TRAINING SOCIAL AND HEALTH CARE PROFESSIONALS IN MUSIC-BASED THERAPEUTIC INTERVENTIONS TO SUPPORT OLDER PEOPLE WITH DEMENTIA

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D5-GUIDELINES AND RECOMMENDATION FOR THE ASSESSMENT OF THE SOUND MUSIC-BASED INTERVENTION OUTCOMES ON OLDER PEOPLE WITH DEMENTIA

SOUND CONSORTIUM

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Sommario

1. INTRODUCTION

The SOUND project objectives are:

1. developing a co-designed curriculum of music activities training for social and health care workers and family carers as a therapy for bettering behaviour, mood, and quality of life of Older People with Dementia (OPDs) with Mild Cognitive Impairment (MCI) and maintain their cognitive functions as much as possible;
2. training Dementia Care Professionals (DCPs) in delivering music-based activities with OPD/MCI and certifying the competences acquired;
3. designing and testing a non-pharmacological intervention based on music activities with OPDs;
4. designing and launching an awareness campaign on dementia by exploiting the music performance built during the workshops with older people.

This document is aimed at DCPs and its objective is to explain the method and the tools that they can use for measuring/assessing the effects of the SOUND intervention on OPDs. This document goes hand in hand with the **D4-Handbook for the implementation of the SOUND music-based intervention for older people with dementia** (see also par. 2.2).

If you are reading this handbook you are probably either a professional educator or a psychologist or a health professional working on the frontline with people with dementia or you are a researcher.

Assessing and measuring the impact of the SOUND sessions on your patients may be useful to understand whether it is worthwhile to apply this intervention which, as you will have realised, requires a certain rigour in the method and it is not just a recreational activity for a group of older people to spend a carefree half-hour with.

Thus, SOUND makes sense if you monitor its effects on OPDs involved in the activities. In the following paragraph we will provide you with some basic information on tools, data collection times and staff required to carry out the assessment of the SOUND intervention.

2. SOUND METHOD

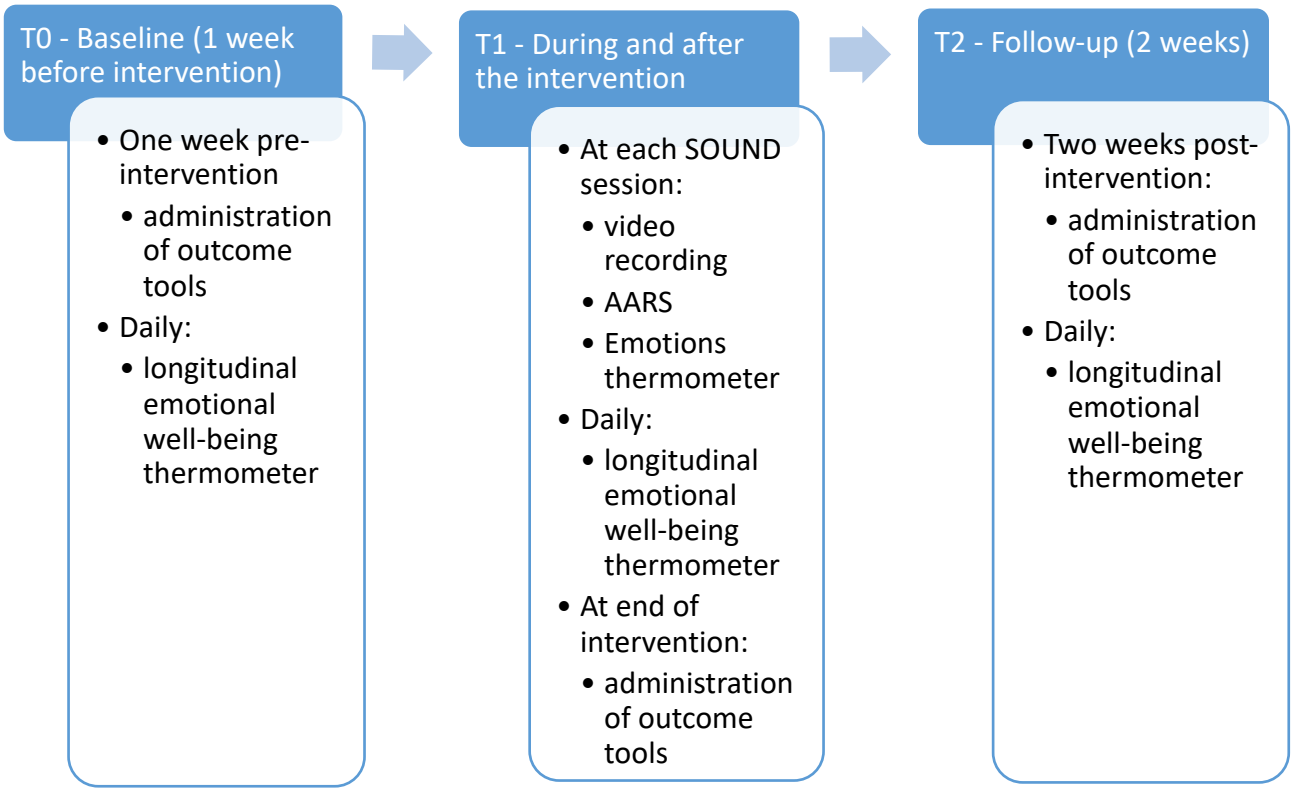
It is important to assess the SOUND intervention in order to be certain of its positive outcomes and efficacy on OPDs and on the DCPs who are delivering it.

To fully assess the SOUND intervention, it is recommended to adopt a mixed-method approach encompassing quantitative and qualitative analysis of data gathered from video recording and from psychometric and idiosyncratic tools during specific times of the intervention (pre-post and longitudinal).

The OPDs attending the intervention can be monitored in different phases, depending on the type of observed variable and instrument used.

Some data about outcomes are to be collected in three moments: one week before the start of the intervention (T0), the end of the intervention (T1) and 2 weeks after the end of the intervention (T2). Some data can be collected during the intervention phase and analysed longitudinally depending on the time frame of the collection (daily from T0 to T2 versus at each SOUND session). Figure 1 shows the progression of the data collection throughout the intervention.

Fig. 1. SOUND intervention design



2.1. Participants

The SOUND intervention is not feasible for everyone; thus participants need to be selected depending on the criteria described in Table 1.

Table 1. Participants' selection criteria

Type of participants	Inclusion criteria	Exclusion criteria
OPDs	• Interest in the SOUND intervention • Age ≥ 65 • To be able to see, hear and move (also with the help of appropriate aids) • Diagnosis of MCI or dementia with mild to moderate impairment (e.g., MoCA total score ≥ 10/30) • Absence of aphasia (mild acceptable) • Be able to understand and undertake simple tasks as required during activities	• Lack of consent to participate • Age < 65 • Not be able to see, hear and move even with the help of appropriate aids • Absence of formal diagnosis of MCI or dementia or severe level of impairment (e.g., MoCA total score < 10/30) • Moderate to severe aphasia • Not able to understand and undertake simple tasks as required during activities
DCPs	• Having experience in the dementia field as healthcare professional • Having an interest in the SOUND intervention	• Lack of experience working in the dementia field • Lack of interest to participate • Lack of completion of the SOUND training

	• Having completed the SOUND training • Having music skills	• Not having music skills

Prior to the start of the SOUND intervention, biographies and musical preferences of OPDs need to be collected so that DCPs can study them in advance. By doing so, DCPs may properly relate to OPDs during the intervention considering their needs and characteristics.

2.2. The SOUND intervention

For an exhaustive description of the SOUND intervention and explanation of how you can implement it (e.g. activities, professionals involved and music to use), please read the **D4-Handbook for the implementation of the SOUND music-based intervention for older people with dementia.** Here we limit to give a brief description of it.

Each SOUND group should include seven or eight OPDs coupled with the same number of care professionals, all positioned in a circle. In the days with personnel shortage is sufficient that one DCP is involved each two OPDs, sitting among them.

DCPs undertake specific roles, i.e., the roles of facilitator, co-facilitator, and internal and external observer, for the latter is preferable to have research/observation skills. The role of facilitator can be assigned to a musician or a DCP with music skills.

The role of the facilitator implies proposing the activities to the participants in a responsorial style, holding the circle, welcoming and mirroring any spontaneous reaction or activity coming from the participants and proposing it to the whole group. The co-facilitator is responsible for supporting the facilitator during the session. The internal observers are due to support the OPDs during the intervention in a non-intrusive and facilitating way while taking part in the activity. The facilitator, co-facilitator and internal observers take mental notes of their observations for reporting them in writing at the end of each session by using the Live Session Emotions Thermometer (LSET). The external observers focus on OPDs' emotional and behavioural responses to the proposed activities and rate them through the Apparent Affect Rating Scale (AARS) (Table 3). Written notes can be added to document a diary for each OPD.

Each SOUND session lasts about 45 minutes and it is divided into four different phases: (1) welcoming; (2) opening activity; (3) three to five main activities depending on the length and intensity of each one; (4) closing activity.

The intervention foresees both active (vocal and rhythmic production) and passive (listening to pieces of music) music-based activities. Additionally, narrative activities may be linked to the music, such as creating or telling stories, talking about pictures, describing an object and so on. All activities have the general objective of enhancing participants' wellbeing. Additionally, each activity aims to stimulate specific cognitive abilities. There is not a correct way to execute an exercise/activity with OPDs; on the contrary, the facilitator has the task to adapt programmed activities to the group participants and use what is generally considered a "mistake" as a resource to creatively change the activity. Therefore, the focus is on inclusion rather than on performance.

All the activities are chosen based on: (a) OPDs' personal music preferences; (b) OPDs' level of impairment; (c) the main objective of the stimulation activities e.g., verbal fluency, memory, motor coordination, attention level. Indirect objectives of almost activities are: bonding in the group, sharing with the group, collaboration with the group, orientation in the space, creation of a relaxed and family atmosphere, socialisation.

The organization of activities considers particular fears and triggering factors of OPDs related to their personal stories and current situations, collected in the biographical sheet.

2.3. Environment

The room hosting the SOUND activities needs to be large enough to allow participants movement, tidy with as few distracting objects as possible, with a suitable level of light which is not too dark/bright/noisy, and with small sound reverberation. The chairs need to be arranged in a circle with assigned seats (placing a sheet on each chair, where the name of each participant is written and readable) considering specific aspects for interacting with the OPDs: (a) interpersonal dynamics; (b) visual/auditory difficulties; (c) need for proximity to the healthcare staff; (d) definition of roles. Considering the space of the circle as being inside a square, one chair for each corner needs to be positioned outside the circle for the external observers to sit.

3. OUTCOME MEASURES

The assessment of the SOUND method aims to verify its efficacy primarily on the wellbeing of OPDs and on the stress level of DCPs, and secondarily on the cognition, behavioural symptoms, mood and emotional wellbeing of OPDs and on the work cooperation and emotional wellbeing of DCPs. It is demonstrated that SOUND improves the wellbeing and mood of OPDs and helps maintaining their cognitive abilities. On the contrary, the SOUND intervention did not decrease the level of stress of DCPs, due to the fact that the organization of the session increased the workload of DCPs. Therefore, some adaptations in the organization may be necessary.

3.1. Pre, post and longitudinal intervention measures

The outcome measures are grouped into pre, post and longitudinal ones (Table 2) and live monitoring outcome tools (Table 3). It is possible to find a thorough description of each tool in the published SOUND protocol paper (Santini et al., 2024). Each institution wanting to assess the SOUND method needs to respect the copyrights of the tools, for some of which a confirmation from the copyright holder is required.

The neuro-psychological scales i.e. NPI, MoCA, FAB, have to be administered by psychologists or other healthcare professionals entitled to do it according to the national guidelines.

The psychologist will also calculate the overall score of the scales preparing the data for further analysis for example statistics ones.

The BAT, the WHO-5, HADS, LEWT, the thermometers as well as the questionnaires designed for SOUND can be self-compiled. The WHO-5 and HADS are better administered by a health professional in case of difficulties with self-administration due to dementia. It is preferable that data collected with these tools are analysed by the research team with the help of both a psychologist and a statistician.

Table 2. Pre, post and longitudinal-intervention outcome tools

Target group	Tools	Variables	Who administer the tool	Who answers the questions	When it is used
DCPs	Burnout Assessment Tool (BAT)	Stress	Self-report	Care Professional	T0, T1, T2
	Ad-hoc questionnaire	Stress	Self-report	Care professional	T0, T1, T2
	Ad-hoc questionnaire	Work cooperation	Self-report	Care professional	T0, T1, T2
	Longitudinal Emotional Well-being thermometer (LEWT)	Emotional wellbeing	Self-report	Care professional	Daily report from T0 to T2

OPDs	Neuropsychiatric Inventory (NPI)	Neuropsychiatric symptoms (patient) and Caregiver Distress	Psychologist	Family caregiver/care professional	T0, T1, T2
	Montreal Cognitive Assessment (MoCA)	General cognition	Psychologist	Older person	T0, T1, T2
	Frontal Assessment Battery (FAB)	Cognition - Executive functions	Psychologist	Older person	T0, T1, T2
	Hospital Anxiety and Depression Scale (HADS)	Mood	Psychologist	Older person	T0, T1, T2
	WHO (Five) Well-Being Index (WHO-5)	Wellbeing	Psychologist	Older person	T0, T1, T2
	Longitudinal Emotional Well-being Thermometer (LEWT)	Observed emotional wellbeing of OPD	Family caregiver	Family caregiver	Daily report from T0 to T2

Table 3 Live monitoring outcome tools

Target group	Tools	Variable	Point of view	When it is used
Dementia care professionals	Video recording	Behaviour	Video camera	During SOUND sessions
	Live Session Emotions Thermometer (LSET)	Emotional state, behavioural reaction	Self-report	After each SOUND session
Older people with dementia	Video recording	Behaviour	Video camera	During SOUND sessions
	Live Session Emotions Thermometer (LSET)	Emotional state, behavioural reaction	Internal observer	During SOUND session
	Apparent Affect Rating Scale (AARS)	Affect	External observer	During SOUND sessions

Before the assessment, it is important to prepare a database – rows X columns - where all data are entered and coded (Fig. 2).

Fig. 2. Example of database and coding

	A	B	C	D	E	F	G	H	I
1	ID_CODE_OPD	COUNTRY	GROUP	A1.AGE_OPD_T0	A2.SEX_OPD_T0	A3.NAT_OPD_T0	A4.MARST_OPD_T0	A5.EDU_OPD_T0	A6.0_LIVE_OPD_T0
2	ITAOPD1	39	1	83	2	italiana	2	1	1

The coding of each variable and responses needs to be reported in each outcome tool, in order to guarantee a correct data entry and analysis (Annex 1). Only data belonging to the video recordings are not part of the database.

3.2. Pre-post outcome measures: the data collection procedure

The first group of measures includes standardized and idiosyncratic tools of both quantitative and qualitative nature. As illustrated in Table 2, DCPs can be autonomous in filling in the forms. All measures can be printed and handed out then collected once they are completed.

The Burnout Assessment Tool (BAT) and the Ad-hoc questionnaire on work cooperation and stress need to be given and completed pre- (T0), post-intervention (T1) and after two weeks the intervention ended (T2). Differently, the Longitudinal Emotional Wellbeing thermometer (LEWT) can be given a week before the intervention and collected two weeks after its end.

The BAT, self-compiled by the DCPs, consists of 33 statements, each with 5 answering options, i.e. = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = always. The total score is obtained by summing the points. A difference of ± 10 points indicates a significant variation in burnout. The ad-hoc questionnaire includes quantitative questions on well-being, motivation, satisfaction and self-realization at work, teamwork, and relationship with patients and family caregivers, each with the same answering options as the BAT. Additionally, the version to administer at T1 and T2 includes quantitative and qualitative open questions on what extent and how the intervention has improved every area. A difference of ±10 points with a 95% confidence interval shows significance in the variation of burnout (Daniels et al, 2022).

The LEWT requires to score the average emotion of each day. The scoring mirrors the quality of the emotional activation, i.e. green indicates a homeostatic state of peace and calm (score = 0); darker green is joy/satisfaction whilst yellow indicates confidence/hope (score = 1); light blue means worried/anxious versus orange is annoyed/frustrated (score = 2); dark blue indicates sad/depressed whilst red means angry/disgusted (score = 3). DCPs are also asked to rate the influence SOUND sessions may have on their emotional state by indicating a score on a 1–5 scale ranging from “not at all” to “completely”. A trend of scoring towards 0 is indicative of good levels of well-being.

Regarding OPDs, a psychologist can administer all the pre-, and post-measures.

The Neuropsychiatric Inventory (NPI) needs to be administered to the main family or professional caregiver, and the other tests to OPDs directly. The NPI is divided into 12 sub-domains of behavioural issues, each one is introduced by a screening question followed by sub-questions to ask if the behaviour is present. Its total score for behavioural and psychological symptoms ranges from 0 to 144, and for caregiver stress from 0 to 60.

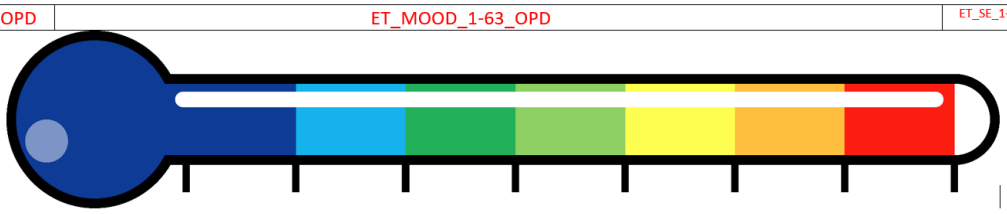
The Montreal Cognitive Assessment (MoCA) and the Frontal Assessment Battery (FAB) are two screening tools, the first for general cognition, and the second for executive functions. Psychologists should be familiar with the tools before using them, particularly they should be trained online to administer and score the MoCA test[1]. The MoCA includes 7 cognitive domains and sub-scores. A total score is obtained ranging from 0 to 30. If the OPD has ≤ 12 years of education, a point is added to the total score. The SOUND intervention is recommended for OPDs with a MoCA total score ≥10/30. The FAB comprises 6 cognitive domains and subtests, for which a 0-3 score can be obtained. The total score ranges from 0 to 18. Both screening tests contain a measure of verbal fluency that may be of interest for observing SOUND’s outcomes. Considering that dementia is a progressive condition, a lack of decrease in the scores for both screening tests is deemed positive. The Hospital Anxiety and Depression Scale (HADS) encompasses 7 questions for screening anxiety and 7 for depression. Each question can be answered through a Likert scale ranging from 0 to 3. Two total scores, one for each domain, can be obtained, ranging from 0 to 21, with higher scores indicating higher anxiety and depression, and with a cut-off of > 10. A 50% decrease in the

[1] https://mocacognition.com/training-certification/

scores or the absence of depression and anxiety is considered indicative of good mood levels.

The WHO Wellbeing Index (WHO-5) includes five statements on psychological wellbeing, each scored on a scale from 0 to 5. The total raw score ranges from 0-25 with higher scores indicating greater wellbeing. A percentage score can be calculated by multiplying the raw score by 4. The cut-off score for low mood is ≤ 50 and for depression is ≤ 28. The administration of tests for OPDs needs to be organised in a way that the confounding of cognitive performances is avoided: 1) MoCA; 2) WHO-5; 3) FAB; 4) HADS. All pre- and post-measures need to be repeated at T0, T1 and T2.

Additionally, the OPD version of LEWT is used to assess daily (longitudinally) the emotional wellbeing of OPDs. Because it is not feasible to ask OPDs to self-assess their wellbeing, differently from DCPs, the main family or professional caregiver is asked to complete the OPD version of LEWT. Therefore, this tool relies on the proxy observation of OPDs mood. The OPD version of the LEWT includes the same scheme for recording the person's emotional activation. The only difference is to highlight, by writing a note, if and which events may have influenced the OPD's emotional state during that specific day. As per the DCPs, a trend of scoring towards 0 is indicative of good levels of well-being/emotional balance.

ET_DATE_1-63_OPD	ET_MOOD_1-63_OPD							ET_SE_1-63_OPD	ET_SOUND_1-63_OPD
									
DATE	Sad, apathetic, depressed 3	Worried, anxious 2	Satisfied, joyful 1	Calm, at peace 0	Confident, hopeful 1	Frustrated, nervous 2	Angry, disgusted, bitter 3	Special events	SOUND ACTIVITY YES=1 NO=0
9/10									
10/10									
11/10									

3.3. Live monitoring outcome tools: the data collection procedure

The second group of assessment measures include qualitative and quantitative tools to be used during the SOUND sessions.

The video recording of sessions is important for gathering a variety of information, such as on the quality of facilitation, levels of participation, mood and socialisation, quality of

responses, and management of difficulties. To capture the whole group, at least two cameras need to be positioned in two opposite corners outside the circle. It is recommended to watch the videos, particularly when: a) there are high incongruities of the scoring and notes provided in the LSET and AARS; b) a challenging situation occurred; c) the facilitator needs to assess the reactions to certain activities, and how they held and supported the group; d) the internal observers need to assess their balance between participating and offering support, and the way they offered support.

The LSET is an idiosyncratic tool divided into two forms: one for recording the OPD emotional impact of, and the behavioural response to the most significant moments during the session; the second for documenting the internal observer's (DCP) emotional response to the OPD state, their thought process, their applied support strategies if any, and their sense of efficacy. The internal observers have to fill the LSET as soon as each SOUND session ends. In fact, internal observers need to keep mental notes of their observations during the session, to report them to LSET while they are still fresh in their minds.

The AARS is an observational tool to rate OPDs emotions during the various activities of SOUND sessions. The tool includes five emotions, two positive (pleasure and interest) and three negatives (fear/anxiety, anger and sadness). The external observers can record what type of emotion they observe and score its duration on a scale from 0 to 5 (0 = can't tell; 1 = never; 2 = less than 16 secs; 3 = 16–59 secs; 4 = 1–2 mins; 5 = more than 2 mins) by observing the person for 5 min. The SOUND version of AARS includes three forms for observing the OPD from min 5-10, then 20-25, and finally 35-40. Thus, external observers need to observe each assigned OPD during three intervals of SOUND sessions, report the type of activity carried out during that specific period (as coded in the related tool) and possibly take relevant written notes of observations made. All this information collected during each session, should be reported in a narrative way in the patients' diaries.

4. RECOMMENDATIONS FOR DEMENTIA CARE PROFESSIONALS AND RESEARCHERS

The SOUND non-pharmacological intervention is self-standing, this meaning that it can be delivered without the collection of data before and after the intervention and without the assessment of the outcomes. Nevertheless, the monitoring of the impact through measurable objective as well as qualitative tools can provide the intervention with that scientific robustness that may allow to provide evidence-based recommendation for future

actions and interventions. The intervention effects monitoring requires the support of both psychologists, for administering the psychometric scales, and of researchers, for observing the intervention, collecting and analysing the data, and interpreting the results. This means that the delivery of SOUND needs:

1. a multidisciplinary team sharing the same vision;
2. the full cooperation of facilitators leading the activities, internal observers (dementia care professionals) and external observers (researchers);
3. the supervision of gerontologists.

Noteworthy, the tools used in SOUND are not perfect and some of them might have not grasped the light, sometimes imperceptible changes and evolutions, happened in the older patients during the delivery of the intervention. For this reason, it is very important to have in the team at least one researcher skilled in qualitative research through which it may be possible to capture such a small but important changes in older people's behaviour and mood.

A very important instrument during the SOUND experimentation was the OPD's personal diary, that external observed wrote for each participant. In fact, in the diary the researchers could include in a narrative way, many details on the sessions and the patients that escaped out of the quantitative tools.

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ANNEX 1
SOUND OUTCOMES TOOLS

Here we collected almost the data collection tools that were used by the SOUND study. Some of them cannot be included because copyright protected. The following table details which tools are included and which excluded in this section.

Included	Excluded
Common assessment tool for DCPs ad OPDs	BURNOUT ASSESSMENT TOOL (BAT) - WORK-RELATED VERSION
Frontal Assessment Battery (FAB)	Hospital Anxiety and Depression Scale (HADS)
Biography of the older people (template)	Neuropsychiatric Inventory (NPI)
Assessment of Individualized (Personal) Music Preference-2nd Edition	
Apparent Affect Rating Scale (AARS)	
Live Session Emotions Thermometer (LSET)	
Longitudinal Emotional Wellbeing Thermometer (LEWT)	
WHO-5 Wellbeing Index	

HEALTH CARE PROFESSIONALS (P)
(PRE-TRIAL - T0 - ONE WEEK BEFORE)

Health care professional ID code _____ [ID_CODE_P]

A. PERSONAL INFORMATION						
A1.AGE_P_T0	**1. Age: _____**					
A2.SEX_P_T0	**2. Sex:**	Male	①	Female	②	
A3.NAT_P_T0	**3. Nationality:_____**					
A4.MARST_P_T0	**4. Marital status:**	Married/Cohabiting	①	Widow	②	
		Divorced/Separated	③	Single	④	

A5.EDU_P_T0	**5. What is the highest level of education you have successfully completed?**	Early childhood education	⓪
		Primary education	①
		Lower secondary education	②
		Upper secondary education	③
		Post-secondary non-tertiary education	④
		Short-cycle tertiary education	⑤
		Bachelor's Master's or Doctoral level	⑥

EMPLOYMENT STATUS

A6.WORK_P_T0	**6. Are you currently working?**	**No** ⓪ (go to **question 14**)				
		Yes ① (Answer to questions **7-13** of the grey section and to the following ones)				
A7.COMPANY_P_T0	**7. Which institution/company do you work at?**					
A8.PROFESSION_P_T0	**8. What is your profession?**					
A9.NYEXP_P_T0	**9. How many years of experience have you had in this profession?**					
A10.NYTEAM_P_T0	**10. How many years have you worked with your current team?**					
A11.NHWORK_P_T0	**11. How many hours do you work in a typical week?**					
A12.WORK_P_T0	**12. If you work, are you...?**	Employee in the private sector	①	Employee in the public sector	②	
		Self-employed worker	③	Other (specify here below)	④	
A12.OTHER_P_T0	**Specify 'other':**					

A13.BOSS_P_T0	**13. In your work team you are...?**	A Boss ① A co-worker ②
YOU AND MUSIC		
A14.MUSICIAN_P_T0	**14. Are you a musician?**	No ⓪ Yes ①
A15.CREATIVE_P_T0	**15. What are your creative aptitudes?** (e.g. listening to music, playing an instrument, solo singing, choir, dancing, painting, handicrafts, writing or any other artistic/creative activity you like to do on a regular basis)	**Write here:**

QUESTIONNAIRE FOR PROFESSIONALS (QP) (P)

(PRE-TRIAL – T0 - ONE WEEK BEFORE)

Health care professional ID code _____ [ID_CODE_P]

TOPIC	QUESTION	SCALE
WELL-BEING		
GENERAL WELL-BEING [QP1_P_T0]	1. How do you rate the level of your general well-being at the end of a typical work-day?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good), ☐ 4 = Quite good, ☐ 5= Very good
PHYSICAL WELL-BEING [QP4_P_T0]	4. How do you rate the level of your physical well-being at the end of a typical work-day?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good) ☐ 4 = Quite good ☐ 5= Very good
MENTAL WELL-BEING [QP7_P_T0]	7. How do you rate the level of your mental well-being at the end of a typical work-day?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good) ☐ 4 = Quite good ☐ 5= Very good
MOTIVATION AT WORK [QP10_P_T0]	10. How do you rate your level of motivation at work?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good) ☐ 4 = Quite good ☐ 5= Very good
[QP13_P_T0]	13. How do you rate the level of motivation of your colleague?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good) ☐ 4 = Quite good ☐ 5= Very good
JOB SATISFACTION [QP16_P_T0]	16. How much satisfied do you feel at work?	☐ 1= Very dissatisfied ☐ 2= Quite dissatisfied ☐ 3= Neither satisfied nor dissatisfied

		☐ 4 = Quite satisfied ☐ 5=Very satisfied
SELF-REALISATION [QP19_P_T0]	19. How much realised do you feel at work?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
TEAMWORK		
COOPERATION [QP22_P_T0]	22. How do you rate the level of cooperation within your care team?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good) ☐ 4 = Quite good ☐ 5= Very good
[QP25_P_T0]	25. To what extent the care process of OPDs is shared and discussed in the team?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
TRUSTWORTHINESS [QP28_P_T0]	28. How trustful-distrustful are you about your colleagues?	☐ 1= Very distrustful ☐ 2= Quite distrustful ☐ 3= neither distrustful nor trustful ☐ 4= Quite trustful ☐ 5=Very trustful
[QP31_P_T0]	31. How trustful-distrustful are you about your boss?	☐ 1= Very distrustful ☐ 2= Quite distrustful ☐ 3= neither distrustful nor trustful ☐ 4= Quite trustful ☐ 5=Very trustful
COMMUNICATION IN TEAM [QP33_P_T0]	33. How do you rate the quality of communication with your colleagues?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good) ☐ 4 = Quite good ☐ 5= Very good
[QP36_P_T0]	36. How do you rate the quality of communication with your boss?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good)

		☐4 = Quite good ☐ 5= Very good
[QP39_P_T0]	39. To what extent do you feel that patient treatment and care are adequately discussed in the team?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
RELATIONSHIP WITH OPDs AND FAMILY CAREGIVERS		
RELATIONSHIP OF PROFESSIONALS WITH OLDER PEOPLE WITH DEMENTIA [QP41_P_T0]	41. How do you rate the quality of your relationship with older people with dementia?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good) ☐4 = Quite good ☐ 5= Very good
COMMUNICATION OF PROFESSIONALS WITH OLDER PEOPLE WITH DEMENTIA [QP44_P_T0]	44. How do you rate the effectiveness of your communication with older people with dementia?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good) ☐4 = Quite good ☐ 5= Very good
RELATIONSHIP OF PROFESSIONALS WITH FAMILY CAREGIVERS [QP46_P_T0]	46. How do you rate the quality of your relationship with family caregivers?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good) ☐4 = Quite good ☐ 5= Very good
COMMUNICATION OF PROFESSIONALS WITH FAMILY CAREGIVERS [QP49_P_T0]	49. How do you rate the effectiveness of your communication with family caregivers?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good) ☐4 = Quite good ☐ 5= Very good

OLDER PEOPLE WITH DEMENTIA (OPD)

(PRE-TRIAL – T0 - ONE WEEK BEFORE)

QUESTIONS ADMINISTERED TO THE FAMILY CARER ABOUT OPD

Older People with Dementia ID code _____ [ID_CODE_OPD]

A. PERSONAL INFORMATION

A1.AGE_OPD_T0	**1. Age: _____**					
A2.SEX_OPD_T0	**2. Sex:**	Male	①		Female	②
A3.NAT_OPD_T0	**3. Nationality:_____**					
A4.MARST_OPD_T0	**4. Marital status:**	Married/Partner	①		Widow	②
		Divorced/Separated	③		Single	④
A5.EDU_OPD_T0	**5. Education:**	No title	0			
		Primary school leaving certificate	1			
		Secondary school leaving certificate	2			
		High school diploma	3			
		Post-secondary diploma (non-tertiary)	4			
		Tertiary vocational diploma	5			
		Bachelor's, Master's or PhD degree	6			
	6. Who does [NAME OF THE PERSON WITH DEMENTIA] live with?					
A6.0_LIVE_OPD_T0	0. Alone	Yes (go to question 7)	①		No	0
A6.1_LIVE_OPD_T0	1. Spouse/Partner	Yes	①		No	0
A6.2_LIVE_OPD_T0	2. Mother/Father	Yes	①		No	0
A6.3_LIVE_OPD_T0	3. Sister/Brother	Yes	①		No	0
A6.4_LIVE_OPD_T0	4. Daughter/Son	Yes	①		No	0
A6.5_LIVE_OPD_T0	5. Uncle/Aunt	Yes	①		No	0

A6.6_LIVE_OPD_T0	6. Grandchild(child of child)	Yes	①	No	⓪
A6.7_LIVE_OPD_T0	7. Niece/Nephew	Yes	①	No	⓪
A6.8_LIVE_OPD_T0	8. Daughter/Son in law	Yes	①	No	⓪
A6.9_LIVE_OPD_T0	9. Sister/Brother-in-law	Yes	①	No	⓪
A6.10_LIVE_OPD_T0	10. Other (specify below)	Yes	①	No	⓪
A6.10.OTHER_OPD_T0	Other, specify _____				
A7.LIVE_OPD_T0	**7. Where does [NAME OF THE PERSON WITH DEMENTIA] live?**	At home	①		
		In care accommodations	②		
A8.DAYCARE_OPD_T0	**8. Does [NAME OF THE PERSON WITH DEMENTIA] attend a day centre?**	Yes	①		
		No	⓪		
A9.DIAGNOSIS_OPD_T0	**9. What is [NAME OF THE PERSON WITH DEMENTIA]'s diagnosis?** Write here: _____ __				
A10.NYDEM_OPD_T0	**10. How many years has [NAME OF THE PERSON WITH DEMENTIA] been living with dementia?** _____				
A11.LEVEL_OPD_T0	**11. What level of listening comprehension and oral expression does [NAME OF THE PERSON WITH DEMENTIA] have?** Low ① Medium ② High ③				

QUESTIONNAIRE FOR PROFESSIONALS (QP) (P)

(END-TRIAL - T1 – IMMEDIATELY AFTER THE END OF TRIAL)

Health care professional ID code _____ [ID_CODE_P]

TOPIC	QUESTION	SCALE
WELL-BEING		
GENERAL WELL-BEING [QP1_P_T1]	1. How do you rate the level of your general well-being at the end of a typical work-day?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good), ☐ 4 = Quite good, ☐ 5= Very good
[QP2_P_T1]	2. To what extent do you think that SOUND improved your general well-being?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
[QP3_P_T1]	3. Why? (Please, answer only if the score of the previous question is ≥ 3)	
PHYSICAL WELL-BEING [QP4P_T1]	4. How do you rate the level of your physical well-being at the end of a typical work-day?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good), ☐ 4 = Quite good, ☐ 5= Very good
[QP5_P_T1]	5. To what extent do you think that SOUND improved your physical well-being?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
[QP6_P_T1]	6. Why? (Please, answer only if the score of the previous question is ≥ 3)	
MENTAL WELL-BEING [QP7_P_T1]	7. How do you rate the level of your mental well-being at the end of a typical work-day?	☐ 1=Very bad ☐ 2=Quite bad

		☐ 3= Fair (neither bad nor good), ☐ 4 = Quite good, ☐ 5= Very good
[QP8_P_T1]	8. To what extent do you think that SOUND improved your mental well-being?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
[QP9_P_T1]	9. Why? (Please, answer only if the score of the previous question is ≥ 3)	
MOTIVATION AT WORK [QP10_P_T1]	10. How do you rate your level of motivation at work?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good), ☐ 4 = Quite good, ☐ 5= Very good
[QP11_P_T1]	11. To what extent do you think that SOUND improved your level of motivation at work?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
[QP12_P_T1]	12. Why? (Please, answer only if the score of the previous question is ≥ 3)	
[QP13_P_T1]	13. How do you rate the level motivation of your colleagues?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good), ☐ 4 = Quite good, ☐ 5= Very good
[QP14_P_T1]	14. To what extent do you think that SOUND improved the level of motivation at work of your colleagues?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely

[QP15_P_T1]	15. Why? (Please, answer only if the score of the previous question is ≥ 3)	
JOB SATISFACTION [QP16_P_T1]	16. How much satisfied do you feel at work?	☐ 1= Very dissatisfied ☐ 2= Quite dissatisfied ☐ 3= neither dissatisfied nor satisfied ☐ 4 = Quite satisfied, ☐ 5 Very satisfied
[QP17_P_T1]	17. To what extent do you think that SOUND improved your level of satisfaction at work?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
[QP18_P_T1]	18. Why? (Please, answer only if the score of the previous question is ≥ 3)	
SELF-REALISATION [QP19_P_T1]	19. How much realised do you feel at work?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
[QP20_P_T1]	20. To what extent do you think that SOUND improved your level of self-realisation at work?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
[QP21_P_T1]	21. Why? (Please, answer only if the score of the previous question is ≥ 3)	
8. TEAMWORK		
COOPERATION [QP22_P_T1]	22. How do you rate the cooperation within your care team?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good), ☐ 4 = Quite good, ☐ 5= Very good

[QP23_P_T1]	23. To what extent do you think that SOUND enhanced the level of cooperation within your care team?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
[QP24_P_T1]	24. Why? (Please, answer only if the score of the previous question is ≥ 3)	
[QP25_P_T1]	25. To what extent the care of OPDs is shared and discussed in the team?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
[QP26_P_T1]	26. To what extent do you think that SOUND helped share the care process within the team?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
[QP27_P_T1]	27. Why? (Please, answer only if the score of the previous question is ≥ 3)	
TRUSTWORTHINESS [QP28_P_T1]	28. How trustful-distrustful are you about your colleagues?	☐ 1= Very distrustful ☐ 2= Quite distrustful ☐ 3= neither distrustful nor trustful ☐ 4 = Quite trustful ☐ 5 Very trustful
[QP29_P_T1]	29. To what extent do you think that SOUND changed (not necessarily improve) the level of trustworthiness in the team?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
[QP30_P_T1]	30. Why? (Please, answer only if the score of the previous question is ≥ 3)	

[QP31_P_T1]	31. How trustful-distrustful are you about your boss?	☐ 1= Very distrustful ☐ 2= Quite distrustful ☐ 3= neither distrustful nor trustful ☐ 4 = Quite trustful ☐ 5 Very trustful
[QP32_P_T1]	32. To what extent do you think that SOUND changed (not necessarily improve) the level of trustworthiness towards your boss?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
COMMUNICATION IN TEAM [QP33_P_T1]	33. How do you rate the quality of communication with your colleagues?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good), ☐ 4 = Quite good, ☐ 5= Very good
[QP34_P_T1]	34. To what extent do you think that SOUND changed (not necessarily improve) the quality of communication with your colleagues?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
[QP35_P_T1]	35. Why? (Please, answer only if the score of the previous question is ≥ 3)	
[QP36_P_T1]	36. How do you rate the quality of communication with your boss?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good), ☐ 4 = Quite good, ☐ 5= Very good
[QP37_P_T1]	37. To what extent do you think that SOUND changed (not necessarily improve) the quality of communication with your boss?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely

[QP38_P_T1]	38. Why? (Please, answer only if the score of the previous question is ≥ 3)	
[QP39_P_T1]	39. To what extent do you feel that patient treatment and care are adequately discussed in the team?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
[QP40_P_T1]	40. To what extent do you think that SOUND improved the discussion of the patient treatment within the team?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
RELATIONSHIP WTH OPDs AND FAMILY CAREGIVERS		
RELATIONSHIP OF PROFESSIONALS WITH OLDER PEOPLE WITH DEMENTIA [QP41_P_T1]	41. How do you rate the quality of your relationship with older people with dementia?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good), ☐ 4 = Quite good, ☐ 5= Very good
[QP42_P_T1]	42. To what extent do you think that SOUND helped you improve the relationship with older people with dementia?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
[QP43_P_T1]	43. Why? (Please, answer only if the score of the previous question is ≥ 3)	
COMMUNICATION OF PROFESSIONALS WITH OLDER PEOPLE WITH DEMENTIA [QP44_P_T1]	44. To what extent do you think that SOUND helped you improve the communication with older people with dementia?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely

[QP45_P_T1]	45. Why? (Please, answer only if the score of the previous question is ≥ 3)	
RELATIONSHIP OF PROFESSIONALS WITH FAMILY CAREGIVERS [QP46_P_T1]	46. How do you rate the quality of your relationship with family caregivers?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good), ☐ 4 = Quite good, ☐ 5= Very good
[QP47_P_T1]	47. To what extent do you think that SOUND helped you improve the relationship with family caregivers?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
[QP48_P_T1]	48. Why? (Please, answer only if the score of the previous question is ≥ 3)	
COMMUNICATION OF PROFESSIONALS WITH FAMILY CAREGIVERS [QP49_P_T1]	49. How do you rate the effectiveness of your communication with family caregivers?	☐ 1=Very bad ☐ 2=Quite bad ☐ 3= Fair (neither bad nor good), ☐ 4 = Quite good, ☐ 5= Very good
[QP50_P_T1]	50. To what extent do you think that SOUND helped you improve the communication with family caregivers?	☐ 1=Not at all ☐ 2=Slightly ☐ 3=Moderately ☐ 4=Very ☐ 5=Extremely
[QP51_P_T1]	51. Why? (Please, answer only if the score of the previous question is ≥ 3)	

[QP52_P_T1] 52. In conclusion, tell us freely what you think of the SOUND method and what your personal and group experience with SOUND has been:

DATA COLLECTION TOOLS FOR
THE OLDER PERSON WITH DEMENTIA (OPD)
(PRE-TRIAL – T0 - ONE WEEK BEFORE)

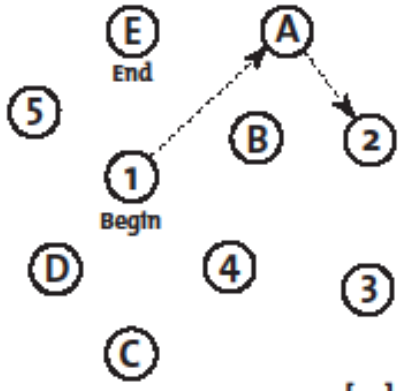
(to be administered to participants with dementia and caregivers as indicated in the table below)

Test / Tool	TO BE ADMINISTERED TO:
1. MoCA	Person With Dementia
2. WHO-5	Person With Dementia
3. FAB	Person With Dementia
4. HADS	Person With Dementia
5. NPI-12	Main Caregiver
6. Biography of the person with Dementia	Main Caregiver
7. ASSESSMENT OF INDIVIDUALIZED (PERSONAL) MUSIC PREFERENCE	Main Caregiver

MONTREAL COGNITIVE ASSESSMENT (MOCA)

NAME :
Education : Date of birth :
Sex : DATE :

VISUOSPATIAL / EXECUTIVE



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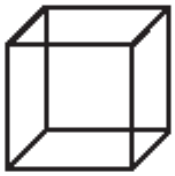
Copy cube



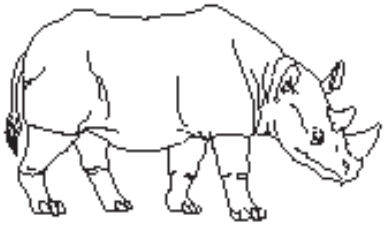
Draw CLOCK (Ten past eleven) (3 points)

[ ] Contour [ ] Numbers [ ] Hands

POINTS ___/5

NAMING

[ ]



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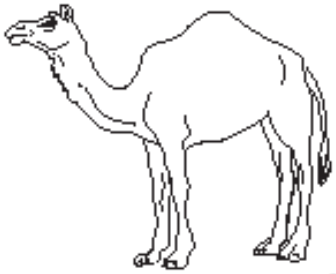


[ ]

___/3

MEMORY

Read list of words, subject must repeat them. Do 2 trials. Do a recall after 5 minutes.

	FACE	VELVET	CHURCH	DAISY	RED
1st trial					
2nd trial					

No points

ATTENTION

Read list of digits (1 digit/ sec.).

Subject has to repeat them in the forward order [ ] 2 1 8 5 4

Subject has to repeat them in the backward order [ ] 7 4 2

___/2

Read list of letters. The subject must tap with his hand at each letter A. No points if ≥ 2 errors

[ ] F B A C M N A A J K L B A F A K D E A A A J A M O F A A B

___/1

Serial 7 subtraction starting at 100 [ ] 93 [ ] 86 [ ] 79 [ ] 72 [ ] 65

4 or 5 correct subtractions: **3 pts**, 2 or 3 correct: **2 pts**, 1 correct: **1 pt**, 0 correct: **0 pt**

___/3

LANGUAGE

Repeat : I only know that John is the one to help today. [ ]

The cat always hid under the couch when dogs were in the room. [ ]

___/2

Fluency / Name maximum number of words in one minute that begin with the letter F [ ] _____ (N ≥ 11 words)

___/1

ABSTRACTION

Similarity between e.g. banana - orange = fruit [ ] train – bicycle [ ] watch - ruler

___/2

DELAYED RECALL

	Has to recall words WITH NO CUE	FACE [ ]	VELVET [ ]	CHURCH [ ]	DAISY [ ]	RED [ ]	Points for UNCUED recall only
Optional	Category cue						
	Multiple choice cue						

___/5

ORIENTATION

[ ] Date [ ] Month [ ] Year [ ] Day [ ] Place [ ] City

___/6

 Version November 7, 2004

www.mocatest.org

Normal ≥ 26 / 30

TOTAL ___/30

Add 1 point if ≤ 12 yr edu

Administered by:_____

Older People with Dementia ID code _____ [ID_CODE_OPD]

ADD 1 POINT TO THE ABOVE COMPUTED SCORE IF OPD ATTENDED <= 12 YEARS IN EDUCATION

TOTAL MoCA SCORE IS: ____/30 **[MOCA_TOT_OPD_T0]**

INDICATE IF THE MOCA SCORING IS AT LEAST 10/30	YES, IT IS AT LEAST 10/30	☐	NO, IT IS BELOW 10/30	☐

REPORT HERE BELOW THE SCORE OF QUESTION IN MoCA ABOUT "FLUENCY":
"name the maximum number of words in one minute that begin with letter F"

(if the number of words is >= 11, give score 1; if the number of words is 0-10, give score 0)

MoCA SCORE FOR FLUENCY IS: ____/30 **[MOCA_FLU_OPD_T0]**

Psychiatric Research Unit

WHO Collaborating Centre in Mental Health

WHO (five) well-being index (1998 version)

ADMINISTERED TO THE OLDER PERSON WITH DEMENTIA (OPD)
(PRE-TRIAL – T0 - ONE WEEK BEFORE)

Please indicate for each of the five statements which is closest to how you have been feeling over the last two weeks. Notice that higher numbers mean better well-being.

Example: If you have felt cheerful and in good spirits more than half of the time during the last two weeks, put a tick in the circle with the number 3.

Older People with Dementia ID code _____ [ID_CODE_OPD]

In the last two weeks...		**All of the time**	**Most of the time**	**More than half the time**	**Less than half the time**	**Some of the time**	**At no time**
WHO1_OPD_T0	1. I have felt cheerful in good spirits	⑤	④	③	②	①	⓪
WHO2_OPD_T0	2. I have felt calm and relaxed	⑤	④	③	②	①	⓪
WHO3_OPD_T0	3. I have felt active and vigorous	⑤	④	③	②	①	⓪
WHO4_OPD_T0	4. I woke up feeling fresh and rested	⑤	④	③	②	①	⓪
WHO5_OPD_T0	5. My daily life has been filled with things that interest me	⑤	④	③	②	①	⓪

Scoring:

The raw score is calculated by totaling the figures of the five answers. The raw score ranges from 0 to 25, 0 representing worst possible and 25 representing best possible quality of life.
To obtain a percentage score ranging from 0 to 100, the raw score is multiplied by 4. A percentage score of 0 represents worst possible, whereas a score of 100 represents best possible quality of life.

Interpretation:
It is recommended to administer the Major Depression (ICD-10) Inventory if the raw score is below 13 or if the patient has answered 0 to 1 to any of the five items. A score below 13 indicates poor wellbeing and is an indication for testing for depression under ICD-10.

Monitoring change:
In order to monitor possible changes in wellbeing, the percentage score is used. A 10% difference indicates a significant change (ref. John Ware, 1995).

Frontal Assessment Battery (FAB)

ADMINISTERED TO THE OLDER PERSON WITH DEMENTIA (OPD)

(PRE-TRIAL – T0 - ONE WEEK BEFORE)

(Reference: Slachevsky, A; Dubois, B. Frontal Assessment Battery and Differential Diagnosis of Frontotemporal Dementia and Alzheimer Disease. Archives of Neurology. 61(7): 1104-1107, 2004.)

Older People with Dementia ID code _____ [ID_CODE_OPD]

1. Similarities (conceptualization)

"In what way are they alike:"

- a banana and a orange?
  (In the event of total failure: "they are not alike" or partial failure "both have a peel", help the patient by saying "both a banana and an orange are…."; but credit 0 for the item; do not help the patient for the tow following items)
- a table and a chair?
- a tulip, a rose, and a daisy?

Score: only category responses (fruits, furniture, flowers) are considered correct.

- Three correct: 3
- Two correct: 2
- One correct: 1
- None correct: 0

[FAB1_OPD_T0]

2. Lexical fluency (mental flexibility)

"Say as many words as you can beginning with the letter 'S', any words except surnames or proper nouns."

If the patient gives no response during the first 5 seconds, say: "For instance, snake." If the patient pauses 10 seconds, stimulate him by saying: "any word beginning with the letter 'S'. The time allowed is 60 seconds.

Score: word repetitions or variations (shoe, shoemaker), surnames, or proper nouns are not counted as correct responses.

- More than nine words: 3
- Six to nine words: 2
- Three to five words: 1
- Less than three words: 0

[FAB2_OPD_T0]

3. Motor series (programming)

"Look carefully at what I'm doing."

The examiner, seated in front of the patient, performs alone three times with his left hand the series of Luria "fist-edge-palm."

"Now, with your right hand do the same series, first with me, then alone."

The examiner performs the series three times with the patient, and then says to him/her: "Now, do it on your own."

Score:

• Patient performs six correct, consecutive series alone: 3

• Patient performs at least three correct consecutive series alone: 2

• Patient fails alone, but performs three correct consecutive series with the examiner: 1

• Patient cannot perform three correct consecutive series even with the examiner: 0

[FAB3_OPD_T0]

4. Conflicting instructions (sensitivity to interference)

"Tap twice when I tap once."

To be sure that the patient has understood the instructions, a series of three trials is run: 1 – 1 – 1.

"Tap once when I tap twice."

To be sure the patient has understood the instructions, a series of three trials is run: 2 – 2 – 2. The examiner performs the following series: 1 – 1 – 2 – 1 – 2 – 2 – 2 – 1 – 1 – 2.

Score:

• No error: 3

• One or two errors: 2

• More than 2 errors: 1

• Patient taps like the examiner at least four consecutive times: 0

[FAB4_OPD_T0]

5. Go-No-Go (inhibitory control)
“Tap once when I tap once.”
To be sure that the patient has understood the instructions, a series of three trials is run: 1 – 1 – 1. “Do not tap when I tap twice.” To be sure the patient has understood the instructions, a series of three trials is run: 2 – 2 – 2. The examiner performs the series: 1 – 1 – 2 – 1 – 2 – 2 – 2 – 1 – 1 – 2.
Score:
• No errors: 3
• One or two errors: 2
• More than two errors: 1
• Patient taps like the examiner at least four consecutive times: 0

[FAB5_OPD_T0]

6. Prehension behavior (environmental autonomy)

The examiner is seated in front of the patient. Place the patient’s hands palm up on his/her knees. Without saying anything or looking at the patient, the examiner brings his/her hands close to the patient’s hands and touches the palms of both the patient’s hand, to see if he/she will spontaneously take them. If the patient takes the hands, the examiner will try again after asking him/her: “Now, do not take my hands.”

Score:

• Patient does not take the examiner’s hands: 3

• Patient hesitates and asks what he/she has to do: 2

• Patient takes the hands without hesitation: 1

• Patient takes the examiner’s hands even after he/she has been told not to do so: 0

[FAB6_OPD_T0]

TOTAL SCORE FAB …../18 [FAB_SCORE_OPD_T0]

Biography of the person with Dementia (OPD)

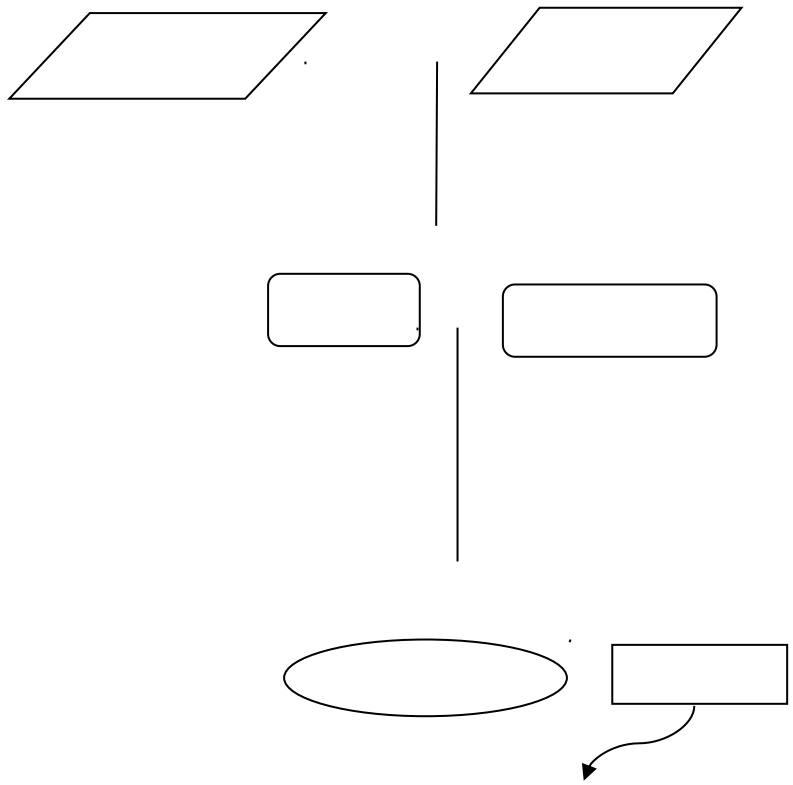
ADMINISTERED TO THE FAMILY CAREGIVER

(PRE-TRIAL – T0 – ONE WEEK BEFORE)

[these data will not be entered into the dataset]

Older People with Dementia ID Code _____ **[ID_CODE_OPD]**

Description of the family unit with genealogical tree:



News from the past, before the onset of the disease (relationship with family, significant events, schools attended, professions held, places where he/she lived, important relationships, etc.)

CHILDHOOD:

ADOLESCENCE:

MATURITY:

OLD AGE:

Onset of the disease (how it manifested itself, what relevant problems arised, etc.):

News on current interests (how time is spent in the last period: listening to music, reading, watching TV, walking, etc.):

Current social relations:

Does he/she have a special relationship with a family member or close friend (person to try to involve in the intervention)?

Specific objects that he/she always has with him/her:

Relation to corporeality (does he/she accept physical contact, etc.):

Particular fears (darkness, noise, etc.) **detected by family members:**

Description of behavioural manifestations and effective strategies to deal with them:

Life habits (rest in the afternoon, what time does he/she go to bed in the evening, what time does he/she get up, sleep/wake rhythm, etc.):

Other remarks

MoCA (10+):

NPI:

Signature of the health professional who filled out the form

Place (Country), date

_____(_____), _____/_____/ _____
dd / mm / aaaa

ASSESSMENT OF INDIVIDUALZED (PERSONAL) MUSIC PREFERENCE

2nd EDITION

Care Recipient Version

ADMINISTERED TO THE FAMILY CAREGIVER

(PRE-TRIAL – T0 - ONE WEEK BEFORE)

[these data will not be entered into the dataset]

Older People with Dementia ID Code _____ **[ID_CODE_OPD]**

Familiar music is often a very important part of people's lives. Please complete the questionnaire based on your knowledge of your family member's music preferences.

Please put a check (✓) beside the most correct choice to the following questions.

Historically, how important a role did music play in this person's life?

____1. Very important

____2. Moderately important

____ 3. Slightly important

____ 4. Not important

Does/did this person play a musical instrument? ____1. Yes ____0. No

If yes, please specify (examples: piano, guitar).

Does/did this person enjoy singing? ____1. Yes ____0. No

If yes, please specify (examples: around-the house, church choir).

Does/did this person enjoy dancing? ____1. Yes ____0. No

If yes, please specify (examples may include: attended dance lessons, participate in square dancing or Texas two-step)

The following is a list of different types of music. Please indicate the individual's three (3) most favorite types with 1 being the most favorite, 2 the next, and 3 the third favorite.

____ Country e Western

____ Classical

____ Spiritual / Religious

____ Big Band / Swing

____ Folk

____ Blues /Rhythm and Blues / Soul

____ Jazz

____ Rock and Roll

____ Easy Listening

____ Cultural or Ethinic Specific (examples: Czech polkas, Ravi Shankar Indian sitar)

____ Hip pop

____ Latin

____ Other: _____

Please put a check (✓) beside the most correct choice to the following questions.

What form does the individual's favorite music take?

____ Vocal

____ Instrumental

____ Both

Please identify specific songs/musical selections that made this person feel happy.

Please identify specific artist(s)/performers(s) that this person enjoyed listening to the most.

Please identify specific playlists, compact discs, audio-cassette tapes, or vinyl records contained in this individual's personal music library.

SOUND PR3 - INTERVENTION WITH OPD

APPARENT AFFECT RATING SCALE (AARS)

Lawton MP, Van Haitsma K, Perkinson MA, Ruckdeschel K (1999). Observed Affect and Quality of Life in Dementia: Further Affirmations and Problems. Aging and Mental Health, 5(1):69-81.

Older People with Dementia ID code: ITAOPD _____ [ID_CODE_OPD]

MEETING N: _____ (FROM 1 TO 12) DATE: _____/____ [from AARS_DATE_1 to AARS_DATE_12]

EXTERNAL OBSERVER'S NAME: _____ [from AARS_OBS_1 to AARS_OBS_12]

TIME OF OBSERVATION: FROM MINUTE 5 TO MINUTE 10

Observation period: 5 minutes	Can't tell	Never	Less than 16 secs	16-59 secs	1-2 mins	More than 2 mins
PLEASURE [AARS_5-10_PLE_1 - AARS_5-10_PLE_12] Signs: laughing; singing; smiling; kissing; stroking or gently touching other; reaching out warmly to other; responding to music (only counts as pleasure if in combination with another sign). Statements of pleasure.	⓪	①	②	③	④	⑤
ANGER [AARS_5-10_ANG_1 - AARS_5-10_ANG_12] Signs: physical aggression; yelling; cursing; berating; shaking fist; drawing eyebrows together; clentching teeth; pursing lips; narrowing eyes; making distancing gesture. Statements of anger.	⓪	①	②	③	④	⑤
ANXIETY/FEAR [AARS_5-10_ANX_1 - AARS_5-10_ANX_12] Signs: shrieking; repetitive calling out; restlessness; wincing; grimacing; repeated or agitated movement; lines between eybrows; lines across forehead; hand wringing; tremor; leg jiggling; rapid breathing; eyes wide; tight facial muscles. Statements of anxiety/fear.	⓪	①	②	③	④	⑤
DEPRESSION/SADNESS [AARS_5-10_DEP_1 - AARS_5-10_DEP_12] Signs: Cry; frowning; eyes drooping; moaning; sighing; head in hand; eyes/head turned down and face expressionless (only counts as sadness if paired with another sign). Statements of sadness.	⓪	①	②	③	④	⑤
INTEREST [AARS_5-10_INT_1 - AARS_5-10_INT_12] Signs: participating in a task, maintaining eye contact; eyes following objects or persons; looking around room; responding by moving or	⓪	①	②	③	④	⑤

Observation period: 5 minutes	Can't tell	Never	Less than 16 secs	16-59 secs	1-2 mins	More than 2 mins
saying something; turning body or moving toward person or object.						

TIME OF OBSERVATION: FROM MINUTE 20 TO MINUTE 25

Observation period: 5 minutes	Can't tell	Never	Less than 16 secs	16-59 secs	1-2 mins	More than 2 mins
PLEASURE [AARS_20-25_PLE_1 - AARS_20-25_PLE_12] Signs: laughing; singing; smiling; kissing; stroking or gently touching other; reaching out warmly to other; responding to music (only counts as pleasure if in combination with another sign). Statements of pleasure.	⓪	①	②	③	④	⑤
ANGER [AARS_20-25_ANG_1 - AARS_20-25_ANG_12] Signs: physical aggression; yelling; cursing; berating; shaking fist; drawing eyebrows together; clentching teeth; pursing lips; narrowing eyes; making distancing gesture. Statements of anger.	⓪	①	②	③	④	⑤
ANXIETY/FEAR [AARS_20-25_ANX_1 - AARS_20-25_ANX_12] Signs: shrieking; repetitive calling out; restlessness; wincing; grimacing; repeated or agitated movement; lines between eybrows; lines across forehead; hand wringing; tremor; leg jiggling; rapid breathing; eyes wide; tight facial muscles. Statements of anxiety/fear.	⓪	①	②	③	④	⑤
DEPRESSION/SADNESS [AARS_20-25_DEP_1 - AARS_20-25_DEP_12] Signs: Cry; frowning; eyes drooping; moaning; sighing; head in hand; eyes/head turned down and face expressionless (only counts as sadness if paired with another sign). Statements of sadness.	⓪	①	②	③	④	⑤
INTEREST [AARS_20-25_INT_1 - AARS_20-25_INT_12] Signs: participating in a task, maintaining eye contact; eyes following objects or persons; looking around room; responding by moving or saying something; turning body or moving toward person or object.	⓪	①	②	③	④	⑤

TIME OF OBSERVATION: FROM MINUTE 35 TO MINUTE 40

Observation period: 5 minutes	Can't tell	Never	Less than 16 secs	16-59 secs	1-2 mins	More than 2 mins
PLEASURE [AARS_35-40_PLE_1 - AARS_35-40_PLE_12] Signs: laughing; singing; smiling; kissing; stroking or gently touching other; reaching out warmly to other; responding to music (only counts as pleasure if in combination with another sign). Statements of pleasure.	⓪	①	②	③	④	⑤
ANGER [AARS_35-40_ANG_1 - AARS_35-40_ANG_12] Signs: physical aggression; yelling; cursing; berating; shaking fist; drawing eyebrows together; clentching teeth; pursing lips; narrowing eyes; making distancing gesture. Statements of anger.	⓪	①	②	③	④	⑤
ANXIETY/FEAR [AARS_35-40_ANX_1 - AARS_35-40_ANX_12] Signs: shrieking; repetitive calling out; restlessness; wincing; grimacing; repeated or agitated movement; lines between eybrows; lines across forehead; hand wringing; tremor; leg jiggling; rapid breathing; eyes wide; tight facial muscles. Statements of anxiety/fear.	⓪	①	②	③	④	⑤
DEPRESSION/SADNESS [AARS_35-40_DEP_1 - AARS_35-40_DEP_12] Signs: Cry; frowning; eyes drooping; moaning; sighing; head in hand; eyes/head turned down and face expressionless (only counts as sadness if paired with another sign). Statements of sadness.	⓪	①	②	③	④	⑤
INTEREST [AARS_35-40_INT_1 - AARS_35-40_INT_12] Signs: participating in a task, maintaining eye contact; eyes following objects or persons; looking around room; responding by moving or saying something; turning body or moving toward person or object.	⓪	①	②	③	④	⑤

CODING OF THE PERFORMED ACTIVITYES IN THE AARS:

(variables: AARS_5-10_ACTIVITY_1 - AARS_5-10_ACTIVITY_12, AARS_20-25_ACTIVITY_1 - AARS_20-25_ACTIVITY_12, AARS_35-40_ACTIVITY_1 - AARS_35-40_ACTIVITY_12)

Choose the prevalent activity (only one) performed in the observation window of 5 minutes in the AARS and enter the following coding it in the appropriate variable:

1= opening the circle (good morning activity/ names activity)

2= coloured foulards or ropes (movement, coordination, associations colours and movements, etc.)

3 = sticks

4= body percussion or keeping the rhythm with body movements

5= relaxed listening to music

6= dance

7= coloured cloth

8= singing

9= closing the session (goodbye activity)

10= story telling (using or not using the printed images)

11= switching activity (preparing an activity, without being in the middle of performing it; or explanation of an activity)

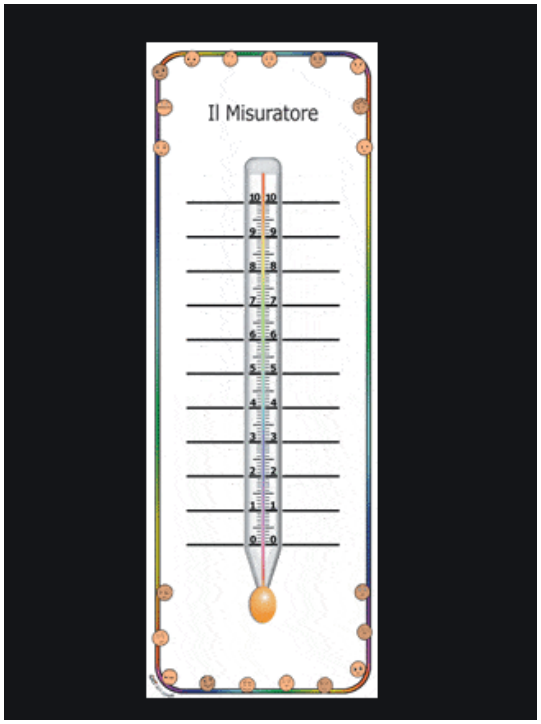
12= music instruments

13= other to specify

LIVE SESSION EMOTIONS THERMOMETER-LSET

(Claudia Bernardi and Giorgia Caldini, 2018)

Assessment tool for OPD N. _____



Date _____

Live session Emotions' Thermometer (to measure: anger-irritation, anxiety-fear, happiness-cheerfulness, sadness, shame-embarrassment, guilt) – INDICATE THE SCORE

_____

_____

_____

_____

Write the user's emotions and behaviours and the activity that he/she was doing at that moment

i.e. Mary: anxiety 7, foot movement and labored breathing, cognitive stimulation activity

_____

_____

_____

_____

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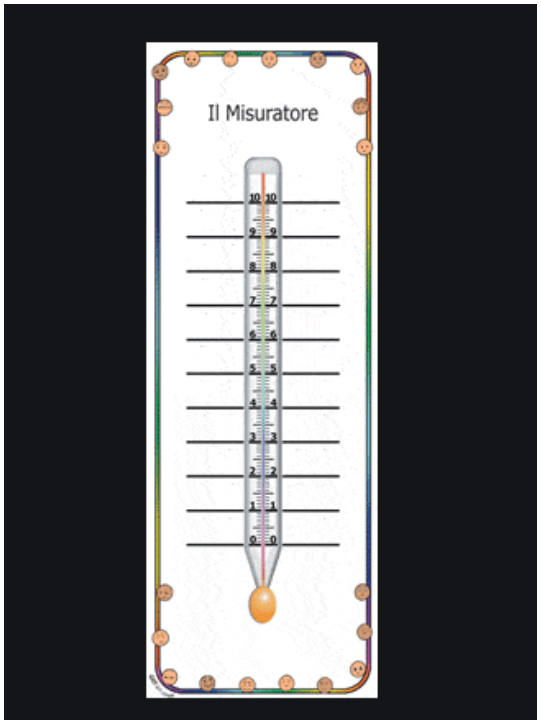


Assessment tool for professional

N_____

Date _____

Live session Emotions' Thermometer (to measure: anger-irritation, anxiety-fear, happyness-cheerfulness, sadness, shame-embarrassment, guilt) – INDICATE THE SCORE

_____

_____

_____

_____

Write near the thermometer the emotions you experienced with respect to the episodes reported in the user's thermometer, thoughts and behaviours adopted. Sense of perceived effectiveness.

i.e. Anxiety 6. Thought: if I can't calm him/her down he/she will ruin the group climate;

Behaviour: I will increase my closeness; I will give him/her my hand;

Sense of perceived effectiveness of my intervention: I did my best, the behaviour decreased only a little.

_____

_____

_____

_____

_____

_____

_____

LONGITUDINAL EMOTIONAL WELL-BEING THERMOMETER-LEWT

(Alessandra Merizzi, 20 June on behalf of the SOUND consortium)

Family caregiver ID code _____ [ID_CODE_FC]

Older People with Dementia ID code _____ [ID_CODE_OPD]

This is a thermometer to monitor the mood of the loved one you care for because you, more than anyone else, know how to interpret their emotions.

We ask you to indicate in the table below, the prevalent mood of your loved one for each day during the period indicated in the first column on the left (corresponding to 9 weeks, from one week before the start of the intervention, during all the 6 weeks of intervention, up to two weeks after the end of the intervention). Please, at the end of each day during this period, place an "X" in the box corresponding to the prevalent mood of your loved one during the day.

In the column coloured in purple, please indicate any special events, such as illness or disease, a fall, a visit from a relative, a family party, an outdoor outing, an activity at the day care centre, or any event which, in your opinion, may have had a decisive influence on your loved one's state of mind, either positively or negatively.

The last column "SOUND activity" will be filled in by the organizers of the meetings, to which you can ask for help for asking how to filling-in this table.

We thank you sincerely for your cooperation. We hope that the results that emerge from the compilation of this table will help us to improve the care of your loved one and of all people suffering from dementia.

LONGITUDINAL EMOTIONAL WELLBEING THERMOMETER

FILLED IN BY CAREGIVERS

DATE	Sad, apathetic, depressed 3	Worried, anxious 2	Satisfied, joyful 1	Calm, at peace 0	Confident, hopeful 1	Frustrated, nervous 2	Angry, disgusted, bitter 3	Special events	SOUND ACTIVITY YES=1 NO=0

[THIS TOOL HAS BEEN CREATED ON 20 JUNE 2023 BY ALESSANDRA MERIZZI ON BEHALF OF THE SOUND CONSORTIUM]

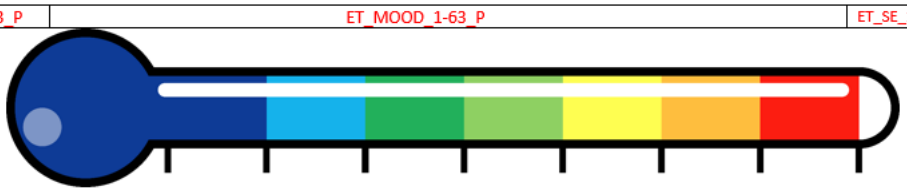
Professional ID code _____ [ID_CODE_P]

In the table below, please indicate the emotion that is closest to your mood at the end of each working day in the period indicated in the first column on the left (corresponding to 9 weeks, from one week before the start of the intervention, during all the 6 weeks of intervention, up to two weeks after the end of the intervention).

In the column coloured in purple, please indicate the extent to which this mood can be linked to SOUND activities on a scale of 1 to 5 (1= “not at all”; 2= "to a small extent”; 3= "moderately"; 4= "to a great extent"; 5= "totally") for the days when SOUND activities are performed.

In the last column, write 1 during the days when you have attended to a SOUND activity; write 0 in the days when you attended no SOUND activity, including the days when SOUND activities were carried out but you were absent.

LONGITUDINAL EMOTIONAL WELLBEING THERMOMETER FOR PROFESSIONALS

ET_DATE_1-63_P	ET_MOOD_1-63_P							ET_SE_1-63_P	ET_SOUND_1-63_P
									
DATE	Sad, apathetic, depressed 3	Worried, anxious 2	Satisfied, joyful 1	Calm, at peace 0	Confident, hopeful 1	Frustrated, nervous 2	Angry, disgusted, bitter 3	How much do these emotions relate to SOUND activities?	SOUND ACTIVITY YES=1 NO=0