**Supplementary Material**

Supplementary Table S1. Instruments for the assessment of Cognitive IADL for Children and Adolescents

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| **Instruments**  | **Domains** | **Method** | **Population**  | **Context** | **Multitasking** | **Psychometric properties** |
| **Children’s Kitchen Task Assessment**(1) | It is the adaptation of the Kitchen task assessment for children playing with play dough.Assess EF: initiation, organization, sequencing, planning, judgment and safety and completion of a recipe; and the kind of help you need to complete the task.The test can last between 30-35 minutes. | Performance based measure | For children between 8-12 years old | It is done in a controlled environment, not familiar. |  | Good discriminant validity. High test-retest reliability. |
| **Assessment of Motor and Process Skills****AMPS** (2) | It assesses 16 motor skills and 20 cognitive skills of IADL, specifically domestic activities. It gives the option to choose between 125 standardized domestic activities, arranged in six levels of difficulty, of which are chosen by the subject. Only 2 or 3 activities are carried out.It does not assess intentional behaviour, goal setting, or behaviour monitoring. | Performance based measure | For children over 3 years in any population with problems in the performance of the ADL, widely used in ABI  | It is done in the familiar and controlled context. |  | Excellent reliability and validity(≥0.75) |
| **School – AMPS** (3) | It assesses 16 motor skills (position of the body, obtain and maintain the necessary objects, move the objects and likewise, maintain performance) and cognitive skills of the IADL (maintain performance, organize space and objects, apply knowledge, temporary organization of the action, adapt the performance), specifically in school activities. There are 25 school activities available. It does not evaluate intentional behaviour, goal setting, or behaviour monitoring. | Performance based measure | For children between 3-15 years | It is done in the familiar context. |  | Adequate reliability or validity  |
| **Preschool Executive Task Assessment (PETA)** (4) | It evaluates how the child follows a series of instructions to perform new tasks.It assesses the speed of processing, inhibition, problem solving, emotional labiality, distractibility, working memory, security of the action and recognizing that the action has ended.The test lasts between 5-25 minutes. | Performance based measure | For children between 3-5 years | Controlled environmentNon-familiar environment |  | Adequate reliability or validity  |
| **DO-EAT** (5) | It assesses the child in the context of the execution of a task (broken down by the steps of the tasks), the EF (Attention, initiation, sequencing, change or flexibility, spatial and temporal organization, inhibition, problem solving and remembering instructions) and sensorial skills. motor skills (motor, posture and movement, motor planning, bilateral coordination, fine motor coordination and sensitivity). They should prepare a sandwich, milk with cacao or similar and fill out a certificate for themselves on their performance.If necessary, the child is given indications to carry out the task. | Performance based measure and behavioral rating scales for caregivers. | For children between 5-8 years with neurodevelopmental disorders or ABI | ControlledEnvironmentNon-familiar Environment |  | Adequate reliability or validity, high internal consistency in the task and questionnaire for parents |
| **Children’s Cooking Task (CCT)** (6) | It assesses the skills for multitasking and EF activities in children and adolescents. They must prepare two recipes: a chocolate cake and a fruit cocktailThey are instructed to do it completely alone to surprise their family. Analysis the mistakes that children make and qualitative analysis of the execution of the task (omissions, additions, inversions-substitutions, mistake of estimation), completion time, goal achievement, dangerous behaviours and spontaneous initiation of omelette. | Performance based measure | For children over 9 years of age, with ABI | Natural / non-familiar environmentWith distractorsControlled environment |  | Excellent internal consistency and interrater reliability. Adequate discriminant validity between ABI and Controls. Good convergent validity with WCST, RBMT-C and DEX-C  |
| **Birthday Task** (7) | It is a short test that lasts between 4-5 minutes. It assesses executive functions and self-regulation skills. It collects the number of errors and typology. The task is to prepare the birthday party for a friend. | Performance based measure | For children and adolescents with ABI, between 8-16 years | Controlled environmentwith distractors |  | Good intraclass correlation index. Good discriminant validity between ABI and controls in the number of substitution errors, breaking rules, omission errors and total number of errors. It does not show differences in the duration of the task or errors of addiction. |
| **Behavioural Assessment of the Dysexecutive Syndrome in Children (BADS-C)** (8) | It is an adaptation of the BASC for adults, to the child population. And similarly, it has different tasks; card game (Inhibition), Action Plan (Troubleshooting), Key Search (planning and execution)Map of the Zoo (planning, execution) and Six Part that included three tasks, with two parts each. | Performance based measure | For children population. Between 7 and 12 years old. It has been used in children with different populations of children with executive dysfunction as children with neurofibromatosis | Includes a multitasking (Six Part).Controlled environment |  | It discriminates the performance in executive functions according to age. Trying to have greater ecological validity than traditional tests. It differentiates between children with learning problems and controls in all tasks except in the Zoo Map task. However, it has a weak correlation with BRIEF, DEXC and behaviour.  |
| **Weekly Calendar Planning Activity****(WCPA)** (9) | It assesses how EF impact on ADL with multiple steps. They must incorporate in the agenda 17 different appointments or activities with certain rules. Allows to know what are the strategies used by the patient and its potential for rehabilitation. It has three levels of dificulty. | Performance based measure | From 12 to 17 years old, in a population with suspected executive dysfunction, ABI mental illness, and intellectual disabilities. | Controlled environmentClinical environment |  | Adequate reliability or validity  |
| **Party Planning Task** (10, 11) | It assesses planning skills fundamentally. Activity must be planned according to certain rules. The number of errors and their typologies are collected, as well as planning is efficient, if the task is completed in a correct time and quality. | Performance based measure | Adolescents between 12-16 years | Controlled environment |  | It allows to identify patients with severe TBI, mild and non-clinical population. However, it does not discriminate between mild ABI and moderate ABI and / or non-clinical population. The number of errors with the VIQ and COWAT showed concurrent validity. |
| **Chas-P/T** (12) | It asks parents and teachers about the skills that the child shows to organize the space and tasks, changing from one activity to another, organizing the time to carry out the activities and organizing free time and the activities you have to do. It also evaluates motor skills in the ADL. It contains 27 items. | Behavioral rating scales for parents and teachers | For children with ADHD and disorders in motor coordination between 4-8 years old. | Non applicable |  | Good psychometric properties High reliability and internal consistency. Good concurrent validity with the M-ABC in the case of children with DCD, and with the BRIEF in the case of children with ADHD  |
| **Behavioural Rating Inventory of Executive Function (BRIEF)**(13, 14) | It assesses executive functions in daily life | Behavioral rating scales | For children with ABI and ADHD | Non applicable |  | Adequate reliability or validity  |
| **Adult Executive Functioning Inventory (ADEXI)/****Childhood Executive Functioning Inventory (CHEXI**)(15) | It assesses executive functions in daily life | Self-reported and behavioral rating scales for caregivers  | For children and adults ADHD and mental illness | Non applicable |  | Adequate reliability or validity  |
| **EPYFEI** **Evaluación del Procesamiento sensorial y funcionamiento ejecutivo en la infancia** (16) | It assesses the influence of executive functions and sensory processing in activities of daily life. It consists of 36 item evaluated using a Likert scale. It has 5 subscales: attention, action supervision, sensory processing, emotional self-regulation and inhibitory control | Behavioral rating scales for caregivers and teachers  | For children between 3 and 11 years old. | Non applicable |  | Adequate reliability or validity  |
| **My Child Play****(MCP)** (17) | It assesses how the child's game is, through 46 items, about FE (organization, concentration, attentional control and persistence), interpersonal relationships and social participation, game preferences and environmental opportunities. | Behavioral rating scales for caregivers | For children between 3-9 years  | Non applicable |  | Adequate reliability or validity  |
| **Questionnaire for Assessing Students’ Organizaning Abilities (QASOA-T)** (18) | It includes 22 items for teachers related to the skills to be organized at school, using a Likert scale. The parent version includes 14 items on home organization skillsThe higher the score, the higher the level of disorganization | Behavioral rating scales for caregivers and teachers  | For school age children | Non applicable |  | Adequate reliability or validity  |
| **Executive Function and Occupational Routines Scale (EFORTS**) (19) | It assesses how children perform daily routines. It consists of 30 items divided into the following dimensions: inhibition, working memory, self-regulation and flexibility for the planning and evolution of problems. | Behavioral rating scales for caregivers | For children between 3-10 years | Non applicable |  | Adequate reliability or validity  |
| **Dynamic Occupation Assessment of Executive Function (DOAEF**) (20) | It assesses reasoning and solving everyday problems, cognitive flexibility. | Self-reported | Adolescents within the ASD. | Non applicable |  | High inter-test reliability and test-retest (0.91). Shows convergent validity with WCST. Good internal consistency, with Cronbach's alpha of 0.83. |

Supplementary Table S2. Instruments for the assessment of Cognitive IADL for Adults and Elderly

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| **Instruments**  | **Domains** | **Method** | **Population**  | **Context** | **Multitasking** | **Psychometric properties** |
| **Cognitive Performance Test (CPT)** (21) | It assesses the execution of 7 ADL / IADL: dressing, food preparation, shopping according to Allen's cognitive deficit model. | Performance based measure | Patients with ABI mild cognitive impairment, dementia and mental illness. | Familiar environment |  | Good sensitivity to detect cognitive impairment (89%). Adequate convergent validity with the AMPS and MMSE. |
| **Kohlman Evaluation of Living Skills (KELS)** (22) | It evaluates the performance of different IADL. Aimed at evaluating the possibility of giving or not the patient's discharge and knowing if he can live independently in the community. | Performance based measure | For adults with mental illness | Controlled environment and clinical setting |  | Good discriminant validity and test-retest reliability and interrater reliability. |
| **Kettle Test (KT)** (23) | It includes a task to use a teapot and prepare two different hot drinks. Assess different cognitive processes involved in the task, awareness of deficits and safety | Performance based measure | ABI, Dementia, cognitive impairment | Controlled environment |  | Excellent inter-judge reliability. (0.92). Good convergent validity with the FIM (0.65) and the clock test (0.56), BIT (0.58) and the RTI-E (0.57). Good discriminantreliability (effect size = .73). |
| **Multiple Errands Test (MET)**(24)**Intellectual disability Multiple Errand Test (IDMMET**(25) | It assesses fundamentally the FE through a task of purchases, with a series of rules and in a determined time. It collects the number of errors made, the interpretation of them. It has been developed with different virtual scenarios (apartment, supermarket, etc.). Subjects have to buy certain products from a store and follow a set of rules, such as not visiting any aisle more than once, not buying more than two items in each category, and not spending more than a specific amount of money | Performance based measure | Adults with ABI, elderly people, and intellectual disability (IDMMET) | New environmentComplex task with distractorsControlled environment |  | Good internal consistency, good interrater reliability, excellent discriminant and concurrent validity (with the RBMT, BADS, DEX, Zoo Map) and other cognitive tests (Stroop, WCST, Tower of London, Verb Fluency) |
| **Executive Function Performance Test****EFPT** (26, 27) | Executive functions and awareness of deficits in ADL: cooking, using the telephone, taking medication and paying with bills. It especially evaluates: initiation, organization, sequencing, planning, trial and safety and complete completion of the task. Some authors consider that it is not multitasking, because it is not require interlacing and delayed intentions. | Performance based measure | Adults, especially with ABI, dementia and mild cognitive impairment | Controlled environment |  | Excellent internal consistency, interrater reliability, concurrent validity with the FIM and neuropsychological tests. Good discriminant validity.Effect size range = .24–.38 |
| **Executive Function** **Route Finding Task (EFRT)**(28) | It assesses the planning, detection and correction of errors in a task in the real world. It also includes the level of evidence necessary to perform the task. They must find a certain office in a campus unknown to the subject and is accompanied by two evaluators. On the route, there are at least 5 changes of address.It evaluates if you understand the task, the search for information, the ability to maintain the address and follow instructions, detection of errors and behaviour during the tasks. | Performance based measure | Adults with ABI | Non-familiar context |  | There are no known data on internal consistency or test-retest reliability.Excellent interrater reliability.Good concurrent validity and excellent discriminant validity. |
| **Meal Preparation Scale (MPS)**(29) | It assesses the preparation skills of a menu and the need for help or independence.It is used to plan the discharge of patients with stroke.Among the tasks you are asked to prepare a soup, make a sandwich according to the verbal instructions of the therapist. It is done between 4-8 weeks after admission | Performance based measure | Adults with stroke | Controlled environment |  | Good concurrent validity with the Barthel Index for self-care and mobilityThere is no data on internal consistency, inter-test reliability and test-retest |
| **Rabideau Kitchen Evaluation—Revised (RKE-Revised)**(29) | It assesses the level of independence to perform self-care, household chores: prepare food, make purchases and do the laundry.Requires patients to prepare a sandwich and a hot beverage. | Performance based measure | Adults with ABI and Stroke | Controlled environment |  | Excellent reliability interrater and test-retests. Good content validity with the WAIS-R |
| **Kitchen Task Assessment** (30) | It assesses EF in daily life: initiation, organization, sequencing, planning, judgment and safety and completion of the task and the type of help needed: verbal, gestural, physical, etc. | Performance based measure | Adults with ABI or MCI | Non-family controlled environmentNon multitasking |  | Good internal consistency and interrater reliability. No test-retests data are known.Excellent concurrent validity and good discriminant validity. |
| **Multiple Object Test (MOT)** (31) | Consists of five different routine tasks: (1) light a candle, (2) open a padlock, (3) drink a glass of water, (4) prepare a ready-to-send letter and (5) prepare a cup of coffee.It collects the number and type of errors during performance. It assesses cognitive functions associated with the activities of daily life: planning, execution and attention. Let us distinguish the following types of errors: perplexity (disorientation and confusion how to perform the task, trial and error actions), omission (a specific element of action was left out), localization (correct use of an object in an inappropriate location), poor use (incorrect use of an object), sequence error (action element is performed at the wrong time in the action process), and clumsiness (dexterity errors). | Performance based measure | Parkinson | Controlled environment |  | It makes it possible to differentiate performance in cognitive instrumental activities of daily life, between patients with Parkinson's disease and non-clinical population. More studies are needed to know other psychometric properties of the test. |
| **Sydney Test of Activities of Daily Living in Memory Disorders (STAM)**(32)  | It includes nine activities 1, communication (make a phone call); 2, getting dressed (putting on a shirt); 3, managing the income / paying an invoice by check; 4, management of daily activities / mail; 5, orientation (in time and setting an alarm); 6, medication (administration of drugs through a dispenser); 7, purchases (choice of ingredients for a simple recipe); 8, calculating the cost (count money), and 9, remembering from memory (activities). | Performance based measure | For elderly people with cognitive impairment or dementia. | Multitasking.Natural/real environment |  | High interrater reliability (r = 0.854) and test-retest reliability (r = 0.832). Adequate sensibility and specificity. It discriminated significantly between the diagnostic groups of normal cognition, MCI, and dementia.  |
| **Cooking Task (CT)** (33) | It assesses the execution of two tasks: prepare a chocolate cake and an omelette. | Performance based measure | Adults with ABI | MultitaskNatural / real non-family environmentIt includes a new environment |  | Adequate reliability. Good discriminant and concurrent validity. Weak test-retest reliability |
| **Pillbox Test** (34) | Patients are required to properly organize the medicines in a pillbox, with the medication for a week, with four doses: breakfast, lunch, dinner and bedtime. Values planning, inhibitory control, attention and problem solving or self-regulation. It contemplates the type of errors that are carried out: of omission, commission and of incorrect movements. | Performance based measure | Elderly | Real environment |  | Adequate reliability or validity. High convergent validity with the Stroop, RFCT, TMT part A and B, and perseverative errors of the WCST.  |
| **Amap Task** (35)  | It is a task of problem solving and planning. It is based on naturalistic paradigm. Participants receive a floor plan of an apartment, in which they will have to do 19 tasks and visit 7 different places. It allows to assess if the subjects plan first what they are going to do and then execute it according to the plan or there is an online planning. It is an open task, it allows to know if the patient has an efficient planning and execution, the time dedicated to planning and execution. | Performance based measure | Adults with mild cognitive impairment. | Multitasking |  | Good sensitivity to discriminate between patients with mild cognitive impairment and healthy population. Effectiveness in plan formulation correlates moderately with event memory and community mobility skills (travel) And efficient execution correlates with money management, economic management.  |
| **Multiple Errand Test – Hospital Version (MET-HV*)*** (36) | It assesses planning, problem solving and prospective memory during the execution of a set of six tasks such as buying a soft drink, a postcard and an envelope, pick up something at reception, use the internal telephone and send something out with a series of rules that must to follow, according to instructions and a plan of the hospital so that it can be oriented to realize the activities. It also evaluates prospective memory having to remember to call to the 20 minutes to the evaluator. | Performance based measures | Adults with ABI or bipolar disorder | Non-familiar context.Controlled environment with distractor |  | Adequate reliability and validity  |
| **Multiple Errands Test – Contextualized version (MET-CV)** (37) | 11 tasks, which require planning, executing, supervising the action and prospective memory. It evaluates also the errors committed (do not perform the task, break the rules, do not use effective strategies and mistakes in the interpretation). Some of the areas that include are: pick up a bag to buy, prepare a shopping list with three products, follow instruction in a supermarket, make a reservation in a restaurant, for a celebration, check the temperature, write down the address of a supermarket, tell a series of elements of street furniture and remember to meet in a certain place before 20 minutes. | Performance based measures | Drug abuse | Familiar context  |  | Good sensitivity and for differences in healthy population and the performance of the drug with a history of substance abuse. Good reliability and moderate convergent validity |
| **Baycrest Multiple Errands Test (BMET)**(38) | It assesses planning, problem solving and prospective memory and execution of a set of tasks such as buying a can of cola, four stamps, and a birthday card, etc. with a series of rules that must follow, according to instructions and a plan so that you can get oriented to carry out the activities. | Performance based measure | Elderly and ABI | MultitaskingReal Environment Non –familiar environment |  | Adequate reliability or validity- Also there is a Chinese version: Chinese Multiple Errands Test for elderly with mild to moderate dementia (Ho-Yin Lai et al. 2019). Hight Intraclass correlation coefficients with BMET (ICC=.71-88). Excellent Test –retest reliability (ICC=.95; CI0.88-.98); High internal consistency alpha Cronbach= 0.94) |
| **Multi-Level Action Test****(MLAT**)(39) | It is precursor of NAT. It assesses the type of errors. The subject needs to prepare toast with butter & jam, and coffee with cream & sugar: wrap gift with distractor items; pack a lunchbox & schoolbag. | Performance based measure | Aduls with ABI | Controlled Environment |  | Excellent concurrent validity with ACV, TCE in the FIM, adequate discriminating validity and excellent interrater reliability |
| **Test of Grocery Shopping Skills** (40) | It assesses FE in the natural context of a supermarket, making purchases. The patient has to make the purchase of 10 items in a certain time. | Performance based measure | Adults with mental illness, especially with schizophrenia | Controlled and Real environment |  | Acceptable psychometric properties, test-retest (0.64-0.83) and convergent validity with a shopping test (Test of drugstore shopping. |
| **FLOTCA****Functional Lowestein Occupational Therapy Cognitive Assessment** (41) | It assesses cognitive processes in daily life. It consists of three tasks: planning and following directions on a map, organizing a toolbox and planning a daily schedule. | Performance based measure | Adults with ABI  | Controlled and non-familiar context |  | Good psychometric properties for reliability (ICC = .996 and Cronbach's alpha = 0.82;) and with adequate convergent validity with the FIM and FAM (0.44). |
| **Complex Task Performance Assessment (CTPA)** (42) | It requires performing tasks in a library, according to some rules and time restriction. In addition to the successes, errors, the strategies used by the patient are evaluated. Basically, it consists of two tasks: current inventory control task and telephone messaging. These tasks are administered simultaneously. | Performance based measure | Adults with ABI and other neurodegenerative disease | Controlled and Non-familiar environment  |  | Good excellent reliability (ICC = 0.997) and convergent validity with the Stroop test of the DKEFS (0425) and the Wechsler Test of Adult Reading (0.493). Allows you to differentiate between individuals with executive dysfunction and healthy who live independently in the community. |
| **Actual Reality Task (digital)**(43) | It assesses how tasks are performed that require the use of the internet as compared to a plane ticket, or compare cookies for a child's birthday, the need for help and type of errors. | Performance based measure | For adults with neurodegenerative diseases (with multiple sclerosis) or DCA  | Controlled environment |  | Good convergent validity with PASAT, DKEPS and CVLT II. |
| **Naturalistic Action Test (NAT)**(44) | It includes three tasks:Preparing a toast with butter and jam, and a coffee; wraping a gift, preparing a snack with sandwich, a snack, a drink and put it in a backpack for school. Give information about error in performance of naturalistic actions. | Performance based measure | Dementia and brain injury. | Controlled environment |  | Adequate internal consistency, interrater reliability. No test-retest reliability data is available. Good concurrent validity for TCE and CVA with the IMF. No data are available on the discriminant validity between subgroupsEffect size = .63 |
| **Performance-Based Skills Assessment (UPSA)** (45) | It assesses activities such as planning an action, a trip to the beach or the zoo, determining a route, dialing a phone number, writing a check. | Performance based measure | Adults and Elder people with mental illness | Controlled and non-familiar context  |  | Adequate internal consistency (Cronbach's alpha of 0.88) and high test-retest reliability (0.91) after 4 months. Differentiates between subjects with schizophrenia and without it. High sensitivity (0.71) and specificity (0.70). Positive predictive value |
| **UCSD Performance-based Skill Assessment—brief version** (46, 47) | Contains two domains: financial and communication skills. | Performance based measure | Adults with mental illness | Controlled a non familiar context |  | TheUPSA-B correlates with the full UPSA (r=0.91),and has demonstrated predictive and discriminant validity. |
| **Hotel Task** (48) | It assesses planning, organization, self-monitoring and cognitive flexibility. It includes six tasks that patients have to do as if they were working in a hotel, in 15 minutes: organizing invoices, classifying a collection of coins, finding the phone of 34 companies and checking the spelling and grammar of a brochure. | Performance based measure | It has been used in the treatment of frontal-temporal dementia, multiple sclerosis, adults with ADHD and bipolar disorder | Real and non-familiar environment  |  | Useful to the detection of patients with frontal-temporal dementia. It requires further studies to know the psychometric properties. |
| **Performance Assessment of Self-Care Skills (PASS)**(49) | It assesses three dimensions: Basic activities of daily life and within the IADL: it has two dimensions: cognitive and instrumental activities of daily living (CIADLs) and physical activities of daily living (PIADLs). It evaluates the security, the level of independence and adequacy in the execution of the activity. Fundamentally the steps are valued according to the selection of suitable objects and their use in 14 tasks, such as paying, use of the oven, comparer, use of the telephone, small domestic repairs, security in the home (and correcting problems in the home), the use of utensils, cooking, obtaining information from visual media and auditory realization of presents, sending invoices by conventional mail invoices, playing bingo, use of sharp objects (cut an apple with a sharp knife). | Performance based measure | Elderly, parkinson, neurological diseases. | Real, context, it can be in the family environment or not. |  | Good psychometric properties, high reliability (r = .92a .96), high reliability interrater (.96 & for independence and .97 & for the dimension of safety). Good concurrent validity with OARS, Index of Lawton and Brody. Good sensibility and specificity to detect population without functional problems and clinical population. |
| **Observed Tasks of Daily Living Revised (OTDL-R)**(50) | Test of resolution of problems of 9 different IADL: use of medication, telephone use and economic management  | Performance based measure | Older population with mild cognitive impairment |  |  | Good internal consistency (.82) for the total scale and the different dimensions. Good convergent validity with cognitive abilities (verbal ability, memory, inductive reasoning and perceptual speed, evaluated with RBMT, WAIS, AVLT among other cognitive tests. |
| **Erlangen Test of Activities****of Daily Living (ETAM)** (51) | It contains 6 items: Communication (call by phone) community mobility (assess safety in traffic situations), self-care (organize a pillbox) and domestic life (make a tea, wash the dishes, money management, set the clock) | Performance based measure | Designed to assess people with mild cognitive impairment or dementia | Controlled environment without distractors |  | Good psychometric properties, with a high internal consistency (.71), test-retest reliability after 3 weeks (.78) and interrater reliability (.97). It allows to discriminate adequately between healthy individuals and people with mild cognitive impairment and dementia. |
| **Behavioural Assessment of Dysexecutive Syndrome (BADS)** (52)  | It aims to assess the performance of an ecological perspective, including 13 subtest: Zoo map, changing letters, action program, searching keys, temporary trial and modified test of the six elements. | Performance based measure | It has been used with multiple populations including Anorexia nervosaPeople with addictive behaviours to alcohol have also been used (Moriyama, et al., 2002) | Controlled environment |  | It has recently been used for the evaluation of EF in different populations, especially in people with TBI, stroke, and other brain damage, also used in anorexia (Spitoni et al., 2018). |
| **Day Out Task (DOT)**(53) | It essentially assesses planning of different tasks and solving problems in an apartment and had to perform 8 tasks, including planning a day away from home: meeting a friend in a museum at 10:00 am, going to the house of a friend for dinner, planning the bus route. | Performance based measure | Mild cognitive impairment | MultitaskingReal context |  | Needs further studies on its psychometric properties. Scored from videotape: planning time (sec), completion time (min), sequencing score. |
| **Performance-Based Assessment of Instrumental Activities of Daily Living** **(PA-IADL)** (54) | It consists of 12 tasks: 1) fill in pill boxes; 2) delayed recall of medical check; 3) control of medication; 4) receive an appointmentsheet to request a new medical visit with a codegiven from the evaluator;5) payment of workshop via bank account; 6) documentation management;7) 15 min afterreceiving an instruction, perform the referred action); 8) money management (provide change after a shoppingat the supermarket),9) management of bank documents; 10) cooking recipe preparation;11) bus route planning ; 12) recall/recognition of ingredients (rememberdifferent ingredients needed in task 10). | Performance Based Measure | Elderly people | Controlled environment |  | Real environment. Validated with spanish elderly group. |
| **Activities of Daily Living Profile (ADL-Profile)** (55) | It includes 20 items, 17 are performance-based tasks and 3 are collected from a semi-structured interview. Consider the executive functions necessary to perform the ADL. It allows to know if the patientformulates goals, plans, executes and achieves the objectives of the task. The task is to organize a dinner for unexpected guests that includes the following sequence: get dressed, walk or move outdoors, go shopping, make a budget, prepare a hot meal. | Performance based measure and semiestructured interview | ABI  | Real and Familiar Context |  | Detects the number of errors committed by the patient.It also allows to collect the type and degree of help the patient needs to perform the activity independently. It takes at least 3 hours to collect the information, it is necessary to record the execution of the patient and then encode the answers, errors, etc. |
| **Independent Living Scales****(ILS-HS)** (56) | Its consist 20 items, con 5 scales (Memory/Orientation, ManagingMoney, Managing Home & Transportation, Health &Safety, and Social Adjustment) as well as a Total score representing one’s overall ability to function independently. All this information is due to two factors: problem solving and initiation and execution of the action. | Performance based measure | Elderly, adults, intelectual disabled, TCE, dementia, psychiatric population. | Controlled environment |  | Include problem solving ability,demonstration of knowledge, or performance.Allows to know if the person can live alone or needs some kind of support. |
| **Computerized Breakfast Task** (57)**Prop- based Breakfast Task** (58) | It consists of cooking five foods for breakfast in the following order: eggs (ideal cooking time = 5.5 min / 330 s), coffee 4 min / 240 s, sausage 3.5 min / 210 s, pancakes 3 min / 180 s, and toast 2 min / 120 s] thoroughly and have them ready at the same time, to the same they have to put the virtual table | Performance based measure | ABI and elderly  | Controlled environment |  | The computerized task showed a low correlation with the actual realization of the cooking task. Probably because they did not value the executive components that are indispensable in the ADL and the signs of the real and family environment. |
| **Escala Cognitiva de las Actividades de la Vida Diaria** (59) | It assesses the frequency with which the ADL and cognitive processess are performed and the type of errors that are committed ( action memory schema, error detection, problem solving and self-initiation) in the following BADLs: brushing teeth, showering, applying makeup or shaving; dressing. And also the following IADL: preparation of simple and elaborate meals, buying and organizing of the domestic economy, domestic tasks (cleaning, putting the washing machine, tenderer and setting the table), medication management, transportation use and orientation in the community. | Behavioral rating scales for caregivers | Cognitive impairment and dementia | Nonapplicable |  | Good internal consistency, (.78 for memory schemes, .83 for error detection, .87 for problem solving and self-initiation with a Cronbach alpha 0.83). Good convergent validity with the BDRS and performance based measure. And the detection of errors with the MMSE |
| **(a)-ADL**(60) | It has two scales, one of global disability and another cognitive in the activities of daily life: Community mobility, social activities and social participation | Behavioral rating scales for caregivers or self-reported | Elderly patients to assess and predict and discriminate people with cognitive impairment possible dementia | Non aplicable |  | Good psychometric properties Good positive predictive value (70-93%). High sensibility and specificity (70-94.2%) |
| **Activities of Daily Living-International Scale (ADL-IS)** (61) | Include 30 items about everyday cognition | Behavioral rating scale | Elderly, specially dementia | Non aplicable |  | High correlation with GDS staging (.81), and with mental status assessment (Mini-Mental State Examination) |
| **AM-PAC Applied Cognition Scale****Activity Measure for Post-Acute Care** (62) | It includes three areas: 1) Basic mobility (lying down, getting up, transfers and mobility in a wheelchair), 2) ADL: hygiene, food and preparation of food and personal care, and 3) Cognitive: communication, money management and Problem solving, apply knowledgeIt is applied within 72 hours after discharge. There is a short version | Behavioral rating scales (AM-PAC) o Digital Behavioral rating scales (50 items; AM-PAC CAT) | Adult and older neurological patients, with orthopedic and surgical pathology | Non aplicable |  | Good psychometric properties Evaluates the functional results according to the item response theory (IRT). High internal consistency (Cronbach's alpha between 0.92). High viability test retest (0.91-0-97 in the different subscales |
| **Rutine Task Inventory – Expanded (RTI-E) (63)** | Basic and instrumental activities of daily life. | Behavioral rating scales for caregivers and performance-based measure | Patients with ABI, dementia and mental illness | Familiar context |  | Good convergent validity with the MMSE (0.63). High reliability test-restest (0.72-0.94). |
| **Everyday cognition (Ecog**) (64) | Functional skills in ADL: memory, language, visual perception, planning, organization and divided attention  | Behavioral rating scales or self-reported | For older people, with cognitive impairment or dementia | Non applicable |  | Good psychometric characteristics and concurrent validity with the BDRS and CDR  |
| **Disability Assessment for Dementia Spanish Version****DAD-E** (65)  | It assesses participation in ABVD: hygiene, dressing, continence, eating; AIVD: prepare meals, use of the telephone; outings and community mobility; economic management, medication; participation in leisure activities.It considers the interest in the activity and mistakes. | Behavioral rating scales | Dementia | Non applicable |  | Adequate reliability or validity  |
| **Frontal Systems Behavior Scale (FrSBe) or Frontal Lobe Personality Scale (FLOPS)**(66)  | It consists of 46 items that aim to capture the executive dysfunction in daily life, consists of three factors: apathy, inhibitory control and executive dysfunction. | Behavioral rating scales | ABI | Nonaplicable |  | Good psychometric properties, good internal consistency (0.95). |
| **Daily Living Questionnaire (DLQ)** (67)  | It assesses performance and participation in different ADLs that require superior cognitive skills. It consists of four factors: household chores, activities that fundamentally require understanding and using language (reading the newspaper, using information on the internet, etc.), community participation and complex tasks (finding a path in an unfamiliar environment, repairing objects, etc.). | Self-reported | Neurodegenerative disease | Non applicable |  | Excellent psychometric properties |
| **“Let’s Shop**” (68) | It tries to assess the problems of executive functions that people with obesity have when making purchases. It consists of 17 items divided into 4 factors: shopping habits, impulsivity, action, execution of the plan. It evaluates the frequency with which certain situations occur in the patient's daily life | Self-reported | People with obesity | Non applicable |  | Adequate reliability or validity. |
| **Inventario de Síntomas Prefrontales (PSI-20)** (69) | It consists of 20 items, on the prefrontal symptoms in daily life. It consists of 3 factors. | Self-reported | Population with addictive behaviours and with ABI | Non applicable |  | Adequate psychometric properties and concurrent validity with WONCA and GHQ. |
| **Rivermead Extended ADL Assessment (READL) *(70)*** | It assesses whether the person can not perform different BADL and IADL or whether he needs some kind of support. | Self-Reported | Adults with ABI mainly due to a Stroke | Non aplicable  |  | Internal Consistency NE /Excellent validity, inter-judge reliability and test-retest |
| Direct Observation Task (8 IADLs)(71) | Participants are instructed to complete eight activities of daily living in a smart apartment on campus. The tasks included: (1) sweeping and dusting; (2) medication dispenser; (3) birthday card and check; (4) watching a DVD; (5) watering houseplants; (6) phone call; (7) cooking soup; (8) outfit selection. | Performance based measures | Adults and elderly people | Controlled environment |  | The number of inefficient errors allows discrimination between patients with older adults and young adults. The number of omission errors allows discrimination between patients with mild cognitive impairment and older healthy populations. And the number of errors of omission and substitution make it possible to discriminate between patients with mild cognitive impairment and dementia.Additional studies on psychometric properties are needed. |
| **Automatic Teller Machine (ATM)** (72) | It is administered on a touch screen computer, it includes the following tasks: use of ATMs / Financial Administration, recharge recipes through the telephone / voice menu system, and complete forms, simulating a patient and clinical history. | Performance based measure | Schizophrenia and elderly people | Controlled environment |  | Additional studies on psychometric properties are needed. This study showed a good preliminary convergent validity. |
| **Harvard Automated Phone Task (APT)** (73) | It consists of three tasks: 1) filling out a recipe; 2) call a health insurance company select a new primary care physician; and 3) Make a bank account payment and transfer. The tasks are graded according to the total time, number of errors, the number of repetition of steps (when a participant asks the system to repeat the last recording), and correct of the task (dichotomous variable). | Performance Based Test | Elderly people | Controlled environment |  | It allows to discriminate between healthy seniors, with MCI and dementia. |
| **Timed Instrumental Activities of Daily Living (TIADL)** (74) | Participants must complete five tasks: find a phone number in a phone book, count a certain amount of change in the coins, read a specific set of ingredients in three cans of food, mark the items on a shelf as if they were buying in a store, and read the instructions of two medicine bottles. | Performance Based Test | Elderly people | Controlled environment |  | This instrument was correlated with the speed in visual processing for the execution of this type of IADL.Additional studies on psychometric properties are needed |
| **Computerized Meeting Preparation Task (CMPT)**(75) | Participants are asked to prepare a room for a meeting while, at the same time, dealing with interruptions, solving problems and remembering possible memory instructions.The CMPT was designed: (a) to reflect the complex and multitasking nature of daily living activities and (b) to place the participant in an unfamiliar situation to emphasize the involvement of executive functions and to reduce the influence of the level of Familiarity with the task on task performance. | Performance Based Measures | Squizophrenia | Controlled environment |  | Performance in the CMPT significantly predicted up to 50% of real-world performance. |
| **Everyday Cognition Battery****(ECB**) (76) | Uses real-world printed stimuli but only focuses onthree specific instrumental activities (i.e., medication use, financial planning, food preparation/nutrition) and on the real-world manifestation of four cognitive abilities (i.e., declarative memory, working memory, inductivereasoning, and knowledge). | Pencil and Paper Test | Elderly | Controlled Environment |  | Good internal consistency for each dimension (between .72 to .81). |
| **Observed****Tasks of Daily Living (OTDL)** (77) | Consists of 31 tasks in the areas of food preparation,medication use, and telephone use. Using real-world objects, the tasks of the OTDL were designed tosimulate actual tasks of daily living and have distinct observable elements permitting objectivescoring of problem solving behavior. Just consider whether or not it does and if it solves the task, but not the underlying cognitive components in the task. It could be considered a simply an assessment of IADL and if it needs help to perform them, not its cognitive components. | Performance Based Measure | Elderly | Controlled Environment |  | Free version and training on website. |
| **Walking Response and Inhibition Test (WRIT**) (78) | Fundamentally designed to evaluate executive functions but also lower limb mobility. It consists of four tasks of inhibitory control. It could be related with community mobility. It is not multitasking. | Performance Based Measures | Adults and Elderly | Controlled environment |  | Good reliability test- retest and internal consistency (.90) and validity with computer task. Additional studies on psychometric properties are needed |
| **Screen-Based Simulated Cup of Tea (SBS-COT** ) (79) | Consisted of preparing a cup of tea from eAdventure game platform. It is not multitasking. | Performance Based Measure | Brain Injury | Controlled environment |  | Additional studies on psychometric properties are needed. |
| **Real life Shopping Test (80)** | It is an adaptation of Test of Grocery Shopping Skills.Assess social cognition, working memory and initiation of actions. The patients need to buy 10 items in a real shopping. It is based on naturalistic task. Let us to know: accuracy, redundancy and time while the patients do this task. | Performance Based Measure | Adults with Schizophrenia | Controlled environment |  | Additional studies on psychometric properties are needed.  |

Reliability and validity tests according to McDowell (2006) and Poncet et al. (2017): N / E = The results were not declared or are not interpretable; 0 = No numerical results were reported; (≥0.14-0.39) = the evidence suggests weak reliability; or validity; (0.4-0.75) = Adequate reliability or validity; (≥0.75) = Excellent reliability or validity: higher coefficients than those normally seen in other instruments

Supplementary Table S3. Virtual scenarios for the assessment of Cognitive IADL

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Virtual Scenarios*** | ***IADL*** | ***Age*** | ***Domains of executive functions*** | ***Application*** |
| **Virtual Reality Pedestrian Environment (VRPE)- for children** (81)  | Community mobility | School aged Children | PlanningRealization of a planSupervision of the actionError detection  | It was applied to children with excessive daytime sleepiness and observed that although the attention to traffic was similar to the control group, if differences were observed in the time taken to make decisions about whether or not it is safe to cross |
| **Road Crossing Virtual Apparatus** (82) | Community mobility | School aged Children | PlanningRealization of a planSupervision of the actionError detectionProblem resolution  | The results showed that children with ADHD showed slightly less safety when walking, including speed, attention to the environment. The march was slower and they used less space available to cross. |
| **Meal-Maker** (83) | Cooking | School aged Children | Planning,Execution of the PlanAttention control | To assess EF in children with PCI  |
| **Jansari assessment of Executive Functions for****Children (JEF-C)** (84) | Non-immersive evaluation. It can be used from 8 years.Administrative activity and organization of activities: a meeting, sending e-mails, etc. | School aged Children | Planning, prioritization, selective attention, creativity, prospective memory (based on action, events and time). | The virtual environment is your birthday party. They must organize it in a virtual home with three bedrooms and a garden, according to an instruction sheet, information about the guests and a letter from their parents with pending tasks to be performed. |
| **Virtual Clasroom// AULA** (85) | School activities  | School aged Children | Selective attention - inhibitory controlSustained attentionShift attentional | Useful in the evaluation of children with ADHD. Convergent validity with continuous CPT auditory and visual tests. |
| **Towi videogame** (86) | It is a serious games platform.The child is instructed to travel to an island calledTowi. For this you have to perform a series of tasks: boarding pass, packing, transfer to the airport, waiting room, flying the plane, collecting coins and unpacking the suitcase. There are a series of rules for each task. | For children between 5-13 years |  | It is a multitasking with controlled environment |
| **Virtual Mall** (87, 88) | Shopping | Adults | Prospective memoryPlanningAttention control | Assessment of personal independence for shopping It has also been used for motor and perceptive training. |
| **Virtual Realiaty Supermarket shopping Test** (89) | Shopping | Adults | Social cognitionWorking memoryIniciación de la acción | It is has been used with squizofrenia patiens |
| **Virtual Supermarket** (90) | Shopping | Adults | Prospective memoryAttention shiftPlanning  | Useful to evaluate the FE, especially the errors, time for the selection of the items |
| **Virtual Reality Shopping Task (VRST)**(91) | Shopping, Use of the phone or mobile | Adults | Prospective memory based on events and time. | It allows to discriminate between TCE and healthy population. Ecological and concurrent validity with IADL tests, cognitive flexibility and verbal fluency and prospective memory. |
| **Virtual Action Planning Supermarket (VAP-S)** (92) | ShoppingCommunity mobility Multiple Errands | Adults | Use of strategies Planning Realization of a plan Supervision of the action Error detection  | Good predictive value of IADL performance and good correlation with BADS in patients with Stroke.Sensitive to deficits in patients with schizophrenia with executive dysfunction.Evaluate the time it takes to complete the task, the distance traveled and the number of actions taken.Aubin, Béliveau & Klinger (2015) has also tested it in patients with schizophrenia.  |
| **Virtual Multiple Errands Test (VMET)**(93, 94) (95) (96)  | ShoppingCommunity mobility Multiple Errands | Adults | Planning Execution of a planSupervision of the actionError detectionFormation of strategies for multiple tasks and planning. | Patients with ABI had greater difficulty working step by step in intentional goal-directed behavior. Examines the ability to plan, solve problems in an activity with simultaneous tasks (multitasking), patient must select recipes, prepare a shopping list and buy the ingredients that appear on your list. The visual environment includes piped music, sales announcements and offers. The sensors collect the movements of upper limbs. Also, it was used in patients with OCD. It allows to discriminate between non-clinical population and with OCD.Good reliability with cognitive tasks in the evaluation of patients with Parkinson's. The performance in the VMET was able to differentiate between groups of patients with stroke, older and healthy, according to their performance executive functions.  |
| **Virtual Human Object Memory for Everyday Scenes (Virtual HOMES)**(97) | ShoppingCommunity mobility Multiple Errands | Adults | Use of objectsEveryday memory  | This study observed that older people showed signs of a decrease in performance in free recall, while people with Alzheimer's showed deficit in several tasks of executive functioning. Allowing the differentiation of both groups according to performance. |
| **VAP-S** (98)  | ShoppingCommunity mobility Multiple Errands | Adults | Planning Realization of a plan Supervision of the action Error detection  | The task allows to discriminate between patients with MCI and healthy population. |
| **Multitasking in the City Test (MCT**) (99) | ShoppingCommunity mobility Multiple Errands | Adults | PlanningRealization of a planSupervision of the actionError detection  | Good correlation between the planning score and the MSE. It shows greater ecological validity than traditional FE tests.It has been valued as a useful task to evaluate the integration of FEs in meaningful behavior |
| **Edinburgh Virtual Errands Test (EVET)** (100) (101) | ShoppingCommunity mobility Multiple Errands | Adults | PlanningRealization of a planSupervision of the actionError detection  | Useful for the assessmentof the tasks of orientation and navigation through the environment, as well as the execution of the task.Score on the EVET task was predictive of the measures of retrospective memory, visual planning and spatial working memory.It has been indicated that a limitation of the EVET task is the lack of generalizability to other tasks. |
| **Virtual Reality Pedestrian Environment (VRPE)** (131) | Community mobility | Adults | PlanningRealization of a planSupervision of the actionError detection  | People with sleep restriction showed an increase in risk behaviors, decreased attention to traffic, made worse decisions when they had to cross and took longer to take them. |
| **Virtual Park** (102) (103) | Community mobility | Adults | Selective attentionPlanningRealization of a planSupervision of the actionError detection | Useful to evaluate neglect hemiespacial.Patients had to find a boat with money, there was only one with money from the 11 possible in each alley, which could take a house, garden, car, tree, Lake, river, bridge, playground, mountain ..., etc.  |
| **Virtual Apartment** (104) | IADL: home care  | Adults | Prospective MemoryPlanningRealization of a planSupervision of the actionError detection | They showed a positive correlation between performance and dissociation in the tasks that required attention and working memory. |
| **Virtual Town** (105) | Completion of tasks -requests1) Select 3 items of clothing from the wardrobe. 2) memory game; 3) breakfast preparation;4) virtual kitchen test; 5) news reminder;6) Shopping | Adults | Planning Realization of a plan Supervision of the action Error detection  | In this task, the patient is asked to walk through the city, unpleasant, pleasant and neutral odors appeared. The appearance of them, especially the unpleasant ones, affected visual attention. |
| **Therapeutic Virtual****Kitchen (TVK)** (106) | CookingHome maintenance  | Adults | Planning Make a plan Supervision of the action Error detection  | It showed utility to evaluate executive functioning in a simulated virtual environment in patients with ABI (TBI and Stroke) |
| **Cooking Task** (107) | Cooking | Adults | Planning Sequencing Attention control Execution Monitoring of the action. | It is a digital task, not virtual. Includes two cooking tasks. And set the table. You are shown instructions. There are 4 levels, two tasks per level (by number of ingredients and cooking time). It is necessary to cook each dish at the scheduled time. It has a screen to plan the dish, with the ingredients and the planned time. The levels are complicated with distractors. |
| **Virtual Library Task (VLT)** (108) | IADL and productive | Adults | Prospective memoryPlanningMake a planSupervision of the actionError detectionWorking memory | It allows to discriminate between patients with TBI and control group in their executive functioning. |
| **Virtual Office Environment** (109) | Productive actitvities  | Adults | PlanningRealization of a planSupervision of the actionError detectionProspective memory | He showed that even people with a modest consumption of alcohol show a worse performance in the tasks of planning and prospective memory. |
| **Virtual Executive Secretarial Task (VEST)** (110) | Productive activities  | Adults | PlanningMake a planSupervision of the actionError detectionProspective memory | It allowed to discriminate between patients with TBI and controls. |
| **Virtual Office Assisstant or Jansari Assessment of Executive Functions (JEF)** (111) | Productive activities  | Adults | PlanningPrioritisationMultitaskingRealization of a planSupervision of the actionError detectionTimed Based prospetive memoryAction Based Prospective rmemoryEvent based prospective memory  | The patient is asked toplay the role of an office worker, and organize a meeting for that day, preparing the appropriate space. It is indicated that the manager has left a list of tasks to be performed |
| **Computerized****Meeting Preparation Task (CMPT)** (75) | Evaluates general cognitive skills in IADL and productive activities, multitasking skills in everyday life. | Adults | Cognitive flexibility, working memory inhibition, planning, prospective memory (based on events and time), episodic memory  | Patients must organize a meeting and place the necessary material according to instructions. For five guests; There is also another list that contains the names of the guests and their desired drink during the meeting. |
| **Ice Cream Seller Test** (112) | Productive activities(50 minutes) | Adults | PlanningWorkingmemoryLearningExecution of multitaskingTracking rulesCognitive flexibilityInterference controlReaction time  | The patient is asked to act as an ice cream vendor on his first day of work. You must give the turn to the 14 buyers in 4 groups and then serve them their ice cream. Provides immediate feedback on whether or not you are wrong with each order.It requires the use of virtual reality glasses with a motion sensor. The patient sees his hand in the virtual environment increasing the sensation of immersion and virtual presence. |
| **Virtual reality Cognitive Performance Assessment Test (VRCPAT**)(113) | Community Mobility (takinga a bus), Preparing a Shopping list and Shopping (15 minutes)  | Adults with schizophrenia | Memory | Virtual environment of a city to evaluate the memory of certain points of the city. Collect the number of success, errors and time it takes to complete the task. |
| **ECO-VR** (114) | BADL: use of mediaIAVD: preparation of a menuIncludes the Shoe Closet Test (SCT) (Oliveira et al., 2018, published online August 2017) | Adults | Planning, sequencing Inhibition Attention control and memory. It is not a specific task of EF. | It consists of 5 tasks: watching television news, checking messages on an answering machine, organizing food and the menu, finding objects in a room, remembering information related to TV news and the answering machine's message. The number of completed tasks is collected, the time it takes, if it breaks rules and use of strategies. In the Shoe Closet Test you must match some shoes that appear in a virtual closet. |
| **Virtual Week Task** (115) | It is a kind of game, in which the patient has to perform a series of activities in a virtual week.It consists ten PM tasks to be performed each day, in a virtual week, including two time control tasks, four regular tasks and four irregular tasks. | Adults | Prospective Memory |  |
| **EcoKitchen** (116)  | It is a non-immersive task, in which the patient is asked to cook, consists of 3 levels of complexity: prepare a cup of coffee with milk, pay attention to a kettle and prepare two toast with butter. The instructions are in front of the participant to decrease the memory load | Adults with Huntington disease | It allows to evaluate planning, multitasking, cognitive flexibility, self-control, sequencing, divided attention and scanning skills. The results include both the time invested in each task, and the type of errors: ingredient, impulsivity, sequencing |  |
| **Smart Aging** (117) | It is a SG platform.Participants need to perform 5 tasks closely related to the activities of daily life: look for items in the kitchen of a list, water the plants while listening to the raio, make a phone call, identify 12 correct objects of 24 presents and Find objects in the kitchen. A touch screen is used, which seems to be more intuitive and easier to handle than the mouse. | Elderly  |  It allows to assess executive functions (reasoning and planning), attention (selected and divided), memory (short and long term, prospective) and visuospatial orientation. |  It allows detecting elderly people with cognitive impairment and without it. Assess multitasking skills. It consists of several levels. |
| **Virtual MultitaskingTest** (118) | Place the purchase, use of phone, fax, cleaning clothes. | Elderly | Speed processing, prospective memory, plan reorganization, mental flexibility and attencion | Virtual enviroment is an apartment. Recoge el tiempo tardada en guardar la compra, number of errors in sorting frutis and vegetables. |

BADL= Basic Activities of Daily Living; IADL= Instrumental Activities of Daily Living; EF= Executive Functions; ABI=Acquired Brain Injury; OCD=Obsessive Compulsive Disorder; PK= Parkinson Disease; SG= Serious Games

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