Journal Club

4 Agosto 2017

La riabilitazione della persona affetta da demenza

Dott.ssa Bianca Faraci

Premessa

- **Dallo «scetticismo» alla consapevolezza che un approccio sistematico, intensivo, continuativo ed interdisciplinare possa indurre un miglioramento della qualità di vita e un rallentamento dell'evoluzione del deficit cognitivo.**
- **Evidenze scientifiche suggeriscono la possibilità di recupero anche nei pazienti affetti da demenza.**
- **L'esplosione del fenomeno «demenza» (aumento del numero assoluto delle persone anziane e molto anziane) atteso per i prossimi anni ci deve indurre a pensare a nuovi modelli e schemi di approccio per questa tipologia di pazienti che, dopo eventi acuti come ictus o frattura di femore, sono a maggior rischio di outcome negativi.**

Rehabilitation of Older Adults with Hip Fracture: Cognitive Function and Walking Abilities

Sara Morghen, PsyD,† Simona Gentile, MD,*† Eleonora Ricci, MD,*† Fabio Guerini, MD,*† Giuseppe Bellelli, MD,*†‡ and Marco Trabucchi, MD*‡*

OBJECTIVES: To investigate the association between baseline cognitive function and the achievement of walking independence and its maintenance at 1 year in a population of older adults who underwent post-hip fracture (HF) surgery rehabilitation.

DESIGN: Prospective cohort study.

SETTING: Department of rehabilitation and aged care.

PARTICIPANTS: Three hundred six older adults admitted for post-HF surgery rehabilitation.

MEASUREMENTS: All participants aged 65 and older who were completely unable to walk on admission but able to walk before fracture were stratified according to Mini-Mental State Examination score (0-15=moderately severe or severe cognitive impairment (CI), 16-23=mild to moderate CI, ≥24=no CI). Walking ability was defined according to the corresponding Barthel Index subitem, with walking independence at discharge being defined as a score of 12 or more out of 15. Walking ability 1 year after discharge was ascertained by telephone interviews with participants or proxies.

RESULTS: At discharge, 29.6% of participants with moderately severe or severe CI (n=24), 51.9% with mild to moderate CI (n=56) and 78.6% of participants without CI (n=92) were able to walk independently. Among those who achieved walking independence and were alive at 1 year, 12 participants with moderately severe or severe CI (57.1%), 31 with mild to moderate CI (57.7%) and 73 without CI (78.9%) were still capable of walking independently.

CONCLUSION: Although less frequently than in individuals with better cognitive function, walking independence is achievable after HF surgery rehabilitation, and can be maintained at 1 year also in those with moderately severe or severe CI.

Journal of the American Geriatrics Society

AGS 75 YEARS OF CARING FOR OLDER ADULTS

Rehabilitation of Older Adults with Dementia After Hip Fracture

Dallas P. Seitz, MD, PhD,[*†‡] *Sudeep S. Gill, MD, MSc,*[†§] *Peter C. Austin, PhD,*[‡‖] *Chaim M. Bell, MD, PhD,*[‡‖#**] *Geoffrey M. Anderson, MD, PhD,*[‡‖] *Andrea Gruneir, PhD,*[‡‖†††] *and Paula A.Rochon, MD, MPH*[‡‖**†‡]

Abstract

OBJECTIVES: To evaluate the effects of postoperative rehabilitation on the outcomes of older adults with dementia who experienced hip fracture.

DESIGN: Retrospective cohort study.

SETTING: Ontario, Canada.

PARTICIPANTS: Community-dwelling adults with dementia who underwent hip fracture surgery between 2003 and 2011. Participants were categorized as no rehabilitation, complex continuing care (CCC), home-care based rehabilitation (HCR), and inpatient rehabilitation (IPR).

MEASUREMENTS: Time to long-term care (LTC) placement, mortality, and risk of repeat hip fracture and falls.

RESULTS: Of 11,200 individuals with dementia who experienced a hip fracture during the study period, 4,494 (40.1%) received no rehabilitation, 2,474 (22.1%) were admitted to CCC, 1,157 (10.3%) received HCR, and 3,075 (27.4%) received IPR. HCR and IPR were associated with less risk of LTC admission after discharge from hospital than no rehabilitation. All three forms of rehabilitation were associated with lower risk of mortality than no rehabilitation, with the greatest effect observed with IPR. HCR was associated with a higher risk of falls than no rehabilitation (P=.03); there were no other significant between-group differences in risk of falls or repeat fractures (P>.05).

CONCLUSION: Postfracture rehabilitation for older adults with dementia is associated with lower risk of LTC placement and mortality. Improving access to rehabilitation services for this vulnerable population may improve postfracture outcomes.

 Journal of the American Geriatrics Society

Nessun paziente anziano demente con frattura di femore dovrebbe essere escluso dal trattamento riabilitativo

Gen Hosp Psychiatry. 2007 Mar-Apr;29(2):141-6.

Does depression, apathy or cognitive impairment reduce the benefit of inpatient rehabilitation facilities for elderly hip fracture patients?

Lenze EJ[1], Skidmore ER, Dew MA, Butters MA, Rogers JC, Begley A, Reynolds CF 3rd, Munin MC.

Author information

Abstract

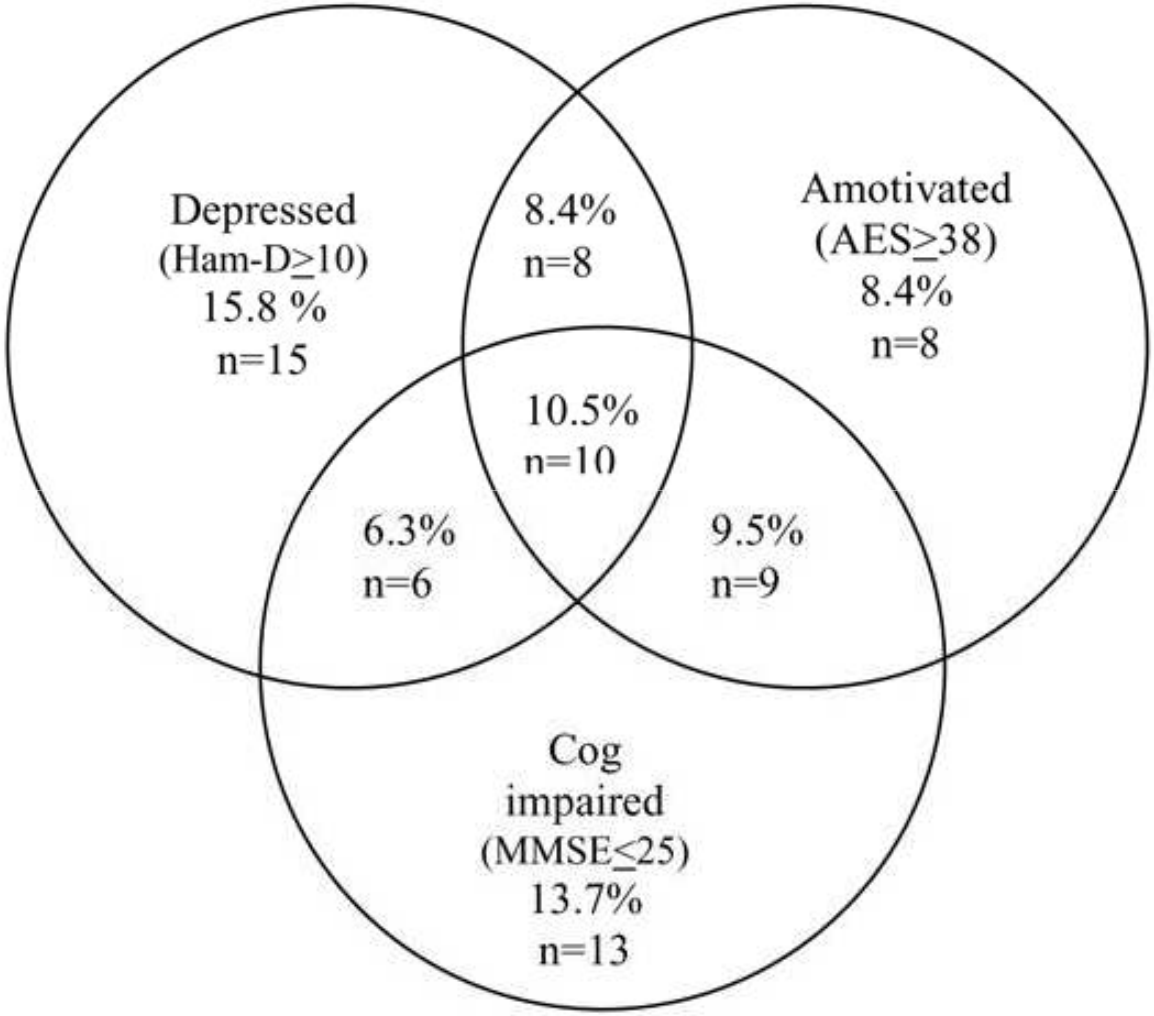
OBJECTIVE: Depression, apathy (amotivation) and cognitive impairment are common comorbidities in hip fracture patients, which may adversely affect functional outcome of rehabilitation. We examined whether postfracture measures of mood, motivation or cognition are associated with rehabilitation outcome (defined as functional improvement) in inpatient rehabilitation facilities (IRFs), as compared to skilled nursing facilities (SNFs).

METHODS: This prospective study examined elderly patients who received surgical fixation for hip fracture and then received post-acute rehabilitation at an IRF or an SNF. Subjects were characterized at baseline for depression using the Hamilton Rating Scale for Depression, apathy/amotivation using the Apathy Evaluation Scale and mild-moderate cognitive impairment using the Mini-Mental Status Examination. Functional recovery was measured over 12-week follow-up using the Functional Independence Measure.

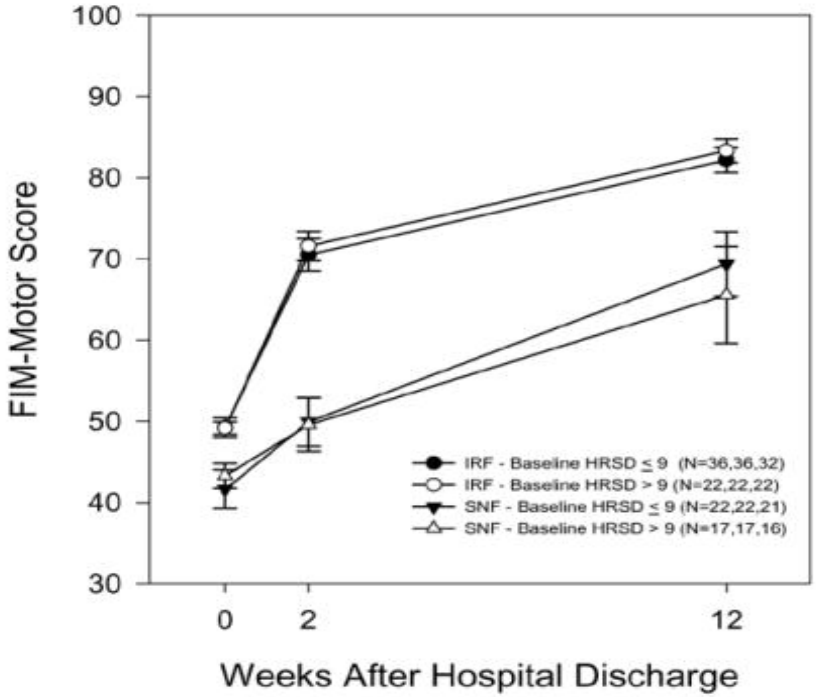
RESULTS: Fifty-eight subjects were discharged from acute care to an IRF and 39 to an SNF. Patients with depression, apathy or cognitive impairment who received rehabilitation at an IRF had significantly better functional outcomes than similarly impaired patients at SNFs, and similar outcomes such as nondepressed, motivated and cognitively intact elderly at IRFs.

CONCLUSION: These findings suggest that depression, amotivation or mild-moderate cognitive impairment after hip fracture do not reduce the benefit of post-acute rehabilitation in an IRF.

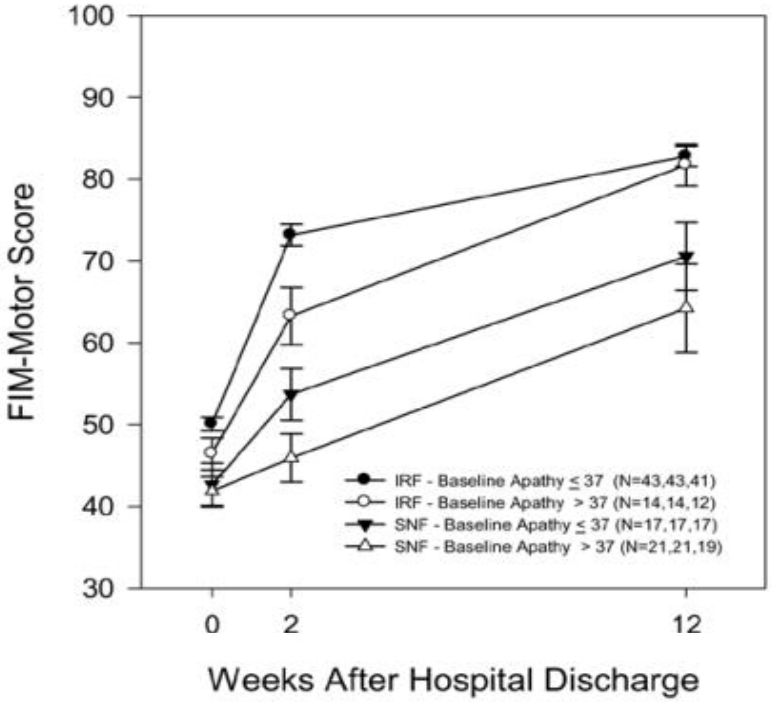
Characteristics of patients



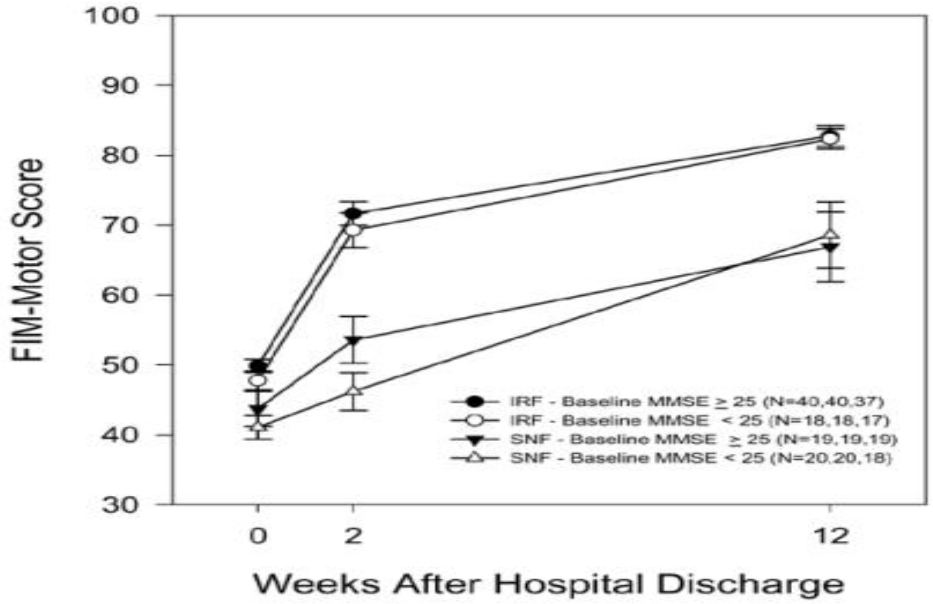
Impairment in depression, apathy and cognition scores in 95 hip fracture patients



b. High versus low apathy scores



c. Cognitively impaired versus unimpaired



Arch Gerontol Geriatr. 2012 May-Jun;54(3):e284-9. doi: 10.1016/j.archger.2011.08.013. Epub 2011 Sep 17.

A multidisciplinary intervention program improved the outcome after hip fracture for people with dementia--subgroup analyses of a randomized controlled trial.

Stenvall M[1], Berggren M, Lundström M, Gustafson Y, Olofsson B.

Author information

Abstract

BACKGROUND: People with cognitive impairment and dementia have a poor outcome after a hip fracture surgery, about 30-50% of all those who sustain a hip fracture have dementia. Therefore the aim was to investigate whether a multidisciplinary postoperative intervention program could reduce postoperative complications and improve functional recovery among people with dementia.

METHODS: A randomized controlled trial with subgroup analyses among patients with dementia. Sixty-four patients with femoral neck fracture, aged ≥70 years at Umeå University Hospital, Sweden. The intervention consisted of staff education, individualized care planning and rehabilitation, active prevention, detection and treatment of postoperative complications, especially delirium. The staff worked in teams to apply comprehensive geriatric assessment, management and rehabilitation, including a follow-up at 4 months postoperatively. The control group followed conventional postoperative routines.

RESULTS: There were fewer postoperative complications in the intervention group such as urinary tract infections, p=0.001; nutritional problems, p=0.025; postoperative delirium, p=0.002; falls, p=0.006. At 4 months a larger proportion in the intervention group had regained their previous independent indoor walking ability performance, p=0.005. At 12 months a larger proportion in the intervention group had regained the activities of daily living (ADL) performance level they had before the fracture, p=0.027.

CONCLUSION: This study demonstrates that patients with dementia who suffer a hip fracture can benefit from multidisciplinary geriatric assessment and rehabilitation and should not be excluded from rehabilitation programs.

Principali aspetti del trattamento del paziente demente

1) Fornire un adeguato livello di cure specifiche:

-trattamento farmacologico specifico dei deficit cognitivi
-terapie non farmacologiche
-trattamento delle patolgie concorrenti
-prevenzione delle complicanze e riabilitazione neuropsicologica e neuromotoria.

2) Ottimizzare lo stato funzionale:

-evitare farmaci con effetti potenzialmente dannosi sul SNC, se non strettamente necessari
-valutare l'ambiente e suggerire modifiche, quando necessarie
-stimolare l'attività fisica e mentale
-evitare situazioni che affaticano le funzioni intellettuali, utilizzare supporti mnesici quando possibile
-stimolare una adeguata nutrizione
-riabilitazione neuromotoria

3) Identificare e trattare i sintmi non cognitivi

4) Identificare e trattare le complicanze:

-rischi di caduta e di smarrimento
-incontinenza
-malnutrizione

5) Fornire informazioni al paziente ed alla famiglia:

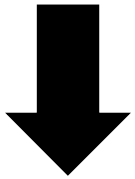
-natura della malattia
-evoluzione e prognosi
-possibilità di prevenzione e trattamento

6) Fornire supporti socio-assistenziali e consulenze al paziente ed alla famiglia:

-servizi territoriali e residenziali sociali ed assistenziali, temporanei o definitivi;
-supporto economico
-consulenza legale ed etica
-supporto psicologico per il superamento dei conflitti

Ambiti di intervento riabilitativo sul paziente demente

Cognitività
Funzioni neuro-sensoriali
Affettività
Linguaggio
Sonno
Alimentazione
Funzioni motorie
Salute fisica
Autonomia personale
Relazioni interpersonali



VMD e lavoro in equipe

Attori del progetto riabilitativo

- **Medici**
- **Infermieri**
- **Fisioterapisti**
- **Terapisti occupazionali**
- **Psicologi**
- **Logopedisti**
- **Assistenti sociali**

Terapia occupazionale

- Disciplina riabilitativa che utilizza la valutazione e il trattamento per sviluppare, recuperare o mantenere le abilità di vita quotidiana in un’ottica «client centred».
- Si occupa anche dell'individuazione e dell'eliminazione di barriere ambientali per incrementare l'autonomia e l'indipendenza e la partecipazione alle attività quotidiane, lavorative, sociali.
- Trattamento rivolto all’ educazione del paziente e della famiglia.

Terapia occupazionale

- Trattamento concordato con il malato e il caregiver in modo che, attraverso un’intervista, una osservazione e una valutazione si ricostruisca la storia dell’anziano e del suo caregiver, concentrandosi poi sulle esigenze delle persone, rispettando le loro specificità personali e i loro bisogni di esprimere se stessi in un’attività, in un compito e un’azione particolarmente significativa.

Terapia occupazionale

- Miglioramento della qualità di vita: attraverso un' adeguata valutazione dell'ambiente e delle competenze del paziente il terapista occupazionale è in grado di istruire e migliorare le competenze del caregiver portando a una netta riduzione delle cadute. E' in grado inoltre di incrementare e stimolare lo svolgimento di attivita' al fine del mantenimento delle autonomie nelle attività quotidiane.

La riabilitazione nei pazienti con demenza: la comunicazione

Limiti:

- ***Scarsa capacità di collaborazione del paziente***
- ***Scarsa capacità di comprendere il significato degli ordini impartiti***
- ***Scarsa capacità di riferire i propri bisogni/disagi***

Risorse:

- ***Comunicazione non verbale***

La riabilitazione nei pazienti con demenza: la comunicazione

- Il riabilitatore deve cercare di interpretare segni del corpo e della comunicazione non verbale (es. opposizione alla mobilizzazione: dolore?)
- Bisogna prestare attenzione alla mimica, alla gestualità, alle posture, ai movimenti del corpo.
- Utilizzare timbro, tono e volume di voce che non vengano percepiti come disturbanti dal paziente ⟹ importanza della modalità di comunicazione più che del messaggio in sé.

La riabilitazione nei pazienti con demenza: la comunicazione

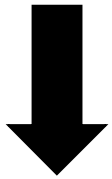
- Utile pensare di scomporre le attività complesse (per es. non chiedere al paziente di alzarsi ma «di impugnare il deambulatore con la mano destra e poi con la sinistra»)
- Utile avvicinarsi al paziente nel processo comunicativo, rallentare la velocità dell'eloquio, semplificare le frasi, fornire informazioni gestuali
- Modificare l'approccio per migliorare la collaborazione («andiamo a prendere una boccata d'aria», «raggiungiamo i suoi parenti in salottino»)

La riabilitazione nei pazienti con demenza: l'ambiente

- Ambiente tranquillo, sicuro e conosciuto rappresenta contesto ideale (ridurre i rumori in palestra, spegnere la radio, evitare stimoli interferenti).
- Considerare accorgimenti per la sicurezza e riorientamento (materiali ignifughi, fornelli a gas con sistema di sicurezza, ausili per equilibrio e deambulazione, eliminazione di ostacoli, corrimano, illuminazione, oggetti personali, fotografie, calendari)
- Sperimentare ambienti alternativi (stanze di degenza)

Requisiti per garantire al paziente demente un ambiente terapeutico

- flessibilità
- personalizzazione
  - spazi
  - tempo
- proposta di attività commisurate alle capacità del soggetto
- tolleranza
- presenza attiva dei familiari



Percorso riabilitativo «tailor made»

Principali aspetti del trattamento del paziente demente

1) Fornire un adeguato livello di cure specifiche:
- -trattamento farmacologico specifico dei deficit cognitivi
- -terapie non farmacologiche
- -trattamento delle patolgie concorrenti
- -prevenzione delle complicanze e riabilitazione neuropsicologica e neuromotoria.

2) Ottimizzare lo stato funzionale:
- -evitare farmaci con effetti potenzialmente dannosi sul SNC, se non strettamente necessari
- -valutare l'ambiente e suggerire modifiche, quando necessarie
- -stimolare l'attività fisica e mentale
- -evitare situazioni che affaticano le funzioni intellettuali, utilizzare supporti mnesici quando possibile
- -stimolare una adeguata nutrizione
- -riabilitazione neuromotoria

3) Identificare e trattare i sintmi non cognitivi

4) Identificare e trattare le complicanze:
- -rischi di caduta e di smarrimento
- -incontinenza
- -malnutrizione

5) Fornire informazioni al paziente ed alla famiglia:
- -natura della malattia
- -evoluzione e prognosi
- -possibilità di prevenzione e trattamento

6) Fornire supporti socio-assistenziali e consulenze al paziente ed alla famiglia:
- -servizi territoriali e residenziali sociali ed assistenziali, temporanei o definitivi;
- -supporto economico
- -consulenza legale ed etica
- -supporto psicologico per il superamento dei conflitti

Prevenire le complicanze: le cadute

- Occorre un’assistenza mirata alla definizione dei pazienti a rischio di caduta attraverso una valutazione dei fattori individuali ed ambientali che predispongono alle cadute.
- Nel paziente anziano demente spesso presente disturbo dell’equilibrio e della marcia; il tono, la forza muscolare, l’altezza del passo diminuiscono, modificando la capacità di evitare una caduta di fronte ad un ostacolo improvviso.
- Valutare le comorbilità e la terapia farmacologica.

Prevenire le complicanze: l'incontinenza

- Incontinenza da urgenza: impiego di abbigliamento facile da togliere (chiusure a strappo, al posto di cerniere e bottoni).
- Minzioni programmate accompagnando il paziente in bagno ogni 2-3 ore. Limitare apporto di liquidi nelle ore serali.
- Preferire utilizzo del pannolone al CV.
- Igiene intima della persona per evitare LDD.

Prevenire le complicanze: la malnutrizione

- Controllo e igiene del cavo orale (protesi dentaria, candidosi).
- Rispetto dei tempi come orario dei pasti e come tempo necessario al paziente per mangiare.
- Cura dell’ambiente. Il paziente non mangia perché non «vede» il cibo nel piatto o non riconosce gli oggetti sul tavolo. Può essere utile utilizzare piatti colorati, tovaglie antirovesciamento o altri ausili.

BMC Geriatr. 2016 Jan 22;16:26. doi: 10.1186/s12877-016-0196-3.

Effectiveness of interventions to directly support food and drink intake in people with dementia: systematic review and meta-analysis.

Abdelhamid A[1,2], Bunn D[3], Copley M[4], Cowap V[5], Dickinson A[6], Gray L[7], Howe A[8], Killett A[9], Lee J[10], Li F[11], Poland F[12], Potter J[13,14], Richardson K[15], Smithard D[16], Fox C[17,18], Hooper L[19].

⊕ Author information

Abstract

BACKGROUND: Eating and drinking difficulties are recognised sources of ill health in people with dementia. In the EDWINA (Eating and Drinking Well IN dementiA) systematic review we aimed to assess effectiveness of interventions to directly improve, maintain or facilitate oral food and drink intake, nutrition and hydration status, in people with cognitive impairment or dementia (across all settings, levels of care and support, types and degrees of dementia). Interventions included oral nutrition supplementation, food modification, dysphagia management, eating assistance and supporting the social element of eating and drinking.

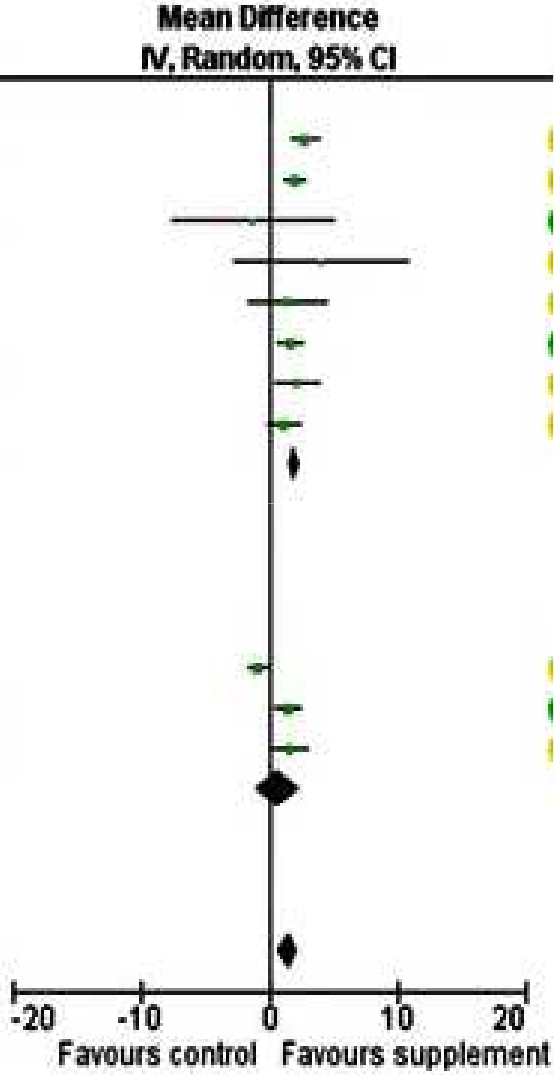
METHODS: We comprehensively searched 13 databases for relevant intervention studies. The review was conducted with service user input in accordance with Cochrane Collaboration's guidelines. We duplicated assessment of inclusion, data extraction, and validity assessment, tabulating data, carrying out random effects meta-analysis and narrative synthesis.

RESULTS: Forty-three controlled interventions were included, disappointingly none were judged at low risk of bias. Oral nutritional supplementation studies suggested small positive short term but unclear long term effects on nutritional status. Food modification or dysphagia management studies were smaller and of low quality, providing little evidence of an improved nutritional status. Eating assistance studies provided inconsistent evidence, but studies with a strong social element around eating/drinking, although small and of low quality provided consistent suggestion of improvements in aspects of quality of life. There were few data to address stakeholders' questions.

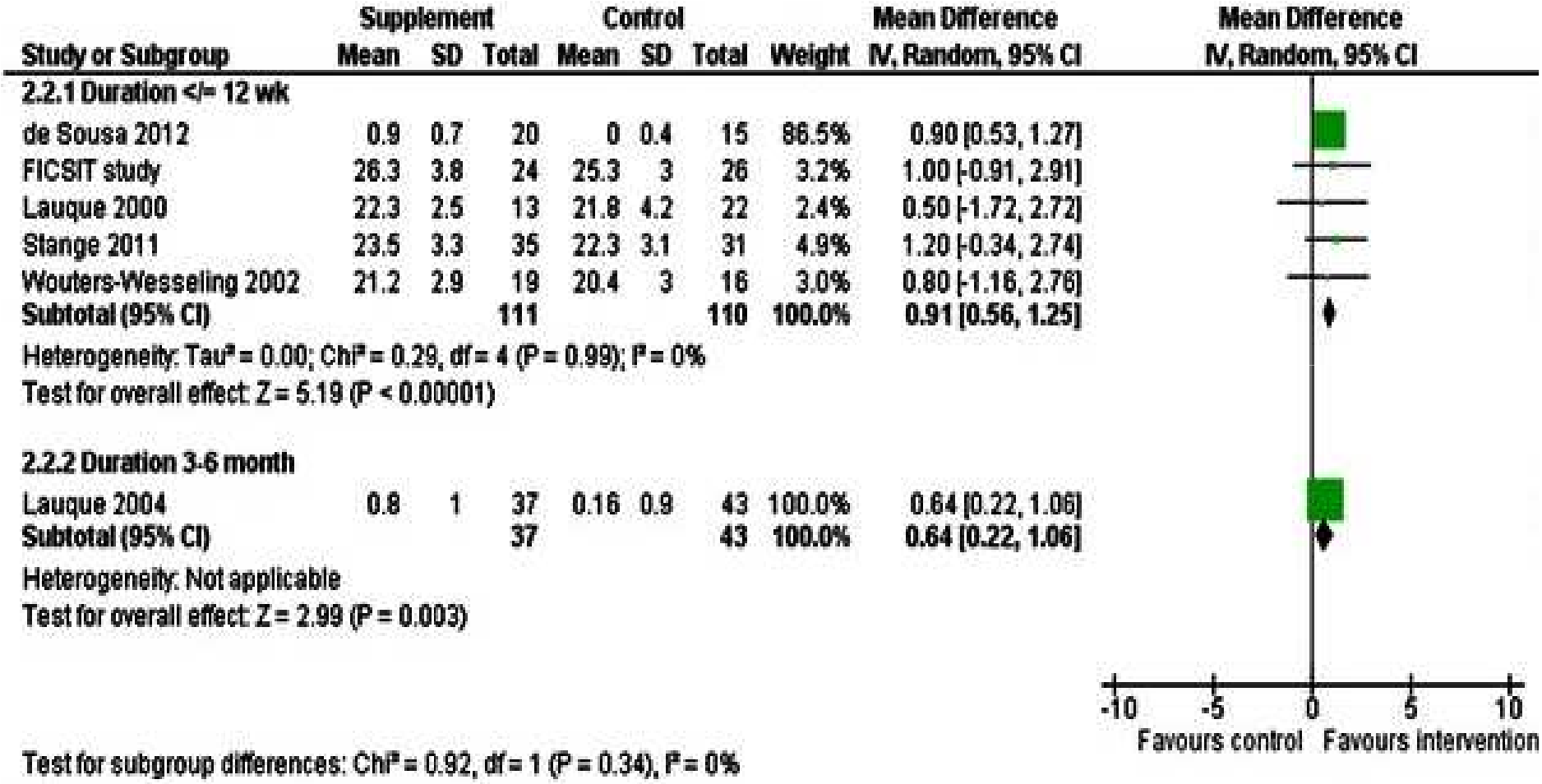
CONCLUSIONS: We found no definitive evidence on effectiveness, or lack of effectiveness, of specific interventions but studies were small and short term. People with cognitive impairment and their carers have to tackle eating problems despite this lack of evidence, so promising interventions are listed. The need remains for high quality trials tailored for people with cognitive impairment assessing robust outcomes.

The effect of ONS plus usual food vs usual food alone on weight

Study or Subgroup	Supplement Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
2.1.1 Duration </= 12 wk								
Carver 1995	3.5	1.8	20	0.6	1.7	20	11.7%	2.90 [1.81, 3.99]
de Sousa 2012	2.1	1.6	20	0	0.9	15	12.6%	2.10 [1.26, 2.94]
FICSIT study	59.2	11.5	24	60.4	11	26	1.8%	-1.20 [-7.45, 5.05]
Lauque 2000	55.3	9	13	51.2	11.3	22	1.5%	4.10 [-2.70, 10.90]
Simmons 2010	2.01	5.15	18	0.53	4.32	20	5.3%	1.48 [-1.56, 4.52]
Stange 2011	1.2	2.4	42	-0.5	2.3	35	11.8%	1.70 [0.65, 2.75]
Wouters-Wesseling 2002	1.4	2.4	19	-0.8	3	16	8.9%	2.20 [0.38, 4.02]
Wouters-Wesseling 2006	0.783	1.7	18	-0.375	2	16	11.0%	1.16 [-0.10, 2.41]
Subtotal (95% CI)			**174**			**170**	**64.6%**	**2.02 [1.53, 2.50]**
Heterogeneity: Tau² = 0.00; Chi² = 6.26, df = 7 (P = 0.51); I² = 0%								
Test for overall effect: Z = 8.17 (P < 0.00001)								
2.1.2 Duration >12 wk, <6 mo								
FOPANU study	64.7	2.6	96	65.5	2.6	95	12.9%	-0.80 [-1.54, -0.06]
Lauque 2004	1.9	2.3	37	0.38	2.3	43	12.0%	1.52 [0.51, 2.53]
Manders 2009	0.8	3.6	78	-0.8	3.3	33	10.5%	1.60 [0.22, 2.98]
Subtotal (95% CI)			**211**			**171**	**35.4%**	**0.72 [-1.02, 2.45]**
Heterogeneity: Tau² = 2.06; Chi² = 17.52, df = 2 (P = 0.0002); I² = 89%								
Test for overall effect: Z = 0.81 (P = 0.42)								
Total (95% CI)			**385**			**341**	**100.0%**	**1.49 [0.61, 2.38]**
Heterogeneity: Tau² = 1.45; Chi² = 46.11, df = 10 (P < 0.00001); I² = 78%								
Test for overall effect: Z = 3.30 (P = 0.0010)								
Test for subgroup differences: Chi² = 1.99, df = 1 (P = 0.16), I² = 49.8%								



The effect of ONS plus usual food vs usual food alone on BMI



La metanalisi suggerisce:

- Piccoli effetti a breve termine statisticamente significativi di ONS su peso, BMI. Non sono significativi a lungo termine.
- Non vi erano risultati rilevanti sulla qualità della vita, su stato funzionale o cognitivo, su stato di idratazione né sulla mortalità.
- Prove limitate per coloro che hanno problemi di deglutizione; la dieta per disfagici migliorava alcuni marcatori nutrizionali.
- In coloro che non potevano usare le posate, non c'era evidenza dell'utilità alimentare delle dita («finger food»).
- Gli studi che valutano gli effetti dell'assistenza durante l'alimentazione suggeriscono scarso effetto sui risultati nutrizionali. Gli studi di valutazione degli interventi sociali erano piccoli ma suggerivano la possibilità di migliorare gli aspetti importanti della qualità della vita, inclusa l'autonomia, la comunicazione, l'umore, il coinvolgimento e la partecipazione ad attività significative.

Maturitas. 2017 Jul;101:42-50. doi: 10.1016/j.maturitas.2017.04.010. Epub 2017 Apr 22.

Effectiveness of nutritional supplementation on sarcopenia and recovery in hip fracture patients. A multi-centre randomized trial.

Malafarina V[1], Uriz-Otano F[2], Malafarina C[3], Martinez JA[4], Zulet MA[4].

⊕ Author information

Abstract

BACKGROUND AND OBJECTIVES: Functional deterioration and reduced mobility in elderly patients with a hip fracture are associated with a loss of both muscle mass and function (sarcopenia). The aim of this study was to assess whether oral nutritional supplementation (ONS) improves muscle mass and nutritional markers (BMI, proteins) in elderly patients with hip fracture.

METHODS: Patients aged 65 years and over with hip fractures admitted to either of two rehabilitation facilities were included. Patients with diabetes, with Barthel index scores <40 prior to the fracture or with pathological fractures were excluded. A random-numbers generator was used to randomly allocate patients to the intervention group (IG) or the control group (CG). Those in the IG received a standard diet plus ONS in the form of two bottles a day of β-hydroxy-β-methylbutyrate (HMB), while those in the CG received a standard diet only. The intervention was not blinded. In order to assess changes in body mass index (BMI), anthropometric parameters were recorded at both admission and discharge. Patients' functional situation was evaluated using the Barthel index (BI) and the Functional Ambulation Categories (FAC) score. Muscle mass was assessed using bioelectrical impedance analysis, which allowed us to calculate appendicular lean mass (aLM). The outcome variable was the difference between aLM upon discharge, minus aLM upon admission (Δ-aLM).

RESULTS: Of the 107 randomised patients (IG n55, CG n52), 49 finished the study in the IG and 43 in the CG. BMI and aLM were stable in IG patients, whilst these parametres decreased in the CG. A significant difference was observed between the two groups ($p<0.001$, and $p=0.020$ respectively). The predictive factors for Δ-aLM were ONS ($p=0.006$), FAC prior to fracture ($p<0.001$) and BI prior to fracture ($p=0.007$). The concentration of proteins ($p=0.007$) and vitamin D ($p.001$) had increased more in the IG than in the CG.

CONCLUSION: A diet enriched in HMB improves muscle mass, prevents the onset of sarcopenia and is associated with functional improvement in elderly patients with hip fractures. Orally administered nutritional supplements can help to prevent the onset of sarcopenic obesity.

J Am Med Dir Assoc. 2013 Aug;14(8):628.e1-8. doi: 10.1016/j.jamda.2013.05.011. Epub 2013 Jun 25.

Effects of a low-volume, nutrient- and energy-dense oral nutritional supplement on nutritional and functional status: a randomized, controlled trial in nursing home residents.

Stange I[1], Bartram M, Liao Y, Poeschl K, Kolpatzik S, Uter W, Sieber CC, Stehle P, Volkert D.

⊕ Author information

Abstract

OBJECTIVES: Although oral nutritional supplements (ONS) are known to be effective to treat malnutrition in the elderly, evidence from nursing home populations, including individuals with dementia, is rare, especially with regard to functionality and well-being. A known barrier for ONS use among elderly is the volume that needs to be consumed, resulting in low compliance and thus reduced effectiveness. This study aimed to investigate the effects of a low-volume, energy- and nutrient-dense ONS on nutritional status, functionality, and quality of life (QoL) of nursing home residents.

DESIGN: Randomized controlled intervention trial.

SETTING: Six nursing homes in Nürnberg and Fuerth, Germany.

PARTICIPANTS: Nursing home residents affected by malnutrition or at risk of malnutrition.

INTERVENTION: Random assignment to intervention (IG) and control group (CG), receiving 2 × 125 mL ONS (600 kcal, 24 g protein) per day and routine care, respectively, for 12 weeks.

MEASUREMENTS: Nutritional (weight, body mass index [BMI], upper arm and calf circumferences, MNA-SF) and functional parameters (handgrip strength, gait speed, depressive mood [GDS], cognition [MMSE], activities of daily living [Barthel ADL]) as well as QoL (QUALIDEM) were assessed at baseline (T1) and after 12 weeks (T2). ONS intake was registered daily and compliance calculated.

RESULTS: A total of 77 residents (87 ± 6 y, 91% female) completed the study; 78% had dementia (MMSE <17) and 55% were fully dependent (ADL ≤30). Median compliance was 73% (IQR 23.5%-86.5%) with median intake of 438 (141-519) kcal per day. Body weight, BMI, and arm and calf circumferences increased in the IG (n = 42) and did not change in the CG (n = 35). Changes of all nutritional parameters except MNA-SF significantly differed between groups in favor of the IG ($P < .05$). GDS, handgrip strength, and gait speed could not be assessed in 46%, 38%, and 49% of participants at T1 and/or T2, because of immobility and cognitive impairment. In residents able to perform the test at both times, functionality remained stable in IG and CG, except for ADLs, deteriorating in both groups. From 10 QoL categories, "positive self-perception" increased in IG (78 [33-100] to 83 [56-100]; $P < .05$) and tended to decrease in CG (100 [78-100] to 89 [56-100]; $P = .06$), "being busy" significantly dropped in CG (33 [0-50] to 0 [0-50]; $P < .05$).

CONCLUSION: Low-volume, nutrient- and energy-dense ONS were well accepted among elderly nursing home residents with high functional impairment and resulted in significant improvements of nutritional status and, thus, were effective to support treatment of malnutrition. Assessment of function was hampered by dementia and immobility, limiting the assessment of functionality, and highlighting the need for better tools for elderly with functional impairments. ONS may positively affect QoL but this requires further research.

Am J Clin Nutr. 2016 Mar;103(3):830-40. doi: 10.3945/ajcn.115.113357. Epub 2016 Feb 10.

Whey protein, amino acids, and vitamin D supplementation with physical activity increases fat-free mass and strength, functionality, and quality of life and decreases inflammation in sarcopenic elderly.

Rondanelli M[1], Klersy C[2], Terracol G[3], Talluri J[4], Maugeri R[3], Guido D[5], Faliva MA[6], Solerte BS[7], Fioravanti M[7], Lukaski H[8], Perna S[6].

Author information

Abstract

BACKGROUND: Interventions to attenuate the adverse effects of age-related loss of skeletal muscle and function include increased physical activity and nutritional supplementation.

OBJECTIVE: This study tested the hypothesis that nutritional supplementation with whey protein (22 g), essential amino acids (10.9 g, including 4 g leucine), and vitamin D [2.5 μg (100 IU)] concurrent with regular, controlled physical activity would increase fat-free mass, strength, physical function, and quality of life, and reduce the risk of malnutrition in sarcopenic elderly persons.

DESIGN: A total of 130 sarcopenic elderly people (53 men and 77 women; mean age: 80.3 y) participated in a 12-wk randomized, double-blind, placebo-controlled supplementation trial. All participants concurrently took part in a controlled physical activity program. We examined body composition with dual-energy X-ray absorptiometry, muscle strength with a handgrip dynamometer, and blood biochemical indexes of nutritional and health status, and evaluated global nutritional status, physical function, and quality of life before and after the 12 wk of intervention.

RESULTS: Compared with physical activity and placebo, supplementation plus physical activity increased fat-free mass (1.7-kg gain, $P < 0.001$), relative skeletal muscle mass ($P = 0.009$), android distribution of fat ($P = 0.021$), handgrip strength ($P = 0.001$), standardized summary scores for physical components ($P = 0.030$), activities of daily living ($P = 0.001$), mini nutritional assessment ($P = 0.003$), and insulin-like growth factor I ($P = 0.002$), and lowered C-reactive protein ($P = 0.038$).

CONCLUSION: Supplementation with whey protein, essential amino acids, and vitamin D, in conjunction with age-appropriate exercise, not only boosts fat-free mass and strength but also enhances other aspects that contribute to well-being in sarcopenic elderly. This trial was registered at clinicaltrials.gov as NCT02402608.

JAMA Neurol. 2015 Nov;72(11):1295-303. doi: 10.1001/jamaneurol.2015.2115.

Vitamin D Status and Rates of Cognitive Decline in a Multiethnic Cohort of Older Adults.

Miller JW[1], Harvey DJ[2], Beckett LA[2], Green R[3], Farias ST[4], Reed BR[4], Olichney JM[4], Mungas DM[4], DeCarli C[4].

⊕ Author information

Abstract

IMPORTANCE: Vitamin D (VitD) deficiency is associated with brain structural abnormalities, cognitive decline, and incident dementia.

OBJECTIVE: To assess associations between VitD status and trajectories of change in subdomains of cognitive function in a cohort of ethnically diverse older adults.

DESIGN, SETTING, AND PARTICIPANTS: Longitudinal multiethnic cohort study of 382 participants in an outpatient clinic enrolled between February 2002 and August 2010 with baseline assessment and yearly follow-up visits. Serum 25-hydroxyvitamin D (25-OHD) was measured, with VitD status defined as the following: deficient, less than 12 ng/mL (to convert to nanomoles per liter, multiply by 2.496); insufficient, 12 to less than 20 ng/mL; adequate, 20 to less than 50 ng/mL; or high, 50 ng/mL or higher. Subdomains of cognitive function were assessed using the Spanish and English Neuropsychological Assessment Scales. Associations were evaluated between 25-OHD levels (as continuous and categorical [deficient, insufficient, or adequate]) and trajectories of cognitive decline.

MAIN OUTCOMES AND MEASURES: Serum 25-OHD levels, cognitive function, and associations between 25-OHD levels and trajectories of cognitive decline.

RESULTS: Participants (N = 382 at baseline) had a mean (SD) age of 75.5 (7.0) years; 61.8% were women; and 41.4% were white, 29.6% African American, 25.1% Hispanic, and 3.9% other race/ethnicity. Diagnosis at enrollment included 17.5% with dementia, 32.7% with mild cognitive impairment, and 49.5% cognitively normal. The mean (SD) 25-OHD level was 19.2 (11.7) ng/mL, with 26.2% of participants being VitD deficient and 35.1% insufficient. The mean (SD) 25-OHD levels were significantly lower for African American and Hispanic participants compared with white participants (17.9 [15.8] and 17.2 [8.4] vs 21.7 [10.0] ng/mL, respectively; $P < .001$ for both). The mean (SD) 25-OHD levels were similarly lower in the dementia group compared with the mild cognitive impairment and cognitively normal groups (16.2 [9.4] vs 20.0 [10.3] and 19.7 [13.1] ng/mL, respectively; $P = .006$). The mean (SD) follow-up was 4.8 (2.5) years. Rates of decline in episodic memory and executive function among VitD-deficient (episodic memory: $\beta = -0.04$ [SE = 0.02], $P = .049$; executive function: $\beta = -0.05$ [SE = 0.02], $P = .01$) and VitD-insufficient (episodic memory: $\beta = -0.06$ [SE = 0.02], $P < .001$; executive function: $\beta = -0.04$ [SE = 0.02], $P = .008$) participants were greater than those with adequate status after controlling for age, sex, education, ethnicity, body mass index, season of blood draw, vascular risk, and apolipoprotein E4 genotype. Vitamin D status was not significantly associated with decline in semantic memory or visuospatial ability. Exclusion of participants with dementia did not substantially affect the associations between VitD status and rates of cognitive decline.

CONCLUSIONS AND RELEVANCE: Low VitD status was associated with accelerated decline in cognitive function domains in ethnically diverse older adults, including African American and Hispanic individuals who exhibited a high prevalence of VitD insufficiency or deficiency. It remains to be determined whether VitD supplementation slows cognitive decline.

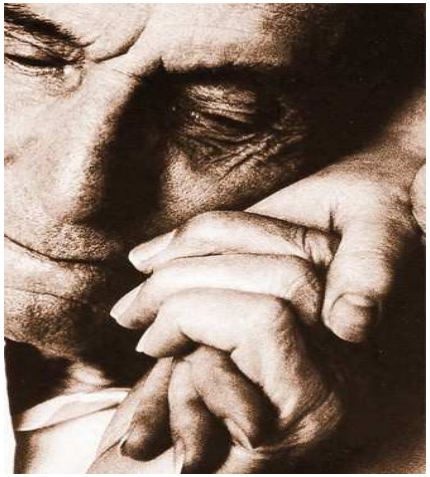
Conclusioni (1)

- **Bisogna prendere in carico la persona affetta da demenza attraverso un approccio comunicativo attivo e studiato che ci permetta di entrare in contatto con il paziente e migliorarne la compliance.**
- **L'importanza dell' ottica interdisciplinare (approccio multidimensionale: lavoro d'equipe con infermiere, fisioterapista, terapista occupazionale, logopedista, assistente sociale).**
- **Il percorso riabilitativo va adeguato e adattato alle esigenze del paziente per il recupero delle semplici attività quotidiane.**
- **Importanza della presenza dei familiari nel percorso di cura. La famiglia rappresenta il principale supporto per un anziano non autosufficiente.**

Conclusioni (2)

- **Considerare i bisogni del malato e l'eventuale dipendenza nelle B/IADL per l'attivazione di servizi (igiene domiciliare, medicazioni, FKT domiciliare…) e l'adattamento dell'ambiente (barriere architettoniche). Planning dell'assistenza.**
- **Attenzione al malato e ai caregivers (istruzione, educazione e sostegno) e non alla patologia.**
- **Importanza della prevenzione e del trattamento delle complicanze.**
- **Cura dei disturbi comportamentali e dei deficit cognitivi.**
- **Necessità di ulteriori studi che possano approfondire e dare chiarimenti per tutti gli ambiti di trattamento del paziente affetto da demenza.**

E’ bello sapere che nella sofferenza e nella malattia non siamo soli



GRAZIE PER L'ATTENZIONE