



The University of Manchester

Developing a new intervention to support hearing and vision in people with dementia



Dementia@Manchester

Dementia Clinical Research: *Treatment and Management Theme*



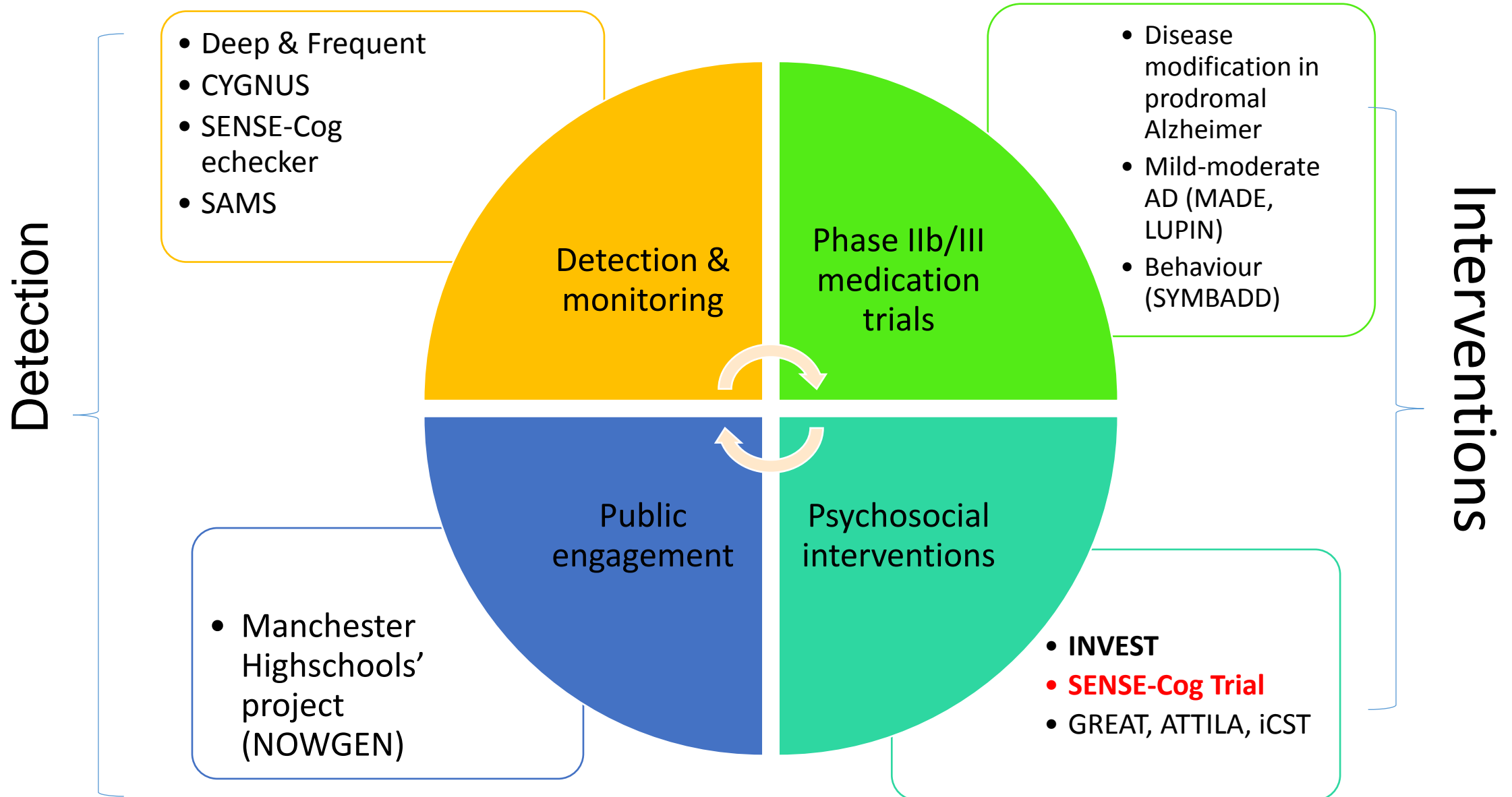
Dementia Clinical Research: *Detection and Intervention*



Our mission

***‘Improving lives with dementia
by finding the problems and
treating them’***

Our clinical research portfolio



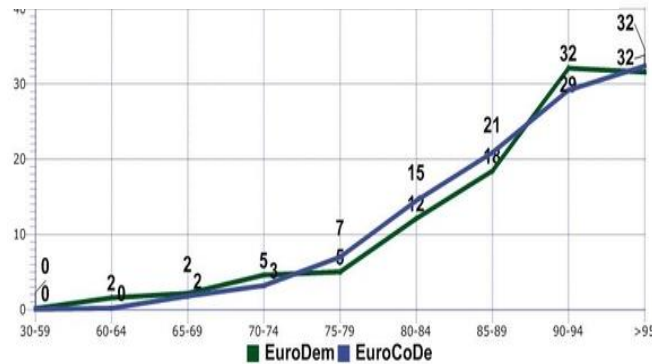
SENSE



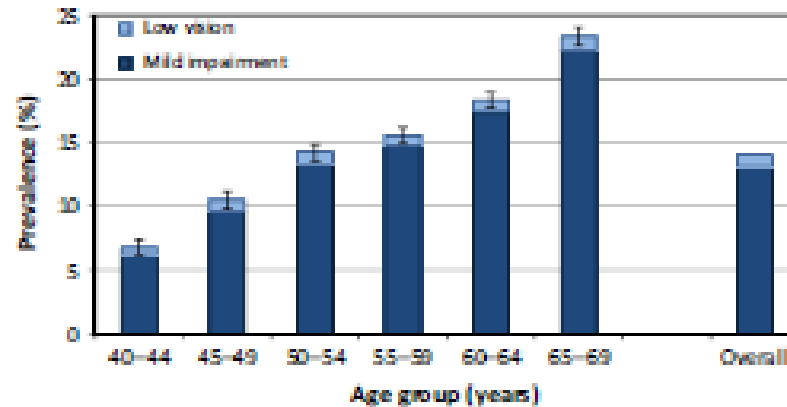
Promoting health
for eyes, ears
and mind.

SENSE-Cog: Hearing and vision impairment in dementia represents an unmet need

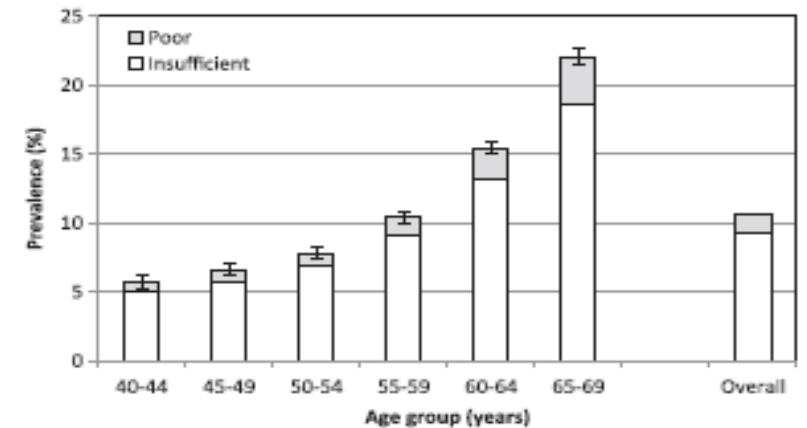
Dementia



Vision impairment



Hearing impairment



- 1/3 of Europeans at age 90 have dementia
- 70% of Europeans >age 65 have sight or hearing loss

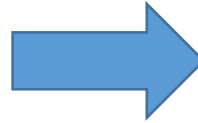
→ overlap of hearing, vision and cognitive ill health create a “**crucible of multi-morbidity**”

Impact of hearing, vision and cognitive impairment

- Difficult to orient using visual or auditory cues = disorientation, distress = agitation, aggression, hallucinations and delusions
- More isolated from family interactions
- Participate less in social activities and hobbies
- More marginalised within the community
- Social isolation, disconnection can lead to depression and a more rapid overall decline in function
- Greater dependency for self-care and other activities of daily living.... caregiver burnout, physical exhaustion ...moving into care

What is missing?

- Gaps and fragmentation in understanding
- Lack of appropriate assessment tools
- Not enough service provision
- Poor public awareness
- Excluded from research



>90% of PwD lack appropriate detection and management of hearing & vision impairment



Lost opportunities to foster mental well-being in elderly people



Horizon 2020
European Union Funding
for Research & Innovation

- **Horizon 2020 Call October 2014:** *‘Promoting mental wellbeing in the ageing population’*
- **Sense-Cog:** Investigate the gaps in knowledge, skill and tools and provide solutions.
- **Overall aim:** To improve ‘mental well-being’
 - ‘a state in which the individual realises his or her own abilities and is able to make a contribution to his or her community’

Our EU Sense-Cog team



- 27 researchers
- PPV members (UK, France, Cyprus)
- 7 countries (Manchester, London, Nicosia, Athens, Bordeaux, Nice, Freiburg, Munich)
- 13 disciplines (psychology, psychiatry, geriatrics, epidemiology, optometry, ophthalmology, audiology, ENT, vision science, health economics, medical statistics, public engagement, social gerontology)



Horizon 2020
European Union Funding
for Research & Innovation

Work Packages



- WP1: **Exploration**-an epidemiological analysis of 5 large EU longitudinal datasets
- WP2: **Assessment**-the adaptation/validation of assessment tools for cognition and sensory impairment
- WP3: **Intervention**- a clinical trial of a newly developed ‘sensory support’ intervention
- WP4: **Valuation**- health economic cost effectiveness analyses
- WP5: **Participation**-an EU ‘patient and public voice’ to inform the WPs and communicate findings
- WP6: **Management**: project coordination, governance, ethics.

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‘Sensory Support’: Psychosocial therapies are important...

- Improving quality of life for PwD is national priority
- Calls for wider availability of psychological therapies
 - National Service Framework for Older People
 - UK Department of Health
 - Prime Minister’s Challenge on Dementia
 - Ministerial Advisory Group on Dementia Research (MAGDR) in 2011

Psychosocial therapies are complex...



Developing new psychosocial interventions for dementia

MRC Guidance for complex interventions:



What makes an intervention complex?

Number and difficulty of behaviours required by those delivering or receiving the intervention

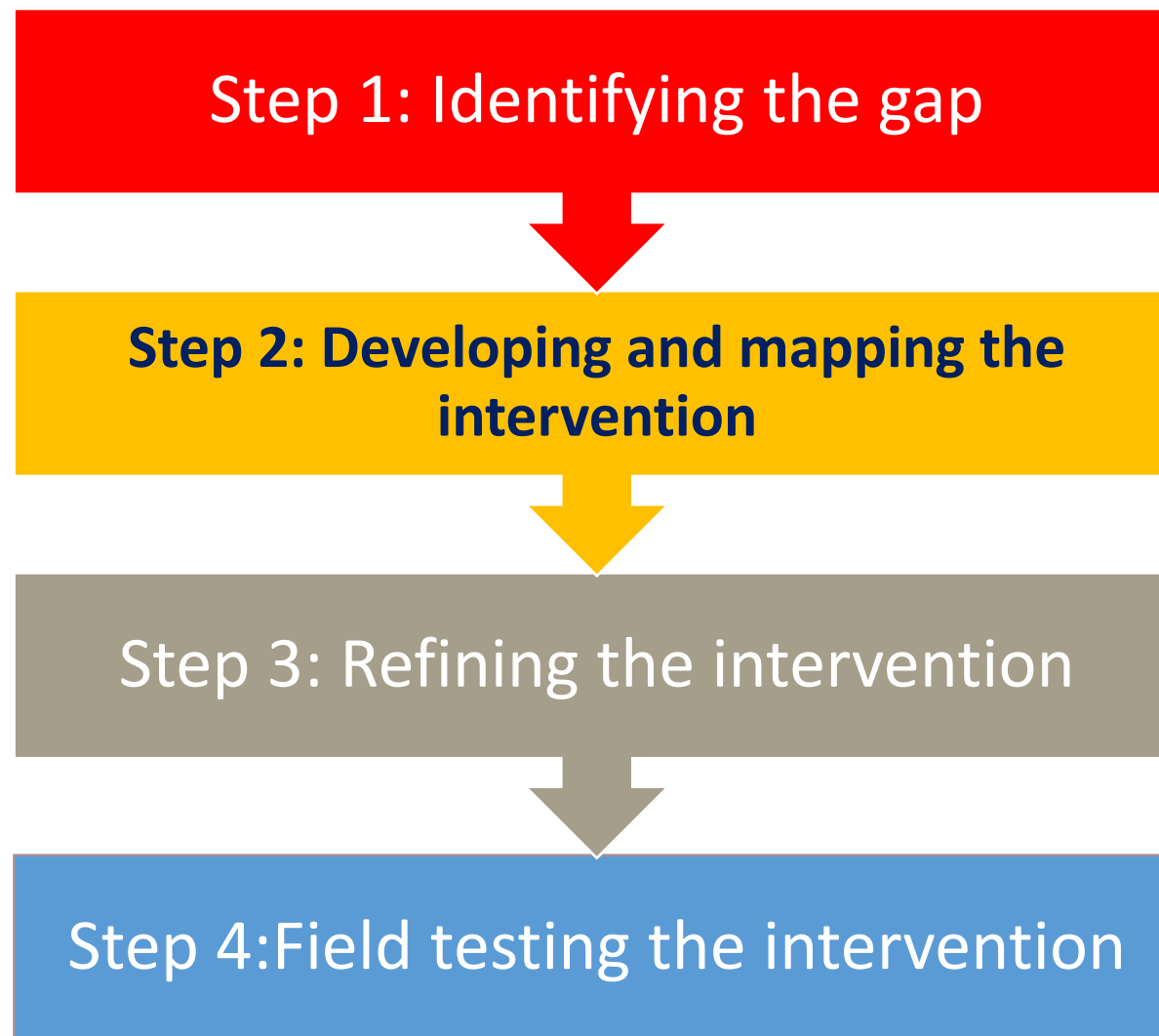
Degree of flexibility or tailoring of the intervention permitted

Number of groups or organisational levels targeted by the intervention

Number and variability of outcomes

Developing new psychosocial interventions for dementia: Stages of development

MRC Guidance
for complex
interventions



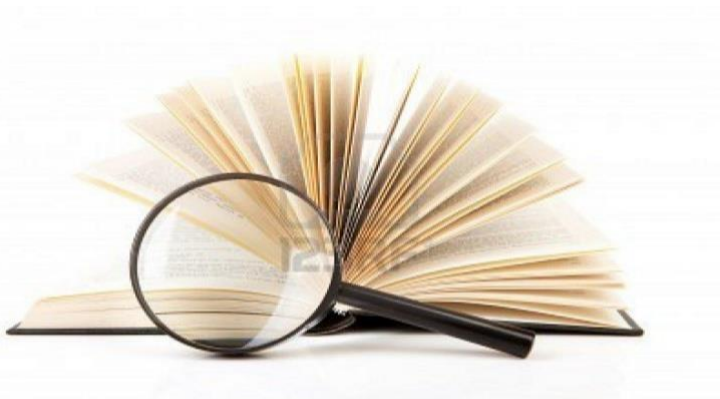
SENSE
Cog | Promoting health
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Step 1: Identifying the gap

- *Objective:*
- To ascertain professionals' views regarding the '**gaps and solutions**' in the support care needs of people with concurrent problems.
- To assess **the impact** of treating hearing and vision impairment on
 - i) cognition
 - ii) rate of decline
 - iii) psychiatric symptoms
 - iv) hearing/vision-related quality of life
 - v) general quality of life
 - vi) caregiver burden



Expert Reference Group



Literature Review

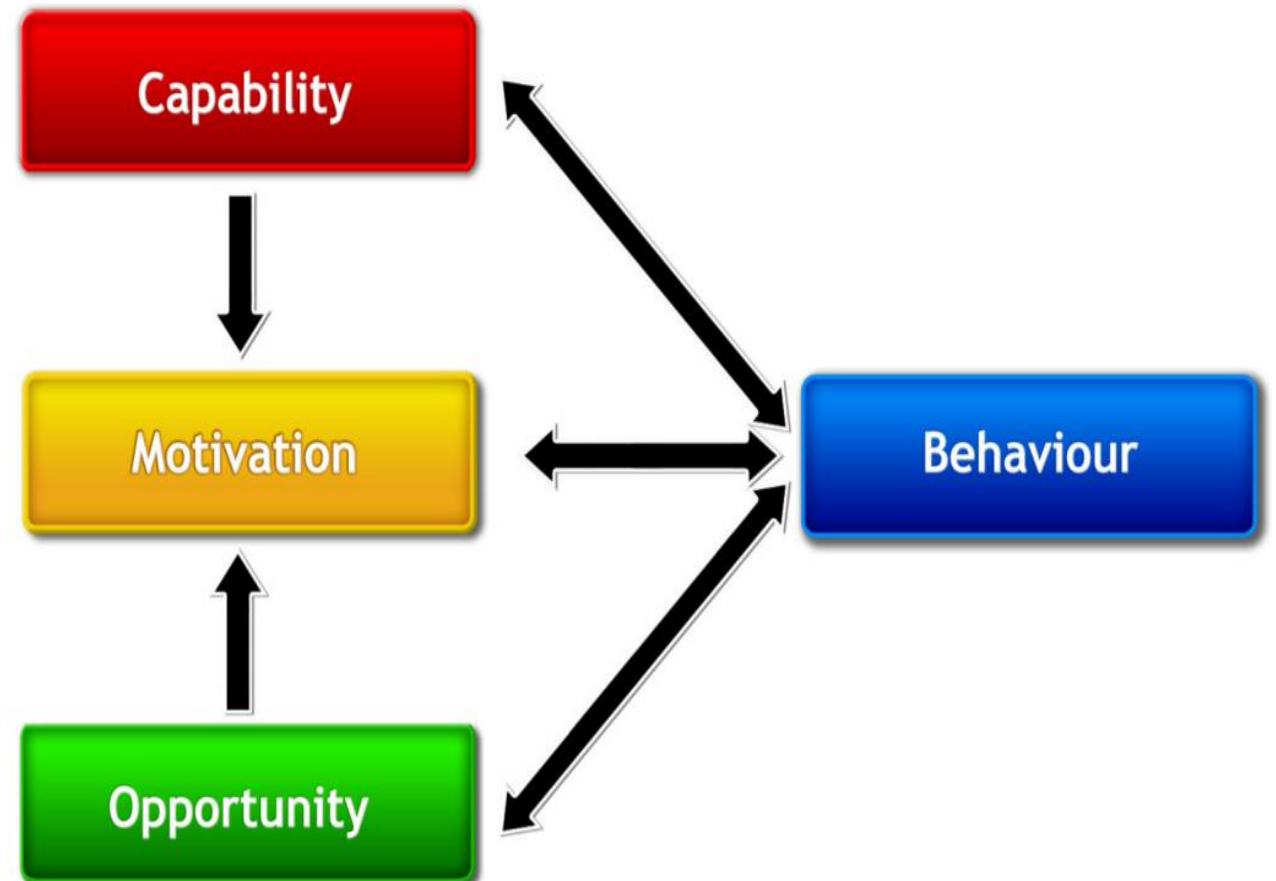
SENSE-Cog Trial:

What is the theory behind our intervention?

The **COM-B** model of
behaviour change

- Michie S 2011 *Implement Sci* 2011;**6**(1):42
- Mixed Methods Research: A discussion paper.
J Brannen. ESRC Methods Review Paper NCRM/005

Theoretical Framework



Step 2: Implementation & Components of the intervention

Components and Implementation



PwD and their caregivers

Questionnaire
Survey

Focus
groups



Professionals

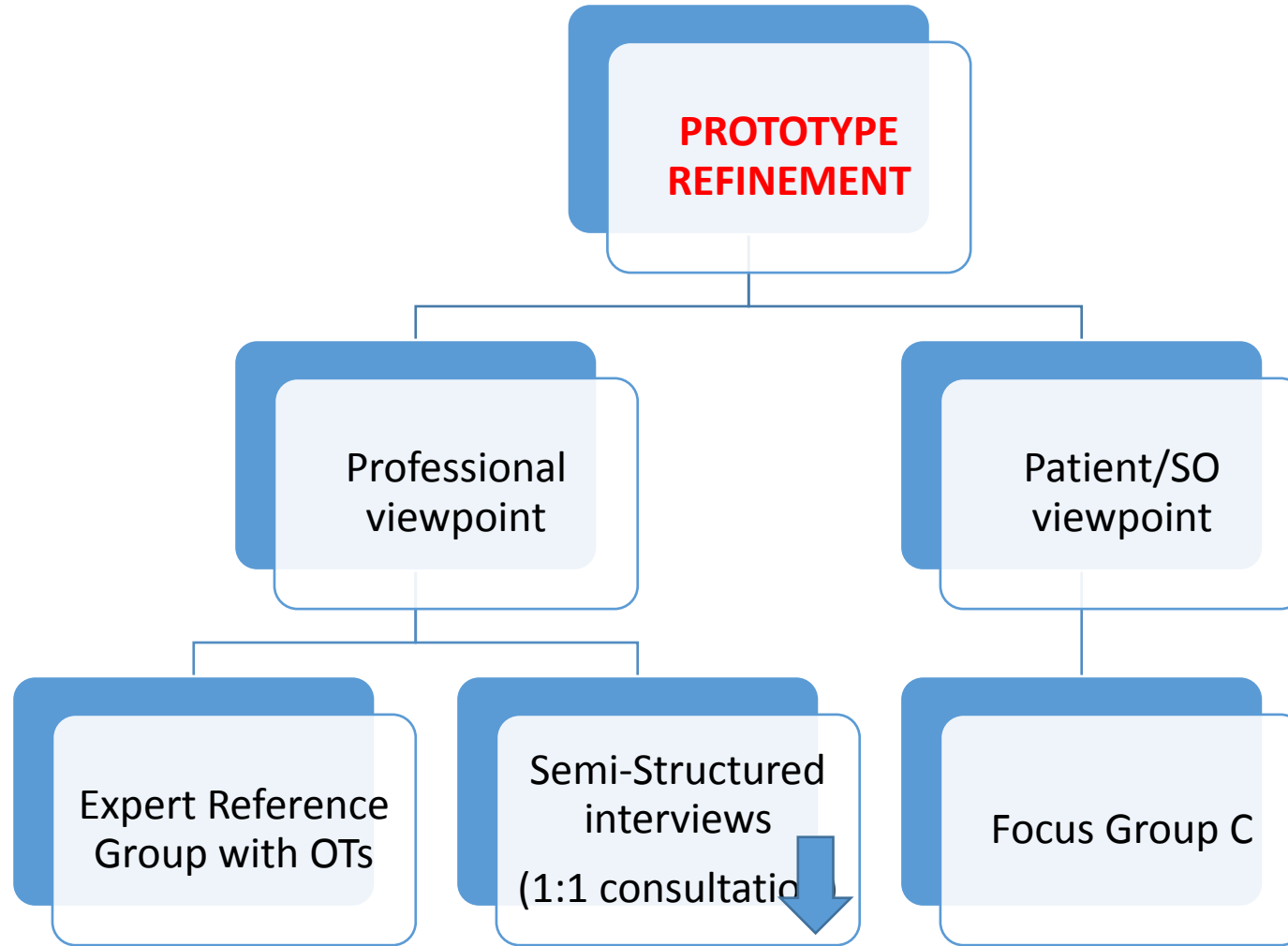
Semi-
Structured
Interviews

Typical Case
Review

Delphi of
Support
Needs

Options
analysis of
existing
interventions

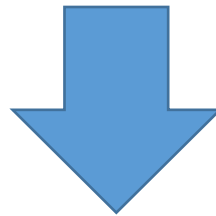
Step 3: Refining the intervention



Draft Intervention ready to field test

Step 4: Field testing the draft intervention

- Pilot, feasibility, field test
 - Focus on process measures, particularly the local EU context
 - Develop the Training Manual for therapists
 - Develop the final Intervention Manual (components & intervention)
- Testing procedures
 - Recruitment/retention
 - Determining sample size



**FINAL SENSE-Cog intervention ready for full
RCT for July 2016**
(Manchester, Nicosia, Nice, Bordeaux, Athens)

So what does the intervention look like?

- 3 month intervention, multiple home visits (up to 8)
- Tailored to the needs of the individual and their family
- Pragmatic; outcome: Quality of life
- For both the PwD and their companion
- **COM-B model:**
 - **Capability:** detecting and improving hearing and vision deficits
 - **Opportunity:**
 - Providing information (signposting) to support services
 - Educating about the problem
 - Sharing knowledge about communication skills
 - Improving the environment with assisted technology

We need your help!!

For the study, we have to understand people's ability to undertake daily activities of daily function.

The **DemPal tool** is a good way to do this....BUT, it is not suitable for people with hearing and vision problems.

So, we have to adapt the tool and include new items to account for hearing and vision impairment.

Please tell us how useful these new questions are.

*****please fill in the 7 min questionnaire on your sheet*****

Thank you.

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