

Help to anticipate



Help to live with dementia

# Evaluation of psychosocial interventions for people with dementia: what to learn from the Cochrane Library?

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## Psychosocial interventions

- **Psychosocial Interventions** : improving quality of life and maximising function in the context of existing deficits (Rabins et al., 2007).
- Several researchers have shown concern about methodological issues of evaluation of PIs (Mayo-Wilson, 2012; Vernooj-Dassen & Moniz-Cook, 2014)
- In France, 95% of dwelling facilities declare using at least one (sometimes unidentified) « non-pharmacological » interventions to care for people with dementia (Fondation Médéric Alzheimer, 2014).
- Facilities invest a limited range of PIs due to :
  - Costs
  - Lack of knowledge on impact of PIs
  - Lack of staff able to implement PIs
  - Lack of evaluation of efficiency

The main risk of such issues is to consider PIs as general programmes to occupy people with dementia without a meaningful purpose

## Method

- Cochrane reviews on PIs for people with dementia
- Content analyses of recurrent observations for research purposes as well as for clinical practice.

## Results

- 20 meta-analyses on dementia and PIs:
  - 4 were not complete
  - 2 were excluded by reviewers of the journal because did not rigorously fit the definition of PI (aromatherapy and light therapy)
  - 2 were not specific to one intervention but a set of interventions for one symptom
  - 1 was not specifically on dementia (aging and MCI)

11 Meta-analysis on 12 interventions were selected for the purpose of this study

## Selected PIs

- *Physical activity*
- *Functional analysis*
- *Cognitive training*
- *Massage & touch*
- *Music therapy*
- *Educational programmes*
- *Psychotherapy*
- *Cognitive rehabilitation*
- *Snoezelen*®
- *Cognitive stimulation*
- *Reminiscence therapy*
- *Validation*®

**All were completed or actualised between 2008 & 2014,  
except for Reminiscence (2005)**

## Raw results

- **443/510 studies (87%) excluded from meta-analyses !**
  - 57 % not RCTs (case studies, comparative studies, reviews, theoretical papers, qualitative studies, observational studies...)
  - 33 % methodological issues (blindness, randomisation, experimental design, sampling, statistics...)
  - 11 % unclear objectives (hypothesis operationalisation, implementation preciseness)
  - <1 % non-English written articles (under-estimated)
- **Probability of methodological biases (selective reporting, attrition, selection, detection or performance biases) of included studies (n = 67, 13%):**
  - 56 % low risk
  - 18 % high risk
  - 26 % uncertain risk

An important source of potentially interesting information is excluded from Cochrane reviews !!

# Quasi-systematic outcomes of Cochrane Reviews

- **Implication for practice:**
  - “we can not endorse [...] nor refute any positive effect”
  - “no sufficient evidences showing the efficacy [...] on mood, behavior or social interactions of people with dementia”
  - “plenty of non-randomized evidence ”
  - “need for training, support and supervision for staff”
- **Implication for research:**
  - “There is a clear need for more randomized controlled trials” or “rigorous research”
  - “Need of broadening of outcome measures to include well-being, mood and quality of life is welcome”
  - “research is needed to differentiate between various [...] approaches”
  - “The effects of severity of dementia and different modalities need to be systematically evaluated.”

# Main discussion points

- **Poor conceptual framework :**
  - PI induced psychological, cognitive, behavioural, emotional, social, motivational, and sensory-perceptive mechanisms and processes are not sought enough
  - Therapeutic relationship
- **Implementation procedures :**
  - Lack of preciseness of implementation procedures
  - Identical interventions with different implementation procedures : impossible comparison

## Main discussion points

- **Assessment criteria and tools:**
  - Quality of Life should be systematically assessed
  - Assessment scales are not the same and don't enable comparison

BPSD (agitation, anxiety, wandering, sleep ...)	79 %
Cognition (executive fonctions, memory, ...)	64 %
Mood/ emotions /depression	57 %
ADL's / autonomy	43 %
Quality of life	36 %
Social Cognition (social Interactions, communication, empathy, TOM...)	29 %
Carer evaluation (depression, respite, burden ...)	14 %
Medical prescriptions	7 %

Mainly symptomatic targets in a therapeutic issues → **medical model**  
How about compensating deficits and supporting people? → **disability model**



## Main discussion points (2)

- **Participants profile :**
  - An intervention will not have the same impact according to psychological status, and type of dementia
  - Impact according to severity dementia is poorly or not assessed
- **Dosage and sensitiveness to an intervention**
  - Differentiation of dosage (length, periodicity and duration) are not assessed or acknowledged
  - Sensitiveness according to BPSD and to participant individual characteristics is not differentiated

# Conclusions (1)

- **Necessity to adopt an investigation methodology adapted to specific characteristics of psychosocial interventions;**
  - Placebo : PI's cannot be evaluated against but with it.
- **Other research methods than RCTs are susceptible to give as much, if not more, informative results (Orrell, 2012).**
  - Observational studies, case studies, comparison studies, qualitative studies
  - Non RCT studies are not scientifically flawed
- **Implementation of randomised control trials call for necessary fundamental prerequisites in order to attenuate methodological weaknesses ;**
  - Standardisation of intervention protocols: Implementation error (Vernooj-Dassen & Moniz-Cook, 2014)
  - Outcome measures (Vasse et al, 2011) :

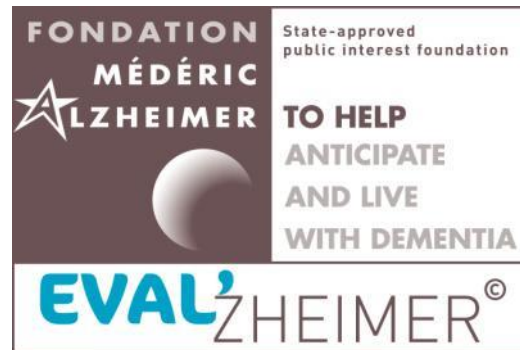
## Conclusions (2)

- Prescription of painkillers on samples without any pain : they won't show any effect, they don't do any immediate observable harm, but would we go on prescribing them anyway?
  - randomly assign people with dementia to an intervention or another ?
  - Find clear treatment indications to address people's needs → PI's with narrowed intervention targets seems to show better results (reminiscence, cognitive stimulation,...) : dosage and sensitiveness
- It takes 10 to 20 years for a molecule to get tested and marketed: why should it be easier for psychosocial interventions?
- Selective reporting: Negative and null results are too often put aside and not analysed nor interpreted: the goal is to present positive result (condition for publication)

**Are Cochrane Reviews reliable sources, at this point, to judge efficacy and efficiency of interventions that have difficulties fitting RCT's gold standards?**

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Thank you



for your attention

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