with short periods of greater intensity (e.g. strength and muscle power) and, in active recovery, large volumes of different stimuli (e.g. balance, gait retraining, dual-task, and function). Training sessions with higher intensity tend to be shorter (Cadore *et al.* 2014a) and those with higher volumes, longer (Tarazona-Santabalbina *et al.* 2016).

High-intensity training has shown promising results in different populations (Ahlskog 2018; Frazzitta *et al.* 2013; Gomeñuka *et al.* 2020; Guadalupe-Grau *et al.* 2017; Hwang *et al.* 2016; Müller *et al.* 2020; Monteiro *et al.* 2020; Wewege *et al.* 2017; Zoladz *et al.* 2014), but studies with FS are still scarce.

Passos-Monteiro *et al.* (2020) performed sprint exercises in Parkinson's elderly people, and Müller *et al.* (2020), resistance training associated with HIIT. Both studies found significant results but evaluating neuromuscular parameters.

Radaelli *et al.* (2018) did not find any significant difference in performance and muscle quality in the largest volume of training, comparing 1 and 3 sets of resistance training in non-frail elderly. Ramírez-Campillo *et al.* (2014) found an improvement in physical, functional performance tasks, and psychosocial well-being, training non-frail elderly women at high speeds.

However, our outcome is frail elderly FC, and the learning process requires a movement variety patterns and a lot of repetition for the motor engrams formation, so the Tarazona-Santabalbina (2016) protocol, based on a large volume of training seems to be the most indicated.

The different intensities and physical capacities alternation provide different molecular responses, even in metabolically compromised populations, as seen in frail elderly (Pillon *et al.* 2020).

Despite the importance of offering resistance exercise to the frail elderly, the basic function of the human being is the great capacity for displacement (Lieberman and Bramble 2004, 2007). There are few studies comparing different aerobic modalities with displacement (Gomeñuka *et al.* 2020) and this intervention should be preceded by strength training and gait retraining, including changes in pace and direction, use a treadmill, and ladder, up and down and stationary bicycle (Cadore *et al.* 2014b). The chronic effect can reach rehydration and strengthening of the intervertebral disc, in addition to acting as a cardioprotective (Hupin *et al.* 2015; Pedisic *et al.* 2019; Saint-Maurice *et al.* 2020), with some changes in the motor gesture and foot landing pattern (Belavý *et al.* 2017; Lieberman, 2012; Lieberman *et al.* 2010; Murphy, Curry and Matzkin, 2013).

Physical activity guidelines for frail elderly (Fragala *et al.* 2019) recommend that the intervention starts with strength training, but a study with demented frail elderly people showed very significant results with resistance exercises preceded by an adaptation period, including balance exercises, proprioception and gait retraining, and activities for executive and cognitive function, with occupational therapists (Cadore *et al.* 2014c). These findings

suggest that training for this population does not require a rigid sequence to obtain functional results, referring to cross-training and interval training, in which it is possible to alternate between aerobic and anaerobic capacities and offer different stimuli, such as strength, endurance, balance, and function in the same training session, featuring an enriched environment and stimulating cognitive reserve (Nithianantharajah and Hannan 2009; O'Keefe *et al.* 2010).

The few included articles in this review presented results with heterogeneous protocols, based on large volumes, large intensities and both. In terms of motor development and new skills acquisition, such as daily tasks, the training volume seems to be an advantage, as it offers a greater number of repetitions, facilitating neuroplasticity (Nithianantharajah and Hannan 2009). As for physical fitness gains, the intensity offered by muscle power training may be more appropriate (Cadore *et al.* 2014b).

Since movement is the result of the Individual - Task - Environment interaction (Davids *et al.* 2003; Shumway-Cook and Woollacott 2010), exercises that really simulate ADL, in addition to sitting and standing, tend to increase the elderly's confidence in performing them and decrease symptoms such as anxiety, depression, fear of falling, kinesiophobia and avoidance behaviors such as social isolation, which can evolve to a preclinical condition (Fried *et al.* 1991), when the individual decreases his activities, and adopts compensatory strategies to remain functional, however, it is necessary to emphasize that these are hypotheses, since no such results were found in our searches (Santurbano 2017).

The sitting and standing movement, as performed in the TUG and five-repetition test (Bohannon 2006, 2011), requires a 90° average ROM for the lower limb joints. To execute other daily activities, such as sitting on lower benches, or simply crouching to pick up an object from the floor or opening and closing a low drawer, it is necessary to go beyond this breadth, in a coordinated and safe way. Both in assessments and in intervention programs, this movement was the closest to the function training offered for older adults. Perhaps because of this fact, the physical function improvement had not an effect on the clinical improvement in functionality.

The importance of improving FC, in addition to physical function, is the possible increased number of falls, as a consequence of greater physical fitness, without adequate motor control, (de Labra *et al.* 2015). Both for a greater movement patterns repertory, as in a case of falls and fall-related fear, the get-up ability from the ground independently and autonomously is a basic functional task for any individual and a mortality predictor (de Brito *et al.* 2014).

2018 Physical Activity Guidelines Advisory Committee Report recommend two ways of MCET prescription for the frail people. One consists of exercise programs lasting 60 to 90 minutes, repeated daily, for about 3 to 12 months. The other may include 30 to 45 minutes, of at least moderate intensity, for 3 to 5 months. This recommendation does not specify how rehabilitation programs should be structured, but greater gains come with greater intensities,

greater weekly frequency, longer training duration, and greater adherence. It also shows that there is insufficient evidence on the dose-response relationship between physical activity and physical function, and does not mention FC. Another normative reference of MCEP for frail elderly (Fragala *et al.* 2019) suggests only the weekly frequency for strength training, leaving other physical valences without an ideal prescription. Other documents (ACSM. AMERICAN COLLEGE OF SPORTS MEDICINE, 2018) refer only to the older adults' training prescription, not relating to frailty.

The multicomponent term is too broad, being able to refer to an exercise program as a comprehensive, complex, and interdisciplinary intervention form with different professions working together. In this case, the multimodal denomination would be more appropriate to distinguish from exercise-based studies. This affords a possible studies loss with other names, since there is no standard definition in the literature for this intervention, as well as no official definition for frailty, and several criteria can be used for this. Trying to reduce this possible studies' loss, we used a very broad search strategy, like different terms already found in previous searches, without restrictions on languages or publication dates.

The authors hope this work can contribute to a mistake reduction occasionally occurred during the MCEP elaboration for frail elderly people, such as the underestimation of the real physical and functional conditions of older adults, by offering an insufficient volume or intensity program.

QUALITY OF THE EVIDENCE

It was not possible to perform a meta-analysis with the included studies, but tools as Cochrane Handbook for Systematic Reviews of Interventions v.6.0 (Higgins *et al.* 2019), RevMan 5.3 and RoB 2 collaborate to enhance our review's quality, decreasing possible analysis errors and interpretation of results. Few studies were included in this review, which hinders the external validity of our findings. Due to the nature of the intervention, the participants' settings (e.g. institutionalized), and outcome measures, it is not possible to blind the participants.

POTENTIAL BIAS IN THE REVIEW PROCESS

Since there is no standard definition for MCEP, and MCET is not a MeSH, despite being the most suitable exercise-based therapeutic modality for one of the fastest-growing populations in the world, it is likely that our searches failed to identify some studies with this type of intervention. To reduce potential bias, we contacted authors of studies for further clarification.

Databases are not standardized, this comes difficult for an exclusive clinical trial search. Some databases have a controlled biomedical vocabulary and others are multidisciplinary, which leads to yet another possible source of bias in the study search process.

A systematic review must follow a protocol, but all process manually performed is subject to human errors. The authors did not have access to the EMBASE database, which may limit the results, even so, we have made a very wide search in other databases. The search strategy used in this review and the number of databases accessed were very comprehensive, however, the inclusion criteria (PICOS) were quite rigid. This fact may have limited the number of analyzed studies. Possibly, in a less rigorous future analysis, it would be found more studies to be analyzed.

AGREEMENTS AND DISAGREEMENTS WITH OTHER STUDIES OR REVIEWS

Although there is strong evidence of the exercise effect on frail elderly FC, study reviews such as Daniels *et al.* (2008), de Vries *et al.* (2012), Cadore *et al.* (2013), Giné-Garriga *et al.* (2014), de Labra *et al.* (2015). and Levin, Netz and Ziv (2017) had been analyzed several types of exercise. Bouaziz *et al.* (2016) review, with RCT and non-RCT, has researched on MCEP in older adults, including elderly frail, but did not address FC. To authors' knowledge, this is the first systematic review that exclusively compared MCEP in frail elderly people, investigating FC as an outcome, since the others compare different exercise programs, including multicomponent, on physical function.

Our secondary outcome was to analyze how the intervention protocols for FC improving were structured, and we found that when described, they are composed of little motor variability ADL-related. Our analyzes showed that MCEP for frail elderly people does not necessarily need to have an exercise prescription order, but it must at least include some components. As more components, more stimuli, and more benefits from it for older adults. Strength training is essential to combat the effects of sarcopenia, endurance training to increase oxygen consumption, balance training, including anticipatory reactions and speed of reaction, to decrease fall risk, and fear fall-related.

These 3 components can be considered as the MCEP basic composition, but strength training could be divided into a second phase with muscle power training. Endurance training can progress to interval training, with the lower intensity phase including balance exercises, motor coordination, or even dual-task training, since dual-task has a positive effect on gait speed and parameters (Wollesen *et al.* 2017). Flexibility training can be made with stretching on ending each training session, or with light intensity exercises combining a wide range of motion. Functional and multiple joints exercises, bodyweight resisted, aiming to ADL improving (e.g. use of TUG as an exercise with the speed of reaction, gait

speed, and dynamic balance components, progressing to dual-task bouncing a ball on the floor or is challenged to read some text while walks), are indicated for minimally trained subjects and must be included in a more advanced training phase in a task-oriented form as seen in Liu *et al.* (2016), considering the frailty cognitive aspects. The possibility of association the flexibility, balance, and functional training, with bodyweight strength training must be considered.

Even with only 5 studies included, our findings show a very heterogeneous FC assessment. The outcome is the same, but the tools are different. Binder *et al.* (2002) has used a scarcely seen scale in researches, and Gill *et al.* (2004) summarize in 5 IADL. The results description as a percentage of loss made by Gill *et al.* (2004) and Cadore *et al.* (2014a) is interesting for the reader's perception of functional decline extension frailty-related if the IG had not been exposing to training, but it is another factor that makes difficult results comparison.

AUTHORS' CONCLUSION

There is no consensus in the literature on how the ideal multicomponent training program should be structured, despite this, these are the best option for exercise-based interventions for frail elderly people. Our study showed that different ways of intervening are beneficial, but those with greater volumes or greater intensities produce a greater effect. Further studies with functional capacity as the primary outcome and the comparison of different training groups are necessary to address all aspects of an intervention.

IMPLICATIONS FOR PRACTICE

This review has agreed with the recommended by the literature of frail elderly physical function MCET effectiveness. Increasing FC in a clinical environment becomes an easier task to perform due to the close relationship between movement professionals and patients/clients. The rehabilitation clinical environment may collaborate with researches adding new forms of exercise, besides sit and stand-up, which may have a positive impact on future RCT on FC.

Some performance assessment tools used in frail elderly people, such as 30 seconds chair rising test and Time Up and Go, have a hip and knee flexion range of motion limited to 90°. Daily functions that require a greater degree of flexion for lower limb joints also require greater neuromuscular activation. Introducing new movement patterns, such as different squats, with several amplitudes, and squatting requires a large training volume. To delay the aging effects and optimize these gains, training muscle power with greater intensities may be more appropriate. Thus, for evidence-based practice, rehabilitation

program guidelines must be consulted for physical exercise intervention protocols.

A sedentary lifestyle yields negative outcomes in functionality and quality of life. Promoting the change to a more active style is an obligation of health professionals and public policies in order to reduce the health systems' impact and enable sustainability for future generations.

IMPLICATIONS FOR RESEARCH

This review did not find quality studies with an outcome, even secondary in frail elderly FC. Well-described MCEP protocols that include daily function training, besides sit-to-stand exercises can add new information, optimizing frail elderly functionality. Two-intervention groups RCTs, with different volumes and intensities, will enhance what we know about the real training effect on the frail population. This great amount of different stimuli in MCEP could be prescribed with an intrasession and inter-session variability in future studies comparing two intervention groups.

A complete description of training protocols can take up a lot of space in the paper's methods. A possibility for future RCT is the previous publication of training protocol, with clear information of volume, intensity, progression, and postures of each exercise, with a kinesiological analysis.

Frail elderly people are significantly more exposed to mobility loss and functional disability risk, becoming more vulnerable to falls, injuries fall-related as hip fractures, hospitalizations, institutionalization, and death. Physical exercise is considered the best pill to mitigate aging and frailty effects. Finding more effective exercise-based interventions has significant importance for health systems and services due to a highly positive cost-benefit ratio and for older adults and their families who gain in functionality and quality of life with a greater ADL autonomy and independence.

The questions of insufficient evidence available on the possible variation of the dose-response relationship for physical activity and physical function in frail people, according to sex, race/ethnicity, socioeconomic status, and weight, raised by the *Physical Activity Guidelines Advisory Committee Scientific Report 2018* remain without an answer. Further research is needed to ascertain the influence of these factors on physical function and functionality as a whole if any.

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CONTRIBUTIONS OF AUTHORS

Both reviewers (FLC) and (EKC) has carried out database searches, title and abstract reading, full-text reading, methodological quality assessment, and data extraction. The analyzes and protocols comparisons, as well as the manuscript drafting, were performed by one of the authors (FLC). The final text review was carried out by the third reviewer (LHTR).

CONFLICT OF INTERESTS

The authors declare no conflict of interest.

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5 CONSIDERAÇÕES FINAIS

A diminuição da funcionalidade encontrada em idosos frágeis se desenvolve ao longo da vida com o desuso nas AVD e uma vida com hábitos sedentários. É possível avaliar os prejuízos na capacidade funcional com testes de performance e escalas de ABVD e AIVD. Apesar de essa revisão incluir apenas cinco artigos nas análises, foi possível notar que os protocolos de treinamento multicomponente contemplam basicamente os aspectos físicos em suas intervenções, como força e/ou potência, aeróbico, equilíbrio, mobilidade e flexibilidade, deixando a função cognitiva e o treinamento com exercícios que simulem as funções diárias pouco contempladas. Essa lacuna nos protocolos de treinamentos pode viabilizar um viés nas avaliações, na qual o idoso é treinado para passar nos testes de desempenho, porém esse resultado não se converte em benefícios funcionais ao não se transferir para as atividades básicas, instrumentais e avançadas de vida diária.

Nossos achados mostram que todos os tipos de intervenção baseada em exercício apresentam resultado benéfico nas escalas de funcionalidade, porém em nenhum dos artigos analisados se avaliou o efeito do treinamento nas AAVD. A inclusão de exercícios com caráter cognitivo, como a dupla tarefa, e exercícios realmente funcionais, além do sentar e levantar podem apresentar resultados clinicamente significantes e aumentar a funcionalidade e participação social dos idosos frágeis.

Infelizmente, longevidade e autonomia não tem uma relação linear. O componente físico da funcionalidade é extremamente importante para manutenção da saúde, e muitos estudos mostram o papel chave do exercício. Volume e intensidade são dois grandes pilares para um programa de reabilitação efetivo, e para ganhar ou recuperar a funcionalidade, ambos precisam ser contemplados. O primeiro para oferecer a maior variabilidade de padrões de movimentos possíveis e o segundo, para otimizar os ganhos funcionais, com o treinamento de potência muscular, por exemplo. As valências classicamente estudadas, como força, potência, aeróbico, equilíbrio e retreinamento de marcha devem preceder o treinamento de função, mas este não pode estagnar em sentar e levantar de uma cadeira, visto que muitas

funções requerem uma amplitude maior de 90° para as articulações do membro inferior, assim como maior ativação neuromuscular, como levantar do chão em caso de quedas.

A variabilidade motora vem com grandes volumes de treinamento. Em condições normais de saúde, o desenvolvimento motor requer muito tempo de prática e para um idoso frágil, a carga horária só aumenta, inclusive pelo efeito contínuo e cumulativo do tempo, assim, a regularidade torna-se fator indispensável para recuperar ou manter os ganhos. Alternar intensidades agrega em função para o resultado esperado, sendo assim não parece existir melhor opção entre volume e intensidade, elas são complementares.

Enquanto o corpo humano necessitar de movimento para manter-se saudável, o exercício físico continuará ser a melhor, mas não única forma de intervenção para recuperação e prevenção do declínio funcional. Logo, um programa de intervenção baseado em exercícios para idosos frágeis dificilmente não apresentará resultados significativos na função física, porém recuperar a funcionalidade requer uma abordagem mais complexa, multiprofissional e com a participação da família, a fim de reinserir o idoso na comunidade, pois é no relacionamento interpessoal que um indivíduo se completa.

APÊNDICES

FORMULÁRIO DE EXTRAÇÃO DOS DADOS

Revisor:

() Filipe Langlois () Éder Kröeff Cardoso () Luís Henrique Telles da Rosa

Tipo de Intervenção:

() Força () Aeróbico () Equilíbrio () Flexibilidade () Função () Cognitivo

Título do artigo:

Sobrenome do 1º autor: _____

Nome do jornal (abreviatura ou nome completo): _____

Ano de Publicação: _____ Volume: _____ Número: _____ Pág: _____ - _____

- 1. Multiplicidade de publicação:** Esta é a única publicação dos resultados do estudo ou tem outras publicações reportando resultados do mesmo estudo (mesmo se o N é diferente, ou um subgrupo ou os autores não são os mesmos)?:

() Única publicação () Possível multiplicidade de publicação

Obs.: Após identificarmos grupos de publicações possivelmente múltiplas, haverá confirmação da multiplicidade e dados com os autores. Listaremos as publicações originadas do mesmo estudo e utilizaremos os dados da publicação mais completa

- 2. Tipo de estudo:**
O estudo é randomizado?

Sim	Incerto	Não
↓	↓	↓
Vá para próxima questão	Vá para próxima questão	Excluir

- 3. Tipo de participante:**
Idoso definido como frágil (≥ 65 anos)?

Sim	Incerto	Não
↓	↓	↓
Vá para próxima questão	Vá para próxima questão	Excluir

- 4. Tipo de intervenção:**
Treinamento multicomponente

Sim	Incerto	Não
↓	↓	↓
Vá para próxima questão	Vá para próxima questão	Excluir

- 5. Tipo de desfecho:**
Capacidade Funcional

Sim	Incerto	Não
↓	↓	↓
Vá para próxima questão	Vá para próxima questão	Excluir

Conclusão: () INCLUIR () EXCLUIR () INCERTO

ANEXOS

REGISTRO NA COMPESQ



REPÚBLICA FEDERATIVA DO BRASIL
MINISTÉRIO DA EDUCAÇÃO

UFCSPA

UNIVERSIDADE FEDERAL DE CIÊNCIAS DA SAÚDE DE PORTO ALEGRE
COMISSÃO DE PESQUISA

Atestado

Atestamos que o projeto de pesquisa intitulado *"Efeito do treinamento multicomponente na funcionalidade do idoso frágil: revisão sistemática"* está registrado na Comissão de Pesquisa da Universidade Federal de Ciências da Saúde de Porto Alegre com o número 050/2019, sob responsabilidade de Luís Henrique Telles da Rosa.

Salientamos que este registro **não autoriza o pesquisador a coletar ou analisar dados oriundos de sujeitos de pesquisa.**

Salientamos ainda que este registro **não garante a concessão de recursos financeiros por parte da UFCSPA a este projeto de pesquisa.**

Porto Alegre, 23 de julho de 2020.

Henrique Silveira
Secretário da Comissão de Pesquisa
UFCSPA
Assessoria em Administração
SIAPE 1933135

DIRETRIZES PARA SUBMISSÃO DO EUROPEAN JOURNAL OF AGEING

Submission guidelines

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 - [Ethical Responsibilities of Authors](#)
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Instructions for Authors

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Original Investigations: The text of manuscripts reporting empirical studies should not exceed 5,000 words and there should be no more than 10 pages of references, tables, figures or illustrations. A word count should appear on the title page.

Qualitative research articles: Articles following a qualitative research approach should give a concise and clear description of the research question, background and contextual material, detailed specification of the study design and procedural issues, noting particularly the basis for sample selection, data collection and the approach to analysis, use of triangulation etc. and the rationale for methodological choice.

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- **General Recommendation and Requirements** Authors are asked to bear in mind the multidisciplinary and international nature of the readership when writing their contribution. The stereotypical presentation of individuals or social groupings, including the use of ageist language, should be avoided. In particular, the term “the elderly” should not be used. Alternatives may include older adults, elders or older people.
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Manuscript Submission

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Title page

Title Page

Please use this **template title page** for providing the following information.

The title page should include:

- The name(s) of the author(s)
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For life science journals only (when applicable)

Trial registration number and date of registration

Trial registration number, date of registration followed by “retrospectively registered”

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Funding (information that explains whether and by whom the research was supported)

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Ethics approval (include appropriate approvals or waivers)

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Please see the relevant sections in the submission guidelines for further information as well as various examples of wording. Please revise/customize the sample statements according to your own needs.

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Text Formatting

Manuscripts should be submitted in Word.

- Use a normal, plain font (e.g., 10-point Times Roman) for text.
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- Use the automatic page numbering function to number the pages.
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Please use no more than three levels of displayed headings.

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Abbreviations should be defined at first mention and used consistently thereafter.

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Footnotes can be used to give additional information, which may include the citation of a reference included in the reference list. They should not consist solely of a reference citation, and they should never include the bibliographic details of a reference. They should also not contain any figures or tables.

Footnotes to the text are numbered consecutively; those to tables should be indicated by superscript lower-case letters (or asterisks for significance values and other statistical data). Footnotes to the title or the authors of the article are not given reference symbols.

Always use footnotes instead of endnotes.

Acknowledgments

Acknowledgments of people, grants, funds, etc. should be placed in a separate section on the title page. The names of funding organizations should be written in full.

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References

Citation

Cite references in the text by name and year in parentheses. Some examples:

- Negotiation research spans many disciplines (Thompson 1990).
- This result was later contradicted by Becker and Seligman (1996).
- This effect has been widely studied (Abbott 1991; Barakat et al. 1995a, b; Kelso and Smith 1998; Medvec et al. 1999, 2000).

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The list of references should only include works that are cited in the text and that have been published or accepted for publication. Personal communications and unpublished works should only be mentioned in the text. Do not use footnotes or endnotes as a substitute for a reference list.

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- Journal article

Gamelin FX, Baquet G, Berthoin S, Thevenet D, Nourry C, Nottin S, Bosquet L (2009) Effect of high intensity intermittent training on heart rate variability in prepubescent children. *Eur J Appl Physiol* 105:731-738.
<https://doi.org/10.1007/s00421-008-0955-8>

Ideally, the names of all authors should be provided, but the usage of “et al” in long author lists will also be accepted:

Smith J, Jones M Jr, Houghton L et al (1999) Future of health insurance. *N Engl J Med* 341:325–329

- Article by DOI

Slifka MK, Whitton JL (2000) Clinical implications of dysregulated cytokine production. *J Mol Med.* <https://doi.org/10.1007/s001090000086>

- Book

South J, Blass B (2001) The future of modern genomics. Blackwell, London

- Book chapter

Brown B, Aaron M (2001) The politics of nature. In: Smith J (ed) The rise of modern genomics, 3rd edn. Wiley, New York, pp 230-257

- Online document

Cartwright J (2007) Big stars have weather too. IOP Publishing PhysicsWeb. <http://physicsweb.org/articles/news/11/6/16/1>. Accessed 26 June 2007

- Dissertation

Trent JW (1975) Experimental acute renal failure. Dissertation, University of California

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- For each table, please supply a table caption (title) explaining the components of the table.
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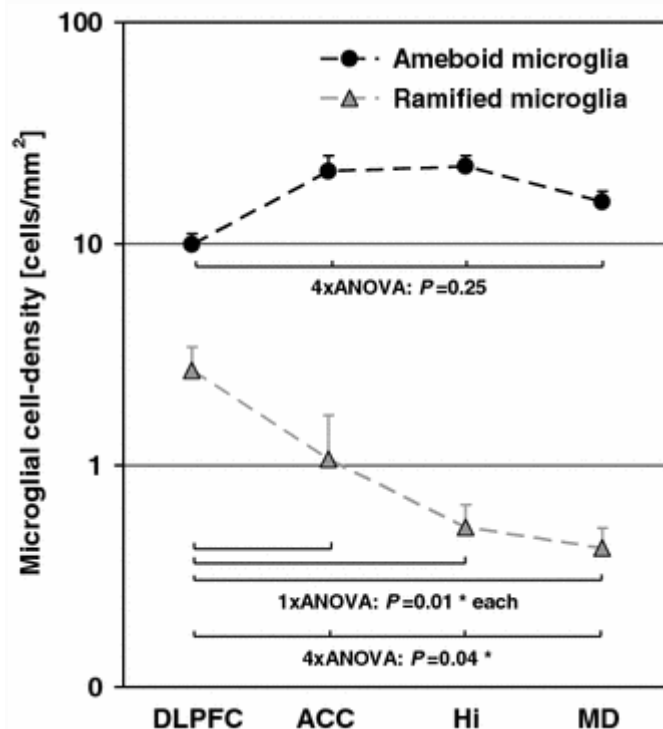
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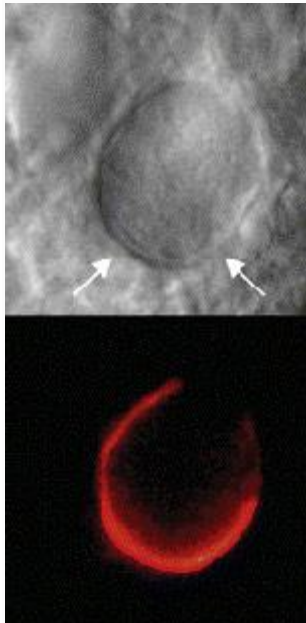
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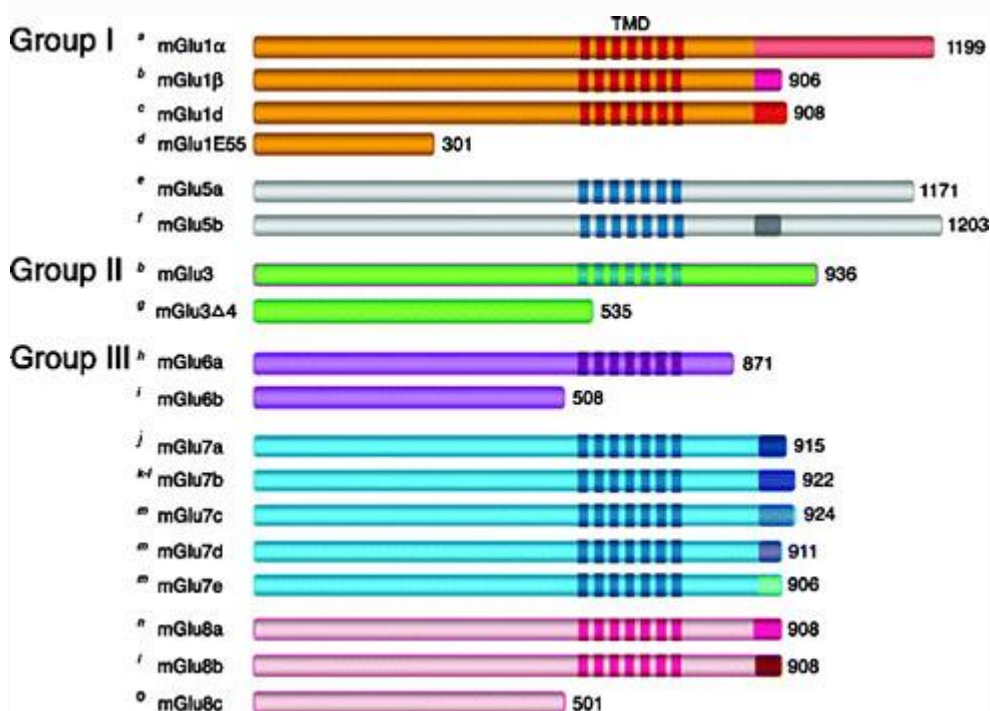
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- Definition: a combination of halftone and line art, e.g., halftones containing line drawing, extensive lettering, color diagrams, etc.
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- Color art is free of charge for online publication.
- If black and white will be shown in the print version, make sure that the main information will still be visible. Many colors are not distinguishable from one another when converted to black and white. A simple way to check this is to make a xerographic copy to see if the necessary distinctions between the different colors are still apparent.
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- Figure parts should be denoted by lowercase letters (a, b, c, etc.).
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- No punctuation is to be included after the number, nor is any punctuation to be placed at the end of the caption.
- Identify all elements found in the figure in the figure caption; and use boxes, circles, etc., as coordinate points in graphs.
- Identify previously published material by giving the original source in the form of a reference citation at the end of the figure caption.

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- When preparing your figures, size figures to fit in the column width.

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Numbering

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ESTRATÉGIA DE BUSCA NAS BASES DE DADOS

#1	"Frail Elderly"[Mesh] OR "Elderly, Frail" OR "Frail Elders" OR "Elder, Frail" OR "Elders, Frail" OR "Frail Elder" OR "Functionally-Impaired Elderly" OR "Elderly, Functionally-Impaired" OR "Functionally Impaired Elderly" OR "Frail Older Adults" OR "Adult, Frail Older" OR "Adults, Frail Older" OR "Frail Older Adult" OR "Older Adult, Frail" OR "Older Adults, Frail"
#2	"multicomponent exercise"
#3	"multicomponent training"
#4	"multicomponent program"
#5	"multicomponent intervention"
#6	"multimodal exercise"
#7	"multimodal training"
#8	"multimodal program"
#9	"multimodal intervention"
#10	"multifaceted exercise"
#11	"multifaceted training"
#12	"multifaceted program"
#13	"multifaceted intervention"
#14	"multifactorial exercise"
#15	"multifactorial training"
#16	"multifactorial program"
#17	"multifactorial intervention"
#18	Resistance OR Strength AND Aerobic AND Balance
#19	#2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18
#20	(randomized controlled trial [pt] OR controlled clinical trial [pt] OR randomized controlled trials [mh] OR random allocation [mh] OR double-blind method [mh] OR single-blind method [mh] OR clinical trial [pt] OR clinical trials [mh] OR ("clinical trial"[tw]) OR ((singl*[tw] OR doubl*[tw] OR trebl*[tw] OR tripl*[tw]) AND (mask*[tw] OR blind*[tw])) OR ("latin square"[tw]) OR placebos [mh] OR placebo*[tw] OR random*[tw] OR research design [mh: noexp] OR comparative study [mh] OR evaluation studies [mh] OR follow-up studies [mh] OR prospective studies [mh] OR crossover studies [mh] OR control*[tw] OR prospectiv*[tw] OR volunteer*[tw]) NOT (animal [mh] NOT human [mh])).
#21	"clinical trial"[Mesh] OR "clinical trials" OR "clinical trials as topic"[MeSH] OR "clinical trials as topic" OR "quasi-experimental" OR "quasi-experimental design"
Busca	#1 AND #19 AND #20 AND #21

CRITÉRIO PARA EXCLUSÃO DOS ARTIGOS

Não é ECR	População não é idoso frágil	Intervenção não é multicomponente	Desfecho não é funcionalidade
Diretrizes	Doenças neurológicas	Menos que 3 modalidades no grupo intervenção	Qualidade de vida
Protocolo de estudo	Idosos Obesos	Abordagem Cognitivo-Comportamental	Relação Custo-Efetividade
Revisões	Idosos Diabéticos	Serviço social	Depressão, Ansiedade e Auto-estima
Transversal	Idosas Pós-menopáusicas	Revisão de medicamentos e ambiente doméstico	Exames laboratoriais
Coorte	Idoso pré-frágil e não frágil	Dança, música e arte terapia	
Capítulos de livro	Idosos com IRC	Suplementação protéica e/ou alimentar	
Anais de congresso	Idosos com CA		
Teses e dissertações	Doenças reumatológicas e auto imunes		
Cartas ao editor	Animais		
Relatos de caso	Não idoso		
ECR não finalizado	Sem definição de fragilidade		
Sem randomização			

LISTA DE ARTIGOS EXCLUÍDOS (*Supplementary data.1*)

Base de Dados: Cochrane

Título	Motivo
Aerobic or Resistance Exercise, or Both, in Dieting Obese Older Adults	Intervenção não é multicomponente
The feasibility of Whole Body Vibration in institutionalised elderly persons and its influence on muscle performance, balance and mobility: a randomised controlled trial	Intervenção não é multicomponente
COPD detected with screening: impact on patient management and prognosis	Não é ECR
Blood transfusion strategy and risk of postoperative delirium in nursing homes residents with hip fracture. A post hoc analysis based on the TRIFE randomized controlled trial	Intervenção não é multicomponente
The effects of physical therapists' guidance on improvement in a strength-training program for the frail elderly	Intervenção não é multicomponente
Early effects of "Guided Care" on the quality of health care for multimorbid older persons: a cluster-randomized controlled trial	Intervenção não é multicomponente
Using goal attainment scaling to improve the quality of long-term care: a group-randomized trial	Intervenção não é multicomponente
A randomized clinical trial on preventing pressure ulcers with wheelchair seat cushions	Intervenção não é multicomponente
Automatic fall detectors and the fear of falling	Intervenção não é multicomponente
Effect of a Prebiotic Formulation on Frailty Syndrome: a Randomized, Double-Blind Clinical Trial	Intervenção não é multicomponente
Immunity in frail elderly: a randomized controlled trial of exercise and enriched foods	Intervenção não é multicomponente
Reduction of potentially inappropriate medications using the STOPP criteria in frail older inpatients: a randomised controlled study	Intervenção não é multicomponente
Dietary supplements and physical exercise affecting bone and body composition in frail elderly persons	Multiplicidade de publicação
Physical exercise or micronutrient supplementation for the wellbeing of the frail elderly? A randomised controlled trial	Multiplicidade de publicação
Integrated care at home reduces unnecessary hospitalizations of community-dwelling frail older adults: a prospective controlled trial	Intervenção não é multicomponente
Effectiveness of a home-based cognitive behavioral program to manage concerns about falls in community-dwelling, frail older people: results of a randomized controlled trial	Intervenção não é multicomponente
Evaluating an in-home multicomponent cognitive behavioural programme to manage concerns about falls and associated activity avoidance in frail community-dwelling older people: design of a randomised control trial	Não é ECR
Long-Term Evaluation of the Ambulatory Geriatric Assessment: a Frailty Intervention Trial (AGe-FIT): clinical Outcomes and Total Costs After 36 Months	Intervenção não é multicomponente
Exercise training guidelines for the elderly	Intervenção não é multicomponente
Multifactorial fall prevention for pairs of frail community-dwelling older fallers and their informal caregivers: a dead end for complex interventions in the frailest fallers	Intervenção não é multicomponente
Economic evaluation of a multifactorial, interdisciplinary intervention versus usual care to reduce frailty in frail older people	Desfecho não é funcionalidade
Frailty Intervention Trial (FIT)	Não é ECR
Respiratory muscle training programs: impact on the functional autonomy of the elderly	Intervenção não é multicomponente
Exercise attenuates the weight-loss-induced reduction in muscle mass in frail obese older adults	Intervenção não é multicomponente
Improved cost-effectiveness of short-course radiotherapy in elderly and/or frail patients with glioblastoma	Intervenção não é multicomponente
Rationale and design of the allogeneic human mesenchymal stem cells (hMSC) in patients with aging fRAILty via intravenous delivery (CRATUS) study: a phase I/II, randomized, blinded and placebo controlled trial to evaluate the safety and potential efficacy of allogeneic human mesenchymal stem cell infusion in patients with aging frailty	Não é ECR
Effects on leisure activities and social participation of a case management intervention for frail older people living at home: a randomised controlled trial	Intervenção não é multicomponente

Base de Dados: Cochrane. continuação

Título	Motivo
Long-term outcome for ADL following the health-promoting RCT--elderly persons in the risk zone	Intervenção não é multicomponente
A randomised phase II trial and feasibility study of palliative chemotherapy in frail or elderly patients with advanced gastroesophageal cancer (321GO)	Intervenção não é multicomponente
Comparison of methods for detecting potential adverse drug events in frail elderly inpatients and outpatients	Intervenção não é multicomponente
A network-based geriatric rehabilitation programme: study design and baseline characteristics of the patients	Não é ECR
Specific effects of balance and gait exercises on physical function among the frail elderly	Intervenção não é multicomponente
Floor-rise strategy training in older adults	População não é idoso frágil
Fall and injury prevention in older people living in residential care facilities. A cluster randomized trial	Desfecho não é funcionalidade
Fall and injury prevention in residential care--effects in residents with higher and lower levels of cognition	Multiplicidade de publicação
Evaluation of a frailty index based on a comprehensive geriatric assessment in a population based study of elderly Canadians	Intervenção não é multicomponente
Impact of a lay-led home-based intervention programme on quality of life in community-dwelling pre-frail and frail older adults: a randomized controlled trial	Intervenção não é multicomponente
Evaluation of a technology-enhanced integrated care model for frail older persons: protocol of the SPEC study, a stepped-wedge cluster randomized trial in nursing homes	Não é ECR
Heavy resistance training increases muscle size, strength and physical function in elderly male COPD-patients--a pilot study	Intervenção não é multicomponente
Preventive home visit model targeted to specific care needs of ambulatory frail elders: preliminary report of a randomized trial design	Intervenção não é multicomponente
Randomised study of tegafur-uracil plus leucovorin versus capecitabine as first-line therapy in elderly patients with advanced colorectal cancer--TLC study	Intervenção não é multicomponente
The minimal clinically important difference of six-minute walk in Asian older adults	Intervenção não é multicomponente
Does low lactose milk powder improve the nutritional intake and nutritional status of frail older Chinese people living in nursing homes?	Intervenção não é multicomponente
Long-term effectiveness of a group program for caregivers of frail elderly veterans	Intervenção não é multicomponente
The "Sarcopenia and Physical fRailty IN older people: multi-component Treatment strategies" (SPRINTT) randomized controlled trial: design and methods	Não é ECR
Protein-energy oral supplementation in malnourished nursing-home residents. A controlled trial	Intervenção não é multicomponente
Can continuous pump feeding reduce the incidence of pneumonia in nasogastric tube-fed patients? A randomized controlled trial	Intervenção não é multicomponente
A high-intensity functional weight-bearing exercise program for older people dependent in activities of daily living and living in residential care facilities: evaluation of the applicability with focus on cognitive function	Intervenção não é multicomponente
Effects of a Home-Based and Volunteer-Administered Physical Training, Nutritional, and Social Support Program on Malnutrition and Frailty in Older Persons: a Randomized Controlled Trial	Intervenção não é multicomponente
The effect of geriatric intervention in frail elderly patients receiving chemotherapy for colorectal cancer: a randomized trial (GERICO)	Intervenção não é multicomponente
Functional and cognitive impairment prevention through early physical activity for geriatric hospitalized patients: study protocol for a randomized controlled trial	Não é ECR
The "Sarcopenia and Physical fRailty IN older people: multi-component Treatment strategies" (SPRINTT) randomized controlled trial: case finding, screening and characteristics of eligible participants	Não é ECR
Process evaluation of a trial evaluating a multidisciplinary nurse-led home visiting programme for vulnerable older people	Intervenção não é multicomponente
Development of use and cost measures in a nursing intervention for family caregivers and frail elderly patients	Intervenção não é multicomponente

Base de Dados: Cochrane. Continuação

Título	Motivo
Influence of health locus of control on recovery of function in recently hospitalized frail older adults	Intervenção não é multicomponente
Randomized, controlled trial of high-dose influenza vaccine among frail residents of long-term care facilities	Intervenção não é multicomponente
Effect of the continuous intake of probiotic-fermented milk containing Lactobacillus casei strain Shirota on fever in a mass outbreak of norovirus gastroenteritis and the faecal microflora in a health service facility for the aged	Intervenção não é multicomponente
Effects of three-month intake of synbiotic on inflammation and body composition in the elderly: a pilot study	Intervenção não é multicomponente
The rehabilitation enhancing aging through connected health (REACH) study: study protocol for a quasi-experimental clinical trial	Não é ECR
Home visiting programme for older people with health problems: process evaluation	Intervenção não é multicomponente
Do the effects of testosterone on muscle strength, physical function, body composition, and quality of life persist six months after treatment in intermediate-frail and frail elderly men?	Intervenção não é multicomponente
An elderly-centered, personalized, physiotherapy program early after cardiac surgery	Não é ECR
Characterizing Frailty Status in the Systolic Blood Pressure Intervention Trial	Intervenção não é multicomponente
A phase IIA randomized, placebo-controlled clinical trial to study the efficacy and safety of the selective androgen receptor modulator (SARM), MK-0773 in female participants with sarcopenia	Intervenção não é multicomponente
Promoting Activity in Geriatric Rehabilitation: a Randomized Controlled Trial of Accelerometry	Intervenção não é multicomponente
Can an EASYcare based dementia training programme improve diagnostic assessment and management of dementia by general practitioners and primary care nurses? The design of a randomised controlled trial	Não é ECR
Influenza vaccination of health care workers in long-term-care hospitals reduces the mortality of elderly patients	Intervenção não é multicomponente
Results of the promoting effective advance care planning for elders (PEACE) randomized pilot study	Intervenção não é multicomponente
Zinc increases the effects of essential amino acids-whey protein supplements in frail elderly	Intervenção não é multicomponente
An evaluation of the effectiveness of a multi-modal intervention in frail and pre-frail older people with type 2 diabetes--the MID-Frail study: study protocol for a randomised controlled trial	Não é ECR
Effectiveness of a primary care based multifactorial intervention to improve frailty parameters in the elderly: a randomised clinical trial: rationale and study design	Não é ECR
An intervention targeting fundamental values among caregivers at residential facilities: effects of a cluster-randomized controlled trial on residents' self-reported empowerment, person-centered climate and life satisfaction	Intervenção não é multicomponente
Educational intervention to reduce falls and fear of falling in patients after fragility fracture: results of a controlled pilot study	Intervenção não é multicomponente
Effects on healthcare utilization of case management for frail older people: a randomized controlled trial (RCT)	Intervenção não é multicomponente
Chemotherapy options in elderly and frail patients with metastatic colorectal cancer (MRC FOCUS2): an open-label, randomised factorial trial	Intervenção não é multicomponente
The effect of megestrol acetate on oral food and fluid intake in nursing home residents: a pilot study	Intervenção não é multicomponente
The effectiveness of a telephone support program for caregivers of frail older adults	População não é idoso frágil
Effect of a collaborative approach on the quality of prescribing for geriatric inpatients: a randomized, controlled trial	Intervenção não é multicomponente
Effects of Nurse-Led Multifactorial Care to Prevent Disability in Community-Living Older People: cluster Randomized Trial	Intervenção não é multicomponente
Vision screening for frail older people: a randomised trial	Intervenção não é multicomponente

Base de Dados: Cochrane. Continuação

Título	Motivo
Efficacy of simple home-based technologies combined with a monitoring assistive center in decreasing falls in a frail elderly population (results of the Esoppe study)	Não é ECR
Physical training as core component of multimodal treatment of older frail people-study protocol of a randomized controlled pilot study	Não é ECR
Effects of a group-based exercise program on functional abilities in frail older women after hospital discharge	Intervenção não é multicomponente
Supporting caregivers of frail older adults in an HMO setting	População não é idoso frágil
Health education groups for caregivers in an HMO	População não é idoso frágil
Efficacy of supervised Tai Chi exercises versus conventional physical therapy exercises in fall prevention for frail older adults: a randomized controlled trial	Intervenção não é multicomponente
Scopolaminebutyl given prophylactically for death rattle: study protocol of a randomized double-blind placebo-controlled trial in a frail patient population (the SILENCE study)	Não é ECR
A feasible model for prevention of functional decline in older home-dwelling people--the GP role. A municipality-randomized intervention trial	Intervenção não é multicomponente
Aerobic or Resistance Exercise, or Both, in Dieting Obese Older Adults	Intervenção não é multicomponente
Bone mineral density response to estrogen replacement in frail elderly women: a randomized controlled trial	Intervenção não é multicomponente
No evidence that frailty modifies the positive impact of antihypertensive treatment in very elderly people: an investigation of the impact of frailty upon treatment effect in the HYpertension in the Very Elderly Trial (HYVET) study, a double-blind, placebo-controlled study of antihypertensives in people with hypertension aged 80 and over	Intervenção não é multicomponente
User-Oriented Evaluation of a Robotic Rollator That Provides Navigation Assistance in Frail Older Adults with and without Cognitive Impairment	Intervenção não é multicomponente
Biochemical antioxidant levels respond to supplementation with an enriched drink in frail elderly people	Intervenção não é multicomponente
A randomized clinical study of tea catechin inhalation effects on methicillin-resistant Staphylococcus aureus in disabled elderly patients	Intervenção não é multicomponente
Protein supplementation improves physical performance in frail elderly people: a randomized, double-blind, placebo-controlled trial	Intervenção não é multicomponente
Cholecalciferol or 25-Hydroxycholecalciferol Supplementation Does Not Affect Muscle Strength and Physical Performance in Prefrail and Frail Older Adults	Intervenção não é multicomponente
Effect of weight loss and exercise on frailty in obese older adults	Intervenção não é multicomponente
Physical exercise and/or enriched foods for functional improvement in frail, independently living elderly: a randomized controlled trial	Intervenção não é multicomponente
Effect of dietary supplements and physical exercise on sensory perception, appetite, dietary intake and body weight in frail elderly subjects	Intervenção não é multicomponente
Functional biochemical and nutrient indices in frail elderly people are partly affected by dietary supplements but not by exercise	Intervenção não é multicomponente
Dietary supplements and physical exercise affecting bone and body composition in frail elderly persons	Intervenção não é multicomponente
Nutrient-dense foods and exercise in frail elderly: effects on B vitamins, homocysteine, methylmalonic acid, and neuropsychological functioning	Intervenção não é multicomponente

Motivo	Nº de artigos
Não é ECR	17
População não é idoso frágil	4
Desfecho não é Funcionalidade	2
Multiplicidade de Publicação	3
Intervenção não é Multicomponente	76
TOTAL	102

Base de dados: PubMed

Título	Motivo
Prevention of falls and fall-related injuries in community-dwelling seniors: an evidence-based analysis	Não é ECR
Effects of physical activity on health status in older adults. II. Intervention studies	Não é ECR
Interventions to prevent disability in frail community-dwelling elderly: a systematic review	Não é ECR
Feasibility of a nurse-led in-home cognitive behavioral program to manage concerns about falls in frail older people: a process evaluation	Não é ECR
Different protein and derivatives supplementation strategies combined with resistance training in pre-frail and frail elderly: Rationale and protocol for the "Pro-Elderly" Study	Não é ECR
Impact of a multifaceted community-based falls prevention program on balance-related psychologic factors	Desfecho não é funcionalidade
Rationale and design of the allogeneic human mesenchymal stem cells (hMSC) in patients with aging frailty via intravenous delivery (CRATUS) study: A phase I/II, randomized, blinded and placebo controlled trial to evaluate the safety and potential efficacy of allogeneic human mesenchymal stem cell infusion in patients with aging frailty	Intervenção não é multicomponente
Feasibility, safety, acceptability, and functional outcomes of playing Nintendo Wii Fit Plus for frail elderly: study protocol for a feasibility trial	Não é ECR
The role of adherence on the effectiveness of nonpharmacologic interventions: evidence from the delirium prevention trial	População não é idoso frágil
The EXPRESS Study: Exercise and Protein Effectiveness Supplementation Study supporting autonomy in community dwelling frail older people-study protocol for a randomized controlled pilot and feasibility study	Não é ECR
Multicomponent Program to Reduce Functional Decline in Frail Elderly People: A Cluster Controlled Trial	Intervenção não é multicomponente
Falls prevention training for community health workers: strategies and actions for independent living (SAIL)	População não é idoso frágil
Exercise to prevent and treat functional disability	Não é ECR
Effectiveness of physical exercise on fitness in frail older adults: A systematic review of randomised trials	Não é ECR
Effects and feasibility of exercise therapy combined with branched-chain amino acid supplementation on muscle strengthening in frail and pre-frail elderly people requiring long-term care: a crossover trial	Intervenção não é multicomponente

Motivo	Nº de artigos
Não é ECR	9
População não é idoso frágil	2
Desfecho não é Funcionalidade	1
Multiplicidade de Publicação	0
Intervenção não é Multicomponente	3
TOTAL	15

Base de datos: BVS

Título	Motivo
Indicadores antropométricos, composición corporal y limitaciones funcionales en ancianos	Não é ECR
Protocolo de estudio sobre condicionantes de desestabilización física y psicosocial en los mayores	Não é ECR
Control de la dislipemia en grupos clínicos especiales: mujeres, ancianos, VIH, enfermedad renal crónica, pacientes con síndrome metabólico	Não é ECR
Perfil y pronóstico del paciente con anemia mayor de 85 años que vive en la comunidad. Estudio Octabaix	Não é ECR
Programas de treinamento muscular respiratório: impacto na autonomia funcional de idosos	Intervenção não é multicomponente
Programas de Educación en Salud y Entrenamiento de la Fuerza en adultos mayores con artrosis de cadera leve a moderada	População não é idoso frágil
Efectividad de las intervenciones para la prevención de caídas en ancianos: revisión sistemática	Não é ECR
Efeito de um programa de resistência muscular na capacidade funcional e na força muscular dos extensores do joelho em idosos pré-frágeis da comunidade: ensaio clínico aleatorizado do tipo crossover	População não é idoso frágil
Planificación del alta desde urgencias para reducir eventos adversos a 30 días en pacientes mayores frágiles con insuficiencia cardiaca aguda: diseño y justificación del ensayo clínico DEED FRAIL-AHF	Não é ECR
Off-pump versus On-pump Coronary Artery Bypass Grafting in Frail Patients: Study Protocol for the FRAGILE Multicenter Randomized Controlled Trial	Não é ECR
Ensayo clínico aleatorizado sobre la eficacia de la valoración geriátrica integral seguida de intervención en atención primaria	Intervenção não é multicomponente
Efectividad de los miniplatos inestables para la mejora del equilibrio en pacientes geriátricos institucionalizados con síndrome de desequilibrio posterior. Ensayo clínico aleatorizado	Intervenção não é multicomponente
Declive funcional: incidencia y valor de varias reglas de predicción en ancianos que viven en la comunidad	Não é ECR
Fisioterapia na prevenção de quedas em idosos: revisão de literatura	Não é ECR
Evaluación de los resultados y de la satisfacción de un programa de atención domiciliar de pacientes ancianos dependientes	População não é idoso frágil
Mayores que viven solos y malnutrición. Estudio SOLGER	Não é ECR
Manejo ambulatorio de la neumonía comunitaria del adulto en las unidades de emergencia. Servicio de Salud Viña del Mar - Quillota de la V Región	Não é ECR
Consecuencias de las caídas en un centro geriátrico para ancianos válidos. Estudio descriptivo	Não é ECR
Efectividad de las visitas domiciliarias en ancianos sobre el estado funcional, mortalidad e ingreso en residencias de larga estancia	Não é ECR
Estrategia invasiva frente a conservadora en pacientes frágiles con IAMSEST. Diseño del ensayo clínico MOSCA-FRIL	Não é ECR
Control glucémico de los pacientes ancianos con diabetes mellitus tipo 2 en España (2015) y su relación con la capacidad funcional y la comorbilidad. Estudio Escadiane	Não é ECR
Functional performance of the elderly in instrumental activities of daily living: an analysis in the municipality of São Paulo, Brazil	Não é ECR
Depresión en ancianos: prevalencia y factores asociados	Não é ECR
Autopercepção da saúde bucal em idosos e fatores associados em Campinas, SP, 2008-2009	Não é ECR
Comparison between unimodal and multimodal Physical Therapy interventions in frailty: a systematic review	Não é ECR
Importancia de la formación continuada de los profesionales en la prevención de caídas en pacientes geriátricos institucionalizados	Não é ECR
El ejercicio físico y su efectividad sobre la condición física en personas mayores frágiles. Revisión sistemática de ensayos clínicos aleatorizados	Não é ECR
Intervención educativa para prevenir incontinencia en ancianos con fractura de cadera ECA: resultados preliminares	População não é idoso frágil
Eficacia de las intervenciones dirigidas a cuidadores principales de personas dependientes mayores de 65 años. Una revisión sistemática	Não é ECR

Motivo	Nº de artigos
Não é ECR	22
População não é idoso frágil	4
Desfecho não é Funcionalidade	0
Multiplicidade de Publicação	0
Intervenção não é Multicomponente	3
TOTAL	29

Base de dados: PEDro

Título	Motivo
Effect of a multifactorial, interdisciplinary intervention on risk factors for falls and fall rate in frail older people: a randomised controlled trial	Desfecho não é funcionalidade
Effects on leisure activities and social participation of a case management intervention for frail older people living at home: a randomised controlled trial	Intervenção não é multicomponente
Pre frail 80: multifactorial intervention to prevent progression of pre-frailty to frailty in the elderly	População não é idoso frágil
Effectiveness of an intervention to prevent frailty in pre-frail community-dwelling older people consulting in primary care: a randomised controlled trial	População não é idoso frágil
Effects of a group-based exercise program on functional abilities in frail older women after hospital discharge	Intervenção não é multicomponente
Does multiple risk factor reduction explain the reduction in fall rate in the Yale FICSIT Trial? Frailty and Injuries Cooperative Studies of Intervention Techniques	Intervenção não é multicomponente
Effects of a multicomponent cognitive behavioral group intervention on fear of falling and activity avoidance in community-dwelling older adults: results of a randomized controlled trial	Intervenção não é multicomponente
Comparison between multicomponent and simultaneous dual-task exercise interventions in long-term nursing home residents: the Ageing-ON-DUAL-TASK randomized controlled study [with consumer summary]	Intervenção não é multicomponente
Home-based health promotion for older people with mild frailty: the HomeHealth intervention development and feasibility RCT [with consumer summary]	Não é ECR

Motivo	Nº de artigos
Não é ECR	1
População não é idoso frágil	2
Desfecho não é Funcionalidade	1
Multiplicidade de Publicação	0
Intervenção não é Multicomponente	5
TOTAL	9

Base de dados: Scopus

Título	Motivo
Guidelines for the Use of Parenteral and Enteral Nutrition in Adult and Pediatric Patients	Não é ECR
Annotated Patent Selections	Não é ECR
Managing coexistent asthma and chronic obstructive pulmonary disease in older populations is challenging	Não é ECR
Guidance statement on appropriate medical services for the elderly by the study group of the Ministry of Health, Labour and Welfare	Não é ECR
The effects of Salsa dance on balance, gait, and fall risk in a sedentary patient with Alzheimer's dementia, multiple comorbidities, and recurrent falls	População não é idoso frágil
Capacity, consent, and selection bias in a study of delirium	Não é ECR
The use of Tai Chi to improve health in older adults	Não é ECR
Structuring a conceptual model for cost effectiveness analysis of frailty interventions	Não é ECR
Rivastigmine transdermal patch and physical exercises for Alzheimer's disease: A randomized clinical trial	População não é idoso frágil
Physical Exercise as Therapy for Frailty	Não é ECR
Whole-body vibration training compared with resistance training: Effect on spasticity, muscle strength and motor performance in adults with cerebral palsy	População não é idoso frágil
Preserved physical fitness is associated with lower 1-year mortality in frail elderly patients with a severe comorbidity burden	Não é ECR
The role of an acute care for the elderly unit in achieving hospital quality indicators while caring for frail hospitalized elders	Não é ECR
Acute care for the elderly: A literature review	Não é ECR
Deprescribing anticholinergic and sedative medicines: Protocol for a Feasibility Trial (DEFEAT-polypharmacy) in residential aged care facilities	Não é ECR
Awareness and functional outcome of hip fracture-related falls among patients with a history of recurrent falling	Não é ECR
Relationships between intramuscular fat, muscle strength and gait independence in older women: A cross-sectional study	Não é ECR
Frailty and multimorbidity in elderly people: A shift in management approach	Não é ECR
Effects of a deep-water running program on muscle function and functionality in elderly women community-dwelling	População não é idoso frágil
European Society of Anaesthesiology evidence-based and consensus-based guideline on postoperative delirium	Não é ECR
Postural Control in Older Adults	Não é ECR
Metric properties of the "timed get up and go- modified version" test, in risk assessment of falls in active women	Não é ECR
Associations between APOE and low-density lipoprotein cholesterol genotypes and cognitive and physical capability: The HALCyon programme	Não é ECR
Effect of retro and forward walking on quadriceps muscle strength, pain, function, and mobility in patients with knee osteoarthritis: A protocol for a randomized controlled trial	Não é ECR
Effect of 6-week retro or forward walking program on pain, functional disability, quadriceps muscle strength, and performance in individuals with knee osteoarthritis: A randomized controlled trial (retro-walking trial)	População não é idoso frágil
Impact of androgen-deprivation therapy on physical function and quality of life in men with nonmetastatic prostate cancer	População não é idoso frágil
Falls and other geriatric syndromes in Blantyre, Malawi: A community survey of older adults	Não é ECR
Redefining readmission risk factors for general medicine patients	Não é ECR
A primary care based fall prevention programme	Não é ECR
An Innovation Center Model to Transform Health Systems to Improve Care of Older Adults	Não é ECR
Investigating the effectiveness of postural muscle electrostimulation and static posturography feedback exercises in elders with balance disorder	População não é idoso frágil
Effects of supervised whole body vibration exercise on fall risk factors, functional dependence and health-related quality of life in nursing home residents aged 80+	Intervenção não é Multicomponente
Recommendations for Preoperative Management of Frailty from the Society for Perioperative Assessment and Quality Improvement (SPAQI)	Não é ECR
Impact of fall risk and fear of falling on mobility of independently living senior citizens transitioning to frailty: Screening results concerning fall prevention in the community	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Acute effects of whole-body vibration training on neuromuscular performance and mobility in hypoxia and normoxia in persons with multiple sclerosis: A crossover study	Não é ECR
Fall risk assessments in home care: OASIS-C Expectations	Não é ECR
Aerobic physical exercise improved the cognitive function of elderly males but did not modify their blood homocysteine levels	População não é idoso frágil
Metabolic, renal and bone effects of high-protein diets. The protective role of exercise	Não é ECR
Physical activity diminishes aging-related decline of physical and cognitive performance	Não é ECR
Chapter 4 Treatment of sarcopenia	Não é ECR
The effects of short-term exercise intervention on falls self-efficacy and the relationship between changes in physical function and falls self-efficacy in Japanese older people: A randomized controlled trial	Desfecho não é funcionalidade
The relationship between physical condition and change in balance functions on exercise intervention and 12-month follow-up in Japanese community-dwelling older people	População não é idoso frágil
The evaluation of the relationships between physical factors and effects of exercise intervention on physical functions in community-dwelling older people	Não é ECR
The relationship between age and change in physical functions after exercise intervention. Trainability of Japanese community-dwelling older elderly	Não é ECR
Intensive cycle ergometer training improves gait speed and endurance in patients with Parkinson's disease: A comparison with treadmill training	População não é idoso frágil
Effects of treadmill training on the balance, functional capacity and quality of life in Parkinson's disease: A randomized clinical trial	População não é idoso frágil
Comparing the effects of anticipatory postural adjustments focused training and balance training on postural preparation, balance confidence and quality of life in elderly with history of a fall	População não é idoso frágil
Outcomes of Participation in a Community-Based Physical Activity Program	Não é ECR
Using assessing care of vulnerable elders quality indicators to measure quality of hospital care for vulnerable elders	Não é ECR
Serum myostatin levels are higher in fitter, more active, and non-frail long-Term nursing home residents and increase after a physical exercise intervention	População não é idoso frágil
A randomised controlled trial of a home based exercise programme to reduce the risk of falling among people with Parkinson's disease	População não é idoso frágil
A community-dwelling sample of people with Parkinson's disease: Characteristics of fallers and non-fallers	Não é ECR
Assessment of the quality of fall detection and management in primary care in the Netherlands based on the ACOVE quality indicators	Não é ECR
The use of exercise in the elderly to enhance functional mobility and prevent falls	Não é ECR
Balance Exercises Circuit improves muscle strength, balance, and functional performance in older women	População não é idoso frágil
Comprehensive geriatric assessment predicts mortality and adverse outcomes in hospitalized older adults	Não é ECR
Management of falls in community-dwelling older adults: Clinical guidance statement from the academy of geriatric physical therapy of the American physical therapy association	Não é ECR
Home-Based Risk of Falling Assessment Test Using a Closed-Loop Balance Model	Não é ECR
Elders Exercise and Behavioral Program: Effects on Balance and Fear of Falls	Não é ECR
The association between glucose control and functional indices in older people with diabetes	Não é ECR
Multifactorial assessment and targeted intervention in nutritional status among the older adults: A randomized controlled trial: The Octabaix study	População não é idoso frágil
Effects of online group exercises for older adults on physical, psychological and social wellbeing: A randomized pilot trial	População não é idoso frágil
Year-long changes in protein metabolism in elderly men and women supplemented with a nutrition cocktail of β -hydroxy- β -methylbutyrate (HMB), L-arginine, and L-lysine	População não é idoso frágil
Stroke caregiver outcomes from the Telephone Assessment and Skill-Building Kit (TASK)	Não é ECR
The CareWell in Hospital program to improve the quality of care for frail elderly inpatients: Results of a before-After study with focus on surgical patients	Intervenção não é Multicomponente
Hospital Care for Frail Elderly Adults: From Specialized Geriatric Units to Hospital-Wide Interventions	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Effects of hospital-wide interventions to improve care for frail older inpatients: A systematic review	Não é ECR
Outcomes of stay strong, stay healthy in community settings	Não é ECR
Effect of unstable surface training on walking ability in stroke patients	População não é idoso frágil
Randomized controlled trial of web-based multimodal therapy for children with acquired brain injury to improve gross motor capacity and performance	População não é idoso frágil
Exploring the role of muscle mass, obesity, and age in the relationship between muscle quality and physical function	População não é idoso frágil
What does the vibration therapy add? A quasi-experimental, pilot study on the short term effects of whole-body vibration as mode of exercise for nursing home residents aged 80+	Intervenção não é Multicomponente
Prediction of recovery, dependence or death in elders who become disabled during hospitalization	Não é ECR
Is the Timed Up and Go test a useful predictor of risk of falls in community dwelling older adults: A systematic review and meta- analysis	Não é ECR
A Yoga-Based Exercise Program for People with Chronic Poststroke Hemiparesis	População não é idoso frágil
Twelve evidence-based principles for implementing self-management support in primary care	Não é ECR
First results of evaluation of a falls clinic	Não é ECR
Evidence-based recommendations for optimal dietary protein intake in older people: A position paper from the prot-age study group	Não é ECR
Effects of Ai-Chi on balance, functional mobility, strength and fatigue in patients with multiple sclerosis: A pilot study	População não é idoso frágil
Changes in physical activity, sedentary time, and risk of falling: The Women's Health Initiative Observational Study	Não é ECR
Effect of low intensity aerobic exercise and postural correction exercise on fatigue substance and aging hormone	Intervenção não é Multicomponente
Long-term physical activity and inflammatory biomarkers in older adults	População não é idoso frágil
Physical and social functional abilities seem to be maintained by a multifaceted randomized controlled nutritional intervention among old (>65 years) Danish nursing home residents	Não é ECR
Nutritional intervention as part of functional rehabilitation in older people with reduced functional ability: a systematic review and meta-analysis of randomised controlled studies	Não é ECR
Study protocol: Cost-effectiveness of multidisciplinary nutritional support for undernutrition in older adults in nursing home and home-care: Cluster randomized controlled trial	Não é ECR
A follow-up study on fall and fracture incidence in long-term care including the role of formal caregiver time on fall incidence rates	Intervenção não é Multicomponente
An algorithm to screen long-term care residents at risk for accidental falls	Não é ECR
Medizin im Pflegeheim Problemanalyse und Zielsetzung: Was bei der hausärztlichen Betreuung unabdingbar ist	Não é ECR
The effect of a group exercise program on muscular function among fall-prone elderly women	Desfecho não é funcionalidade
Multifactorial intervention with balance training as a core component among fall-prone older adults	Intervenção não é Multicomponente
Characteristics and outcomes of older patients presenting to the emergency department after a fall: A retrospective analysis	Não é ECR
Care of older adults	Não é ECR
Timed up and go tests in cardiac rehabilitation: Reliability and comparison with the 6-minute walk test	Não é ECR
Effects of three different low-intensity exercise interventions on physical performance, muscle CSA and activities of daily living: A randomized controlled trial	Intervenção não é Multicomponente
The effectiveness of a video-supported group-based Otago exercise programme on physical performance in community-dwelling older adults: a preliminary study	População não é idoso frágil
Hypertension Management in Older and Frail Older Patients	Não é ECR
Measures of physical performance assessments: Self-Paced Walk Test (SPWT), Stair Climb Test (SCT), Six-Minute Walk Test (6MWT), Chair Stand Test (CST), Timed Up & Go (TUG), Sock Test, Lift and Carry Test (LCT), and Car Task	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
A physiotherapist-delivered integrated exercise and pain coping skills training intervention for individuals with knee osteoarthritis: A randomised controlled trial protocol	População não é idoso frágil
The effect of a practical resistance training intervention on mobility in independent, community-dwelling older adults	Intervenção não é Multicomponente
Evaluation of a continuing educational intervention for primary health care professionals about nutritional care of patients at home	Não é ECR
Fall risk factors in community-dwelling Elderly People	Não é ECR
The effects of prehabilitation versus usual care to reduce postoperative complications in high-risk patients with colorectal cancer or dysplasia scheduled for elective colorectal resection: Study protocol of a randomized controlled trial	Não é ECR
Prevention of loss of autonomy by information and action: "Postural-Balancing-Mobility and Health Education" (PBM- EH) technique	Não é ECR
Submaximal exercise capacity in juvenile dermatomyositis after longterm disease: The contribution of muscle, lung, and heart involvement	População não é idoso frágil
Executive functions, physical fitness and mobility in well-functioning older adults	Não é ECR
Multiple roads lead to Rome: combined high-intensity aerobic and strength training vs. gross motor activities leads to equivalent improvement in executive functions in a cohort of healthy older adults	Não é ECR
A systematic review of the outcomes reported in trials of medication review in older patients: the need for a core outcome set	Não é ECR
Old women with a recent fall history show improved muscle strength and function sustained for six months after finishing training	População não é idoso frágil
The Long Winding Road to Transplant: How Sarcopenia and Debility Impact Morbidity and Mortality on the Waitlist	Não é ECR
Effect of protein intake on lean body mass in functionally limited older men a randomized clinical trial	População não é idoso frágil
Cognitive plasticity in older adults: Effects of cognitive training and physical exercise	População não é idoso frágil
Age-related changes in physical fall risk factors: Results from a 3 year follow-up of community dwelling older adults in Tasmania, Australia	Não é ECR
Effects of vitamin D and calcium supplementation on falls: A randomized controlled trial	Intervenção não é Multicomponente
Effectiveness of a programme delivered in a falls clinic in preventing serious injuries in high-risk older adults: A pre- and post-intervention study	Não é ECR
A comprehensive fracture prevention strategy in older adults: The European union geriatric medicine society (EUGMS) statement	Não é ECR
Gaming for health: A systematic review of the physical and cognitive effects of interactive computer games in older adults	Não é ECR
Effectiveness of a Proactive Primary Care Program on Preserving Daily Functioning of Older People: A Cluster Randomized Controlled Trial	Não é ECR
Process factors explaining the ineffectiveness of a multidisciplinary fall prevention programme: A process evaluation	Não é ECR
Effectiveness and cost-effectiveness of a proactive, goal-oriented, integrated care model in general practice for older people. A cluster randomised controlled trial: Integrated systematic care for older people-the ISCOPE study	Intervenção não é Multicomponente
Water-versus land-based exercise effects on physical fitness in older women	População não é idoso frágil
Test-retest reliability and minimal detectable change scores of twelve functional fitness tests in adults with Down syndrome	Não é ECR
Beneficial Effects of Whole Body Vibration on Brain Functions in Mice and Humans	População não é idoso frágil
Exercise programming for Parkinson's disease	População não é idoso frágil
The Evolution of Gero-Oncology Nursing	Não é ECR
Physical activity and dehydroepiandrosterone sulphate, insulin-like growth factor I and testosterone in healthy active elderly people	População não é idoso frágil
Falling into place: A practical approach to interdisciplinary education on falls prevention in long-term care	Não é ECR
Improving Geriatric Care Processes on Two Medical-Surgical Acute Care Units: A Pilot Study	Não é ECR
A theoretical lens for revealing the complexity of chronic care	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Fear of falling and falls in older adults with mild cognitive impairment and Alzheimers disease	População não é idoso frágil
Assessing gait and balance impairment in elderly residents of nursing homes	Não é ECR
Effects of vitamin D and the efficacy of various vitamin D products	Intervenção não é Multicomponente
Feasibility of a combined aerobic and strength training program and its effects on cognitive and physical function in institutionalized dementia patients. A pilot study	População não é idoso frágil
Comparison of Effect of Two Exercise Programs on Activities of Daily Living in Individuals with Dementia: A 9-Week Randomized, Controlled Trial	População não é idoso frágil
Effects of resistance training on neuromuscular parameters in elderly with type 2 diabetes mellitus: A randomized clinical trial	População não é idoso frágil
Dynamic balance differences as measured by the star excursion balance test between adult-aged and middle-aged women	Não é ECR
Comparison of training between 2 cycle ergometers on dynamic balance for middle-aged women	População não é idoso frágil
Effects of intensive home visiting programs for older people with poor health status: A systematic review	Não é ECR
Effects of intensive home visiting programs: A systematic literature review of the elderly with health problems	Não é ECR
Building bridges for innovation in ageing: Synergies between action groups of the EIP on AHA	Não é ECR
MACVIA-LR, Reference site of the European Innovation Partnership on Active and Healthy Ageing (EIP on AHA) in Languedoc Roussillon	Não é ECR
Rate of accidental falls in institutionalised older people with and without cognitive impairment halved as a result of a staff-oriented intervention	Não é ECR
A randomized controlled trial of high-dose vitamin D ³ in patients with heart failure	População não é idoso frágil
Sarcopenia and decreased muscle strength in the elderly woman: Resistance training as a safe and effective intervention	População não é idoso frágil
Mitii™ ABI: Study protocol of a randomised controlled trial of a web-based multi-modal training program for children and adolescents with an Acquired Brain Injury (ABI)	Não é ECR
Circumstances leading to injurious falls in older men and women in the Netherlands	Não é ECR
Prevention of patient falls in hospitals in the Czech Republic	Não é ECR
Effectiveness of a timing and coordination group exercise program to improve mobility in community-dwelling older adults: A randomized clinical trial	População não é idoso frágil
Implementation of preventive strength training in residential geriatric care: A multi-centre study protocol with one year of interventions on multiple levels	Não é ECR
The roles of senior management in improving hospital experiences for frail older adults	Não é ECR
Falls in older adults	Não é ECR
Development of quality indicators for monitoring outcomes of frail elderly hospitalised in acute care health settings: Study Protocol	Não é ECR
Effect of a home-based exercise program on functional mobility and quality of life in elderly people: Protocol of a single-blind, randomized controlled trial	Não é ECR
Exercise prescription to reverse frailty	Não é ECR
A multidisciplinary intervention in osteoarthritis based on the ICF - A case-example	População não é idoso frágil
Gender-specific associations between functional autonomy and physical capacities in independent older adults: Results from the NuAge study	Não é ECR
Syncope in the elderly	Não é ECR
Single and combined effects of growth hormone and testosterone administration on measures of body composition, physical performance, mood, sexual function, bone turnover, and muscle gene expression in healthy older men	População não é idoso frágil
The effect of the Nintendo Wii Fit on exercise capacity and gait in an elderly woman with CREST syndrome	População não é idoso frágil
Exercise testing and training strategies for healthy and frail elderly	Não é ECR
Comparison between clinical gait and daily-life gait assessments of fall risk in older people	Não é ECR
Blood Pressure, Antihypertensive Polypharmacy, Frailty, and Risk for Serious Fall Injuries among Older Treated Adults with Hypertension	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Evaluation of a multicomponent pathway to address inpatient delirium on a neurosciences ward	Não é ECR
Appendicular lean mass and mortality among prefrail and frail older adults	Não é ECR
Evaluation of an Outpatient Rehabilitative Program to Address Mobility Limitations among Older Adults	Não é ECR
Physical and performance measures for the identification of mild to moderate frailty	Não é ECR
Frailty and depression in older adults: A high-risk clinical population	Não é ECR
Geriatric Conditions in a Population-Based Sample of Older Homeless Adults	Não é ECR
Benefits, challenges, and potential utility of a gait database for diabetes patients	Não é ECR
Feasibility of mind-body movement programs for cancer survivors	Não é ECR
Recreational physical activity levels in healthy older women: The importance of fear of falling	Não é ECR
The design and development of a complex multifactorial falls assessment intervention for falls prevention: The Prevention of Falls Injury Trial (PreFIT)	Não é ECR
Feasibility and safety of early combined cognitive and physical therapy for critically ill medical and surgical patients: The Activity and Cognitive Therapy in ICU (ACT-ICU) trial	População não é idoso frágil
A combined early cognitive and physical rehabilitation program for people who are critically ill: The activity and cognitive therapy in the intensive care unit (ACT-ICU) trial	População não é idoso frágil
Effects of High-Intensity Interval Training and Isoinertial Training on Leg Extensors Muscle Function, Structure, and Intermuscular Adipose Tissue in Older Adults	População não é idoso frágil
Dancing in the golden age: a study on physical function, quality of life, and social engagement	População não é idoso frágil
Neuromotor training in older women living in long-term care setting: A pilot study	Intervenção não é Multicomponente
Changes in temporal parameters during performance of the Step Test in older adults	Não é ECR
Age-related differences in dual task performance: A cross-sectional study on women	Não é ECR
Age-related decrements in dual-task performance: Comparison of different mobility and cognitive tasks. A cross sectional study	Não é ECR
Dual-task training in older adults: The effect of additional motor tasks on mobility performance	Intervenção não é Multicomponente
Muscle adaptation in response to a high-intensity interval training in obese older adults: effect of daily protein intake distribution	População não é idoso frágil
Initial dietary protein intake influence muscle function adaptations in older men and women following high-intensity interval training combined with citrulline	População não é idoso frágil
Risk factors associated with falls in institutionalized elderly persons. Prospective cohort study	Não é ECR
Risk factors in falls among the elderly according to extrinsic and intrinsic precipitating causes	Não é ECR
Effect of intradialytic resistance band exercise on physical function in patients on maintenance hemodialysis: A pilot study	População não é idoso frágil
Knowledge of osteoporosis risk factors and prevalence of risk factors for osteoporosis, falls and fracture in functionally independent older adults	Não é ECR
Diagnosis of urinary tract infection in older persons in the emergency department: To pee or not to pee, that is the question	Não é ECR
Risk Factors for Malnutrition among Older Adults in the Emergency Department: A Multicenter Study	Não é ECR
Non-pharmacological interventions for preventing delirium in hospitalised non-ICU patients	Não é ECR
Resistance and balance training improves functional capacity in very old participants attending cardiac rehabilitation after coronary bypass surgery	Intervenção não é Multicomponente
Factors associated with lower gait speed among the elderly living in a developing country: A cross-sectional population-based study	Não é ECR
Implementation of integrated geriatric care at a German hospital: A case study to understand when and why beneficial outcomes can be achieved	Não é ECR
Associations between isokinetic muscle strength, high-level functional performance, and physiological parameters in patients with chronic obstructive pulmonary disease	Não é ECR
Clinical characteristics and outcomes of hospitalized older patients with distinct risk profiles for functional decline: A prospective cohort study	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Disaster strikes long-term care resident outcomes following a natural disaster	Não é ECR
Do frailty and cognitive impairment affect dual-task cost during walking in the oldest old institutionalized patients?	Não é ECR
Positive effects of resistance training in frail elderly patients with dementia after long-term physical restraint	População não é idoso frágil
Jumping combined exercise programs reduce fall risk and improve balance and life quality of elderly people who live in a long-term care facility	População não é idoso frágil
Cognitive Frailty and Mortality in a National Cohort of Older Adults: the Role of Physical Activity	Não é ECR
Feasibility of a nursing intervention to prepare frail older patients for cardiac surgery: A mixed-methods study	Não é ECR
Development of a nursing intervention to prepare frail older patients for cardiac surgery (the PREDOCS programme), following phase one of the guidelines of the Medical Research Council	Não é ECR
Le syndrome confusionnel aigu à l'hôpital	Não é ECR
Effects of Exercise Programs on Falls and Mobility in Frail and Pre-Frail Older Adults: A Multicenter Randomized Controlled Trial	Intervenção não é Multicomponente
Qualitative study on the impact of falling in frail older persons and family caregivers: Foundations for an intervention to prevent falls	Não é ECR
Falls in Older Patients with Cancer Undergoing Surgery: Prevalence and Association with Geriatric Syndromes and Levels of Disability Assessed in Preoperative Evaluation	Não é ECR
Mobility training for increasing mobility and functioning in older people with frailty	Não é ECR
A multistate model of cognitive dynamics in relation to resistance training: The contribution of baseline function	Não é ECR
Effects of different resistance training frequencies on the muscle strength and functional performance of active women older than 60 years	População não é idoso frágil
Effect of telemedicine on glycated hemoglobin in diabetes: A systematic review and meta-analysis of randomized trials	Não é ECR
Domiciliary intervention by occupational therapy after hospital discharge in order to prevent re-admission in the elderly: Study protocol for a randomised clinical trial	Não é ECR
Life-Space Assessment Predicts Hospital Readmission in Home-Limited Adults	Não é ECR
Executive functions, activities of daily living and motor skill of elderly people with neurodegenerative diseases	Não é ECR
Benefits of physical activity in older adults: Programming modifications to enhance the exercise experience	Não é ECR
Muscle, functional and cognitive adaptations after flywheel resistance training in stroke patients: A pilot randomized controlled trial	População não é idoso frágil
Chronic stroke patients show early and robust improvements in muscle and functional performance in response to eccentric-overload flywheel resistance training: A pilot study	População não é idoso frágil
Multifactorial assessment and targeted intervention to reduce falls among the oldest-old: A randomized controlled trial	Intervenção não é Multicomponente
Diet but not aerobic exercise training reduces skeletal muscle TNF- α in overweight humans	População não é idoso frágil
Designing Randomized, Controlled Trials Aimed at Preventing or Delaying Functional Decline and Disability in Frail, Older Persons: A Consensus Report	Não é ECR
Relationship of muscle function to circulating myostatin, follistatin and GDF11 in older women and men	Não é ECR
Exercise to improve bone mineral density	Não é ECR
The "Metabolic biomarkers of frailty in older people with type 2 diabetes mellitus" (MetaboFrail) study: Rationale, design and methods	Não é ECR
Frailty and Rehabilitation	Não é ECR
Hip protectors improve falls self-efficacy	Não é ECR
Motor impairment predicts falls in specialized Alzheimer care units	População não é idoso frágil
Falls prevention over 2 years: A randomized controlled trial in women 80 years and older	Intervenção não é Multicomponente
Feasibility and acceptability of a Tai Chi Chih randomized controlled trial in senior female cancer survivors	População não é idoso frágil

Base de Dados: Scopus. Continuação

Título	Motivo
Feasibility and acceptability of an exergame intervention for schizophrenia	População não é idoso frágil
Effects of Three Different Chair-Based Exercise Programs on People Older Than 80 Years	Intervenção não é Multicomponente
Muscle strength training program in nonagenarians – a randomized controlled trial	Intervenção não é Multicomponente
Physical and cognitive performance and burden of anticholinergics, sedatives, and ACE inhibitors in older women	Não é ECR
Does home treatment affect delirium? A randomised controlled trial of rehabilitation of elderly and care at home or usual treatment (The REACH-OUT trial)	População não é idoso frágil
Long-term strength training for community-dwelling people over 75: Impact on muscle function, functional ability and life style	População não é idoso frágil
Muscle function and functional ability improves more in community-dwelling older women with a mixed-strength training programme	Multiplicidade de publicação
Effectiveness of in-patient rehabilitation in obesity-related orthopedic conditions	População não é idoso frágil
Predicting falls with the cognitive timed up-and-go dual task in frail older patients	Não é ECR
Concomitant changes in clinical and posturographic data in elderly fallers during the course of an in-home anti-falling multimodal program - A preliminary investigation	Não é ECR
Influence of the Flo-Dynamics Movement System © intervention on measures of performance in older persons	População não é idoso frágil
Muscle strength and mass of lower extremities in relation to functional abilities in elderly adults	Não é ECR
How do patients improve their timed up and go test? Responsiveness to rehabilitation of the TUG test in elderly neurological patients	Não é ECR
Knee extension strength is a significant determinant of static and dynamic balance as well as quality of life in older community-dwelling women with osteoporosis	Não é ECR
Effect of a 12-week mixed power training on physical function in dynapenic-obese older men: does severity of dynapenia matter?	População não é idoso frágil
Physical exercise as an efficient intervention in frail elderly persons physical exercise as an efficient intervention in frail elderly persons	Não é ECR
Effect of a multicomponent exercise programme (VIVIFRAIL) on functional capacity in frail community elders with cognitive decline: Study protocol for a randomized multicentre control trial	Não é ECR
Functional capacity, muscle fat infiltration, power output, and cognitive impairment in institutionalized frail oldest old	Não é ECR
Effects of a dance-based aquatic exercise program in obese postmenopausal women with knee osteoarthritis: A randomized controlled trial	População não é idoso frágil
Functional physical condition and risk of falls in older adults	Não é ECR
Shifts in key time points and strategies for a multisegment motor task in healthy aging subjects	População não é idoso frágil
Declining Physical Capacity But Maintained Aerobic Activity in Early Alzheimer's Disease	População não é idoso frágil
Effects of Blood Flow Restriction Training on Muscular Strength and Hypertrophy in Older Individuals: A Systematic Review and Meta-Analysis	Não é ECR
Physical function and exercise in older patients with cardiovascular and respiratory conditions	Não é ECR
Clarifying the confusion about confusion: Current practices in managing geriatric delirium	Não é ECR
Reliability and Validity of the Timed Up and Go Test With a Motor Task in People With Chronic Stroke	Não é ECR
Efficacy of physical exercise in preventing falls in older adults with cognitive impairment: A systematic review and meta-analysis	Não é ECR
Practice effect and cueing of 2-minute walk test, 6-minute walk test and 10-meter walk test in frail older adults with and without dementia - Recommendations to walk tests protocols	Não é ECR
The effect of cognitive function on mobility improvement among community-living older adults: A 12-week resistance exercise intervention study	Não é ECR
Outcomes of community-based social service interventions in homebound elders	Intervenção não é Multicomponente
Educational disadvantage impairs functional recovery after hospitalization in older persons	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Effects of a modified hospital elder life program on frailty in individuals undergoing major elective abdominal surgery	Intervenção não é Multicomponente
A multivariate regression model predicted falls in residents living in intermediate hostel care	Não é ECR
Development of the simplified Tai Chi exercise program (STEP) for frail older adults	Intervenção não é Multicomponente
Frail elders' views of tai chi	Intervenção não é Multicomponente
The Jacket Test for assessing people with chronic stroke	População não é idoso frágil
Effects of elastic band exercise on the frailty states in pre-frail elderly people	População não é idoso frágil
The changes of muscle strength and functional activities during aging in male and female populations	Não é ECR
The effects of a 12-week walking program on community-dwelling older adults	Intervenção não é Multicomponente
Power vs strength training to improve muscular strength, power, balance and functional movement in individuals diagnosed with Parkinson's disease	População não é idoso frágil
A pilot randomised controlled trial of resistance exercise bands in the management of sedentary subjects with type 2 diabetes	População não é idoso frágil
The UP-TECH project, an intervention to support caregivers of Alzheimer's disease patients in Italy: Study protocol for a randomized controlled trial	Não é ECR
Effect of exercise training combined with isoflavone supplementation on bone and lipids in postmenopausal women: A randomized clinical trial	População não é idoso frágil
Immunity in frail elderly: A randomized controlled trial of exercise and enriched foods	Desfecho não é funcionalidade
Combined effect of body mass index and physical activity on the decline in walking ability amongst older Taiwanese	Não é ECR
Hospitalization-Associated Disability in Adults Admitted to a Safety-Net Hospital	Não é ECR
Ground kayak paddling exercise improves postural balance, muscle performance, and cognitive function in older adults with mild cognitive impairment: A randomized controlled trial	População não é idoso frágil
The association between frequency of social contact and frailty in older people: Korean frailty and aging cohort study (KFACS)	Não é ECR
Relationship between performance-based and self-reported measures of lower extremity function in chinese older women	Não é ECR
Underweight mobility-type pre-frailty/frailty was associated with complex care needs of long-term care facilities residents: Results using MDS RAP triggers	Não é ECR
Cognition and dual-task performance in older adults with Parkinson's and Alzheimer's disease	População não é idoso frágil
Is physical therapy effective in physical maintenance and in the reduction of the cognitive decline in dementias?	População não é idoso frágil
Effects of motor intervention in elderly patients with dementia: An analysis of randomized controlled trials	Não é ECR
Risk factors for falls in hospitalized older medical patients	Não é ECR
Performance on physical function tests and the risk of fractures and admissions: Findings from a national health screening of 557,648 community-dwelling older adults	Não é ECR
Is bicompartamental knee arthroplasty more favourable to knee muscle strength and physical performance compared to total knee arthroplasty?	Não é ECR
The Association between Knee Extensor Force Steadiness, Force Accuracy, and Mobility in Older Adults Who Have Fallen	Não é ECR
Strength training decreases inflammation and increases cognition and physical fitness in older women with cognitive impairment	População não é idoso frágil
Assessment of physical fitness levels of elderly Turkish Males over 60 Years	Não é ECR
Interrater reliability of the tinetti balance scores in novice and experienced physical therapy clinicians	Não é ECR
Management of fracture risk during and after a hospitalization in a trauma unit	Não é ECR
Impact of physical activity on Alzheimer's disease: A randomised controlled study	População não é idoso frágil
Falls and bone health services for older people	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Beliefs about prescribed medication among older patients with polypharmacy: A mixed methods study in primary care	Intervenção não é Multicomponente
A process evaluation of a cluster randomised trial to reduce potentially inappropriate prescribing in older people in primary care (OPTI-SCRIPT study)	Intervenção não é Multicomponente
'Potentially inappropriate or specifically appropriate?' Qualitative evaluation of general practitioners views on prescribing, polypharmacy and potentially inappropriate prescribing in older people	Não é ECR
Effects of multicomponent exercise on functional and cognitive parameters of hypertensive patients: A quasi-experimental study	População não é idoso frágil
Hypertension and functional capacities in community-dwelling older women: a cross-sectional study	Não é ECR
A randomised controlled trial of a self-management education program for osteoarthritis of the knee delivered by health care professionals	População não é idoso frágil
Exergames for women with fibromyalgia: A randomised controlled trial to evaluate the effects on mobility skills, balance and fear of falling	População não é idoso frágil
Prevalent fractures and falls: Two complementary portal entries for limiting fractures and loss of autonomy	Não é ECR
Randomized trial of domiciliary versus center-based rehabilitation: Which is more effective in reducing falls and improving quality of life in older fallers?	População não é idoso frágil
Effects of an intensive, task-specific rehabilitation program for individuals with chronic stroke: A case series	População não é idoso frágil
Interventions to increase physical activity among aging adults: A meta-analysis	Não é ECR
Efficacy of an exercise and nutritional supplement program on physical performance and nutritional status in older adults with mobility limitations residing at senior living facilities	Desfecho não é funcionalidade
Changes in self-reported disability after performance-based tests in obese and non-obese individuals diagnosed with osteoarthritis of the knee	População não é idoso frágil
Atención sanitaria al anciano frágil: De la teoría a la evidencia científica	Não é ECR
Evaluation of an inertial sensor system for analysis of timed-up-and-go under dual-task demands	Não é ECR
Geriatric care management for low-income seniors: A randomized controlled trial	População não é idoso frágil
Health benefits of β -hydroxy- β -methylbutyrate (Hmb) supplementation in addition to physical exercise in older adults: A systematic review with meta-analysis	Não é ECR
Loss of independence in activities of daily living in older adults hospitalized with medical illnesses: Increased vulnerability with age	Não é ECR
The effect of progressive resistance training on leg strength, aerobic capacity and functional tasks of daily living in persons with Down syndrome	População não é idoso frágil
The role of the registered nurse in supporting frailty in care homes	Não é ECR
Physical functioning among patients aging with Human Immunodeficiency Virus (HIV) Versus HIV uninfected: Feasibility of using the short physical performance battery in clinical care of people living with HIV aged 50 or older	População não é idoso frágil
Osteoporosis clinical trials endpoints: Candidate variables and clinimetric properties	Não é ECR
Nutrition, frailty, and sarcopenia	Não é ECR
Physical function among older subgroups who are physically active	Não é ECR
Validation of a fall-risk screening test, the Elderly Fall Screening Test (EFST), for community-dwelling elderly	Não é ECR
Comparative effects of home- and group-based exercise on balance confidence and balance ability in older adults: Cluster randomized trial	Intervenção não é Multicomponente
The fitness for the Ageing Brain Study II (FABS II): Protocol for a randomized controlled clinical trial evaluating the effect of physical activity on cognitive function in patients with Alzheimer's disease	Não é ECR
Protocol for a randomized controlled trial evaluating the effect of physical activity on delaying the progression of white matter changes on MRI in older adults with memory complaints and mild cognitive impairment: The AIBL Active trial	Não é ECR
Postural balance and falls in elderly nursing home residents enrolled in a ballroom dancing program	Intervenção não é Multicomponente
Effects of aquatic exercise on mental health, functional autonomy and oxidative stress in depressed elderly individuals: A randomized clinical trial	População não é idoso frágil

Base de Dados: Scopus. Continuação

Título	Motivo
Elderly persons in the risk zone. Design of a multidimensional, health-promoting, randomised three-armed controlled trial for "prefrail" people of 80+ years living at home	Não é ECR
Is the impact of fatigue related to walking capacity and perceived ability in persons with multiple sclerosis? A multicenter study	População não é idoso frágil
The effects of a protein enriched diet with lean red meat combined with a multi-modal exercise program on muscle and cognitive health and function in older adults: Study protocol for a randomised controlled trial	Não é ECR
Efficacy of nutritional interventions as stand-alone or synergistic treatments with exercise for the management of sarcopenia	Não é ECR
Multidimensional geriatric assessment before transcatheter aortic valve implantation in frail elderly patients with one-year follow-up. Cardio-geriatrician collaboration benefits?	Não é ECR
Effects of a physical activity program on static balance and functional autonomy in elderly women	População não é idoso frágil
Functional autonomy of elderly women enrolled in a physical activity program	Não é ECR
Evaluation of a novel photography-based home assessment protocol for identification of environmental risk factors for falls in elderly persons	Não é ECR
Interventions to prevent disability for community-dwelling frail elderly; a systematic literature review	Não é ECR
Frailty in older age: Concepts and relevance for occupational and physical therapy	Não é ECR
Feasibility and impact of high-intensity walking training in frail older adults	Intervenção não é Multicomponente
Cerebral Amyloid- β Deposition Is Associated with Impaired Gait Speed and Lower Extremity Function	Não é ECR
Comparison of mini-squats and straight leg raises in patients with knee osteoarthritis: A randomized controlled clinical trial	População não é idoso frágil
General practitioners' satisfaction after a geriatric assessment into primary care: Data from FAP study	Não é ECR
Oncology EDGE task force on prostate cancer outcomes: A systematic review of outcome measures for functional mobility	Não é ECR
Mat Pilates and aquatic aerobic exercises for women with fibromyalgia: A protocol for a randomised controlled blind study	População não é idoso frágil
Are older adults who volunteer to participate in an exercise study fitter and healthier than nonvolunteers? the participation bias of the study population	Não é ECR
Use of virtual reality technique for the training of motor control in the elderly: Some theoretical considerations	Intervenção não é Multicomponente
Effect of additional functional exercises on balance in elderly people	População não é idoso frágil
Home- and Community-Based Occupational Therapy Improves Functioning in Frail Older People: A Systematic Review	Não é ECR
Instruments for the assessment of physical balance in the elderly	Não é ECR
Quantitative assessment of the stops walking while talking test in the elderly	Não é ECR
Preventive activities in the elderly. PAPPS 2018 Update	Não é ECR
Risk factors for complex care needs in general medical inpatients: Result from a european study	Não é ECR
Timing of psychiatric consultations: The impact of social vulnerability and level of psychiatric dysfunction	Não é ECR
Heat-induced extracellular HSP72 release is blunted in elderly diabetic people compared with healthy middle-aged and older adults, but it is partially restored by resistance training	Intervenção não é Multicomponente
Episodic memory boosting in older adults: exploring the association of encoding strategies and physical activity	Não é ECR
Study of intrinsic risk factors for falls in institutionalized elderly people	Não é ECR
Effects of pilates on muscle strength, postural balance and quality of life of older adults: A randomized, controlled, clinical trial	Intervenção não é Multicomponente
Functional training versus traditional strength training: Effects on physical fitness indicators in pre-frail elderly women	População não é idoso frágil
Recommendations on Physical Activity and Exercise for Older Adults Living in Long-Term Care Facilities: A Taskforce Report	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Swiss ball exercises improve muscle strength and walking performance in ankylosing spondylitis: A randomized controlled trial	População não é idoso frágil
Test-retest reliability and minimal detectable change scores for the short physical performance battery, one-legged standing test and timed up and go test in patients undergoing hemodialysis	Não é ECR
Understanding implementation of comprehensive geriatric care programs: a multiple perspective approach is preferred	Não é ECR
Integrated approach to prevent functional decline in hospitalized elderly: The Prevention and Reactivation Care Program (PReCaP)	Não é ECR
Does frailty predict increased risk of falls and fractures? A prospective population-based study	Não é ECR
Age-Related Changes in Maximal Hip Strength and Movement Speed	Não é ECR
The Effects of Home-Based Resistance Exercise on Balance, Power, and Mobility in Adults with Multiple Sclerosis	População não é idoso frágil
Physical activity limits the effects of age and Alzheimer's disease on postural control	População não é idoso frágil
Effect of yoga based lifestyle intervention on patients with knee osteoarthritis: A randomized controlled trial	População não é idoso frágil
A phase I randomized clinical trial of evidence-based, pragmatic interventions to improve functional recovery after hospitalization in geriatric patients	Intervenção não é Multicomponente
Effects of Exercise Performed with Different Balance Tools	Intervenção não é Multicomponente
Development and validation of fall risk screening tools for use in residential aged care facilities	Não é ECR
Glucose control can be similarly improved after aquatic or dry-land aerobic training in patients with type 2 diabetes: A randomized clinical trial	População não é idoso frágil
Effects of exercise therapy on bone mineral density in early postmenopausal women: A controlled trial	População não é idoso frágil
Muscle strength training helps to reduce bone loss in early postmenopausal women	População não é idoso frágil
The Asia-Pacific Clinical Practice Guidelines for the Management of Frailty	Não é ECR
Geriatric CO-mAnagement for Cardiology patients in the Hospital (G-COACH): Study protocol of a prospective before-after effectiveness-implementation study	Não é ECR
The effects of an extensive exercise programme on the progression of Mild Cognitive Impairment (MCI): study protocol for a randomised controlled trial	Não é ECR
Use of the 'fast evaluation of mobility, balance, and fear' in elderly community dwellers: Validity and reliability	Não é ECR
A single home visit by an occupational therapist reduces the risk of falling after hip fracture in elderly women: A quasi-randomized controlled trial	População não é idoso frágil
High-intensity resistance training amplifies muscle hypertrophy and functional gains in persons with parkinson's disease	População não é idoso frágil
High intensity eccentric resistance training decreases bradykinesia and improves quality of life in persons with Parkinson's disease: A preliminary study	População não é idoso frágil
Between and between: a surgical post-acute treatment unit (SPA) for the optimal care of elderly patients with isolated hip fractures	População não é idoso frágil
Rehabilitation after falls and fractures	Não é ECR
The association between fear of falling and physical activity in older women	Não é ECR
Comparison of the effectiveness of two programmes on older adults at risk of falling: Unsupervised home exercise and supervised group exercise	Desfecho não é funcionalidade
Health-related strength and power training in seniors: Purpose and recommendations	Não é ECR
Current pharmaceutical treatments and alternative therapies of parkinson's disease	Não é ECR
Comparative effects of single-mode vs. duration-matched concurrent exercise training on body composition, low-grade inflammation, and glucose regulation in sedentary, overweight, middle-aged men	População não é idoso frágil
Effects of aquarobic on health-related physical fitness, cardiovascular factor and frailty-index in pre-frailty elderly women with hypertension	População não é idoso frágil
Alterations in the ability to maintain balance as a result of stochastic resonance whole body vibration in women	População não é idoso frágil

Base de Dados: Scopus. Continuação

Título	Motivo
The effectiveness of a peer-mentored older adult fitness program on perceived physical, mental, and social function	Não é ECR
Feasibility of a nurse-led in-home cognitive behavioral program to manage concerns about falls in frail older people: A process evaluation	Intervenção não é Multicomponente
Effectiveness of a home-based cognitive behavioral program to manage concerns about falls in community-dwelling, frail older people: Results of a randomized controlled trial	Intervenção não é Multicomponente
Effects of aerobic exercise on functional capacity, anthropometric measurements and inflammatory markers in diabetic elderly women	População não é idoso frágil
Geriatric psychiatry review: Differential diagnosis and treatment of the 3 D's - Delirium, dementia, and depression	Não é ECR
A tiered model of psychogeriatric service delivery: An evidence-based approach	Não é ECR
Does early functional outcome predict 1-year mortality in elderly patients with hip fracture? Hip	Não é ECR
Implementation and effects of an individual stress management intervention for family caregivers of an elderly relative living at home: A mixed research design	Não é ECR
Effect of a six-month therapy with alfacalcidol on muscle power and balance and the number of fallers and falls	Intervenção não é Multicomponente
The use of step aerobics and the stability ball to improve balance and quality of life in community-dwelling older adults – a randomized exploratory study	Intervenção não é Multicomponente
Balance Performance Is Task Specific in Older Adults	Não é ECR
Age Nutrition Chirurgie (ANC) study: Impact of a geriatric intervention on the screening and management of undernutrition in elderly patients operated on for colon cancer, a stepped wedge controlled trial	População não é idoso frágil
Everyday functioning benefits from an assisted living platform amongst frail older adults and their caregivers	Intervenção não é Multicomponente
Is balance exercise training as effective as aerobic exercise training in fibromyalgia syndrome?	População não é idoso frágil
Risk-factor assessment for falls: From a written checklist to the penless clinic	Não é ECR
Three-month endurance training improves functional fitness and knee muscle performance of patients with end stage renal disease (ESRD)	População não é idoso frágil
Notation of previous falls in admission record of hospitalized elderly	Não é ECR
Counselling for physical activity, life-space mobility and falls prevention in old age (COSMOS): Protocol of a randomised controlled trial	Não é ECR
Access to bathtub grab bars: Evidence of a policy gap	Não é ECR
Hospital use, institutionalisation and mortality associated with delirium	Não é ECR
The impact of frailty and delirium on mortality in older inpatients	Não é ECR
Body weight-supported treadmill training in chronic incomplete spinal cord injury: A pilot study evaluating functional health status and quality of life	População não é idoso frágil
Walking With a Rollator and the Level of Physical Intensity in Adults 75 Years of Age or Older	Não é ECR
Effects of early, combined endurance and resistance training in mechanically ventilated, critically ill patients: A study protocol for a randomised controlled trial	Não é ECR
Effects of gait self-efficacy and lower-extremity physical function on dual-task performance in older adults	Não é ECR
Do injuries of the upper extremity in geriatric patients end up in helplessness? A prospective study for the outcome of distal radius and proximal humerus fractures in individuals over 65	População não é idoso frágil
Frailty and comprehensive geriatric assessment organized as CGA-ward or CGA-consult for older adult patients in the acute care setting: A systematic review and meta-analysis	Não é ECR
One-year outcome of frailty indicators and activities of daily living following the randomised controlled trial; "continuum of care for frail older people"	Intervenção não é Multicomponente
Ankle dorsiflexors strength improves balance performance in elderly: A correlational study	Intervenção não é Multicomponente
Effectiveness of two year balance training programme on prevention of fall induced injuries in at risk women aged 75-85 living in community: Ossébo randomised controlled trial	Intervenção não é Multicomponente

Base de Dados: Scopus. Continuação

Título	Motivo
Effectiveness of a falls-and-fracture nurse coordinator to reduce falls: A randomized, controlled trial of at-risk older adults	Intervenção não é Multicomponente
Do the risks and consequences of hospitalized fall injuries among older adults in California vary by type of fall?	Não é ECR
Comprehensive geriatric assessment for older adults admitted to hospital: Meta-analysis of randomised controlled trials	Não é ECR
Effectiveness of an inpatient multidisciplinary rehabilitation program for people with Parkinson disease	População não é idoso frágil
Validation of FES-I and short FES-I in community-dwelling elderly	Não é ECR
Why older people refuse to participate in falls prevention trials: A qualitative study	Não é ECR
Impact of multimodal exercise on cognition and daily activity in patients suffering from early Alzheimer's dementia	População não é idoso frágil
A controlled quality improvement trial to reduce the use of physical restraints in older hospitalized adults	Intervenção não é Multicomponente
A Pilot Investigation of Mindfulness-Based Stress Reduction for Caregivers of Frail Elderly	Intervenção não é Multicomponente
Risk factors for falls in people with and without a diagnose of dementia living in residential care facilities: A prospective study	Não é ECR
Body composition, bone status and quality of life in older people involved in a municipal program of physical activity and health	Não é ECR
Frailty in older adults: Insights and interventions	Não é ECR
Comparative effects of 2 aqua exercise programs on physical function, balance, and perceived quality of life in older adults with osteoarthritis	População não é idoso frágil
Geriatric psychiatry in motion - bringing physical exercise to geriatric psychiatry: A multi- and interdisciplinary program to promote physical activity among elderly psychiatric patients	Desfecho não é funcionalidade
Practical Functional Assessment of Elderly Persons: A Primary-Care Approach	Não é ECR
Utilization of a screening tool to identify homebound older adults at risk for falls: Validity and reliability	Não é ECR
Occupational therapy compared with social work assessment for older people. An economic evaluation alongside the CAMELOT randomised controlled trial	Intervenção não é Multicomponente
Effectiveness of once-weekly gym-based exercise programmes for older adults post discharge from day rehabilitation: A randomised controlled trial	População não é idoso frágil
Falls in somatic and dementia wards at Community Care Units	Não é ECR
Falls and fall risk among nursing home residents	Não é ECR
Falls in nonagenarians living in their own homes: The nonasantfeliu study	Não é ECR
Falls in nonagenarians after 1-year of follow-up: The NonaSantfeliu study	Não é ECR
Load-Specific Inflammation Mediating Effects of Resistance Training in Older Persons	População não é idoso frágil
Involvement of Advanced Practice Nurse in the Management of Geriatric Conditions: Examples from Different Countries	Não é ECR
Muscle thickness correlates to muscle cross-sectional area in the assessment of strength training-induced hypertrophy	Não é ECR
The impact of six months strength training, nutritional supplementation or cognitive training on DNA damage in institutionalised elderly	Intervenção não é Multicomponente
Acute and Chronic Effects of Whole-Body Vibration on Balance, Postural Stability, and Mobility in Women With Multiple Sclerosis	População não é idoso frágil
Impact of acute geriatric care in elderly patients according to the Screening Tool of Older Persons' Prescriptions/Screening Tool to Alert doctors to Right Treatment criteria in northern France	Não é ECR
Relationship between timed 'up and go' and gait time in an elderly orthopaedic rehabilitation population	Não é ECR
Evaluating the cost-effectiveness of fall prevention programs that reduce fall-related hip fractures in older adults	Não é ECR
Interventions for human frailty: Physical activity as a model	Não é ECR
Frailty in older adults: Evidence for a phenotype	Não é ECR
Self-reported preclinical disability identifies older women with early declines in performance and early disease	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
The effect of interdialytic combined resistance and aerobic exercise training on health related outcomes in chronic hemodialysis patients: The Tunisian randomized controlled study	População não é idoso frágil
Specific balance training included in an endurance-resistance exercise program improves postural balance in elderly patients undergoing haemodialysis	População não é idoso frágil
Feasibility of a 6-month pilot randomised controlled trial of resistance training on cognition and brain health in Canadian older adults at-risk for diabetes: Study protocol	População não é idoso frágil
Affective correlates of fear of falling in elderly persons	Não é ECR
Assessing physical activity and functional fitness level using convolutional neural networks	Não é ECR
Effects of adherence to a higher protein diet on weight loss, markers of health, and functional capacity in older women participating in a resistance-based exercise program	População não é idoso frágil
Prevention of potentially inappropriate prescribing for elderly patients: A randomized controlled trial using STOPP/START criteria	Intervenção não é Multicomponente
Evaluation of the Missouri Alliance for Home Care Fall Risk Assessment Tool and Home-Based "Balanced Approach" Fall Reduction Initiative	Não é ECR
Evidence-based psychological treatments for distress in family caregivers of older adults	População não é idoso frágil
Factors related to disability: Evidence from the "Treviso Longeva (TRELONG) Study"	Não é ECR
Comparative outcomes of two distance-based interventions for male caregivers of family members with dementia	População não é idoso frágil
Benefits of a multicomponent Falls Unit-based exercise program in older adults with falls in real life	Não é ECR
Virtual reality interface devices in the reorganization of neural networks in the brain of patients with neurological diseases	População não é idoso frágil
Prevalence of sensory and cognitive disabilities and falls, and their relationships: A community-based study	Não é ECR
Functional mobility of older adults after concentric and eccentric endurance exercise	População não é idoso frágil
Strategies for aging well	Não é ECR
The clinician's role in the treatment of bathing disability	Não é ECR
Feasibility of the Enhancing Participation In the Community by improving Wheelchair Skills (EPIC Wheels) program: Study protocol for a randomized controlled trial	Não é ECR
Development of a Wheelchair Skills Home Program for Older Adults Using a Participatory Action Design Approach	População não é idoso frágil
GAL@home. A feasibility study of sensor-based in-home fall detection	Intervenção não é Multicomponente
Ageing is associated with decreases in appetite and energy intake— A meta-analysis in healthy adults	Não é ECR
Frailty Is Related to Subjective Cognitive Decline in Older Women without Dementia	Não é ECR
Frailty as a predictor of mortality and hospital services use in older adults: A cluster analysis in a cohort study	Não é ECR
A prehabilitation program for physically frail community-living older persons	Não é ECR
Two recruitment strategies for a clinical trial of physically frail community-living older persons	Não é ECR
Environmental hazards and the risk of nonsyncopal falls in the homes of community-living older persons	Não é ECR
Gait symmetry in the dual task condition as a predictor of future falls among independent older adults: a 2-year longitudinal study	Não é ECR
Innovations in aged care a falls Intervention database: Describing and evaluating falls prevention programs nationally	Não é ECR
Effects of the home Environmental Skill-Building Program on the caregiver-care recipient dyad: 6-Month outcomes from the Philadelphia REACH Initiative	População não é idoso frágil
Exercise and physical training improve physical function in older adults with visual impairments but their effect on falls is unclear: A systematic review	Não é ECR
Home-based Tai Chi Chuan May Reduce Fall Rate Compared to Lower Extremity Exercise Training in Older Adults with History of Falls	Intervenção não é Multicomponente
Resveratrol blunts the positive effects of exercise training on cardiovascular health in aged men	População não é idoso frágil

Base de Dados: Scopus. Continuação

Título	Motivo
Case report: An evidence-based approach to examination and intervention following hip fracture	População não é idoso frágil
Exercise programs improve mobility and balance in people with Parkinson's disease	População não é idoso frágil
Can we prevent falls in the elderly from primary care?	Não é ECR
A randomized controlled trial of the effect of an intensive 1-year care management program on measures of health status in independent, community-living old elderly: The Eldercare project	População não é idoso frágil
Construct validity of the Modified Gait Efficacy Scale in older females	Não é ECR
Frailty in advanced heart failure: A consequence of aging or a separate entity?	Não é ECR
Feasibility, safety, acceptability, and functional outcomes of playing Nintendo Wii Fit Plus™ for frail elderly: Study protocol for a feasibility trial	Não é ECR
Dizziness as a geriatric condition among rural community-dwelling older adults	Não é ECR
Preventing dependency in the elderly	Não é ECR
Organized physical activity in the elderly, a tool to improve physical fitness during ageing	Não é ECR
Multicomponent exercise on physical function, cognition and hemodynamic parameters of community-dwelling older adults: A quasi-experimental study	População não é idoso frágil
Evaluation and intervention in the elderly patient with fall antecedents	Desfecho não é funcionalidade
Measuring results in acute care for the elderly units. A systematic review	Não é ECR
Quantifying the burden of informal caregiving for patients with cancer in Europe	Não é ECR
Habituation to low or high protein intake does not modulate basal or postprandial muscle protein synthesis rates: A randomized trial	População não é idoso frágil
Falls prevention and support: Translating research, integrating services and promoting the contribution of service users for quality and innovative programmes of care	Não é ECR
The prevalence, distribution, and functional importance of lower limb somatosensory impairments in chronic stroke survivors: a cross sectional observational study	Não é ECR
Outcomes during and after inpatient rehabilitation: Comparison between adults and older adults	População não é idoso frágil
Factors associated to the appearance of delirium in geriatric patients with hip fracture	População não é idoso frágil
Frailty and outcome in elderly patients with acute coronary syndrome	Não é ECR
Effect of training on health-related quality of life, pain and falls in osteoporotic women	População não é idoso frágil
Preventing falls among older fallers: Study protocol for a two-phase pilot study of the multicomponent LIVE LIFE program	Não é ECR
Balance and gait of adults with very mild Alzheimer disease	População não é idoso frágil
A cluster randomized controlled trial comparing relative effectiveness of two licensed influenza vaccines in US nursing homes: Design and rationale	Não é ECR
Longitudinal comparison of low- and high-velocity resistance training in relation to body composition and functional fitness of older adults	Intervenção não é Multicomponente
Effects of an unconventional re-walking training on physical, psychological, and cognitive impairment in multiple sclerosis patients	População não é idoso frágil
Models to predict fall history and fall risk for community-dwelling elderly	Não é ECR
Classification of frailty and falls history using a combination of sensor-based mobility assessments	Não é ECR
Frailty status can be accurately assessed using inertial sensors and the TUG test	Não é ECR
Postoperative red blood cell transfusion strategy in frail anemic elderly with hip fracture: A randomized controlled trial	Intervenção não é Multicomponente
A Geriatric Multidisciplinary and Tailor-Made Hospital-At-Home Method in Nursing Home Residents With Hip Fracture	População não é idoso frágil
The clinical frailty scale predicts functional decline and mortality when used by junior medical staff: A prospective cohort study	Não é ECR
Frailty in a racially and socioeconomically diverse sample of middle-aged Americans in Baltimore	Não é ECR
Experiences of elderly patients regarding independent community living after discharge from hospital: A longitudinal study	Não é ECR
Risk of falling among hospitalized patients with high modified Morse scores could be further Stratified	Não é ECR
Effects of foot orthoses on balance in older adults	População não é idoso frágil

Base de Dados: Scopus. Continuação

Título	Motivo
Interventions to prevent falls in community-dwelling older adults us Preventive Services Task Force recommendation statement	Não é ECR
Sensory impairment in hip-fracture patients 65 years or older and effects of hearing/vision interventions on fall frequency	População não é idoso frágil
A best practice fall prevention exercise program to improve balance, strength / power, and psychosocial health in older adults: Study protocol for a randomized controlled trial	Não é ECR
Multifactor analysis for risk factors involved in the fear of falling in patients with chronic stroke from mainland China	População não é idoso frágil
The effects of pilates on balance, mobility and strength in patients with multiple sclerosis	População não é idoso frágil
Prudent use of antibiotics and suggestions for improvement in long-term-care facilities	Intervenção não é Multicomponente
Validity and reliability of Tinetti Scale for Colombian people	Não é ECR
Belt restraint reduction in nursing homes: Design of a quasi-experimental study	Não é ECR
Determination of physical fitness levels with physical performance test scores of elderly	Não é ECR
The effects of balance and postural stability exercises on spa based rehabilitation programme in patients with ankylosing spondylitis	População não é idoso frágil
Underlying mechanisms of Tai-Chi-Chuan training for improving balance ability in the elders	Intervenção não é Multicomponente
Impact of multicomponent, nonpharmacologic interventions on perioperative cortisol and melatonin levels and postoperative delirium in elderly oral cancer patients	População não é idoso frágil
Assessing the building blocks of function: Utilizing measures of functional limitation	Não é ECR
How to prevent perioperative delirium in the elderly?	Não é ECR
Understanding frailty: A qualitative study of European healthcare policy-makers' approaches to frailty screening and management	Não é ECR
Strength Training to Enhance Early Recovery after Hematopoietic Stem Cell Transplantation	Intervenção não é Multicomponente
The importance of physical activity for survival and quality of life in patients with lymphoproliferative disease	População não é idoso frágil
Associations between daily physical activity, handgrip strength, muscle mass, physical performance and quality of life in prefrail and frail community-dwelling older adults	Não é ECR
A group intervention to reduce fall risk factors in community-dwelling older adults	Não é ECR
A community-based aquatic exercise program to improve endurance and mobility in adults with mild to moderate intellectual disability	População não é idoso frágil
A randomised, phase II, unblinded trial of an Exercise and Nutrition-based Rehabilitation programme (ENErGy) versus standard care in patients with cancer: Feasibility trial protocol	Não é ECR
Association between physical activity and physical functioning in community-dwelling older adults	Não é ECR
Assessing the balance capabilities of people with profound intellectual disabilities who have experienced a fall	Não é ECR
The effect of a six-month dancing program on motor-cognitive dual-task performance in older adults	Intervenção não é Multicomponente
The Effects of a Laban-Based Movement Program with Music on Measures of Balance and Gait in Older Adults	Intervenção não é Multicomponente
Why do we use physical restraints in the elderly?	Não é ECR
Effects of a balance exercise programme in myotonic dystrophy type 1: A pilot study	População não é idoso frágil
Effects of multifactorial and follow-up programs applying a capacity building strategy: Focusing on older adults living in a urban-rural complex area	Intervenção não é Multicomponente
Low-Impact Flooring: Does It Reduce Fall-Related Injuries?	Não é ECR
Optimizing the tracking of falls in studies of older participants: Comparison of quarterly telephone recall with monthly falls calendars in the MOBILIZE Boston study	Não é ECR
Comparing Eccentric Resistance Exercise in Prostate Cancer Survivors On and Off Hormone Therapy: A Pilot Study	População não é idoso frágil
Validity of the German Version of the Continuous-Scale Physical Functional Performance 10 Test	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
The LIFTMOR-M (Lifting Intervention for Training Muscle and Osteoporosis Rehabilitation for Men) trial: Protocol for a semirandomised controlled trial of supervised targeted exercise to reduce risk of osteoporotic fracture in older men with low bone mass	Não é ECR
Fall risk factors in older people with dementia or cognitive impairment: A systematic review	Não é ECR
The Impact of Physical versus Social Activity on the Physical and Cognitive Functioning of Seniors with Dementia	População não é idoso frágil
Geriatric consultation	Não é ECR
A novel device to preserve physical activities of daily living in healthy older people	Intervenção não é Multicomponente
Improvement in muscular performance and decrease in tumor necrosis factor level in old age after antioxidant treatment	Intervenção não é Multicomponente
Exercise training for rehabilitation and secondary prevention of falls in geriatric patients with a history of injurious falls	População não é idoso frágil
Intensive physical training in geriatric patients after severe falls and hip surgery	População não é idoso frágil
Validation of the falls efficacy scale and falls efficacy scale international in geriatric patients with and without cognitive impairment: Results of self-report and interview-based questionnaires	Não é ECR
Gait variability and fall risk in community-living older adults: A 1-year prospective study	Não é ECR
Effects of high-intensity resistance training on strength, mobility, balance, and fatigue in individuals with multiple sclerosis: A randomized controlled trial	População não é idoso frágil
Prescribing exercise for frail elders	Não é ECR
Step by step: A proof of concept study of C-Mill gait adaptability training in the chronic phase after stroke	População não é idoso frágil
Passive exercise to improve quality of life, activities of daily living, care burden and cognitive functioning in institutionalized older adults with dementia - A randomized controlled trial study protocol	Não é ECR
Feasibility of Three Novel Forms of Passive Exercise in a Multisensory Environment in Vulnerable Institutionalized Older Adults with Dementia	População não é idoso frágil
Home training with and without additional group training in physically frail old people living at home: Effect on health-related quality of life and ambulation	Intervenção não é Multicomponente
Inclusion of frail elderly patients in clinical trials: Solutions to the problems	Não é ECR
Outcomes of a Geriatric Liaison Intervention to Prevent the Development of Postoperative Delirium in Frail Elderly Cancer Patients: Report on a Multicentre, Randomized, Controlled Trial	População não é idoso frágil
Gait speed response to aerobic versus resistance exercise training in older adults	Intervenção não é Multicomponente
Predictors of care dependency in nursing home residents with moderate to severe dementia: A cross-sectional study	Não é ECR
Association of body mass index with self-report and performance-based measures of balance and mobility	Não é ECR
Adverse drug events in patients with dementia and neuropsychiatric/behavioral, and psychological symptoms, a one-year prospective study	Não é ECR
Falls and disorders of the march in the elder	Não é ECR
Physical Fitness in Older People Recently Diagnosed with Cognitive Impairment Compared to Older People Recently Discharged from Hospital	Não é ECR
The impact of the organisation of mental health services on the quality of assessment provided to older patients with depression	População não é idoso frágil
Best practice interventions to improve the management of older people in acute care settings: A literature review	Não é ECR
Sarcopenia and physical function are associated with inflammation and arteriosclerosis in community-dwelling people: The Yakumo study	Não é ECR
Does fear of falling relate to low physical function in frail elderly persons?: Associations of fear of falling, balance, and gait	Não é ECR
Subgroups associated with lower physical fitness in older adults with ID: Results of the HA-ID study	Não é ECR
Effectiveness of falls clinics: An evaluation of outcomes and client adherence to recommended interventions	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Arm-crank training improves postural stability and physical functioning in older people	Intervenção não é Multicomponente
Maximal strength training enhances strength and functional performance in chronic stroke survivors	População não é idoso frágil
Feasibility of a multidimensional home-based exercise programme for the elderly with structured support given by the general practitioner's surgery: Study protocol of a single arm trial preparing an RCT	Não é ECR
Effects of an exercise programme for chronically ill and mobility-restricted elderly with structured support by the general practitioner's practice (HOMEfit) - study protocol of a randomised controlled trial	Não é ECR
A four-week walking exercise programme in patients with knee osteoarthritis improves the ability of dual-task performance: A randomized controlled trial	População não é idoso frágil
Effects of dual task balance training on dual task performance in elderly people: A randomized controlled trial	Intervenção não é Multicomponente
Discriminating characteristics of community-dwelling elderly at high and low risk for frailty	Não é ECR
Integrated care for frail elderly: A qualitative study of a promising approach in the Netherlands	Não é ECR
Development of a teletechnology protocol for in-home rehabilitation	Não é ECR
Postural balance and self-reported exercise in older adults	Não é ECR
Dual task interference in estimating the risk of falls and measuring change: A comparative, psychometric study of four measurements	Não é ECR
Development and effects of a coping skill training program for caregivers in feeding difficulty of older adults with dementia in long-term care facilities	População não é idoso frágil
Relationship between nutritional status and frailty in hospitalized older patients	Não é ECR
The balance evaluation systems test (BESTest) to differentiate balance deficits	Não é ECR
Lower Extremity Function Is Independently Associated With Hospitalization Burden in Heart Failure With Preserved Ejection Fraction	População não é idoso frágil
Training-induced strength and functional adaptations after hip fracture	População não é idoso frágil
Cross-cultural Educational Intervention and Fall Risk Awareness	Intervenção não é Multicomponente
Resistance Training Improves Muscle Function and Cardiometabolic Risks but Not Quality of Life in Older People with Type 2 Diabetes Mellitus: A Randomized Controlled Trial	Intervenção não é Multicomponente
Maximal Cardiovascular Fitness and Its Correlates in Ambulatory Hemodialysis Patients	População não é idoso frágil
Effects of circuit exercise and Tai Chi on body composition in middle-aged and older women	População não é idoso frágil
Evaluation of Treatment Candidacy in Older Adults With Cancer	Não é ECR
Screening for fall risks in the emergency department: A novel nursing-driven program	Não é ECR
Effects of dance on physical and psychological well-being in older persons	Intervenção não é Multicomponente
The effects of increased therapy time on cognition and mood in frail patients with a stroke who rehabilitate on rehabilitation units of nursing homes in the Netherlands: A protocol of a comparative study	Não é ECR
Psychotherapy in mental health clinics of the Department of Veterans Affairs	Intervenção não é Multicomponente
Altered proteasome function and subunit composition in aged muscle	Não é ECR
Preoperative physical performance predictors of self-reported physical function and quality of life in patients scheduled for total knee arthroplasty	Não é ECR
Adipose tissue compartments, muscle mass, muscle fat infiltration, and coronary calcium in institutionalized frail nonagenarians	Não é ECR
Noncoronary Vascular Calcification, Bone Mineral Density, and Muscle Mass in Institutionalized Frail Nonagenarians	Não é ECR
Caregiving burden, community services, and quality of life of primary caregivers of frail elderly persons	Não é ECR
Physical function screening of institutionalized elderly women to predict their risk of falling	Não é ECR
Effect of Long-Term Body-Mass-Based Resistance Exercise on Cognitive Function in Elderly People	População não é idoso frágil

Base de Dados: Scopus. Continuação

Título	Motivo
The effects of 12 weeks of a combined exercise program on physical function and hormonal status in elderly Korean women	População não é idoso frágil
Vitamin D and muscle strength in patients with previous fractures	Não é ECR
The role of adherence on the effectiveness of nonpharmacologic interventions: Evidence from the delirium prevention trial	Não é ECR
Rehabilitation strategy in the elderly	Não é ECR
The effects of a multi-component intervention on the functional capacity, lower-body muscle strength, balance and gait in frail community-dwelling older people: a randomised controlled trial protocol	Não é ECR
Delirium in elderly home-treated patients: A prospective study with 6-month follow-up	Não é ECR
Guidance statement on appropriate medical services for the elderly	Não é ECR
Improvement of physical and oral function in community-dwelling older people after a 3-month long-term care prevention program including physical exercise, oral health instruction, and nutritional guidance	População não é idoso frágil
Muscle power training in the institutionalized frail: A new approach to counteracting functional declines and very late-life disability	Não é ECR
What is new in exercise regimes for frail older people — How does the Erasmus Vivifrail Project take us forward?	Não é ECR
Cognitive and physical rehabilitation of intensive care unit survivors: Results of the RETURN randomized controlled pilot investigation	População não é idoso frágil
Use of an elliptical machine for improving functional walking capacity in individuals with chronic stroke: A case series	População não é idoso frágil
Tools for assessing the frail elderly: Geriatric evaluation focuses on improving quality of life	Não é ECR
The EXPRESS Study: Exercise and Protein Effectiveness Supplementation Study supporting autonomy in community dwelling frail older people study protocol for a randomized controlled pilot and feasibility study	Não é ECR
Effectiveness of exercise interventions on physical function in community-dwelling frail older people: an umbrella review of systematic reviews	Não é ECR
Quality of intervention delivery in a cluster randomised controlled trial: A qualitative observational study with lessons for fidelity	Não é ECR
Impact of a wearable device-based walking programs in rural older adults on physical activity and health outcomes: Cohort study	Não é ECR
Screening for mobility disorders by the Mobility Control subscale of the short version of the Sickness Impact Profile	Não é ECR
Modified stepping exercise improves physical performances and quality of life in healthy elderly subjects	População não é idoso frágil
Effects of the applied ancient boxing exercise on leg strength and quality of life in patients with osteoarthritis	População não é idoso frágil
Balance and mobility training with or without concurrent cognitive training improves the timed up and go (TUG), TUG cognitive, and TUG manual in healthy older adults: an exploratory study	População não é idoso frágil
Results from the randomized controlled IHOPE trial suggest no effects of oral protein supplementation and exercise training on physical function in hemodialysis patients	População não é idoso frágil
Study protocol: Effect of playful training on functional abilities of older adults - A randomized controlled trial	Não é ECR
Exercise - It's never too late: The strong-for-life program	Não é ECR
The benefits of Tai Chi and brisk walking for cognitive function and fitness in older adults	Intervenção não é Multicomponente
Effects of weekly and fortnightly therapeutic exercise on physical function and health-related quality of life in individuals with hip osteoarthritis	População não é idoso frágil
Risk of falls in healthy older adults: Benefits of high-intensity interval training using lower body suspension exercises	População não é idoso frágil
Suspension Training HIIT Improves Gait Speed, Strength and Quality of Life in Older Adults	População não é idoso frágil
Exercise promotion: Walking in elders	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Outcome evaluation of the Canadian centre for activity and aging's Home Support Exercise Program for frail older adults	Não é ECR
Feasibility study of walking for exercise in individuals living in assisted living settings	Não é ECR
Community exercise program for older adults recovering from hip fracture: A pilot study	População não é idoso frágil
A randomized controlled trial of 8-form Tai chi improves symptoms and functional mobility in fibromyalgia patients	População não é idoso frágil
Effectiveness of progressive resistance strength training versus traditional balance exercise in improving balance among the elderly - a randomised controlled trial	Intervenção não é Multicomponente
Nutritional considerations for older adults with type 2 diabetes	Não é ECR
Functional training of enfeebled elderly persons in their own home: A cross-disciplinary and intersectorial model	Não é ECR
The impact of frailty on postoperative delirium in cardiac surgery patients	Não é ECR
The Influence of Applying Additional Weight to the Affected Leg on Gait Patterns During Aquatic Treadmill Walking in People Poststroke	População não é idoso frágil
Improved motor and cognitive performance with sodium nitrite supplementation is related to small metabolite signatures: A pilot trial in middle-aged and older adults	Intervenção não é Multicomponente
Functional and neuromotor performance in older adults: Effect of 12 wks of aerobic exercise	Intervenção não é Multicomponente
Focusing resources as a paradigm of sports science: A model for analyzing resources in nursing homes	Não é ECR
Predisposing and precipitating factors for falls among older people in residential care	Não é ECR
Cyclic movement training of the lower limb in stroke rehabilitation	População não é idoso frágil
Clinical challenges in the care of frail older persons	Não é ECR
The development of an estimation model for energy expenditure during water walking by acceleration and walking speed	Não é ECR
Agility and balance differ between older community and retirement facility residents	Não é ECR
European guidance for the diagnosis and management of osteoporosis in postmenopausal women	Não é ECR
Prevention of hip fracture in elderly people with use of a hip protector	Não é ECR
Exergame experience of young and old individuals under different difficulty adjustment methods	Intervenção não é Multicomponente
Different types of exercise in Multiple Sclerosis: Aerobic exercise or Pilates, a single-blind clinical study	População não é idoso frágil
Impact of Resistance Training on Factors Involved in the Development of New-Onset Diabetes After Transplantation in Renal Transplant Recipients: An Open Randomized Pilot Study	População não é idoso frágil
Effects of an 8-week aquatic exercise training on balance in patients with Parkinson's disease	População não é idoso frágil
Prevention of falls in the elderly: A review	Não é ECR
Exergaming as a Physical Exercise Strategy Reduces Frailty in People With Dementia: A Randomized Controlled Trial	População não é idoso frágil
Effects of aquatic exercise training using water-resistance equipment in elderly	Intervenção não é Multicomponente
Superior sensory, motor, and cognitive performance in elderly individuals with multi-year dancing activities	Não é ECR
Rhythmic arm cycling training improves walking and neurophysiological integrity in chronic stroke: The arms can give legs a helping hand in rehabilitation	População não é idoso frágil
The impact of geriatric exercise training on abdominal fat and adiponectin levels in the elderly	População não é idoso frágil
Rational for a minimum data set for clinical trials with geriatric patients	Não é ECR
Fear of falling is prevalent in older adults with diabetes mellitus but is unrelated to level of neuropathy	Não é ECR
Severity and course of delirium in medically hospitalized nursing facility residents	Não é ECR
Physical training for fracture prophylaxis of the elderly: Evidence and training methodological implementation using the example of the Erlangen Fitness and Osteoporosis Prevention Study (EFOPS)	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Whole-body electromyostimulation as a means to impact muscle mass and abdominal body fat in lean, sedentary, older female adults: Subanalysis of the TEST-III trial	População não é idoso frágil
Is high-intensity interval cycling feasible and more beneficial than continuous cycling for knee osteoarthritic patients? Results of a randomised control feasibility trial	População não é idoso frágil
Is home-based, high-intensity interval training cycling feasible and safe for patients with knee osteoarthritis?: Study protocol for a randomized pilot study	Não é ECR
Kinetic alterations independent of walking speed in elderly fallers	Não é ECR
Does a functional activity programme improve function, quality of life, and falls for residents in long term care? Cluster randomised controlled trial	Intervenção não é Multicomponente
Predicting falls among Egyptian nursing home residents: A 1-year longitudinal study	Não é ECR
The relationship between physical performance measures, bone mineral density, falls, and the risk of peripheral fracture: A cross-sectional analysis	Não é ECR
The effects of proprioceptive neuromuscular facilitation lower-leg taping and treadmill training on mobility in patients with stroke	População não é idoso frágil
Effectiveness of exercise with or without thermal therapy for community-dwelling elderly Japanese women with non-specific knee pain: A randomized controlled trial	População não é idoso frágil
A comparative study on cycling in relation to the physical balance, muscle strength, self-esteem and depression of elderly women	Intervenção não é Multicomponente
Repetitive sit-to-stand training with the step-foot position on the non-paretic side, and its effects on the balance and foot pressure of chronic stroke subjects	População não é idoso frágil
Effects of the horse riding simulator and ball exercises on balance of the elderly	Intervenção não é Multicomponente
The Effect on Bone Outcomes of Home-based Exercise Intervention for Prostate Cancer Survivors Receiving Androgen Deprivation Therapy: A Pilot Randomized Controlled Trial	População não é idoso frágil
Can 24 weeks strength training reduce feelings of depression and increase neurotransmitter in elderly females?	Intervenção não é Multicomponente
Reliability and responsiveness of two physical performance measures examined in the context of a functional training intervention	Não é ECR
Exercise and dietary-protein as a countermeasure to skeletal muscle weakness: Liverpool Hope University - Sarcopenia aging trial (LHU-SAT)	População não é idoso frágil
The Vitality, Independence, and Vigor in the Elderly 2 Study (VIVE2): Design and methods	Não é ECR
A pilot randomised controlled trial of a periodised resistance training and protein supplementation intervention in prostate cancer survivors on androgen deprivation therapy	População não é idoso frágil
Exploiting interlimb arm and leg connections for walking rehabilitation: A training intervention in stroke	População não é idoso frágil
Frailty research: A review of the FICSIT trials	Não é ECR
Balance Improvements in Independent-Living Elderly Adults Following a 12-Week Structured Exercise Program	População não é idoso frágil
Multidimensional exercise for people with Parkinson's disease: A case report	População não é idoso frágil
Activity for diabetic polyneuropathy (ADAPT): Study design and protocol for a 2-site randomized controlled trial	Não é ECR
Effect of whole body vibration training on gait function and activities of daily living in children with cerebral palsy	População não é idoso frágil
The effectiveness of group Otago exercise program on physical function in nursing home residents older than 65 years: A randomized controlled trial	Intervenção não é Multicomponente
Development of a longlist of healthcare quality indicators for physical activity of patients during hospital stay: A modified RAND Delphi study	Intervenção não é Multicomponente
Physical activity and bone health	Não é ECR
Effects of leucine-rich protein supplements on anthropometric parameter and muscle strength in the elderly: A systematic review and meta-analysis	Não é ECR
Impact of population density on mortality in patients hospitalized for heart failure – JROAD-DPC Registry Analysis –	Não é ECR
Falls self-efficacy in German nursing home residents: Assessment of validity and determination of a cutoff point	Não é ECR
Lifelong risk factors for osteoporosis and fractures in elderly women with low body mass index-A population-based study	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
The Transtheoretical Model, Physical Activity, and Falls Risks Among Diverse Older Adults	Não é ECR
Association of muscle strength, power, and optimal shortening velocity with functional abilities of women with chronic osteoarthritis participating in a multi-modal exercise program	População não é idoso frágil
Handgrip strength, quadriceps muscle power, and optimal shortening velocity roles in maintaining functional abilities in older adults living in a long-term care home: A 1-year follow-up study	Não é ECR
Discharge outcomes in seniors hospitalized for more than 30 days	Não é ECR
Improving exercise capacity and reducing the risk of falls in osteoarthritis patients: The role of perturbation and functional training	População não é idoso frágil
Timed Up & Go Test Score in Patients With Hip Fracture Is Related to the Type of Walking Aid	Não é ECR
How Many Trials Are Needed to Achieve Performance Stability of the Timed Up & Go Test in Patients With Hip Fracture?	Não é ECR
Risk indicators for falls in institutionalized frail elderly	Não é ECR
Fall and balance outcomes after an intervention to promote leg strength, balance, and walking in people with diabetic peripheral neuropathy: "feet first" randomized controlled trial	População não é idoso frágil
Health Outcomes of Deprescribing Interventions Among Older Residents in Nursing Homes: A Systematic Review and Meta-analysis	Não é ECR
Effectiveness and acceptability within a skilled nursing facility setting	Não é ECR
A Randomized Controlled Trial of the Prescribed Stepper Walking Program in Preventing Frailty Among the Dwelling Elderly: Application of Comprehensive Geriatric Assessment	Intervenção não é Multicomponente
Effects of Ai Chi on balance, quality of life, functional mobility, and motor impairment in patients with Parkinson's disease*	População não é idoso frágil
Evaluation of a brief educational program for dementia carers: The AENEAS Study	Não é ECR
Minimal chair height standing ability is independently associated with falls in taiwanese older people	Não é ECR
Effectiveness of coordination exercise in improving cognitive function in older adults: A prospective study	Não é ECR
Validity and reliability of the Katz-15 scale to measure unfavorable health outcomes in community-dwelling older people	Não é ECR
Prevention of Functional Decline by Reframing the Role of Nursing Homes?	Não é ECR
Reducing "iatrogenic disability" in the hospitalized frail elderly	Não é ECR
Falls in German hospitals and nursing homes 2006-2013: Frequencies, injuries, risk assessment, and preventive measures	Não é ECR
Effects of resistance training, endurance training and whole-body vibration on lean body mass, muscle strength and physical performance in older people: A systematic review and network meta-analysis	Não é ECR
Effect of financial costs on caregiving burden of family caregivers of older adults	Não é ECR
Gender differences in caregiving: A case in chinese canadian caregivers	Não é ECR
Adherence to a fall prevention program among community dwelling older adults	Não é ECR
Prevention in geriatrics: Myth or reality	Não é ECR
Walking one hour or more per day prevented mortality among older persons: Results from iSIRENTE study	Intervenção não é Multicomponente
Cognitive performances better identify fallers than mobility assessment among older adults with fear of falling	Não é ECR
An evaluation of two different exercise regimes during the first year following stroke: A randomised controlled trial	População não é idoso frágil
Effects of a 10-week functional training programme on pain, mood state, depression, and sleep in healthy older adults	População não é idoso frágil
Sarcopenia: Aging-related loss of muscle mass and function	Não é ECR
Eccentric versus traditional resistance exercise for older adult fallers in the community: A randomized trial within a multi-component fall reduction program	Intervenção não é Multicomponente
The positive effects of negative work: Increased muscle strength and decreased fall risk in a frail elderly population	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
A randomized, controlled trial of quadriceps resistance exercise and vitamin D in frail older people: The frailty interventions trial in elderly subjects (FITNESS)	Intervenção não é Multicomponente
Short-term geriatric assessment units: 30 years later	Não é ECR
Muscle-bone interactions: From experimental models to the clinic? A critical update	Não é ECR
Predicting habitual physical activity using coping strategies in older fallers engaged in falls-prevention exercise	Não é ECR
Postprandial systolic blood pressure responses of older people in residential care: Association with risk of falling	Não é ECR
SPRINTT and the involvement of stakeholders: strategy and structure	Não é ECR
The effects of a divided-attention timed stepping accuracy task on balance, strength, endurance, and functional performance in healthy older adults: A pilot study	População não é idoso frágil
Short-term effect of aerobic exercise on symptoms in multiple sclerosis and chronic fatigue syndrome: A pilot study	População não é idoso frágil
The effects of a 12-week leisure centre-based, group exercise intervention for people moderately affected with multiple sclerosis: A randomized controlled pilot study	População não é idoso frágil
Diabetes and osteoporosis: Pathophysiological interactions and clinical importance for geriatric patients	Não é ECR
The effect of vibrotactile cuing on recovery strategies from a treadmill-induced trip	Intervenção não é Multicomponente
Urinary incontinence: An under-recognized risk factor for falls among elderly dementia patients	Não é ECR
Impacts of an Exercise Program and Motivational Telephone Counseling on Health-Related Quality of Life in People with Parkinson's Disease	População não é idoso frágil
Paramedics assessing elders at risk for independence loss (PERIL): Derivation, reliability and comparative effectiveness of a clinical prediction rule	Intervenção não é Multicomponente
Whole-body vibration training improves balance, muscle strength and glycosylated hemoglobin in elderly patients with diabetic neuropathy	População não é idoso frágil
Effect of passive repetitive isokinetic training on cytokines and hormonal changes	Intervenção não é Multicomponente
Effect of conjugated linoleic acids and omega-3 fatty acids with or without resistance training on muscle mass in high-fat diet-fed middle-aged mice	População não é idoso frágil
An intelligent emergency response system: Preliminary development and testing of automated fall detection	Não é ECR
Evolving methods to combine cognitive and physical training for individuals with mild cognitive impairment: Study protocol for a randomized controlled study	Não é ECR
Structured exercise in obese diabetic patients with chronic kidney disease: A randomized controlled trial	População não é idoso frágil
Comparison of functional outcomes associated with hospital at home care and traditional acute hospital care	Não é ECR
Systematic re-evaluation of the diagnosis and treatment of coronary artery disease in hospitalized elderly: Impact on medication underuse. the multicenter IRIDIA study	Não é ECR
Psychosocial Factors and Frailty in Community-dwelling Older People	Não é ECR
Drugs and falls in older people: A systematic review and meta-analysis: II. Cardiac and analgesic drugs	Não é ECR
Treating our societal Scotoma: The case for investing in geriatrics, our Nation's future, and our patients	Não é ECR
Effects of three months of detraining on the health profile of older women after a multicomponent exercise program	População não é idoso frágil
Relationship between different protein intake recommendations with muscle mass and muscle strength	Não é ECR
Exercise training to improve motor performance in chronic stroke: Effects of a community-based exercise program	População não é idoso frágil
Initiatives on early detection and intervention to proactively identify health and social problems in older people: experiences from the Netherlands	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Care Management Service and Falls Prevention: A Case-Control Study in a Chinese Population	Não é ECR
Oral care measures for preventing nursing home-acquired pneumonia	Não é ECR
Joint effect of gene-physical activity and the interactions among CRP, TNF- α , and LTA polymorphisms on serum CRP, TNF- α levels, and handgrip strength in community-dwelling elders in Taiwan - TCHS-E	Não é ECR
Enhancing elderly health examination effectiveness by adding physical function evaluations and interventions	Não é ECR
Improving physical function and blood pressure in older adults through cobblestone mat walking: A randomized trial	Intervenção não é Multicomponente
Cost-Effectiveness of a Therapeutic Tai Ji Quan Fall Prevention Intervention for Older Adults at High Risk of Falling	Intervenção não é Multicomponente
Tai Chi and fall reductions in older adults: A randomized controlled trial	Intervenção não é Multicomponente
Tai Chi-based exercise for older adults with Parkinson's disease: A pilot-program evaluation	População não é idoso frágil
Long term tai chi exercise improves physical performance among people with peripheral neuropathy	População não é idoso frágil
Effect of resistance, endurance, and concurrent training on TNF- α , IL-6, and CRP	Intervenção não é Multicomponente
Acute effects of whole body vibration on heart rate variability in elderly people	Intervenção não é Multicomponente
Functional problems associated with the knee-Part two: Rehabilitation fundamentals for common knee conditions	Não é ECR
Predicting gains in dementia caregiving	Não é ECR
Effects of comprehensive geriatric assessment and targeted intervention on mobility in persons aged 75 years and over: A randomized controlled trial	Intervenção não é Multicomponente
Effects of comprehensive geriatric intervention on physical performance among people aged 75 years and over	Multiplicidade de publicação
Forging a frailty-ready healthcare system to meet population ageing	Não é ECR
Functional mobility and its contributing factors for older adults in different cities in Taiwan	Não é ECR
Simplified Tai Chi 6-Form Apparatus for Balance in Elderly People with Alzheimer's Disease	População não é idoso frágil
A mixed-methods case study exploring the impact of participation in community activity groups for older adults on physical activity, health and wellbeing	Não é ECR
Associations of leisure-time physical activity with balance and lower extremity strength: A validation of the neuromuscular part of the physical activity Pie	Não é ECR
Effect of a home exercise program based on Tai Chi in patients with end-stage renal disease	População não é idoso frágil
Cost analysis of an integrated aged care program for residential aged care facilities	Não é ECR
Patients' perceptions of their "most" and "least" important medications: A retrospective cohort study	Não é ECR
Differences in the limits of stability between older rolling walker users and older single-tip-cane users — a preliminary study	Não é ECR
Retention of the "first-trial effect" in gait-slip among community-living older adults	Não é ECR
Effect of 24-month physical activity on cognitive frailty and the role of inflammation: The LIFE randomized clinical trial	Desfecho não é funcionalidade
Otago home-based strength and balance retraining improves executive functioning in older fallers: A randomized controlled trial	Intervenção não é Multicomponente
Increased risk of falling in older community-dwelling women with mild cognitive impairment	Não é ECR
Balance and falls with elders: Application of clinical reasoning	Não é ECR
Aerobic Exercise Equipment Preferences among Older Adults: A Preliminary Investigation	Não é ECR
The Effect of Group Exercise on Physical Functioning and Falls in Frail Older People Living in Retirement Villages: A Randomized, Controlled Trial	Intervenção não é Multicomponente
Nutritional status and health care costs for the elderly living in municipal residential homes - An intervention study	Intervenção não é Multicomponente

Base de Dados: Scopus. Continuação

Titulo	Motivo
A multifaceted intervention model can give a lasting improvement of older people's nutritional status	Desfecho não é funcionalidade
The Relationship Between Frailty and Decreased Physical Performance With Death on the Kidney Transplant Waiting List	Não é ECR
Changes in frailty status in a community-dwelling cohort of older adults: The VERISAÚDE study	Não é ECR
Choice of Outcome Measure in an Economic Evaluation: A Potential Role for the Capability Approach	Não é ECR
Effect of Taichi softball on function-related outcomes in older adults: A randomized control trial	Intervenção não é Multicomponente
Prevalence of frailty and associated factors in a community-dwelling older people cohort living in Juiz de Fora, Minas Gerais, Brazil: FIBRA-JF study	Não é ECR
Skill mix change between general practitioners, nurse practitioners, physician assistants and nurses in primary healthcare for older people: A qualitative study	Não é ECR
Effects of an exercise model based on functional circuits in an older population with different levels of social participation	População não é idoso frágil
Impact of supervised physiotherapeutic exercises for obese adults with diabetes mellitus type 2	População não é idoso frágil
Falls prevention in the elderly: Translating evidence into practice	Não é ECR
The evidence for services to avoid or delay residential aged care admission: A systematic review	Não é ECR
Effects of Short-Term Training of Community-Dwelling Elderly with Modular Interactive Tiles	Intervenção não é Multicomponente
High Intensity Exercise for Walking Competency in Individuals with Stroke: A Systematic Review and Meta-Analysis	Não é ECR
Impaired postural control is associated with worse scores on the Health Assessment Questionnaire disability index among women with rheumatoid arthritis	População não é idoso frágil
Impact of resistance exercise program on functional capacity and muscular strength of knee extensor in pre-frail community-dwelling older women: A randomized crossover trial	População não é idoso frágil
Predictors for recurrent falls among the home-dwelling elderly	Não é ECR
Pragmatic exercise-oriented prevention of falls among the elderly: A population-based, randomized, controlled trial	População não é idoso frágil
Effects of momentum-based dumbbell training on motor control in older adults with mild cognitive impairment	População não é idoso frágil
Delirium in Postacute and Long-term Care	Não é ECR
Cognitive function in Pre frail and frail community-dwelling older adults in China	Não é ECR
Dance as Prevention of Late Life Functional Decline Among Nursing Home Residents	Intervenção não é Multicomponente
Acute and regular exercise distinctly modulate serum, plasma and skeletal muscle BDNF in the elderly	População não é idoso frágil
A 12-month randomized controlled trial of balance training in elderly women with osteoporosis: Improvement of quality of life	População não é idoso frágil
Balance training program is highly effective in improving functional status and reducing the risk of falls in elderly women with osteoporosis: A randomized controlled trial	População não é idoso frágil
Effect of long-term, community-based daily exercise on the ability to control the dynamic standing balance of Japanese elderly persons in relation to falls	População não é idoso frágil
Cognitive disorders and falls: Experience of the Lille multidisciplinary falls service	Não é ECR
Validation of the ADAMO Care Watch for step counting in older adults	Não é ECR
Impact of training and structured medication review on medication appropriateness and patient-related outcomes in nursing homes: Results from the interventional study InTherAKT	Intervenção não é Multicomponente
Prevalence and Burden of Gait Disorders in Elderly Men and Women Aged 60-97 Years: A Population-Based Study	Não é ECR
Post-Translational modification-Derived products are associated with frailty status in elderly subjects	Não é ECR
Gait changes in older adults: Predictors of falls or indicators of fear?	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Effects of a community disability prevention program for frail older adults at 48-month follow up	Não é ECR
Searching for the 'winner' hip fracture patient: the effect of modifiable and non-modifiable factors on clinical outcomes following hip fracture surgery	Não é ECR
The effect of osteoporotic treatment on the functional outcome, re-fracture rate, quality of life and mortality in patients with hip fractures: A prospective functional and clinical outcome study on 520 patients	Não é ECR
Stop. Think. Delirium! A quality improvement initiative to explore utilising a validated cognitive assessment tool in the acute inpatient medical setting to detect delirium and prompt early intervention	Não é ECR
Physical therapy approach to falls in adults with visual impairment	Não é ECR
Is backward disequilibrium in the elderly caused by an abnormal perception of verticality? A pilot study	Não é ECR
International Group for Reducing Inappropriate Medication Use & Polypharmacy (IGRIMUP): Position Statement and 10 Recommendations for Action	Não é ECR
Development of physical disability in older adults	Não é ECR
The effect of frankel's stabilization exercises and stabilometric platform in the balance in elderly patients: A randomized clinical trial	Intervenção não é Multicomponente
Exploring the relationship between fear of falling and neuroticism: A cross-sectional study in community-dwelling women over 70	Não é ECR
Characteristics of functional gait among people with and without peripheral neuropathy	Não é ECR
Functional benefits of tai chi training in senior housing facilities	Intervenção não é Multicomponente
The PLE2NO self-management and exercise program for knee osteoarthritis: Study Protocol for a Randomized Controlled Trial	Não é ECR
Impact of a motivational resistance-training programme on adherence and body composition in the elderly	População não é idoso frágil
Effects of a moderate-to-high intensity resistance circuit training on fat mass, functional capacity, muscular strength, and quality of life in elderly: A randomized controlled trial	População não é idoso frágil
The ADAPP trial: a two-year longitudinal multidisciplinary intervention study for prostate cancer frail patients on androgen deprivation associated to curative radiotherapy	População não é idoso frágil
The effects and costs of a multifactorial and interdisciplinary team approach to falls prevention for older home care clients 'at risk' for falling: A randomized controlled trial	Intervenção não é Multicomponente
Reducing fall risk for frail older home-care clients using a multifactorial and interdisciplinary team approach: Design of a randomized controlled trial	Não é ECR
Exercise training modifies ghrelin and adiponectin concentrations and is related to inflammation in older adults	População não é idoso frágil
Efficacy of the HealthMatters Program Train-the-Trainer Model	Não é ECR
Association between energy cost of walking, muscle activation, and biomechanical parameters in older female fallers and non-fallers	Não é ECR
Should physical activity programs be tailored when older adults have compromised function?	Não é ECR
Cessation of exercise in the institutionalized elderly: Effects on physical function	Não é ECR
Falls risk factors: Assessment and management to prevent falls and fractures	Não é ECR
Comparison of agility and dynamic balance in elderly women with endomorphic mesomorph somatotype with presence or absence of metabolic syndrome	Não é ECR
Dual Task Gait Performance in Frail Individuals with and without Mild Cognitive Impairment	Não é ECR
Functional and cognitive impairment prevention through early physical activity for geriatric hospitalized patients: Study protocol for a randomized controlled trial	Não é ECR
Gait training using a robotic hip exoskeleton improves metabolic gait efficiency in the elderly	População não é idoso frágil
Gait Variability Related to Muscle Quality and Muscle Power Output in Frail Nonagenarian Older Adults	Multiplicidade de publicação
Effects of 24-week exergame intervention on physical function under single- and dual-task conditions in fibromyalgia: A randomized controlled trial	População não é idoso frágil
Treating sarcopenia in older and oldest old	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Physical activity and exercise as countermeasures to physical frailty and sarcopenia	Não é ECR
The "Sarcopenia and Physical fRailty IN older people: multi-component Treatment strategies" (SPRINTT) randomized controlled trial: Case finding, screening and characteristics of eligible participants	Não é ECR
Association of activities of daily living with load during step ascent motion in nursing home-residing elderly individuals: An observational study	Não é ECR
Device or not device...what is the APA program the best for patients with neurological disability? pilot study	Intervenção não é Multicomponente
Is 8 weeks of side-alternating whole-body vibration a safe and acceptable modality to improve functional performance in multiple sclerosis?	População não é idoso frágil
The role of the acute geriatric unit in the management of the frail elderly patient	Não é ECR
Mild joint symptoms are associated with lower risk of falls than asymptomatic individuals with radiological evidence of osteoarthritis	Não é ECR
Ganoderma lucidum improves physical fitness in women with fibromyalgia	População não é idoso frágil
Walking exercise simultaneously combined with neuromuscular electrical stimulation of antagonists resistance improved muscle strength, physical function, and knee pain in symptomatic knee osteoarthritis: A single-arm study	População não é idoso frágil
Functional level at admission is a predictor of survival in older patients admitted to an acute geriatric unit	Não é ECR
A combination of multimodal physical exercises in real and virtual environments for individuals after chronic stroke: Study protocol for a randomized controlled trial	Não é ECR
Improving strength and balance for long-term care residents at risk for falling: Suggestions for practice	Não é ECR
What is the evidence for cardiovascular disorders as a risk factor for non-syncopal falls? Scope for future research	Não é ECR
Development of a reconditioning program for elderly abdominal surgery patients: The Elder-friendly Approaches to the Surgical Environment-BEside reconditioning for Functional ImprovementTs (EASE-BE FIT) pilot study	Não é ECR
A study protocol of a randomised controlled trial to measure the effects of an augmented prescribed exercise programme (APEP) for frail older medical patients in the acute setting	Não é ECR
Use of a Delphi panel to establish consensus for recommended uses of selected balance assessment approaches	Não é ECR
Developing quality indicators for elderly patients undergoing abdominal operations	Não é ECR
PREHAB study: A protocol for a prospective randomised clinical trial of exercise therapy for people living with frailty having cancer surgery	População não é idoso frágil
A pilot study examining the impact of exercise training on skeletal muscle genes related to the TLR signaling pathway in older adults following hip fracture recovery	População não é idoso frágil
Circulating tumor necrosis factor alpha may modulate the short-term detraining induced muscle mass loss following prolonged resistance training	Não é ECR
Impairment of muscle performance before and following total hip replacement	Não é ECR
Simple Balance and Mobility Tests Can Assess Falls Risk When Cognition Is Impaired	Não é ECR
A randomized controlled trial of fall prevention strategies in old peoples' homes	Intervenção não é Multicomponente
Home-based health promotion for chronically ill older persons: Results of a randomized controlled trial of a critical reflection approach	Intervenção não é Multicomponente
Psychosocial effects of an exercise program in older persons who fall	Desfecho não é funcionalidade
Process evaluation of a trial evaluating a multidisciplinary nurse-led home visiting programme for vulnerable older people	Intervenção não é Multicomponente
Regular exercise in the elderly is effective to preserve the speed of voluntary stepping under single-task condition but not under dual-task condition: A case-control study	Não é ECR
Improvement in Aerobic Fitness During Rehabilitation After Hip Fracture	População não é idoso frágil
Impact of a community-based exercise programme on physical fitness in middle-aged and older patients with type 2 diabetes	População não é idoso frágil
Professional and family caregivers' attitudes towards involuntary treatment in community-dwelling people with dementia	População não é idoso frágil

Base de Dados: Scopus. Continuação

Título	Motivo
Statewide Implementation of "Reducing Disability in Alzheimer's Disease": Impact on Family Caregiver Outcomes	Não é ECR
Singapore Healthy Older People Everyday (HOPE) Study: Prevalence of Frailty and Associated Factors in Older Adults	Não é ECR
Within-day test-retest reliability of the Timed Up & Go test in patients with advanced chronic organ failure	Não é ECR
Measurement properties of the Timed Up & Go test in patients with COPD	Não é ECR
Clinical update on nursing home medicine: 2013	Não é ECR
Clinical Update on Nursing Home Medicine: 2016	Não é ECR
Clinical Update on Nursing Home Medicine: 2008	Não é ECR
Clinical Update on Nursing Home Medicine: 2009	Não é ECR
Utility of the Edmonton Frail Scale in identifying frail elderly patients during treatment of colorectal cancer	Não é ECR
Balance impairment limits ability to increase walking speed in individuals with chronic stroke	Não é ECR
Body weight-supported treadmill training is no better than overground training for individuals with chronic stroke: A randomized controlled trial	População não é idoso frágil
A pilot study of yoga as self-care for arthritis in minority communities	População não é idoso frágil
Stepped treatment of older adults on laxatives. The STOOL trial	População não é idoso frágil
The american geriatrics society/national institute on aging bedside-to-bench conference: Research agenda on delirium in older adults	Não é ECR
Effect of a balance-training programme on postural balance, aerobic capacity and frequency of falls in women with osteoporosis: A randomized controlled trial	População não é idoso frágil
Intervention to prevent further falls in older people who call an ambulance as a result of a fall: A protocol for the iPREFER randomised controlled trial	Não é ECR
Process evaluation of a nurse-led multifactorial intervention protocol for risk screening and assessment of fall problems among community-dwelling older persons: A pilot-study	Não é ECR
Use of a fall prevention practice guideline for community-dwelling older persons at risk for falling: A feasibility study	Não é ECR
The perceived feasibility and acceptability of a conceptually challenging exercise training program in older adults	Não é ECR
Reported and measured physical functioning in older inner-city diabetic African Americans	Não é ECR
Predilection for frailty remedial strategies among black and white seniors	Não é ECR
Kinematic parameters to evaluate functional performance of sit-to-stand and stand-to-sit transitions using motion sensor devices: A systematic review	Não é ECR
Cost-effectiveness of individualized nutrition and exercise therapy for rehabilitation following hip fracture	Não é ECR
Multimodal Prehabilitation to Enhance Functional Capacity Following Radical Cystectomy: A Randomized Controlled Trial	População não é idoso frágil
Audio-biofeedback training for posture and balance in patients with Parkinson's disease	População não é idoso frágil
The need for a falls prevention programme for patients undergoing hip and knee replacement surgery	População não é idoso frágil
Effects of three home-based exercise programmes regarding falls, quality of life and exercise-adherence in older adults at risk of falling: protocol for a randomized controlled trial	Não é ECR
A word of caution against excessive protein intake	Não é ECR
Lumbar lordosis angle (LLA) and leg strength predict walking ability in elderly males	Não é ECR
Preoperative quadriceps strength predicts functional ability one year after total knee arthroplasty	Não é ECR
Effect of supervised exercise on physical function and balance in patients with intermittent claudication	População não é idoso frágil
Medication and falls in old age	Não é ECR
Practical assessment and management of vulnerabilities in older patients receiving chemotherapy: Asco guideline for geriatric oncology	Não é ECR
Management of Prostate Cancer in the Older Man	Não é ECR
Rapid systolic blood pressure changes after standing up associate with impaired physical performance in geriatric outpatients	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Variation of bone mineral density induced by exercise in postmenopausal women	Não é ECR
Effects of a one-year home-based case management intervention on falls in older people: A randomized controlled trial	Intervenção não é Multicomponente
Randomized clinical trial on the efficacy of global geriatric assessment in primary care	Intervenção não é Multicomponente
The effects of a tailored intensive care unit delirium prevention protocol: A randomized controlled trial	População não é idoso frágil
Keeping older muscle "young" through dietary protein and physical activity	Não é ECR
Exercise Induces Peripheral Muscle but Not Cardiac Adaptations after Stroke: A Randomized Controlled Pilot Trial	População não é idoso frágil
Protein turnover and requirements in the healthy and frail elderly	População não é idoso frágil
The functional movement circle for older adults: Feasibility and effects on physical performance	População não é idoso frágil
Protein Redistribution From Skeletal Muscle to Splanchnic Tissue on Fasting and Refeeding in Young and Older Healthy Individuals	Não é ECR
Evidence-based guidelines for the secondary prevention of falls in older adults	Não é ECR
The effects of the pilates training method on balance and falls of older adults: A systematic review and meta-analysis of randomized controlled trials	Não é ECR
Assessment of the Mini-Balance Evaluation Systems Test, Timed Up and Go test, and body sway test between cancer survivors and healthy participants	Não é ECR
Relationship between falls and physical performance measures among community-dwelling elderly women in Japan	Não é ECR
Frailty and sarcopenia in elderly	Não é ECR
Falls and mobility in Parkinson's disease: Protocol for a randomised controlled clinical trial	Não é ECR
Dementia and delirium, the outcomes in elderly hip fracture patients	Não é ECR
Effect of low-cost resistance training on lower-limb strength and balance in institutionalized seniors	Intervenção não é Multicomponente
Anticholinergic burden of long-term medication is an independent risk factor for the development of postoperative delirium: A clinical trial	População não é idoso frágil
Different response to eccentric and concentric training in older men and women	Não é ECR
Weight-bearing versus nonweight-bearing exercise for persons with diabetes and peripheral neuropathy: A randomized controlled trial	População não é idoso frágil
Frailty level monitoring and analysis after a pilot six-week randomized controlled clinical trial using the FRED exergame including biofeedback supervision in an elderly day care centre	Intervenção não é Multicomponente
Association of executive function impairment, history of falls and physical performance in older adults: A cross-sectional population-based study in Eastern France	Não é ECR
Cervical disk pathology in patients with multiple sclerosis: Two case reports	Não é ECR
Salzburg Skiing for the Elderly Study: Influence of alpine skiing on aerobic capacity, strength, power, and balance	População não é idoso frágil
Salzburg Skiing for the Elderly Study: Study design and intervention - health benefit of alpine skiing for elderly	Não é ECR
Developing and piloting a multifactorial intervention to address participation and quality of life in nursing home residents with joint contractures (jointconimprove): Study protocol	Não é ECR
A pilot study of falls risk and vestibular dysfunction in older fallers presenting to hospital Emergency Departments	Não é ECR
The effect of land versus aquatic exercise program on bone mineral density and physical function in postmenopausal women with osteoporosis: A randomized controlled trial	População não é idoso frágil
Dietary Protein and Preservation of Physical Functioning among Middle-Aged and Older Adults in the Framingham Offspring Study	Não é ECR
Effects of Functional Disability and Depressive Symptoms on Mortality in Older Mexican-American Adults with Diabetes Mellitus	Não é ECR
Mind-wandering and falls risk in older adults	Não é ECR
Exercise Mode Moderates the Relationship between Mobility and Basal Ganglia Volume in Healthy Older Adults	População não é idoso frágil

Base de Dados: Scopus. Continuação

Título	Motivo
Moderate increase in protein intake promotes a small additional improvement in functional capacity, but not in muscle strength and lean mass quality, in postmenopausal women following resistance exercise: A randomized clinical trial	População não é idoso frágil
Effects of home exercise on physical function and activity in home care patients with Parkinson's disease	População não é idoso frágil
Association between components of family caregivers' sense of burden and types of paid care services provided in Japan	Não é ECR
Relation among 25(OH)D, aquatic exercises, and multifunctional fitness on functional performance of elderly women from the community	Não é ECR
Aerobic capacity and upper limb strength are reduced in women diagnosed with breast cancer: A systematic review	Não é ECR
Use of a device to support standing during a physical activity program to improve function of individuals with disabilities who reside in a nursing home	Não é ECR
Physical activity and psychological well-being in advanced age: A meta-analysis of intervention studies	Não é ECR
Aerobic exercise program with or without motor complexity as an add-on to the pharmacological treatment of depression - Study protocol for a randomized controlled trial	Não é ECR
Outcomes of preventive case management among high-risk elderly in three medical groups: A randomized clinical trial	Intervenção não é Multicomponente
Insufficient Protein Intake is Associated with Increased Mortality in 630 Patients with Cirrhosis Awaiting Liver Transplantation	Não é ECR
How can nursing homes make use of the guideline: "Prevention of fall incidents in the elderly" by the Dutch Institute for Healthcare Improvement (CBO)?	Não é ECR
The development of a multidisciplinary fall risk evaluation tool for demented nursing home patients in the Netherlands	Não é ECR
A tailor-made exercise program for improving balance and mobility in older adults with type 2 diabetes	População não é idoso frágil
Effectiveness of virtual and augmented reality-enhanced exercise on physical activity, psychological outcomes, and physical performance: A systematic review and meta-analysis of randomized controlled trials	Não é ECR
Depression: A modifiable factor in fearful older fallers transitioning to frailty?	Não é ECR
Environmental factors in falls in retirement homes: On a prospective study of fall incidence over ten months	Não é ECR
Normative values for the Timed 'Up and Go' test in children and adolescents and validation for individuals with Down syndrome	Não é ECR
Combined endurance and resistance training during geriatric day care improve exercise capacity, balance and strength	Intervenção não é Multicomponente
Comparison of self-reported and performance-based measures of functional ability in elderly patients in an emergency department: Implications for selection of clinical outcome measures	Não é ECR
Course of functional status in elderly patients after coronary artery bypass surgery: 6-month follow up	Não é ECR
Technologies for participatory medicine and health promotion in the elderly population	Não é ECR
Systematic review of timed stair tests	Não é ECR
Preventing falls in community-dwelling frail older people using a home intervention team (HIT): Results from the randomized falls-HIT trial	Intervenção não é Multicomponente
Drug prescriptions and multiple falls in community-dwelling frail elderly subjects	Não é ECR
Enhancing Functional Balance and Mobility Among Older People Living in Long-Term Care Facilities	Não é ECR
Intensive care unit-acquired weakness: Implications for physical therapist management	Não é ECR
Incidence and impact of delirium on clinical and functional outcomes in older patients hospitalized for acute cardiac diseases	Não é ECR
Effect of augmented plantarflexion power on preferred walking speed and economy in young and older adults	Intervenção não é Multicomponente
Randomised controlled trial of the effect of tai chi on postural balance of people with dementia	População não é idoso frágil

Base de Dados: Scopus. Continuação

Título	Motivo
Cost-Effectiveness Analysis of a Physician-Implemented Medication Screening Tool in Older Hospitalised Patients in Ireland	Não é ECR
Acceptability of wristband activity trackers among community dwelling older adults	Intervenção não é Multicomponente
Effects of elastic band resistance training and nutritional supplementation on physical performance of institutionalised elderly - A randomized controlled trial	Intervenção não é Multicomponente
Quality of care in hospitalized cancer patients before and after implementation of a systematic prevention program for delirium: the DELTA exploratory trial	Não é ECR
Preoperative exercise capacity is associated with the prevalence of postoperative delirium in elective cardiac surgery	Não é ECR
Improving delirium care through early intervention: From bench to bedside to boardroom	Não é ECR
Predictors of interruptions to living at home in elderly people enrolled in a home visit rehabilitation service	Não é ECR
Doctors' assistants' views of case management to improve chronic heart failure care in general practice: A qualitative study	Não é ECR
Preoperative geriatric assessment and tailored interventions in frail older patients with colorectal cancer: a randomized controlled trial	População não é idoso frágil
Influences of carbohydrate plus amino acid supplementation on differing exercise intensity adaptations in older persons: Skeletal muscle and endocrine responses	População não é idoso frágil
Influence of exercise intensity in older persons with unchanged habitual nutritional intake: Skeletal muscle and endocrine adaptations	População não é idoso frágil
Physical therapy for the elderly	Não é ECR
Preoperative home-based physical therapy versus usual care to improve functional health of frail older adults scheduled for elective total hip arthroplasty: A pilot randomized controlled trial	Intervenção não é Multicomponente
Physical fitness is predictive for a decline in daily functioning in older adults with intellectual disabilities: Results of the HA-ID study	População não é idoso frágil
Predictors of delirium development in older medical inpatients: Readily identifiable factors at admission	Não é ECR
Texercise effectiveness: Impacts on physical functioning and quality of life	Não é ECR
Fall prevention in community settings: Results from implementing Stepping On in three states	Não é ECR
A pilot evaluation of a group exercise programme for people with Parkinson's disease: A quantitative and qualitative approach	População não é idoso frágil
Effects of short-term nordic walking training on sarcopenia-related parameters in women with low bone mass: A preliminary study	População não é idoso frágil
Muscle strength and coordination training for prevention of falls in elderly patients	Não é ECR
Prediction of falls in older adults with cancer: A preliminary study	População não é idoso frágil
Comprehensive geriatric assessment: Interprofessional team recommendations for older adult women with breast cancer	Não é ECR
Factors associated with poor sleep in older women diagnosed with breast cancer	Não é ECR
Exercise for managing the symptoms of multiple sclerosis	Não é ECR
Impact of a nurse-driven mobility protocol on functional decline in hospitalized older adults	Não é ECR
Perturbation training can reduce community-dwelling older adults' annual fall risk: A randomized controlled trial	Intervenção não é Multicomponente
Learning from laboratory-induced falling: Long-term motor retention among older adults	Não é ECR
Early detection of functional and cognitive decline after hospital discharge: The role of community nursing and multidisciplinary teams	Não é ECR
Functional recovery of elderly patients hospitalized in geriatric and general medicine units. the PROgetto DImissioni in GEriatria study	Não é ECR
Congenital fiber-type disproportion in an ambulatory rehabilitation setting: A case report	Não é ECR
The efficacy of participation in a survivorship program on functional abilities and quality of life in cancer survivors: A descriptive, retrospective study	Não é ECR
Falls in elderly patients: Predictable and preventable	Não é ECR
A Preliminary study of the utilization of maximal and rapid strength characteristics to identify chair-rise performance abilities in very old adults	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Applicability of trials in rheumatoid arthritis and osteoarthritis: A systematic review and meta-analysis of trial populations showing adequate proportion of women, but underrepresentation of elderly people	Não é ECR
Effectiveness of the Chaos Falls Clinic in preventing falls and injuries of home-dwelling older adults: A randomised controlled trial	Intervenção não é Multicomponente
Impaired mobility, depressed mood, cognitive impairment and polypharmacy are independently associated with disability in older cancer outpatients: The prospective Physical Frailty in Elderly Cancer patients (PF-EC) cohort study	Não é ECR
Preventing loss of function in older persons after hospitalization	Não é ECR
Prolonged stays in hospital acute geriatric care units: Identification and analysis of causes	Não é ECR
Active Steps for Diabetes: A Community-Campus Partnership Addressing Frailty and Diabetes	Não é ECR
Fall risk assessment of rural elderly population in Korea	Não é ECR
Gardening intervention for physical and psychological health benefits in elderly women at community centers	Intervenção não é Multicomponente
Identifying modifiable factors to improve quality for older adults in hospital: A scoping review	Não é ECR
Prescribing for older people in nursing homes: Strategies to improve prescribing and medicines use in nursing homes	Não é ECR
Does vibration training reduce the fall risk profile of frail older people admitted to a rehabilitation facility? A randomised controlled trial	Intervenção não é Multicomponente
Benefits of nutritional supplementation in free-living, frail, undernourished elderly people: A prospective randomized community trial	Intervenção não é Multicomponente
Feasibility of progressive sit-to-stand training among older hospitalized patients	Não é ECR
Supervised progressive cross-continuum strength training compared with usual care in older medical patients: Study protocol for a randomized controlled trial (the STAND-Cph trial)	Não é ECR
Physical fitness levels among independent non-institutionalized Spanish elderly: The elderly EXERNET multi-center study	Não é ECR
Characteristics, usability, and users experience of a system combining cognitive and physical therapy in a virtual environment: Positive bike	Não é ECR
Correlation between the walk, 2-minute step and TUG tests among hypertensive older women	Não é ECR
Cognitive, functional and physical activity impairment in elderly with Alzheimer's disease	Não é ECR
Exercise Training and Immunosenescence	Não é ECR
Effects of individualized Tai-Chi on balance and lower-limb strength in older adults	Intervenção não é Multicomponente
Effects of physical exercise on plasma levels of brain-derived neurotrophic factor and depressive symptoms in elderly women - A randomized clinical trial	População não é idoso frágil
Effects of Square-Stepping Exercise on balance and depressive symptoms in older adults	População não é idoso frágil
The Dual-Tasking Overload on Functional Mobility Is Related to Specific Cognitive Domains in Different Subtypes of Parkinson's Disease	População não é idoso frágil
A bicentric controlled study on the effects of aquatic Ai Chi in Parkinson disease	População não é idoso frágil
Risk Factors and Number of Falls as Determinants of Quality of Life of Community-Dwelling Older Adults	Não é ECR
Exercise Snacking to Improve Muscle Function in Healthy Older Adults: A Pilot Study	População não é idoso frágil
How should we manage fear of falling in older adults living in the community?	Não é ECR
Immediate effects of bilateral grade III mobilization of the talocrural joint on the balance of elderly women	Intervenção não é Multicomponente
Effect of telephone exercise counseling on frailty in older veterans: Project LIFE	Intervenção não é Multicomponente
Relationships between lower limb muscle strength impairments and physical limitations in DM1	Não é ECR
Effects of a long-term vitamin D and calcium supplementation on falls and parameters of muscle function in community-dwelling older individuals	Intervenção não é Multicomponente
Exploring Path Models of Disablement in Residential Care and Assisted Living Residents	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Adherence of older women with strength training and aerobic exercise	Intervenção não é Multicomponente
Reliability, validity, and norms of the 2-min walk test in children with and without neuromuscular disorders aged 6–12	Não é ECR
Efficacy and safety of concurrent training in systemic sclerosis	População não é idoso frágil
Cardiorespiratory and neuromuscular responses during water aerobics exercise performed with and without equipment	Não é ECR
Use of electroconvulsive therapy in Parkinson disease with residual axial symptoms partially unresponsive to L-dopa: A pilot study	População não é idoso frágil
Comprehensive care	Não é ECR
Circulating irisin and myostatin as markers of muscle strength and physical condition in elderly subjects	Não é ECR
Integrating smartphone technology, social support and the outdoor physical environment to improve fitness among adults at risk of, or diagnosed with, Type 2 Diabetes: Findings from the 'eCoFit' randomized controlled trial	População não é idoso frágil
Potential benefits of nintendo Wii Fit among people with multiple sclerosis: A longitudinal pilot study	População não é idoso frágil
The relation between atherosclerosis and the occurrence of postoperative delirium in vascular surgery patients	Não é ECR
Frailty is associated with socioeconomic and lifestyle factors in community-dwelling older subjects	Não é ECR
Community-based case management does not reduce hospital admissions for older people: A systematic review and meta-analysis	Não é ECR
Two-year exercise program improves physical function in Parkinson's disease: The PRET-PD randomized clinical trial	População não é idoso frágil
The Effects of Exercise on Falls in Elderly Patients: A Preplanned Meta-analysis of the FICSIT Trials	Não é ECR
BIOLOGY of AGING: IDENTIFIED DRIVERS and INTERVENTIONS for OPTIMAL HEALTHSPAN	Não é ECR
Successes and setbacks of the Falls Consultation: Report on the first 150 patients	Não é ECR
Physiotherapy intervention as a complementary treatment for people living with HIV/AIDS	Não é ECR
Physical fitness assessment of older adults in the primary care setting	Não é ECR
The motor-learning process of older adults in eccentric bicycle ergometer training	Não é ECR
Interventions to prevent or reduce the level of frailty in community-dwelling older adults: A protocol for a scoping review of the literature and international policies	Não é ECR
Falls in elderly hospitalized patients: From risk to prevention	Não é ECR
Task-specific training in Huntington disease: A randomized controlled feasibility trial	População não é idoso frágil
Single- and dual-task assessments in elderly patients in a falls intervention programme	Não é ECR
Aspects of physical medicine and rehabilitation in the treatment of deconditioned patients in the acute care setting: the role of skeletal muscle	Não é ECR
Risk factors and outcomes for postoperative delirium after major surgery in elderly patients	Não é ECR
Current Factors of Fragility and Delirium in Vascular Surgery	Não é ECR
Effectiveness of a nurse-based outreach program for identifying and treating psychiatric illness in the elderly	População não é idoso frágil
Effect of posture training with weighted kypho-orthosis (WKO) on improving balance in women with osteoporosis	População não é idoso frágil
Water-based training enhances both physical capacities and body composition in healthy young adult women	População não é idoso frágil
The combined effects of diet quality and physical activity on maintenance of muscle strength among diabetic older adults from the NuAge cohort	Não é ECR
Delirium - Management in the hospital: Diagnosis and treatment	Não é ECR
Beyond grand rounds: A comprehensive and sequential intervention to improve identification of delirium	Não é ECR
The responsibility of caring for frail people in our society	Não é ECR
The relationship between functional status, physical fitness and cognitive performance in physically active older adults: A pilot study	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
A single whole body vibration session influences quadriceps muscle strength, functional mobility and balance of elderly with osteopenia and/or osteoporosis? Pragmatic clinical trial	População não é idoso frágil
Effectiveness of multidisciplinary nutritional support in older hospitalised patients: A systematic review and meta-analyses	Não é ECR
Effect of resistance training on immunological parameters of healthy elderly women	População não é idoso frágil
Unsupervised progressive elastic band exercises for frail geriatric inpatients objectively monitored by new exercise-integrated technology-a feasibility trial with an embedded qualitative study	Não é ECR
Rehabilitation Therapy in Older Acute Heart Failure Patients (REHAB-HF) trial: Design and rationale	Não é ECR
Comparison of Frequency of Frailty and Severely Impaired Physical Function in Patients ≥60 Years Hospitalized with Acute Decompensated Heart Failure Versus Chronic Stable Heart Failure with Reduced and Preserved Left Ventricular Ejection Fraction	Não é ECR
A survey of old age psychiatry consultation/liaison services in Ireland	Não é ECR
Complex environmental modifications	Não é ECR
Multifactorial screening for fall risk in community-dwelling older adults in the primary care office: Development of the Fall Risk Assessment & Screening Tool	Não é ECR
Directly Measured Physical Function in Cardiac Rehabilitation	Não é ECR
A fracture - Intervention program optimizes the management of osteoporosis	Não é ECR
Effect of aqua-cycling on pain and physical functioning compared with usual care in patients with knee osteoarthritis: Study protocol of a randomised controlled trial	Não é ECR
Rehabilitation, physical therapy and occupational health	Não é ECR
Equilibrium and muscle flexibility in elderly people subjected to physiotherapeutic intervention	Não é ECR
Effects of conventional versus multimodal vestibular rehabilitation on functional capacity and balance control in older people with chronic dizziness from vestibular disorders: Design of a randomized clinical trial	Não é ECR
Infection Control in Long-Term Care Facilities	Não é ECR
Effects of increasing the involvement of community-dwelling frail older adults in a proactive assessment service: a pragmatic trial	Não é ECR
Multifactorial Examination of Caregiver Burden in a National Sample of Family and Unpaid Caregivers	Não é ECR
Potency of a combined alfacalcidol-alendronate therapy to reduce the risk of falls and fractures in elderly patients with glucocorticoid-induced osteoporosis	População não é idoso frágil
The influence of a ten week Tai Chi program with seniors	Intervenção não é Multicomponente
Video capture of the circumstances of falls in elderly people residing in long-term care: An observational study	Não é ECR
Behavioral health consultation and primary care: Lessons learned	Não é ECR
Influence of fish oil supplementation and strength training on some functional aspects of immune cells in healthy elderly women	População não é idoso frágil
Practical tips for prescribing exercise for fall prevention	Não é ECR
Admission criteria in short-term geriatric assessment units: A Delphi study	Não é ECR
Frailty, what are we talking about? Implications for the daily clinical practice	Não é ECR
Introduction of assistive devices: Home nurses' practices and beliefs	Não é ECR
Hospital complications in the elderly	Não é ECR
Muscle strength in obese elderly women: Effect of recreational physical activity in a cross-sectional study	Não é ECR
Pilates Reformer exercises for fall risk reduction in older adults: A randomized controlled trial	Intervenção não é Multicomponente
Effectiveness of a primary care based multifactorial intervention to improve frailty parameters in the elderly: A randomised clinical trial: Rationale and study design	Não é ECR
Exercise guidelines for persons with multiple sclerosis	Não é ECR
Reasons for home care clients' unplanned Hospital admissions and their associations with patient characteristics	Não é ECR
Predictors for Unplanned Hospitalization of New Home Care Clients	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Experience in the evaluation of risk of falls. Comparison between the Tinetti and Timed-Up & Go tests	Não é ECR
Detection of the largest population susceptible to prescription of a program of exercises in Primary Care to prevent frailty	Não é ECR
Can the control of bodily orientation be significantly improved in a group of older adults with a history of falls?	Intervenção não é Multicomponente
Exercise and CKD: Skeletal Muscle Dysfunction and Practical Application of Exercise to Prevent and Treat Physical Impairments in CKD	Não é ECR
Application and interpretation of functional outcome measures for testing individuals with cognitive impairment	Não é ECR
Increased mitochondrial turnover in the skeletal muscle of fasted, castrated mice is related to the magnitude of autophagy activation and muscle atrophy	Não é ECR
Physical exercise programs at Basic Healthcare Units decrease body fat and improve the functional capacity of women over 50 years old	População não é idoso frágil
The effects of a perturbation-based balance training on the reactive neuromuscular control in community- dwelling older women: A randomized controlled trial	População não é idoso frágil
Cardiac Rehabilitation in Patients With Lymphoma Undergoing Autologous Hematopoietic Stem Cell Transplantation: A Cardio-oncology Pilot Project *	População não é idoso frágil
Drug prescription including interactions with anticancer treatments in the elderly: A global approach	Não é ECR
The reliability and validity of an obstacle course as a measure of gait and balance in older adults	Não é ECR
Guideline for the prevention of falls in older persons	Não é ECR
Evaluation and management of hip fracture risk in the aged	Não é ECR
Cost-effectiveness of a multicomponent primary care program targeting frail elderly people	Não é ECR
The association between implementation and outcome of a complex care program for frail elderly people	Não é ECR
Multicomponent program to reduce functional decline in frail elderly people: A cluster controlled trial	Intervenção não é Multicomponente
Depression but not frailty contributed to a higher risk for all-cause hospitalizations in male older veterans	Não é ECR
Ethical issues facing providers in collaborative primary care settings: Do current guidelines suffice to guide the future of team based primary care?	Não é ECR
Physical training in institutionalized elderly people with multiple diagnoses - A controlled pilot study	População não é idoso frágil
Comparing endurance- and resistance-exercise training in people with multiple sclerosis: A randomized pilot study	População não é idoso frágil
Case management for integrated care of frail older people in community settings	Não é ECR
Muscle strength of lower limbs as a predictor of postural stability and fear of falling in physically active and inactive older men and women	Não é ECR
Physical Exercise Improves Function in Acutely Hospitalized Older Patients: Secondary Analysis of a Randomized Clinical Trial	População não é idoso frágil
What scope is there for innovation in care and aid methods for older patients?	Não é ECR
Impacto de un programa de fisioterapia en atención primaria en las personas mayores, con antecedentes de caídas	População não é idoso frágil
Effectiveness of a low-cost virtual reality system for children with developmental delay: A preliminary randomised single-blind controlled trial	População não é idoso frágil
Community-based group aquatic programme for individuals with multiple sclerosis: A pilot study	População não é idoso frágil
Seeking to understand telephone support for dementia caregivers	Não é ECR
Effects of risk-based multifactorial fall prevention on postural balance in the community-dwelling aged: A randomized controlled trial	População não é idoso frágil
Does acute whole-body vibration training improve the physical performance of people with knee osteoarthritis	População não é idoso frágil
Falls prevention among older adults living in community: A feasibility assessment	Não é ECR
Randomised trial of in-hospital geriatric intervention: Impact on function and morale	Intervenção não é Multicomponente

Base de Dados: Scopus. Continuação

Título	Motivo
Reduced mortality in treating acutely sick, frail older patients in a geriatric evaluation and management unit. A prospective randomized trial	Intervenção não é Multicomponente
Development and delivery of patient treatment in the Trondheim Hip Fracture Trial. A new geriatric in-hospital pathway for elderly patients with hip fracture	População não é idoso frágil
Acute geriatric intervention increases the number of patients able to live at home. A prospective randomized study	Multiplicidade de publicação
Patterns of drug prescription in a geriatric evaluation and management unit as compared with the general medical wards: A randomised study	Intervenção não é Multicomponente
Minimum data set for research studies in falls and osteoporosis. Geronto net	Não é ECR
Uphill and downhill walking in multiple sclerosis: A randomized controlled trial	População não é idoso frágil
Patient safety, cost-effectiveness, and quality of life: Reduction of delirium risk and postoperative cognitive dysfunction after elective procedures in older adults - Study protocol for a stepped-wedge cluster randomized trial (PAWEL Study)	Não é ECR
Prevalence of geriatric syndromes and impact on clinical and functional outcomes in older patients with acute cardiac diseases	Não é ECR
Sedentary behaviour, physical activity, and sarcopenia among older adults in the TSHA: isotemporal substitution model	Não é ECR
Effects of Twice-Weekly Intense Aerobic Exercise in Early Subacute Stroke: A Randomized Controlled Trial	População não é idoso frágil
Aquatic exercise for better living on land: Impact of shallow-water exercise on older Japanese women for performance of Activities of Daily Living (ADL)	Intervenção não é Multicomponente
Walking and postural balance in adults with severe short stature due to isolated gh deficiency	Não é ECR
Effect of flywheel resistance training on balance performance in older adults. A randomized controlled trial	População não é idoso frágil
The effect of multifactorial intervention programs on health behavior and symptom control among community-dwelling overweight older adults with knee osteoarthritis	População não é idoso frágil
Tai chi and yoga in residential aged care: Perspectives of participants: A qualitative study	Não é ECR
Time-course of health-related adaptations in response to combined training in hypertensive elderly: Immune and autonomic modulation interactions	Não é ECR
Failure to thrive in older adults	Não é ECR
Geriatric targeting criteria as predictors of survival and health care utilization	Não é ECR
Comparison two-year effects of once-weekly and twice-weekly water exercise on health-related quality of life of community-dwelling frail elderly people at a day-service facility	Intervenção não é Multicomponente
Reduction in fear of falling through intense tai chi exercise training in older, transitionally frail adults	Intervenção não é Multicomponente
Falls, sarcopenia, and growth in early life: Findings from the hertfordshire cohort study	Não é ECR
Promoting physical activity in sedentary elderly Malays with type 2 diabetes: A protocol for randomised controlled trial	Não é ECR
Effectiveness of personalized feedback alone or combined with peer support to improve physical activity in sedentary older Malays with type 2 diabetes: A randomized controlled trial	População não é idoso frágil
The value of Comprehensive geriatric assessment	Não é ECR
Risk reduction of falls and fractures, reduction of back pain and safety in elderly high risk patients receiving combined therapy with alfacalcidol and alendronate: A prospective study	População não é idoso frágil
Alfacalcidol improves muscle power, muscle function and balance in elderly patients with reduced bone mass	Não é ECR
Combining exergame training with omega-3 fatty acid supplementation: Protocol for a randomized controlled study assessing the effect on neuronal structure/function in the elderly brain	Não é ECR
Factors associated with use of restraints on older adults with home care: A secondary analysis of a cross-sectional survey study	Não é ECR
German health interview and examination survey for adults (DEGS) - Design, objectives and implementation of the first data collection wave	Não é ECR
Attrition in an exercise intervention: A comparison of early and later dropouts	Intervenção não é Multicomponente

Base de Dados: Scopus. Continuação

Título	Motivo
Patient empowerment improved Perioperative quality of care in cancer patients aged > 65 Years - a randomized controlled trial	População não é idoso frágil
Structural quality indicators to support quality of care for older people with cognitive impairment in emergency departments	Não é ECR
Interactive cognitive-motor step training improves cognitive risk factors of falling in older adults - A randomized controlled trial	Intervenção não é Multicomponente
Influence of skeletal muscles on the risk of falling in old age	Não é ECR
Improved hospital care for elderly patients: Guidance on vulnerability and goal assessment	Não é ECR
Haloperidol versus placebo for delirium prevention in acutely hospitalised older at risk patients: A multi-centre double-blind randomised controlled clinical trial	População não é idoso frágil
Falls prevention for community health workers: Strategies and Actions for Independent Living (SAIL)	População não é idoso frágil
Treadmill training with HAL exoskeleton-A novel approach for symptomatic therapy in patients with limb-girdle muscular dystrophy-preliminary study	População não é idoso frágil
Valid and reliable instruments for the clinical assessment of the effect of ankle-foot orthoses on balance	Não é ECR
Falls in the elderly: Knowing to act	Não é ECR
The effect of a stability and coordination training programme on balance in older adults with cardiovascular disease: a randomised exploratory study	População não é idoso frágil
Influence of cognitive impairment on fall risk among elderly nursing home residents	Não é ECR
Can we manage frailty at individual level by the use of information and communication technologies: A narrative literature review	Não é ECR
High Intensity Interval Training Improves Physical Performance and Frailty in Aged Mice	População não é idoso frágil
Physical Exercise as complementary treatment in prostate cancer	População não é idoso frágil
Quality of life and prostate cancer: A progressive resistance strength program	População não é idoso frágil
Short- and long-term functional outcome of hospitalized older adults with community-acquired pneumonia	População não é idoso frágil
Epidemiology of Sarcopenia: Determinants Throughout the Lifecourse	Não é ECR
A Randomized Trial Comparing Telemedicine Case Management with Usual Care in Older, Ethnically Diverse, Medically Underserved Patients with Diabetes Mellitus: 5 Year Results of the IDEATel Study	População não é idoso frágil
Innovative Exercise as an Intervention for Older Adults with Knee Osteoarthritis: A Pilot Feasibility Study	População não é idoso frágil
Independence: A new reason for recommending regular exercise to your patients	Não é ECR
A simple tool predicted probability of falling after aged care inpatient rehabilitation	Não é ECR
Incidence of Disability in Frail Older Persons With or Without Slow Walking Speed	Não é ECR
Relationship between subjective fall risk assessment and falls and fall-related fractures in frail elderly people	Não é ECR
Which neuromuscular or cognitive test is the optimal screening tool to predict falls in frail community-dwelling older people?	Não é ECR
Specific effects of balance and gait exercises on physical function among the frail elderly	Intervenção não é Multicomponente
Effects of movement music therapy with a percussion instrument on physical and frontal lobe function in older adults with mild cognitive impairment: a randomized controlled trial	População não é idoso frágil
Evaluation of an Exercise Program for Older Adults in a Residential Environment	Não é ECR
Post-polio Syndrome: More than just a lower motor neuron disease	Não é ECR
Using the RE-AIM Framework to translate a research-based falls prevention intervention into a community-based program: Lessons Learned	Não é ECR
Disseminating the Otago exercise program in the United States: Perceived and actual physical performance improvements from participants	Não é ECR
Predicting the probability for falls in community-dwelling older adults	Não é ECR
The effect of multidimensional exercises on balance, mobility, and fall risk in community-dwelling older adults	Não é ECR
The effect of primary total knee arthroplasty on the incidence of falls and balance-related functions in patients with osteoarthritis	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
Educating staff working in long-term care about delirium: The Trojan horse for improving quality of care?	Não é ECR
Fall prevention in a primary care setting - The effects of a targeted complex exercise intervention in a cluster randomized trial	População não é idoso frágil
Fall incidence in frail older women after individualized visual feedback-based balance training	Intervenção não é Multicomponente
Training of balance under single- and dual-task conditions in older adults with balance impairment	População não é idoso frágil
Balance, coordination and agility of older individuals submitted to physical resisted exercises practice	População não é idoso frágil
Effects of a multimodal exercise program in pedal dexterity and balance: Study with Portuguese older adults of different contexts	População não é idoso frágil
Wii-based exercise program to improve physical fitness, motor proficiency and functional mobility in adults with Down syndrome	População não é idoso frágil
Resistance Training with Instability for Patients with Parkinson's Disease	População não é idoso frágil
Evaluation of a community-based exercise program for elderly Korean immigrants	Não é ECR
Correlation between nutritional status and comprehensive physical performance measures among older adults with undernourishment in residential institutions	Não é ECR
Strength and contractile properties are similar between persons with type 2 diabetes and age-, weight-, gender- and physical activity-matched controls	Não é ECR
Effects of a Whole body vibration (WBV) exercise intervention for institutionalized older people: A randomized, multicentre, parallel, clinical trial	Intervenção não é Multicomponente
What is the extent and quality of documentation and reporting of fidelity to implementation strategies: A scoping review	Não é ECR
Effect of in-hospital comprehensive geriatric assessment (CGA) in older people with hip fracture. the protocol of the Trondheim Hip Fracture Trial	População não é idoso frágil
Medisinske funn i en tverrfaglig geriatrisk fallpoliklinikk	Não é ECR
Unravelling complex primary-care programs to maintain independent living in older people: a systematic overview	Não é ECR
Effects of biodensity training and power plate whole-body vibration on strength, balance, and functional independence in older adults	População não é idoso frágil
Physiological improvements and health benefits during an exercise-based comprehensive rehabilitation program in medically complex patients	População não é idoso frágil
Fit and Strong! Plus: Design of a comparative effectiveness evaluation of a weight management program for older adults with osteoarthritis	População não é idoso frágil
Effect of aerobic exercise on physical performance in patients with Alzheimer's disease	População não é idoso frágil
Associations between physical function, dual-task performance and cognition in patients with mild Alzheimer's disease	População não é idoso frágil
Effect of a 10-week traditional dance program on static and dynamic balance control in elderly adults	Intervenção não é Multicomponente
Effects of different types of exercise on muscle mass, strength, function and well-being in elderly	População não é idoso frágil
The geriatric patient: Use of acute geriatrics units in the emergency care of elderly patients in France	Não é ECR
Combined exercise reduces arterial stiffness, blood pressure, and blood markers for cardiovascular risk in Postmenopausal women with hypertension	População não é idoso frágil
Examination of the effects of an exercise program for community-dwelling elderly people: Statistical analysis of a secondary prevention measure implemented in kagoshima-shi	População não é idoso frágil
A taxonomy and economic consequences of nursing home falls	Não é ECR
Swiss ball exercises improves muscle strength and walking performance in ankylosing spondylitis: a randomized controlled trial	População não é idoso frágil
Case management and functional outcome in persons aged 65 years and over with hip fracture	População não é idoso frágil
LIFELAX - diet and LIFeStyle versus LAXatives in the management of chronic constipation in older people: Randomised controlled trial	População não é idoso frágil

Base de Dados: Scopus. Continuação

Título	Motivo
Effects of a population-based, person-centred and integrated care service on health, wellbeing and self-management of community-living older adults: A randomised controlled trial on Embrace	Intervenção não é Multicomponente
Impairment reduction in older dizzy people in primary care: Study protocol for a cluster randomised controlled trial	Não é ECR
Protocol for the PREHAB study - Pre-operative Rehabilitation for reduction of Hospitalization after coronary Bypass and valvular surgery: A randomised controlled trial	Não é ECR
The application of whole-body vibration in physiotherapy - A narrative review	Não é ECR
Long-term group exercise for people with parkinson's disease: A feasibility study	População não é idoso frágil
The effects of 6 months of progressive high effort resistance training methods upon strength, body composition, function, and wellbeing of elderly adults	População não é idoso frágil
The effectiveness of regular physical activity and exercise in the prevention and treatment of cognitive impairment and early Alzheimer's disease	População não é idoso frágil
Cardiac rehabilitation for the elderly: Qi Gong and group discussions	Não é ECR
Assessment of Disease Consequences in Rheumatoid Arthritis: A Survey of Methods Classified According to the International Classification of Impairments, Disabilities, and Handicaps	Não é ECR
Handgrip Strength in Old and Very Old Adults: Mood, Cognition, Function, and Mortality	Não é ECR
Prospective study of falls and risk factors for falls in adults with advanced cancer	Não é ECR
Exploring improvement plans of fourteen European integrated care sites for older people with complex needs	Não é ECR
Understanding and ameliorating frailty in the elderly	Não é ECR
Effects of resistance training and dietary changes on physical function and body composition in overweight and obese older adults	População não é idoso frágil
The effectiveness of Robot-Assisted Gait Training versus conventional therapy on mobility in severely disabled progressive Multiple sclerosis patients (RAGTIME): Study protocol for a randomized controlled trial	Não é ECR
A task-oriented circuit training in multiple sclerosis: A feasibility study	População não é idoso frágil
Management of frailty at individual level: Narrative review of physical activity from the European perspective of joint action on frailty - JA advantage	Não é ECR
Comprehensive geriatric assessment in the acute care hospital and in the ambulatory setting	Não é ECR
Effect of cognitive-only and cognitive-motor training on preventing falls in community-dwelling older people: Protocol for the smart±step randomised controlled trial	Não é ECR
Effect of whole-body vibration on balance using posturography and balance tests in postmenopausal women	População não é idoso frágil
Measuring the "Sandwich": Care for Children and Adults in the American Time Use Survey 2003–2012	Não é ECR
Comprehensive geriatric assessment, multifactorial interventions and nurse-led care coordination to prevent functional decline in community-dwelling older persons: Protocol of a cluster randomized trial	Não é ECR
Identification of seniors at risk — primary care: a validated questionnaire predicting functional decline	Não é ECR
Cost-effectiveness of nurse-led multifactorial care to prevent or postpone new disabilities in community-living older people: Results of a cluster randomized trial	Multiplicidade de publicação
Effects of nurse-led multifactorial care to prevent disability in community-living older people: Cluster randomized trial	Intervenção não é Multicomponente
Older persons with signs of frailty in a home-based physical exercise intervention: baseline characteristics of an RCT	Não é ECR
Endurance exercise and selective breeding for longevity extend Drosophila healthspan by overlapping mechanisms	População não é idoso frágil
Effects of muscle strength training and testosterone in frail elderly males	Intervenção não é Multicomponente
Effects of muscle strength training and megestrol acetate on strength, muscle mass, and function in frail older people	Intervenção não é Multicomponente
Feasibility and outcome of an individualized Tai Chi program for improving balance and strength in the elderly: A pilot study	Intervenção não é Multicomponente

Base de Dados: Scopus. Continuação

Título	Motivo
The effects of endurance training in persons with a hereditary myosin myopathy	População não é idoso frágil
Feasibility, safety and preliminary evidence of the effectiveness of a home-based exercise programme for older people with Alzheimer's disease: A pilot randomized controlled trial	População não é idoso frágil
The relationship between the subjective risk rating of specific tasks and falls in frail elderly people	Não é ECR
Beneficial Effect of Intradialytic Electrical Muscle Stimulation in Hemodialysis Patients: A Randomized Controlled Trial	População não é idoso frágil
The Effects of Mold-Fermented Cheese on Brain-Derived Neurotrophic Factor in Community-Dwelling Older Japanese Women With Mild Cognitive Impairment: A Randomized, Controlled, Crossover Trial	População não é idoso frágil
Absolute reliability of measurements of muscle strength and physical performance measures in older people with high functional capacities	Não é ECR
Effects of maximal isometric and isokinetic resistance training on strength and functional mobility in older adults	População não é idoso frágil
Delirium - A common complication of severe pathological conditions	Não é ECR
Autonomy and care for the frail elderly. A one-year project identifies effective interventions for congregate housing residents	Não é ECR
Guideline for Prevention of Nosocomial Pneumonia	Não é ECR
Psychological effects of exercise on community-dwelling older adults	População não é idoso frágil
Comparative pilot study examining the effect of elongation training versus conventional physical therapy on day rehabilitation service users	População não é idoso frágil
Passive and active exercises are similarly effective in elderly nursing home residents	Intervenção não é Multicomponente
Effect of the body weight support associated to treadmill approach in parkinson disease	População não é idoso frágil
Psychometric properties of the activities-specific balance confidence scale and the survey of activities and fear of falling in older women	Não é ECR
Baseline comorbidity associated with the short-term effects of exercise intervention on quality of life in the japanese older population: An observational study	Não é ECR
Self-reported home exercise and younger age predict improved health-related quality of life among community-dwelling elderly participants in a three-month group exercise class	Não é ECR
Geriatric medicine in the emergency department	Não é ECR
Feasibility of a community-based functional power training program for older adults	Intervenção não é Multicomponente
Effects of Japanese drum exercise on depression and physical function in community-dwelling older women	Intervenção não é Multicomponente
Environmental and physical factors predisposing middle-aged and older Japanese adults to falls and fall-related fractures in the home	Não é ECR
Shoe-fit is correlated with exercise tolerance in community-dwelling elderly people	Não é ECR
Evaluation of Tai Chi Yunshou exercises on community-based stroke patients with balance dysfunction: A study protocol of a cluster randomized controlled trial	Não é ECR
A daily multidisciplinary assessment of older adults undergoing elective colorectal cancer surgery is associated with reduced delirium and geriatric syndromes	Não é ECR
An exploration of risk for recurrent falls in two geriatric care settings	Não é ECR
Physical impairments in cognitively impaired older people: Implications for risk of falls	Não é ECR
Study protocol of a randomised controlled trial to examine the impact of a complex intervention in pre-frail older adults	Não é ECR
The effects of aging on muscle strength, BMI, BF% and VO ₂ MAX of healthy Iranian males	Não é ECR
The effects of aging on hand grip strength in the adult Iranian population	Não é ECR
Effect of square-stepping exercise and basic exercises on functional fitness of older adults	População não é idoso frágil
Progressive load training for the quadriceps muscle associated with proprioception exercises for the prevention of falls in postmenopausal women with osteoporosis: A randomized controlled trial	População não é idoso frágil
The health benefits of a physical activity program for older adults living in congregate housing	Não é ECR
Protein supplementation improves lean body mass in physically active older adults: a randomized placebo-controlled trial	Intervenção não é Multicomponente

Base de Dados: Scopus. Continuação

Título	Motivo
A novel vibration-induced exercise paradigm improves fitness and lipid metabolism of <i>Caenorhabditis elegans</i>	População não é idoso frágil
Geriatrics inpatients in RIPAS hospital, brunei: Patient characteristics and rehabilitation needs	Não é ECR
Clinical and biomechanical measures of balance as fall predictors in ambulatory nursing home residents	Não é ECR
Fall prevention in frail elderly nursing home residents: a challenge to case management: part I	Não é ECR
Fall prevention in frail elderly nursing home residents: a challenge to case management: part II	Não é ECR
Physical training as core component of multimodal treatment of older frail people—study protocol of a randomized controlled pilot study	Não é ECR
Sensitivity of Tinetti's balance and gait assessment in geriatric hospital patients - Aspects of clinical relevance and quality assurance	Não é ECR
Treatment of delirium in old age	Não é ECR
Physical therapy intervention with the geriatric client in the nursing home	Não é ECR
Falls and Cognitive Training 2 (FaCT2) study protocol: A randomised controlled trial exploring cognitive training to reduce risk of falls in at-risk older adults	Não é ECR
Study protocol: Rehabilitation including social and physical activity and education in children and teenagers with cancer (RESPECT)	Não é ECR
Risk factors for mortality in middle-aged women	Não é ECR
Identifying older people at high risk of future falls: Development and validation of a screening tool for use in emergency departments	Não é ECR
The comparative ability of eight functional mobility tests for predicting falls in community-dwelling older people	Não é ECR
Handgrip strength does not represent an appropriate measure to evaluate changes in muscle strength during an exercise intervention program in frail older people	Não é ECR
Rehabilitation interventions with deconditioned older adults following an acute hospital admission: A systematic review	Não é ECR
Occupational therapy inpatient rehabilitation interventions with deconditioned older adults following an acute hospital admission: A Delphi study	Intervenção não é Multicomponente
Comparison of time-matched aerobic, resistance, or concurrent exercise training in older adults	Intervenção não é Multicomponente
Cost analysis of an exercise program for older women with respect to social welfare and healthcare costs: A pilot study	Intervenção não é Multicomponente
Preventing falls in elderly persons	Não é ECR
Effect of a restorative model of posthospital home care on hospital readmissions	População não é idoso frágil
The end of the disease era	Não é ECR
Validity of the EASYCare Standard 2010 assessment instrument for self-assessment of health, independence, and well-being of older people living at home in Poland	Não é ECR
Strength and balance training for adults with peripheral neuropathy and high risk of fall: Current evidence and implications for future research	População não é idoso frágil
Where do we stand with randomized clinical trials?	Não é ECR
Aging, disease and the quality of life in old age: Which strategies work best?	Não é ECR
Development of an exercise program for older adults: Pre-exercise testing, exercise prescription and program maintenance	Não é ECR
The falling risk and physical fitness in older people	Não é ECR
Effects of six weeks of detraining on retention of functional fitness of old people after nine weeks of multicomponent training	População não é idoso frágil
Strategies to implement community guidelines on nutrition and their long-term clinical effects in nursing home residents	Não é ECR
Motor function in adults living with HIV	Não é ECR
Effects of an Exercise Intervention in Frail Older Patients with Chronic Obstructive Pulmonary Disease Hospitalized due to an Exacerbation: A Randomized Controlled Trial	Intervenção não é Multicomponente
Effects of balance exercises on balance abilities of community-dwelling older women; a randomized controlled trial	Intervenção não é Multicomponente

Título	Motivo
Effects of training and detraining on the static and dynamic balance in elderly fallers and non-fallers: A pilot study	População não é idoso frágil
The contribution of Nintendo Wii Fit series in the field of health: A systematic review and meta-analysis	Não é ECR
Effect of a multifactorial fall-and-fracture risk assessment and management program on gait and balance performances and disability in hospitalized older adults: A controlled study	População não é idoso frágil
Distinctive effects of aerobic and resistance exercise modes on neurocognitive and biochemical changes in individuals with mild cognitive impairment	População não é idoso frágil
Developing and testing the effectiveness of a novel health qigong for frail elders in Hong Kong: A preliminary study	Intervenção não é Multicomponente
Nurse' prediction prevention and management on post-operative delirium in geriatric patients with hip fracture: The development of a protocol to guide care	Não é ECR
Effect of Two Frequencies of Whole-Body Vibration Training on Balance and Flexibility of the Elderly: A Randomized Controlled Trial	Intervenção não é Multicomponente
The effects of a twenty-four-week aquatic training program on muscular strength performance in healthy elderly women	População não é idoso frágil
Effects of whole-body vibration exercise on muscular strength and power, functional mobility and self-reported knee function in middle-aged and older Japanese women with knee pain	População não é idoso frágil
Set-Shifting Ability Is Associated with Gray Matter Volume in Older People with Mild Cognitive Impairment	Não é ECR
The effects of toe grip training on physical performance and cognitive function of nursing home residents	Intervenção não é Multicomponente
Risk of falls and drug use in patients over 65 years of age. The PYCAF study	Não é ECR
Risk factors of falls in community dwelling active elderly	Não é ECR
Effects of a new intervention based on the Health at Every Size approach for the management of obesity: The "Health and Wellness in Obesity" study	População não é idoso frágil
Effects of feldenkrais exercises on balance, mobility, balance confidence, and gait performance in community-dwelling adults age 65 and older	Intervenção não é Multicomponente
Treating Depressed Older Adults in Primary Care: Narrowing the Gap between Efficacy and Effectiveness	Não é ECR
Effects of Elastic Resistance Training on Functional Performance and Myokines in Older Women—A Randomized Controlled Trial	Intervenção não é Multicomponente
Exercise Training in Treatment and Rehabilitation of Hip Osteoarthritis: A 12-Week Pilot Trial	População não é idoso frágil
Association of anticholinergic drugs with hospitalization and mortality among older cardiovascular patients: A prospective study	Não é ECR
Effects of a low-resistance, interval bicycling intervention in Parkinson's Disease	População não é idoso frágil
Characterization of the Effects of a Six-Month Dancing as Approach for Successful Aging	Intervenção não é Multicomponente
Physical training as treatment of reduced functional ability in frail 75+ year-olds living at home	Desfecho não é funcionalidade
Prevalence of frailty and its association with sociodemographic and clinical characteristics, and resource utilization in a population of Singaporean older adults	Não é ECR
Physical activity as a predictor of absence of frailty in subjects with stable COPD and COPD exacerbation	População não é idoso frágil
Feasibility of Exercise Training in Cancer Patients Scheduled for Elective Gastrointestinal Surgery	População não é idoso frágil
Erythrocyte sedimentation rate and albumin as markers of inflammation are associated with measures of sarcopenia: A cross-sectional study	Não é ECR
The association between preoperative physical functioning and short-term postoperative outcomes: a cohort study of patients undergoing elective hepatic resection	Não é ECR
The Development of a Decision Tool for the Empiric Treatment of Suspected Urinary Tract Infection in Frail Older Adults: A Delphi Consensus Procedure	Não é ECR
The effectiveness of inpatient geriatric evaluation and management units: A systematic review and meta-analysis	Não é ECR

Base de Dados: Scopus. Continuação

Título	Motivo
The effect of a complementary e-learning course on implementation of a quality improvement project regarding care for elderly patients: A stepped wedge trial	População não é idoso frágil
Explaining discrepancies in self-reported quality of life in frail older people: A mixed-methods study	Não é ECR
Explaining discrepancies in self-reported quality of life in frail older people: a mixed-methods study	Não é ECR
Fewer patients undergo surgery when adding a comprehensive geriatric assessment in older patients with a hip fracture	População não é idoso frágil
New aspects of delirium in elderly patients with critical limb ischemia	Não é ECR
Process-evaluation of a home visit programme to prevent falls and mobility impairments among elderly people at risk	Não é ECR
Obstacle course training can improve mobility and prevent falls in people with intellectual disabilities	População não é idoso frágil
Risk of falling in patients with a recent fracture	Não é ECR
Strength-balance supplemented with computerized cognitive training to improve dual task gait and divided attention in older adults: A multicenter randomized-controlled trial	População não é idoso frágil
Diagnosis of frailty after a comprehensive geriatric assessment: Differences between family physicians and geriatricians	Não é ECR
Meagre evidence so far for effectiveness of in-home comprehensive geriatric assessment: A literature review	Não é ECR
The efficacy of treadmill training with and without projected visual context for improving walking ability and reducing fall incidence and fear of falling in older adults with fall-related hip fracture: a randomized controlled trial	População não é idoso frágil
Functional gait rehabilitation in elderly people following a fall-related hip fracture using a treadmill with visual context: Design of a randomized controlled trial	Não é ECR
Falls, a community care perspective	Não é ECR
Self-paced cycling improves cognition on institutionalized older adults without known cognitive impairment: A 15-month randomized controlled trial	Intervenção não é Multicomponente
The effects of multimodal exercise on cognitive and physical functioning and brain-derived neurotrophic factor in older women: A randomised controlled trial	População não é idoso frágil
Quantitative gait markers and incident fall risk in older adults	Não é ECR
The relationship between indices of muscle function and circulating anabolic hormones in healthy elderly men	Não é ECR
Fall prevention in the young old using an exoskeleton human body posturizer: a randomized controlled trial	População não é idoso frágil
Home-based video exercise intervention for community-dwelling frail older women: A randomized controlled trial	Desfecho não é funcionalidade
Health determinants and survival in nursing home residents in Europe: Results from the SHELTER study	Não é ECR
Functional decline during hospitalization in elderly patients. Benefits of admission to the geriatrics service	Não é ECR
Research into health care models in geriatrics: Proposals for the future	Não é ECR
Pearls of optimizing nutrition and physical performance of older adults undergoing cancer therapy	População não é idoso frágil
Aerobic and strength training induce changes in oxidative stress parameters and elicit modifications of various cellular components in skeletal muscle of aged rats	População não é idoso frágil
Effects of exercise training added to ongoing hormone replacement therapy on bone mineral density in frail elderly women	Intervenção não é Multicomponente
Randomised controlled trial (RCT) study design for a large-scale municipal fall prevention exercise programme in community-living older women: Study protocol for the Kuopio Fall Prevention Study (KFPS)	Não é ECR
An outpatient multifactorial falls prevention intervention does not reduce falls in High-risk elderly danes	Não é ECR
The Effect of Frailty on Outcome After Vascular Surgery	Não é ECR
Nutritional status and associations with falls, balance, mobility and functionality during hospital admission	Não é ECR

Título	Motivo
Effects of rehabilitative exercise on peripheral muscle TNF α , IL-6, IGF-I and MyoD expression in patients with COPD	População não é idoso frágil
Reducing Risk of Falling in Older People Discharged From Hospital: A Randomized Controlled Trial Comparing Seated Exercises, Weight-Bearing Exercises, and Social Visits Supervised Physical Activity and Improved Functional Capacity among Adults Living with HIV: A Systematic Review	Intervenção não é Multicomponente
Effects of physical training with the Nintendo Wii Fit Plus® and protein supplementation on musculoskeletal function and the risk of falls in pre-frail older women: Protocol for a randomized controlled clinical trial (the WiiProtein study)	Não é ECR
Physical performance is associated with working memory in older people with mild to severe cognitive impairment	Não é ECR
Executive Summary of the 2018 Joint Consensus Document on Cardiovascular Disease Prevention in Italy	Não é ECR
Medication, dizziness, and falls in hospital in-patients 75 years and older	Não é ECR
Risk factors and outcomes associated with hospital admission for dehydration	Não é ECR
Comprehensive assessment of physical functioning in bariatric surgery candidates compared with subjects without obesity	População não é idoso frágil
Nutritional strategies to attenuate muscle disuse atrophy	Não é ECR
Effects of a progressive aquatic resistance exercise program on the biochemical composition and morphology of cartilage in women with mild knee osteoarthritis: Protocol for a randomised controlled trial	Não é ECR
The Geriatric Emergency Department Intervention model of care: A pragmatic trial 11 Medical and Health Sciences 1117 Public Health and Health Services 11 Medical and Health Sciences 1110 Nursing	Não é ECR
Administration of an exercise regimen in assisted-living facilities to improve balance and activities of daily living: A pilot study	Não é ECR
The prevalence of frailty in patients admitted to hospital with vertebral fragility fractures	Não é ECR
Restraints in long-term care nursing homes for the elderly - Legal aspects and alternatives	Não é ECR
Exercise in the treatment of osteoporosis	Não é ECR
Physical-Performance Outcomes and Biomechanical Correlates from the 32-Week Yoga Empowers Seniors Study	Não é ECR
The experiences of using an anti-collision power wheelchair for three long-term care home residents with mild cognitive impairment	Não é ECR
Can treadmill-slip perturbation training reduce immediate risk of over-ground-slip induced fall among community-dwelling older adults?	População não é idoso frágil
Gait disorders in the elderly	Não é ECR
Effect of body weight-supported walking on exercise capacity and walking speed in patients with knee osteoarthritis: A randomized controlled trial	População não é idoso frágil
Do aqua-aerobics improve gait and balance in older people? a pilot study	Intervenção não é Multicomponente
Evaluation of a peer-led falls prevention program for older adults	Intervenção não é Multicomponente
Anticholinergic activity in cerebrospinal fluid and serum in individuals with hip fracture with and without delirium	Não é ECR
Balance, fear of falling, pain and gait aid use by low care older people: Pilot study	Não é ECR
The role of sports clubs in helping older people to stay active and prevent frailty: A longitudinal mediation analysis	Não é ECR
Tai Chi for vestibulopathic balance dysfunction: A case study	Não é ECR
Quadriceps muscle strength is a discriminant predictor of dependence in daily activities in nursing home residents	Não é ECR
Self-reported physical fitness in frail older persons: Reliability and validity of the self-assessment of physical fitness (SAPF)	Não é ECR
Frail institutionalized older persons: A comprehensive review on physical exercise, physical fitness, activities of daily living, and quality-of-life	Não é ECR
Interventions used in disease management programmes for patients with chronic illness which ones work? Meta-analysis of published reports	Não é ECR

Título	Motivo
Physical performance measures: An important component of the comprehensive geriatric assessment	Não é ECR
A practice-based intervention to improve primary care for falls, urinary incontinence, and dementia	Não é ECR
The development of a patient safety program across the continuum of care	Não é ECR
Family practice nurses supporting self-management in older patients with mild osteoarthritis: A randomized trial	População não é idoso frágil
Effects of task-oriented circuit class training on walking competency after stroke: A systematic review	Não é ECR
Developing an Intervention for Fall-Related Injuries in Dementia (DIFRID): An integrated, mixed-methods approach	Não é ECR
Fear of falling among community-dwelling older adults: A scoping review to identify effective evidence-based interventions	Não é ECR
Masterstroke: A pilot group stroke prevention program for community dwelling stroke survivors	População não é idoso frágil
Streamlining assessment and intervention in a falls clinic using the Timed Up and Go Test and Physiological Profile Assessments	Não é ECR
The diagnosis, prevalence and outcome of delirium in a cohort of older people with mental health problems on general hospital wards	Não é ECR
Balance-Based Torso-Weighting May Enhance Balance in Persons With Multiple Sclerosis: Preliminary Evidence	População não é idoso frágil
Randomized clinical trial of balance-based torso weighting for improving upright mobility in people with multiple sclerosis	População não é idoso frágil
Design of a randomized controlled study of a multi-professional and multidimensional intervention targeting frail elderly people	População não é idoso frágil
Exercise for preventing falls in people with cancer living in the community	Não é ECR
Patient-reported physical activity questionnaires: A systematic review of content and format	Não é ECR
A home-based intervention to improve balance, gait and self-confidence in older adults	Não é ECR
Physical therapy vs. Internet-based exercise training (PATH-IN) for patients with knee osteoarthritis: Study protocol of a randomized controlled trial	Não é ECR
Exercise for mild balance dysfunction: Research into practice	População não é idoso frágil
Pretransplant frailty is associated with decreased survival after lung transplantation	Não é ECR
Preventing frailty in older cancer survivors	População não é idoso frágil
The influence of 3 months of physical exercises and verbal stimulation on functional efficiency and use of free time in an older population under institutional care: Study protocol for a randomized controlled trial	Não é ECR
A critical pathway for the frail elderly cardiac patient	Não é ECR
Predicting functional decline and recovery for residents in veterans affairs nursing homes	Não é ECR
The effect of Tai Chi Quan and computerized balance training on postural stability in older subjects	Intervenção não é Multicomponente
Reducing frailty and falls in older persons: An investigation of Tai Chi and computerized balance training	Intervenção não é Multicomponente
Selected As the Best Paper in the 1990s: Reducing Frailty and Falls in Older Persons: An Investigation of Tai Chi and Computerized Balance Training	Intervenção não é Multicomponente
A study design to investigate the effect of intense Tai Chi in reducing falls among older adults transitioning to frailty	Não é ECR
Does this patient have delirium?: Value of bedside instruments	População não é idoso frágil
A System-Wide Analysis Using a Senior-Friendly Hospital Framework Identifies Current Practices and Opportunities for Improvement in the Care of Hospitalized Older Adults	Não é ECR
An Interdisciplinary Approach to Optimize Health Services in a Specialized Acute Care for Elders Unit	Não é ECR
Effects of balance strategy training in myasthenia gravis: A case study series	Não é ECR
A community-based exercise programme for older persons with knee pain using telemedicine	População não é idoso frágil
Successful Aging and Frailty: Opposite Sides of the Same Coin?	Não é ECR

Título	Motivo
Measurement of function in hip osteoarthritis: Developing a standardized approach for physical performance measures	Não é ECR
Whey protein supplementation and higher total protein intake do not influence bone quantity in overweight and obese adults following a 36-week exercise and diet intervention	População não é idoso frágil
Motor measures: A moving target?	Não é ECR
Functional gait assessment: Concurrent, discriminative, and predictive validity in community-dwelling older adults	Não é ECR
Association of Frailty with Recovery from Disability among Community-Dwelling Older Adults: Results from Two Large U.S. Cohorts	Não é ECR
Comparison of Telecommunication, Community, and Home-Based Tai Chi Exercise Programs on Compliance and Effectiveness in Elders at Risk for Falls	Intervenção não é Multicomponente
Seated stepping exercise in a dual-task condition improves ambulatory function with a secondary task: A randomized controlled trial	Intervenção não é Multicomponente
Multitarget stepping program in combination with a standardized multicomponent exercise program can prevent falls in community-dwelling older adults: A randomized, controlled trial	População não é idoso frágil
Fall risk factors in community-dwelling elderly who receive medicaid-supported home- and community-based care services	Não é ECR
Risk factors of falls in community-dwelling older adults: Logistic regression tree analysis	Não é ECR
Generalization of treadmill-slip training to prevent a fall following a sudden (novel) slip in over-ground walking	População não é idoso frágil
Status and Associated Factors of Frailty in Older Inpatients	Não é ECR
Evaluation of frailty and influencing factors in old people in hospital institution	Não é ECR
Characterising Long Term Care Needs among Chinese Older Adults with Cognitive Impairment or ADL Limitations	Não é ECR
Tai chi exercise for patients with chronic obstructive pulmonary disease: A pilot study	População não é idoso frágil
Tai Chi in Patients With Heart Failure With Preserved Ejection Fraction	População não é idoso frágil
Regular tai chi chuan exercise enhances functional mobility and CD4CD25 regulatory T cells	Intervenção não é Multicomponente
Tai Chi vs. combined exercise prescription: A comparison of their effects on factors related to falls	Intervenção não é Multicomponente
Intervention study using a fall prevention program to prevent functional decline of old-old elderly in a rural community	População não é idoso frágil
Three-year follow-up of the fall risk and physical function characteristics of the elderly participating in a community exercise class	Não é ECR
Score-Based and Nutrient-Derived Dietary Patterns Are Associated with Depressive Symptoms in Community-Dwelling Older Japanese: A Cross-Sectional Study	Não é ECR
The effects of a walking exercise program on fall-related fitness, bone metabolism, and fall-related psychological factors in elderly women	Intervenção não é Multicomponente
Effect of elastic band-based high-speed power training on cognitive function, physical performance and muscle strength in older women with mild cognitive impairment	População não é idoso frágil
The relationship between physical fitness and ambulatory activity in very elderly women with normal functioning and functional limitations	Não é ECR
Muscle quality characteristics of muscles in the thigh, upper arm and lower back in elderly men and women	Não é ECR
Effects of 10-week walking and walking with home-based resistance training on muscle quality, muscle size, and physical functional tests in healthy older individuals	População não é idoso frágil
Simple, novel physical activity maintains proximal femur bone mineral density, and improves muscle strength and balance in sedentary, postmenopausal Caucasian women	População não é idoso frágil
Frailty and its contributory factors in older adults: A comparison of two Asian Regions (Hong Kong and Taiwan)	Não é ECR
Sarcopenia in older people	Não é ECR
Reliability and validity of the Turkish version of the Performance-Oriented Mobility Assessment I	Não é ECR
Daily Physical Activity Predicts Frailty Development Among Community-Dwelling Older Japanese Adults	Não é ECR

Título	Motivo
Eldercare demands, mental health, and work performance: The moderating role of satisfaction with eldercare tasks	Não é ECR
Physical rehabilitation regimens designed to aid the frail elderly in executing postural shifts safely and coping after incidental falls	Multiplicidade de publicação
Application of two structured rehabilitation regimens in the frail octogenarians (over 85) with functional disorders	Intervenção não é Multicomponente
Assessment of potential risk factors for falls in osteoporotic elderly versus individual mobility considerations	Não é ECR
Assessment of potential risk factors for falls in the frail elderly versus individual mobility considerations	Não é ECR
Lifelong physical exercise delays age-associated skeletal muscle decline	Não é ECR
Effects of inpatient physical therapy on the functional status of elderly individuals	Não é ECR
Seniors Falls Investigative Methodology (SFIM): A systems approach to the study of falls in seniors	Não é ECR
Reduction of functional deterioration during hospitalization in an acute geriatric unit	Não é ECR
Interventions for preventing falls in the elderly in institutions: A review	Não é ECR
Impact of Exercise on Hemophilia	Não é ECR
European consortium diabetes and older people - Individual treatment is necessary	Não é ECR
Effect of whole-body vibration exercise on mobility, balance ability and general health status in frail elderly patients: A pilot randomized controlled trial	Intervenção não é Multicomponente
Body Mass Index, Falls, and Hip Fractures among Nursing Home Residents	Não é ECR
Effects of Tai Chi and multimodal exercise training on movement and balance function in mild to moderate idiopathic Parkinson disease	População não é idoso frágil
The effects of differing resistance training modes on the preservation of bone mineral density in postmenopausal women: a meta-analysis	Não é ECR
Differences in Functional Fitness among Older Adults with and Without Risk of Falling	Não é ECR
Anticholinergic burden is associated with recurrent and injurious falls in older individuals	Não é ECR
Receptivity to protective garments among the elderly	Não é ECR
Feasibility and effectiveness of home-based exercise programs on physical performance and health-related quality of life of the older people dwelling on an isolated, doctor-less island	População não é idoso frágil
Effect of a physiotherapy exercise program on physical performance in institutionalized elderly	População não é idoso frágil
Effects of a randomized controlled recurrent fall prevention program on risk factors for falls in frail elderly living at home in rural communities	Desfecho não é funcionalidade
Effects of exercise and milk fat globule membrane (MFGM) supplementation on body composition, physical function, and hematological parameters in community-dwelling frail Japanese women: A randomized double blind, placebo-controlled, follow-up trial	Intervenção não é Multicomponente

MOTIVO	Nº
Não é ECR	908
População não é idoso frágil	404
Desfecho não é Funcionalidade	13
Multiplicidade de Publicação	6
Intervenção não é Multicomponente	180
TOTAL	1511

Base de Dados: ScienceDirect.

Título	Motivo
Effects of Hydrotherapy in Static and Dynamic Balance Among Elderly Men	População não é idoso frágil
Associations between frailty and serum N-terminal propeptide of type I procollagen and 25-hydroxyvitamin D in older Spanish women: The Toledo Study for Healthy Aging	Não é ECR
Comprehensive Evaluation of the Older Woman	Não é ECR
Canadian Cardiovascular Society consensus conference recommendations on heart failure 2006: Diagnosis and management	Não é ECR
ACCF/AHA 2011 Expert Consensus Document on Hypertension in the Elderly: A Report of the American College of Cardiology Foundation Task Force on Clinical Expert Consensus Documents Developed in Collaboration With the American Academy of Neurology, American Geriatrics Society, American Society for Preventive Cardiology, American Society of Hypertension, American Society of Nephrology, Association of Black Cardiologists, and European Society of Hypertension	Não é ECR
Changes of stress proteins and oxidative stress indices with progressive exercise training in elderly men	População não é idoso frágil
Prehabilitation	Não é ECR
Exercise and aging: Issues for the Practitioner	Não é ECR
The brain of the elderly diabetic patient	Não é ECR
Optimisation of protein-fortified beef patties targeted to the needs of older adults: a mixture design approach	Não é ECR
Development of novel fortified beef patties with added functional protein ingredients for the elderly	Não é ECR
Effectiveness of a Group Exercise Program in a Long-Term Care Facility: A Randomized Pilot Trial	Intervenção não é Multicomponente
Ability of different screening tools to predict positive effect on nutritional intervention among the elderly in primary health care	População não é idoso frágil
Therapeutic Interventions for Frail Elderly Patients: Part II. Ongoing and Unpublished Randomized Trials	Não é ECR
Rheumatology and osteoporosis (RETOSS): a vision of postmenopausal osteoporosis in rheumatology departments throughout Spain	Não é ECR
Video Game-Based Exercises for Balance Rehabilitation: A Single-Subject Design	População não é idoso frágil
Therapeutic Interventions for Frail Elderly Patients: Part I. Published Randomized Trials	Não é ECR
Changes in balance, functional performance and fall risk following whole body vibration training and vitamin D supplementation in institutionalized elderly women. A 6 month randomized controlled trial	Intervenção não é Multicomponente
Exercise Training for Coronary Artery Disease in the Elderly	Não é ECR
Hierarchical components of physical frailty predicted incidence of dependency in a cohort of elderly women	Não é ECR
Effect of Anabolic Hormones and Insulin-like Growth Factor- α on Muscle Mass and Strength in Elderly Persons	População não é idoso frágil
Rationale for anabolic therapy to facilitate rehabilitation in chronic obstructive pulmonary disease	Não é ECR
The epidemiology and pathogenesis of osteoporosis	Não é ECR
An Obligation for Primary Care Physicians to Prescribe Physical Activity to Sedentary Patients to Reduce the Risk of Chronic Health Conditions	Não é ECR
A Short-Term, Multicomponent Infection Control Program in Nursing Homes: A Cluster Randomized Controlled Trial	Não é ECR
Feasible modalities and long-term effects of elastic band exercises in nursing home older adults in wheelchairs: A cluster randomized controlled trial	Intervenção não é Multicomponente
La balnéothérapie au sein de la littérature: Applications thérapeutiques	Não é ECR
El tratamiento fisioterapéutico ¿es efectivo en el mantenimiento físico y en la reducción del declive cognitivo de las demencias?	Desfecho não é Funcionalidade
A primary care checklist for effective family management	Não é ECR
Aerobic Plus Resistance Exercise in Obese Older Adults Improves Muscle Protein Synthesis and Preserves Myocellular Quality Despite Weight Loss	Não é ECR
Endoscopic Retrograde Cholangiopancreatography Findings and Endoscopic Sphincterotomy for Cholangitis and Pancreatitis	Não é ECR

Título	Motivo
The impact of an emergency department nursing intervention on continuity of care, self-care capacities and psychological symptoms: Secondary outcomes of a randomized controlled trial	População não é idoso frágil
Nursing intervention for the quality of life of diabetic adults	População não é idoso frágil
Osteoporosis	Não é ECR
Exercise, Nutrition, and Aging	Não é ECR
Avoiding Potential Harm by Improving Appropriateness of Urinary Catheter Use in 18 Emergency Departments	População não é idoso frágil
Pharmacist-based intervention to prepare residents of assisted-living facilities for emergencies	Não é ECR
PAIN MANAGEMENT	Não é ECR
Methodology of an ongoing, randomized controlled trial to prevent falls through enhanced pharmaceutical care	Intervenção não é Multicomponente
Caídas en la persona mayor y el papel de la geriatría	Não é ECR
Physical Restraints in the Acute Care Setting: Issues and Future Direction	Não é ECR
Effectiveness of Exergaming Training in Reducing Risk and Incidence of Falls in Frail Older Adults With a History of Falls	Intervenção não é Multicomponente
Effect of strength exercise with elastic bands and aerobic exercise in the treatment of frailty of the elderly patient with type 2 diabetes mellitus	Intervenção não é Multicomponente
The Effect of Exercise Training on Cognitive Function in Older Adults with Mild Cognitive Impairment: A Meta-analysis of Randomized Controlled Trials	Não é ECR
Prévention du syndrome confusionnel dans un service de médecine interne gériatrique	Desfecho não é Funcionalidade
Toward a conceptual definition of frail community dwelling older people	Não é ECR
Prevención de la dependencia en las personas mayores	Não é ECR
Resultados asistenciales de las unidades geriátricas de agudos. Revisión sistemática	Não é ECR
Contribution of the geriatrician to the management of cancer in older patients	Não é ECR
The Effect of Walking Speed on Lower-Extremity Joint Powers Among Elderly Adults Who Exhibit Low Physical Performance	Não é ECR
Uso prudente de antibióticos y propuestas de mejora en los centros sociosanitarios	Não é ECR
Validez y confiabilidad de la Escala de Tinetti para población colombiana	Não é ECR
Chronic kidney disease and recurrent falls in nursing home residents: A retrospective cohort study	Não é ECR
The influence of Tai Chi training on the center of pressure trajectory during gait initiation in older adults	Intervenção não é Multicomponente
Chiropractic Care for Older Adults: Effects on Balance, Dizziness, and Chronic Pain	Não é ECR
Feasibility study of short-term effects of chiropractic manipulation on older adults with impaired balance	Intervenção não é Multicomponente
Best Practices Recommendations for Chiropractic Care for Older Adults: Results of a Consensus Process	Não é ECR
Postural balance and physical activity in daily life (PADL) in physically independent older adults with different levels of aerobic exercise capacity	Não é ECR
Etiology and prevention of age-related hip fractures	Não é ECR
Combining nutrition and exercise to optimize survival and recovery from critical illness: Conceptual and methodological issues	Não é ECR
Frequency and circumstances of falls in people with inclusion body myositis: a questionnaire survey to explore falls management and physiotherapy provision	Não é ECR
Why, Oh Why, Are So Many Older Adults Not Drinking Enough Fluid?	Não é ECR
Prevalence and Outcomes of Caregiving After Prolonged (≥ 48 Hours) Mechanical Ventilation in the ICU	Não é ECR
Targets for Glycemic Control	Não é ECR
Exercise Rehabilitation After Stroke	Não é ECR
Effects of weekly and fortnightly therapeutic exercise on physical function and health-related quality of life in individuals with hip osteoarthritis	População não é idoso frágil
The effect of social deprivation on fragility fracture of the distal radius	Não é ECR
Exercise is for everyone	Não é ECR
Lower extremity muscle activity during deep-water running on self-determined pace	Não é ECR

Base de Dados: ScienceDirect. Continuação

Título	Motivo
Effects of physical activity on evolution of proximal femur structure in a younger elderly population	População não é idoso frágil
Massokinésithérapie dans la conservation de l'activité ambulatoire (marche, transferts, équilibre) des malades âgés	Intervenção não é Multicomponente
Does late-life physical activity or exercise prevent or minimize disablement?: A critical review of the scientific evidence	Não é ECR
Resistance exercise training increases the expression of irisin concomitant with improvement of muscle function in aging mice and humans	População não é idoso frágil
Physical activity interventions targeting older adultsThis paper was a background paper for the Cooper Institute Conference Series Physical Activity Interventions, an ACSM Specialty Conference.: A critical review and recommendations	Não é ECR
A Multifactorial Approach to Reducing Injurious Falls	Não é ECR
Exercise for older adult inpatients with acute myelogenous leukemia: A pilot study	População não é idoso frágil
Vitamin D status and resistance exercise training independently affect glucose tolerance in older adults	População não é idoso frágil
Physical and Occupational Therapy in the Treatment of Patients With Multiple Sclerosis	Não é ECR
Influenza: Virology, Epidemiology, Disease, and Prevention	Não é ECR
The Association of Late-Life Depression and Anxiety With Physical Disability: A Review of the Literature and Prospectus for Future Research	Não é ECR
Reliability, Validity, and Responsiveness of a 2-Min Walk Test To Assess Exercise Capacity of COPD Patients	Não é ECR
Troubles cognitifs et chutes : l'expérience de la consultation multidisciplinaire de la chute de Lille	Não é ECR
Multidisciplinary management in geriatric day-hospital is beneficial for elderly fallers: A prospective study of 28 cases	Não é ECR
Rational Approaches to Osteoporosis Therapy	Não é ECR
The Relationship Between COPD and Frailty: A Systematic Review and Meta-Analysis of Observational Studies	Não é ECR
Pneumonia	Não é ECR
Growth hormone secretion in the elderly: Ageing and the somatopause	Não é ECR
Official Positions for FRAX® Clinical Regarding Falls and Frailty: Can Falls and Frailty be Used in FRAX®?: From Joint Official Positions Development Conference of the International Society for Clinical Densitometry and International Osteoporosis Foundation on FRAX®	Não é ECR
The International Collaboration of Orthopaedic Nursing (ICON): Best practice nursing care standards for older adults with fragility hip fracture	Não é ECR
Diabetes in Older People	Não é ECR
Diabetes in the Elderly	Não é ECR
Exercise training in the debilitated aged: Strength and functional outcomes	Não é ECR
Hip Fracture Reduction in Northwest Arkansas Nursing Homes	Não é ECR
Nursing staff attitudes of hip protector use in long-term care, and differences in characteristics between adherent and non-adherent residents: A survey and observational study	Não é ECR
Fatigue and therapeutic exercise	Não é ECR
A LIFETIME OF FITNESS: Exercise in the Perimenopausal and Postmenopausal Woman	Não é ECR
The effects of different types of physical exercise on physical and cognitive function in frail institutionalized older adults with mild to moderate cognitive impairment. A randomized controlled trial	Intervenção não é Multicomponente
Ensayo clínico aleatorizado sobre la eficacia de la valoración geriátrica integral seguida de intervención en atención primaria	Intervenção não é Multicomponente
Impact of inpatient cardiac rehabilitation on Barthel Index score and prognosis in patients with acute decompensated heart failure	População não é idoso frágil
Prevention of falls in the elderly	Não é ECR
Brain-derived neurotrophic factor correlates with functional and cognitive impairment in non-disabled older individuals	Não é ECR
Nutrition and Aging	Não é ECR
Allied health care interventions and complementary therapies in Parkinson's disease	Não é ECR

Base de Dados: ScienceDirect. Continuação

Título	Motivo
Hip rate of force development and strength are impaired in females with patellofemoral pain without signs of altered gluteus medius and maximus morphology	População não é idoso frágil
Enhanced Oral Care and Health Outcomes Among Nursing Facility Residents: Analysis Using the National Long-Term Care Database in Japan	Intervenção não é Multicomponente
Circumstances of falls and fall-related injuries among frail elderly under home care in China	Não é ECR
Modifying the Environment: A Community-based Injury-Reduction Program for Elderly Residents	Não é ECR
Evaluation of Sensor Technology to Detect Fall Risk and Prevent Falls in Acute Care	Não é ECR
The management of osteoporosis	Não é ECR
A comprehensive approach to type 2 diabetes mellitus – A recommendation document	Não é ECR
Secondary Prevention of Cardiovascular Disease in Older Adults	Não é ECR
Gait in Stroke: Assessment and Rehabilitation	Não é ECR
Nutrition and Sarcopenia	Não é ECR
The role of dietary protein and vitamin D in maintaining musculoskeletal health in postmenopausal women: A consensus statement from the European Society for Clinical and Economic Aspects of Osteoporosis and Osteoarthritis (ESCEO)	Não é ECR
Experiencia en la evaluación del riesgo de caídas. Comparación entre el test de Tinetti y el Timed Up & Go	Não é ECR
Failure to Thrive, Sarcopenia, and Functional Decline in the Elderly	Não é ECR
In-hospital resistance training to encourage early mobilization for enhanced recovery programs after colorectal cancer surgery: A feasibility study	Intervenção não é Multicomponente
Reducing Indwelling Urinary Catheter Use in the Emergency Department: A Successful Quality-Improvement Initiative	Não é ECR
Las caídas en los mayores de 65 años: conocer para actuar	Não é ECR
Enfermos crónicos domiciliarios: valoración integral físico-cognitiva y caídas durante 3 años de seguimiento	Não é ECR
Urinary incontinence and prostate cancer: A rehabilitation program design	Não é ECR
Aging and productivity: some physiological issues	Não é ECR
For debate: Medical clearance: a possible inhibitor of physical activity in the elderly?	Não é ECR
Trends in Canadian thought	Não é ECR
Anterior Pituitary Function and Growth Hormone Use in the Elderly	Não é ECR
Back pain in the osteoporotic individual: A physiatric approach	Não é ECR
A multifactorial fall prevention programme in home-dwelling elderly people: A randomized-controlled trial	Intervenção não é Multicomponente
Paramedic Assessment of Older Adults After Falls, Including Community Care Referral Pathway: Cluster Randomized Trial	População não é idoso frágil
Chapter 13 Motor Expertise and Aging: The Relevance of Lifestyle to Balance	Não é ECR
The Efficacy of a Multidisciplinary Falls Prevention Clinic With an Extended Step-Down Community Program	Intervenção não é Multicomponente
Efficacy of simple home-based technologies combined with a monitoring assistive center in decreasing falls in a frail elderly population (results of the Esoppe study)	Não é ECR
Appropriateness of antibiotic prescribing in veterans with community-acquired pneumonia, sinusitis, or acute exacerbations of chronic bronchitis: A cross-sectional study	Não é ECR
Association between frailty and its individual components with the risk of falls in patients with schizophrenia spectrum disorders	Não é ECR
A supplemental report to a randomized cluster trial of a 20-week Sun-style Tai Chi for osteoarthritic knee pain in elders with cognitive impairment	Intervenção não é Multicomponente
Pearls for Treating Geriatric Patients With Coronary Heart Disease	Não é ECR
Effect of resistance-type exercise training with or without protein supplementation on cognitive functioning in frail and pre-frail elderly: Secondary analysis of a randomized, double-blind, placebo-controlled trial	Intervenção não é Multicomponente
Interventions to reduce emergency department utilisation: A review of reviews	Não é ECR
Should specialized oncogeriatric surgeons operate older unfit cancer patients?	Não é ECR
Memory health clinics—a first step to prevention	Não é ECR
Happy pills in nursing homes in Belgium: A cohort study to determine prescribing patterns and relation to fall risk	Não é ECR

Base de Dados: ScienceDirect. Continuação

Título	Motivo
Predicting postoperative delirium after vascular surgical procedures	Não é ECR
Deconditioning	Não é ECR
Examination of the Multifactorial Model of Delirium Among Long-Term Care Residents with Dementia	Não é ECR
Functional Goals and Predictors of Their Attainment in Low-Income Community-Dwelling Older Adults	Não é ECR
Community-dwelling older adults' attributions about falls	Não é ECR
Exercise Testing and Training of the Elderly Coronary Patient	Não é ECR
Cardiovascular disease in the elderly	Não é ECR
Geriatrics	Não é ECR
Caregiving for advanced chronic illness patients	Não é ECR
Oral nutritional support with or without exercise in the management of malnutrition in nutritionally vulnerable older people: A systematic review and meta-analysis	Não é ECR
Development of Evidence-Based Exercise Recommendations for Older HIV-Infected Patients	Não é ECR
Effects and mechanism of the HECT study (hybrid exercise-cognitive trainings) in mild ischemic stroke with cognitive decline: fMRI for brain plasticity, biomarker and behavioral analysis	Não é ECR
The health effects of Baduanjin exercise (a type of Qigong exercise) in breast cancer survivors: A randomized, controlled, single-blinded trial	Intervenção não é Multicomponente
The correlation between the plenitude of fall prevention programs and fall incidents in community-level: A J-MACC study	Não é ECR
HYPERLIPIDEMIA	Não é ECR
Understanding the Continuum of Palliative Care for Patients and Their Caregivers	Não é ECR
The effect of resistance exercise upon age-related systemic and local skeletal muscle inflammation	População não é idoso frágil
Effects of a physical training and nutritional intervention program in frail elderly people regarding habitual physical activity level and activities of daily living—A randomized controlled pilot study	Intervenção não é Multicomponente

MOTIVO	Nº
Não é ECR	119
População não é idoso frágil	17
Desfecho não é Funcionalidade	2
Multiplicidade de Publicação	0
Intervenção não é Multicomponente	19
TOTAL	157

Base de Dados: Web of Science

Título	Motivo
Physical therapy treatment on frailty syndrome: systematic review	Não é ECR
Exercise at 65 and Beyond	Não é ECR
Increased Load Computerized Dynamic Posturography in Prefrail and Nonfrail Community-Dwelling Older Adults	Não é ECR
A 9-Week Aerobic and Strength Training Program Improves Cognitive and Motor Function in Patients with Dementia: A Randomized, Controlled Trial	População não é idoso frágil
THE SEATTLE FICSIT MOVEIT STUDY - THE EFFECT OF EXERCISE ON GAIT AND BALANCE IN OLDER ADULTS	População não é idoso frágil
Pre-Frail Multicomponent Training Intervention project for complexity of biological signals, functional capacity and cognition improvement in pre-frail older adults: A blinded randomized controlled study protocol	População não é idoso frágil
Multicomponent exercise and the hallmarks of frailty: Considerations on cognitive impairment and acute hospitalization	Não é ECR
Geriatric hospital medicine	Não é ECR
Effects of Three Different Chair-Based Exercise Programs on People Older Than 80 Years	População não é idoso frágil
Effect of a multicomponent exercise programme (VIVIFRAIL) on functional capacity in frail community elders with cognitive decline: study protocol for a randomized multicentre control trial	Não é ECR
Changes in power and force generation during coupled eccentric-concentric versus concentric muscle contraction with training and aging	População não é idoso frágil
Physical Frailty and Sarcopenia: Development of a Framework for Supporting Interventions Against Incident Mobility Disability	Não é ECR
Interventions for the prevention of falls in older adults: systematic review and meta-analysis of randomised clinical trials	Não é ECR
Systematic Review of the Effect of Home Modification and Fall Prevention Programs on Falls and the Performance of Community-Dwelling Older Adults	Não é ECR
Comparative Effectiveness of Published Interventions for Elderly Fall Prevention: A Systematic Review and Network Meta-Analysis	Não é ECR
Multicomponent exercise decreases blood pressure, heart rate and double product in normotensive and hypertensive older patients with high blood pressure	População não é idoso frágil
Hypertension and functional capacities in community-dwelling older women: a cross-sectional study	Não é ECR
Effects of beta-hydroxy-beta-methylbutyrate (HMB) supplementation in addition to multicomponent exercise in adults older than 70years living in nursing homes, a cluster randomized placebo-controlled trial: the HEAL study protocol	Não é ECR
Evaluation of the Effect of 16 Weeks of Multifactorial Exercises on the Functional Fitness and Postural Stability of a Low-Income Elderly Population	População não é idoso frágil
Interventions to prevent disability in frail community-dwelling elderly: a systematic review	Não é ECR
Role of physical exercise on cognitive function in healthy older adults: A systematic review of randomized clinical trials	Não é ECR
Diabetes and frailty	Não é ECR
Functional and metabolic consequences of sarcopenia	Não é ECR
Effects of a group-based exercise program on the physical performance, muscle strength and quality of life in older women	População não é idoso frágil
Benefits of a multicomponent Falls Unit-based exercise program in older adults with falls in real life	Não é ECR
Effectiveness of a multicomponent workout program integrated in an evidence based multimodal program in hyperfrail elderly patients: POWERAGING randomized clinical trial protocol	Não é ECR
A realist review to understand the efficacy and outcomes of interventions designed to minimise, reverse or prevent the progression of frailty	Não é ECR
Effects of physical activity interventions in frail and prefrail community-dwelling people on frailty status, muscle strength, physical performance and muscle mass- a narrative review	Não é ECR
Delirium in the Nursing Home Patients Seen in the Emergency Department	Não é ECR
Risk Assessment and the Impact of Point of Contact Intervention Following Emergency Department Presentation with a Fall	População não é idoso frágil
Cardiovascular Aging and Exercise in Healthy Older Adults	Não é ECR

Base de Dados: Web of Science. Continuação

Título	Motivo
A weak balance: the contribution of muscle weakness to postural instability and falls	Não é ECR
Inclusion, characteristics and outcomes of people requiring palliative care in studies of non-pharmacological interventions for delirium: A systematic review	Não é ECR
Pre Frail 80: Multifactorial Intervention to Prevent Progression of Pre-Frailty to Frailty in the Elderly	População não é idoso frágil
A multicomponent prehabilitation pathway to reduce the incidence of delirium in elderly patients in need of major abdominal surgery: study protocol for a before-and-after study	Não é ECR
Prevention of falls in the elderly-a review	Não é ECR
Prevention of falls in the elderly: A review	Não é ECR
Physical activity and healthy aging in elderly people	Não é ECR
Reporting of complex interventions in clinical trials: development of a taxonomy to classify and describe fall-prevention interventions	Não é ECR
Exercise Interventions for Preventing Falls Among Older People in Care Facilities: A Meta-Analysis	Não é ECR
Effect of Exercise and Cognitive Training on Falls and Fall-Related Factors in Older Adults With Mild Cognitive Impairment: A Systematic Review	Não é ECR
MultiComponent Exercise and theRApeutic lifeStyle (CERgAS) intervention to improve physical performance and maintain independent living among urban poor older people - a cluster randomised controlled trial	População não é idoso frágil
Benefits of resistance training in physically frail elderly: a systematic review	Não é ECR
Effects of Exercise on Mobility in Obese and Nonobese Older Adults	População não é idoso frágil
Functional and cognitive impairment prevention through early physical activity for geriatric hospitalized patients: study protocol for a randomized controlled trial	Não é ECR
The "Sarcopenia and Physical fRailty IN older people: multi-componentT Treatment strategies" (SPRINTT) randomized controlled trial: Case finding, screening and characteristics of eligible participants	Não é ECR
Process evaluation of a trial evaluating a multidisciplinary nurse-led home visiting programme for vulnerable older people	Não é ECR
Frailty, Exercise and Nutrition	Não é ECR
Instrumented 30-s Chair Stand Test: evaluation of an exercise program in frail nonagenarians	Não é ECR
Effect of 8-Week of Selected Aerobic Exercise on Static and Dynamic Balance in Healthy Elderly Inactive Men	População não é idoso frágil
Fatigue and pain limit independent mobility and physiotherapy after hip fracture surgery	População não é idoso frágil
Influence of the Nordic Walking Intervention Program on the Improvement of Functional Parameters in Older Women	População não é idoso frágil
Effect of 6-month community-based exercise interventions on gait and functional fitness of an older population: a quasi-experimental study	População não é idoso frágil
Effectiveness of a primary care based multifactorial intervention to improve frailty parameters in the elderly: a randomised clinical trial: rationale and study design	Não é ECR
Multicomponent Program to Reduce Functional Decline in Frail Elderly People: A Cluster Controlled Trial	Intervenção não é multicomponente
Randomised trial of in-hospital geriatric intervention: Impact on function and morale	Intervenção não é multicomponente
Falls prevention training for strategies and actions for independent living (SAIL)	População não é idoso frágil
Healthcare utilization of elderly persons hospitalized after a noninjurious fall in a Swiss academic medical center	Não é ECR
Evidence-Based Exercise Prescription for Balance and Falls Prevention: A Current Review of the Literature	Não é ECR
Frailty and sarcopenia - newly emerging and high impact complications of diabetes	Não é ECR
Exercise to prevent and treat functional disability	Não é ECR
Effects of a Whole Body Vibration (WBV) Exercise Intervention for Institutionalized Older People: A Randomized, Multicentre, Parallel, Clinical Trial	Intervenção não é multicomponente
The effects of fall prevention trials on depressive symptoms and fear of falling among the aged: A systematic review	Não é ECR
Exercise and injury prevention in older people	Não é ECR

Base de Dados: Web of Science. Continuação.

Título	Motivo
A community-based physical activity intervention to prevent mobility-related disability for retired older people (REtirement in ACTION (REACT)): study protocol for a randomised controlled trial	Não é ECR
An individually-tailored multifactorial intervention program for older fallers in a middle-income developing country: Malaysian Falls Assessment and Intervention Trial (MyFAIT)	População não é idoso frágil
Multimodal interventions including nutrition in the prevention and management of disease-related malnutrition in adults: A systematic review of randomised control trials	Não é ECR
Cost analysis of an exercise program for older women with respect to social welfare and healthcare costs: a pilot study	Não é ECR
Functional capacity and levels of Physical activity in aging: a 3-Year Follow-up	Não é ECR
Age responses to multicomponent training programme in older adults	População não é idoso frágil
The effects of 12 weeks Pilates-inspired exercise training on functional performance in older women: A randomized clinical trial	População não é idoso frágil
Single versus multicomponent intervention in frail elderly: Simplicity or complexity as precondition for success?	Não é ECR
Battling insulin resistance in elderly obese people with type 2 diabetes - Bring on the heavy weights	Não é ECR
Interventions for preventing delirium in older people in institutional long-term care (Review)	Não é ECR
Assessing the impact of physical exercise on cognitive function in older medical patients during acute hospitalization: Secondary analysis of a randomized trial	Multiplicidade de publicação
Inter-individual variability in response to exercise intervention or usual care in hospitalized older adults	Multiplicidade de publicação
Effects of comprehensive geriatric intervention on physical performance among people aged 75 years and over	Intervenção não é multicomponente
Effects of Nurse-Led Multifactorial Care to Prevent Disability in Community-Living Older People: Cluster Randomized Trial	Intervenção não é multicomponente
A randomized trial of a multicomponent home intervention to reduce functional difficulties in older adults	Intervenção não é multicomponente
Effects of Kinect-based exergaming on frailty status and physical performance in prefrail and frail elderly: A randomized controlled trial	Intervenção não é multicomponente
Effectiveness of a multicomponent exercise program in the attenuation of frailty in long-term nursing home residents: study protocol for a randomized clinical controlled trial	Não é ECR
Effectiveness of an intervention in multicomponent exercise in primary care to improve frailty parameters in patients over 70years of age (MEFAP-project), a randomised clinical trial: rationale and study design	Não é ECR

MOTIVO	Nº
Não é ECR	53
População não é idoso frágil	20
Desfecho não é Funcionalidade	0
Multiplicidade de Publicação	2
Intervenção não é Multicomponente	7
TOTAL	82

Base de dados: SPORTDiscus (EBSCO)

Título	Motivo
Effectiveness of A Multifactorial Intervention in Increasing Adherence to the Mediterranean Diet among Patients with Diabetes Mellitus Type 2: A Controlled and Randomized Study (EMID Study)	População não é idoso frágil
Effects of a 6-month multimodal training intervention on retention of functional fitness in older adults: A randomized-controlled cross-over design	População não é idoso frágil
A Cluster-Randomized Controlled Trial of a Multicomponent Intervention Protocol for Pneumonia Prevention Among Nursing Home Elders	População não é idoso frágil
Multicomponent Exercise on Physical Function, Cognition and Hemodynamic Parameters of Community-Dwelling Older Adults: A Quasi-Experimental Study	População não é idoso frágil
A Randomized Controlled Trial of Multicomponent Exercise in Older Adults with Mild Cognitive Impairment	População não é idoso frágil
Individually-tailored multifactorial intervention to reduce falls in the Malaysian Falls Assessment and Intervention Trial (MyFAIT): A randomized controlled trial	População não é idoso frágil
A Randomized Controlled Trial of Multicomponent Exercise in Older Adults with Mild Cognitive Impairment	População não é idoso frágil

MOTIVO	Nº
Não é ECR	0
População não é idoso frágil	7
Desfecho não é Funcionalidade	0
Multiplicidade de Publicação	0
Intervenção não é Multicomponente	0
TOTAL	7