









Cross-cultural adaptation of functioning evaluation Routine Task Inventory - Extended (RTI-E) for use in elderly people with dementia in Brazil

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Abstract

Objective: Cross-cultural adaptation of the Routine Task Inventory-Expanded assessment for use in Brazil. **Method:** This cross-cultural adaptation study of the Routine Task Inventory-Expanded followed translation, back-translation, and expert committee review guidelines. The pre-test was performed with 10 elderly subjects with no cognitive impairment. The reliability study (agreement between evaluators and internal consistency) was executed with elderly subjects with and without dementia (n=26). **Results:** The initial translation was revised to preserve the instrument's construct. Adjustments were made to task C. Bathing, task G. Use of the telephone, and task H. Use adaptive equipment to clarify the meaning of items. The instrument showed internal consistency $\alpha = 0.813$ ADL/self-report to $\alpha = 0.966$, ADL/caregiver, and reliability between ICC evaluators (95%IC) from 0.987 in IADL to 1.000 in communication. **Conclusion:** The cross-cultural adaptation of the Routine Task Inventory-Expanded was achieved, maintaining equivalency to the original instrument and providing a new instrument to assess cognitive functional abilities of elderly individuals living with dementia in routine daily living activities for use in Brazil.

Keywords: Aged. Dementia. Functional Status. Occupational Therapy.

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INTRODUCTION

Routine tasks are activities performed with defined performance and frequency standards. They are also called Activities of Daily Living (ADL)¹, which comprise Basic Activities of Daily Living (BADL), aimed at caring for the body itself (eg personal hygiene, use of the bathroom, clothing, etc.) and Instrumental Activities of Daily Living (IADL), which involve interaction with tools and with the community (eg financial management, community mobility, etc.). Routine tasks are also related to complex activities such as communication (verbal and non-verbal) and work (keeping the pace of task execution, following safety precautions, etc.). The routine in which activities are carried out gives structure to the person's daily life. The underlying elements of ADL are studied in Occupational Therapy² and are represented in the unified terminology of health and rehabilitation, the International Classification of Functioning and Disability (ICF)³.

According to the ICF³, functionality indicates the interaction between health/disease, body functions and structures, activities, participation, environmental factors and personal factors. Thus, changes in brain structure or function can result in cognitive impairments that are related to impairments in activity performance and participation. Disabilities are mitigated or worsened according to the interaction with personal and environmental factors, including the adjustment of activity demands². Cognitive disabilities are found in dementia and are related to the limitations of functionality inherent to the development of the condition⁴.

It is estimated that there are about 50 million people in the world with dementia and that this will reach 152 million in 2050⁵. In Brazil, it is estimated that there are about 1.5 million people living with dementia in the country, with Alzheimer's disease (AD) dementia being the most prevalent form⁶. The decline in functionality observed in AD dementia is a relevant aspect⁷. The inability to perform IADL can evolve to total dependence on BADL⁸, increasing the demand for care⁹, provided mainly by a family caregiver who, in general, experiences

deleterious changes in their lifestyle, finances and health conditions, due to the overload for caring^{9,10}.

There are few specific functionality instruments for dementia, which offer dichotomous responses, do not grade performance variation and do not consider other factors involved in the outcome, such as personal factors and environmental factors. Functionality assessment can be performed by direct or indirect observation. Assessment instruments by direct observation of performance require preparation that make them less accessible for everyday clinical practice, where there is often a high demand for care and limited material resources¹¹. Assessment instruments by indirect observation based on the report of a caregiver are widely used¹², considering that the lack of awareness of the deficit is a characteristic of the dementia condition¹³. Such instruments can bring information bias, underestimating or overestimating¹⁴ the performance capacity of the person with dementia¹². Although the combined use of instruments for direct and indirect observation of performance is recommended¹³, those available in our environment do not allow observation of the same items of routine tasks, making it difficult to compare perceptions and identify discrepancies between different sources.

*Routine Task Inventory- Extended (RTI-E)*¹⁵ assesses routine tasks based on self-report, caregiver report and direct observation of performance by a therapist on the same tasks. It considers the interference of other factors in the performance, such as the opportunities provided by the environment and interests in occupations. It is an instrument developed from the Cognitive Disability Model (CDM)¹, whose central concept is functional cognition, which explains the interaction between cognition and functionality in the performance of activities, within a psychosocial approach. It considers the biological aspects involved in occupations (what the person can do - represented by *can do*), the psychological aspects (what the person intends to do - *will do*) and the social aspects (opportunities and possibilities to do according to the environment - *may do*)¹⁶. The CDM has a six-level scale (Allen's Cognitive Levels Scale) that characterize occupational behavior according to the expected cognitive abilities within each cognitive level⁴. The score obtained on the RTI-E refers to these functional cognitive levels.

The RTI-E is used to describe the variation in the performance pattern in routine tasks and to assess functionality in different health conditions, populations and practice contexts¹¹. Zimnavoda et al.¹⁷ used the self-report on the Community Living Scale - IADL as a standard for the study of concept and criterion validity of a functionality assessment instrument in a population of older people in Israel. Bar-Yosef et al.¹⁸ used RTI items that were parallel to the Cognitive Performance Test (CPT) tasks, to verify their correlation, in older people with dementia and in healthy older people, in the observation of tasks and in the caregiver's report. Ziv et al.¹⁹ used the Community Life Scale - IADL to compare a group of older people with depression to healthy controls and to verify the predictive capacity of Allen's cognitive levels for performance in this domain of functionality.

Assessment instruments designed in languages, countries and cultures different from those in which they will be introduced must be adapted to the new culture in order to have semantic, idiomatic, experiential and conceptual equivalence between the original and the adapted, in order to enable the study of a phenomenon in different cultures²⁰.

This article presents the process of cross-cultural adaptation of the RTI-E to Brazilian Portuguese.

METHOD

Cross-cultural adaptation and psychometric properties study of the RTI-E into Brazilian Portuguese for use in the population of older people with AD dementia, carried out in the Third Age Program (PROTER) of the Instituto de Psiquiatria, Hospital das Clínicas, São Paulo School of Medicine, between 2016 and 2018. Project approved by the Ethics Committee for the Analysis of Research Projects of the Hospital das Clínicas, School of Medicine, University of São Paulo (opinion n°1,076,759). Participants were informed of the research objectives and signed the Free and Informed Consent Form.

Allen et col.¹ built items from the observations of occupational therapists on the performance of

routine tasks, gathered in the original RTI, composed of BADL and IADL scales²¹. The RTI-E extended version was developed by Katz¹⁵ who added two items (use of adaptive equipment and childcare) and two domains (Communication and Work Readiness) to the original instrument.

The RTI-E is composed of a manual and four scales in four domains of functionality: Physical Scale - ABVD (8 items: personal hygiene, clothing, bathing, functional mobility, food, use of the toilet, use of medications, use of adaptive equipment), Community Living Scale - IADL (8 items: household chores, preparing/obtaining food, financial management, washing clothes, community mobility, shopping, using the telephone, taking care of children), Communication (4 items: listening comprehension, verbal expression, reading comprehension, written expression), Work Readiness (6 items: keeps pace/follows schedule, follows instructions, performs simple/complex tasks, interacts with co-workers, follows safety precautions/reacts to emergencies, plans work/supervises others). Each scale describes routine tasks in detail so that the behavior that most closely matches the customer's current performance is identified. The application of the RTI-E is done through an interview for self-report and the caregiver's report. Therapist observation is accomplished by observing performance on tasks performed in real life. The result of each scale is independent and represents the average performance in the observed tasks. Therefore, each scale of the RTI-E can be applied separately.

The RTI-E score represents the client's Allen Scale cognitive level at the time of observation. Level 1 represents greater impairment of functionality and level 6 represents total independence¹⁶. The identification of the cognitive level that best describes the performance of the person makes it possible to infer the cognitive processes underlying the performance, constituting the parameter for the adaptation of activities, adapting them to the performance potential so that the person can experience their best functionality⁴.

The adaptation study followed the guidelines of Beaton²⁰ and started after the author's authorization, following the steps shown in Figure 1.

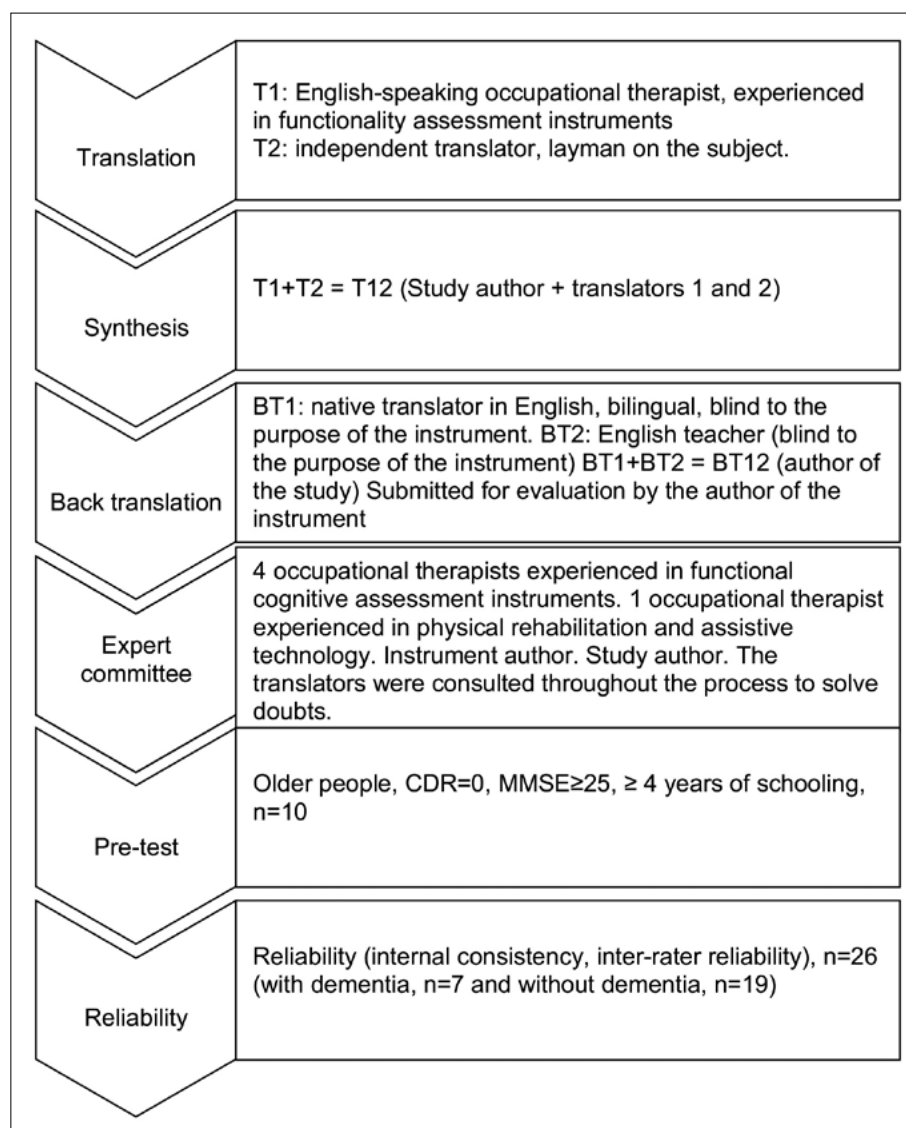


Figure 1. Cross-cultural adaptation process

Key: T1 = translator 1 (Adriane Colozzio), T2 = translator 2 (Eduardo Benaglia). T12 = synthesis of translations. BT1= back translator 1 (Nicholas J. Geboy), BT2 = back translator 2 (Ângela Nancy Pinto). BT12 = synthesis of the back translation. Expert review: 4OT = 4 occupational therapists: Natalie Torres Mattos, Adriana Dias Barbosa Vizotto, Eliyara Ikehara, Cíntia Soares. 1 OT = Tenille Aguiar. CDR = Clinical Dementia Rating. MMSE = Mini-Mental State Examination n= number of subjects.

The expert review was performed by occupational therapists experienced in functional cognitive rehabilitation and mental health. Each therapist received the instrument in its entirety, to read, apply and record their considerations in the instrument. The alteration suggestions were discussed and adopted by consensus among the experts. An occupational therapist specializing in physical rehabilitation was consulted to adjust assistive technology terms.

The pre-test was carried out with 10 older subjects without cognitive impairment, recruited through a convenience sample, among those accompanying patients at the occupational therapy service outpatient clinic, with schooling ≥ 4 years, age ≥ 60 years and without diagnosis of mental, neurological disorders, uncorrected sensory deficiencies that could interfere with the understanding of the questions. The application was performed by occupational

therapists trained in the instrument, in individual sessions. The subjects' difficulties in understanding the questions were noted, as well as their suggestions to improve their understanding.

The subjects of the reliability study were recruited from outpatient clinics of the Senior Citizens Program, the Reference Center for Cognitive Disorders and the Occupational Therapy Service of the Institute of Psychiatry, Hospital das Clínicas, Sao Paulo School of Medicine and the community. The reliability study was carried out in a sample of 26 subjects, schooling ≥ 4 years, age ≥ 60 years, diagnosed with dementia, Mini Mental State Examination (MMSE) ≤ 24 and Clinical Dementia Rate (CDR) = 1 or 2 or without diagnosis of AD (MMSE ≥ 25 and CDR=0) and no diagnosis of mental, neurological disorders, uncorrected sensory impairments that could primarily interfere with functionality. The sample size was calculated using the GPower 3.17²² program, for $\alpha=0.05$, statistical power of 95%, and effect size of 0.8 (large). For inter-rater reliability, two previously trained occupational therapists scored the instrument at the same time.

Data were entered into electronic spreadsheets and analyzed using a statistical program. Reliability was studied by internal consistency analysis and obtained by calculating Cronbach's alpha coefficient (α). The analysis of inter-rater reliability, in which two raters scored the instrument at the same time, was obtained using Intraclass correlation coefficient (ICC).

RESULTS

In the translation stage, the author requested modification of phrases beginning with "may" (Chart 1). In the synthesis translation, these sentences had been placed in a direct form, such as "does/does not do". In the final version, we accepted the author's request and the sentences beginning with "may" were translated as "*pode* + verb in the infinitive form".

The experts pointed out the need to modify the task description to meet the most current information seeking customs in G. Telephone Use (Chart 2). The original instrument uses yellow pages (telephone directory). The change was defined based on the suggestions of the pre-test subjects, asked how they usually locate an unknown phone.

The 10 older subjects in the pre-test were 9 women and 1 man, with schooling from 4 to 7 years (20%), 8 to 11 years (40%), ≥ 12 years (40%) and age range from 60 to 69 years (50%), 70 to 79 years (30%), ≥ 80 years (20%). In the pre-test, it was identified the need to add examples of adaptive equipment and text adjustment to improve understanding in three items of the Physical Scale - ABVD and in 1 item of the Life in Community Scale - IADL (Chart 2). Examples of adaptive equipment were added with advice from an occupational therapist specializing in physical rehabilitation.

Chart 1. Comparison between the versions in the different stages of translation, with revisions in the back-translation and adjustments by the specialists before the pre-test.

Original	Initial version (T1-2 synthesis)	Back translation	Final version (with cross-cultural adaptation)
<p>A. Grooming (Care of hair, nails, teeth; cosmetics)</p> <p>1. Ignores personal appearance. <i>May change body position* for a few seconds on command.</i></p>	<p>A. Higiene Pessoal: (cuidados com o cabelo, unhas, dentes, uso de maquiagem)</p> <p>1. Não se importa com a própria aparência. <u>Sob comando muda a posição corporal*</u> por alguns segundos</p>	<p>A. Personal care: (hair, nails and tooth care, makeup use)</p> <p>1. Does not care about his/her appearance. <i>Changes the body position* for a few seconds under command.</i></p>	<p>A. Higiene Pessoal: (cuidados com o cabelo, unhas, dentes, uso de maquiagem)</p> <p>1. Não se importa com a própria aparência. <u>Pode mudar a posição corporal*</u> por alguns segundos, sob comando.</p>

Note: *Example of the objection that the author made, in the evaluation of the back-translation, in relation to the change in the speech that would interfere with the flexibility of the instrument and adjustment.

Chart 2. Cross-cultural adaptation

Original	Synthesis Version	Back translation	Final version
<p>G. Telephoning</p> <p>5. Looks up numbers in the White Pages or in a personal address book.</p> <p><u>May not use the Yellow Pages or consider sub-classifications such as governmental agencies, or</u></p> <p>6. Uses a classification system to find a number in the Yellow Pages or in the listing of governmental agencies and learns to use new options.</p>	<p>G. Uso do Telefone</p> <p>5. Procura números numa lista telefônica ou numa agenda pessoal</p> <p><u>Não usa lista telefônica (Páginas Amarelas) ou não considera subclassificações, como agências governamentais ou (serviços públicos)</u></p> <p>6. Usa um sistema de classificação para encontrar um número em uma lista telefônica (Páginas Amarelas) ou na lista de telefones úteis de serviços públicos ou aprende a usar novas opções.</p>	<p>G. Using the phone</p> <p>5. Search for numbers in a phone book or in a personal address book</p> <p><u>Does not use the phone book (Yellow Pages) or does not consider sub-classifications, such as government agencies or</u></p> <p>6. Uses a classification system to find a number in a phone book (Yellow Pages) or in the list of government agencies or learns to use new options.</p>	<p>G. Uso do Telefone</p> <p>5. Procura números numa lista telefônica ou numa agenda pessoal</p> <p><u>Pode solicitar ajuda a terceiros para obter o número em meios eletrônicos.*</u></p> <p>6. <u>Usa o serviço de informações ou a busca na internet para obter o número, ou aprende a usar novas opções.**</u></p>
<p>C. Bathing</p> <p>1. Does not try to wash self and is given a sponge or bed bath by another person or uses a mechanical lift for transfer to bathtub.</p>	<p>C. Banho</p> <p>1. Não tenta se lavar e outra pessoa lhe dá banho no leito ou <u>usa elevador mecânico para ser transferido para a banheira.</u></p>	<p>C. Bathing</p> <p>1. Does not try to bathe and another person gives him/her a bed bath or <u>uses a mechanical lift to be transferred to the bathtub.</u></p>	<p>C. Banho</p> <p>1. Não tenta se lavar e outra pessoa lhe dá banho no leito ou <u>usa elevador mecânico/cadeira higiênica para ser transferido para a banheira/chuveiro***</u></p>
<p>D. Walking/exercising</p> <p>4. <u>Walks in familiar surroundings without getting lost and can be trained to follow an exercise program after weeks of practice.</u></p>	<p>D. Mobilidade Funcional</p> <p>4. Anda <u>em ambientes familiares</u> sem se perder e pode ser treinado para seguir um programa de exercícios depois de semanas de prática</p>	<p>D. Functional Mobility</p> <p>4. <u>Walks in familiar surroundings without getting lost and can be trained to follow an exercise program after months of practice.</u></p>	<p>D. Mobilidade Funcional</p> <p>4. Anda em ambientes <u>que lhe são familiares[§]</u> sem se perder e pode ser treinado para seguir um programa de exercícios depois de semanas de prática.</p>
<p>H. Use of adaptive equipment</p>	<p>H. Uso de equipamento adaptativo</p>	<p>H. Using Adaptive Equipment</p>	<p>H. Uso de equipamento adaptativo (por exemplo, andador, muleta, cadeira de roda) ^{§§}</p>

Note:*Adaptation at level 5 involves getting help from other staff to get the new information. **Adaptation at level 6 which implies the ability to be completely independent to obtain new information and the possibility of learning to use new technologies. *** Examples have been added for experiential approximation. §Semantic adaptation for understanding that the word familiar in this context would mean something usual and not belonging to a family. §§Examples of added adaptive equipment.

The complete manual and instrument can be found in full at Mello²³.

In the reliability study, 26 subjects participated, 7 with a diagnosis of dementia and 19 without a diagnosis of dementia. All had schooling ≥ 4 years, age ≥ 60 years (42.30% up to 69 years; 70 to 79 years, 46.15%; ≥ 80 years, 3%), 11.5% worked, 15.4% never worked, 73% retired.

Table 1 presents the inter-rater reliability and shows high agreement between two observers.

The internal consistency analysis of the RTI-E was performed for the Physical scale (ABVD), Community Life scale (IADL) and Communication scale, regarding the caregiver's report and self-report. The Work Readiness scale could not be analyzed due to the small sample of subjects to which this dimension was applied.

Table 2 presents the analysis of total internal consistency, obtained by Cronbach's α coefficient.

Table 1. Reliability between evaluators

RTI-E scales	Intraclass correlation coefficient		
	N	ICC	95% CI.
Physical (BADL)	26	0.992	0.982-0.996
Community Life (IADL)	26	0.987	0.972-0.994
Communication	26	1.000	
Work readiness	3	1.000	

Note: RTI-E = Routine Tasks Inventory – Extended. N = sample size. ICC = Intraclass Correlation Coefficient; 95% CI = Confidence Interval 95%. BADL = Basic Activities of Daily Living. IADL = Instrumental Activities of Daily Living.

Table 2. Internal consistency analysis of the RTI-E

RTI-E scales	Self-report	Caregiver/Informant Report
Physical Scale (BADL)	0.813*	0.895*
Community Life Scale (IADL)	0.944*	0.966*
Communication Scale	0.896*	0.955*

* Cronbach's α

DISCUSSION

The cross-cultural adaptation achieved semantic, cultural and idiomatic equivalence in relation to the original. The back-translation stage was crucial in this study to achieve idiomatic and conceptual equivalence, keeping the content faithful to the original. The back-translation led to a conceptual discussion, as “can” in English means “*capacidade*” (“be able to”), “*saber*” (“know how to”) and “may” refers to “possibility”, “opportunity”. The initial translation had modified the precision of these terms in relation to the concepts of the original. Assessment instruments developed in other countries may present linguistic and cultural differences that modify the understanding of the concepts being evaluated²⁴. In the CDM, the model that underlies the RTI-E, “can do” refers to biological aspects, cognitive ability, “will do” to personal aspects (psychological, volition, motivation) and “may do” to possibilities related to the environment⁴. Only when the imprecision was corrected, guaranteeing the equivalence between the instruments, the author approved the translation.

In the evaluation by experts phase, adaptations in items C. Bath, G. Use of Telephone and H. Use of Adaptive Equipment, monitored and approved by the author, were carried out to obtain experiential

equivalence²⁰, adding relevant examples to the Brazilian reality.

It was confirmed in this study that the knowledge and previous training in the CDM, recommended by Katz¹⁵ and Heimann²¹ is essential and was crucial to align the form of application and scoring. High inter-rater reliability was obtained, with ICC values (95%CI) from 0.987 in IADL to 1.000 in communication. In the original study, Heimann²¹ also found $r = 0.9872$ ($p < 0.001$) for inter-rater reliability. There was high internal consistency in the total analysis of the RTI-E items and one item was removed, in accordance with the results of Heimann²¹ in the internal consistency analysis of the original RTI ($\alpha = 0.9402$).

Thus, the RTI-E meets the proposed requirements to be considered as a reliable instrument. Inter-rater reliability demonstrates the degree of agreement between different professionals when assigning scores, and internal consistency refers to the degree to which the inventory items are theoretically related to what is proposed to be measured²⁴.

The RTI-E aims to translate the influence of cognition on performance in routine tasks, to predict which are the potentials and limitations in the

individual's functionality, resulting from cognitive incapacity¹⁵. This study showed that the RTI-E allows the analysis of performance with details not detected in dichotomous assessments, in real life situations, without requiring special preparations or materials. Thus, reliable information about the client's functional cognition can be collected to compose the therapeutic planning and safety considerations during performance in a viable way to clinical practice, as proposed by Katz¹¹.

When evaluating the three perspectives of information, in the same items, the RTI-E proves to be useful both to compare the discrepancies in the observations and to understand the view that the evaluated person has of their situation. Although information from a caregiver may be more reliable regarding actual performance, self-report can be useful for intervention planning, as it provides information about the person's awareness of their abilities¹³.

Older subjects without cognitive impairments were selected for the pre-test to ensure that comprehension difficulties arising in the application of the instrument were related to the content of the RTI-E and not to the comprehension difficulties inherent to the subject. In the reliability study, subjects with dementia were included in order to verify the feasibility of applying the instrument in this population.

The therapist's observation was adapted for an outpatient clinic with real tasks and the use of four items, with monitoring by the author of the instrument, but this made it impossible to analyze internal consistency in the therapist's observation. It was not possible to verify the internal consistency in the Work Readiness dimension due to the greater number of participants having already retired.

CONCLUSION

Semantic, conceptual, cultural, idiomatic and experiential equivalence were achieved in relation to the original. The RTI-E is the first CDM assessment instrument adapted to our environment and has been shown to be applicable to people with dementia. It showed high internal consistency and inter-rater reliability. The RTI-E fills the gap in assessment instruments for performance in routine tasks in older people with AD dementia. It can be useful to assess the interaction between cognition and functionality in a more specific and personalized way.

This initial study is followed by the expansion of the study of psychometric properties with a greater number of subjects with dementia and further studies with different populations are suggested, including older people with cognitive impairment due to other conditions.

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REFERENCES

1. Allen CK. Occupational therapy for psychiatric diseases: measurement and management of cognitive disabilities. Boston: Little, Brown & Co.;1985.
2. American Occupational Therapy Association. Occupational therapy practice framework: domain and process. *American Journal of Occupational Therapy*. 2020;74(Suppl.2),7412410010. Disponível em: <https://doi.org/10.5014/ajot.2020.74S2001>
3. Barreto MCA, Andrade FG, Castaneda L, Castro SS. A Classificação Internacional de Funcionalidade, Incapacidade e Saúde (CIF) de dicionário unificador de termos. *Acta Fisiatr*. 2021;28(3):207-13.
4. McCraith DB, Earhart CA. Cognitive impairment model: creating adjustment between functional cognitive abilities and cognitive activity demands. In: Katz N, Toglia J. Cognition, occupation, and participation throughout life: neuroscience, neurorehabilitation, and intervention models in occupational therapy. 4th ed. Bethesda: AOTA; 2018.
5. Nichols E, Steinmetz JD, Vollset SE, Fukutaki K, Chalek J, Abd-Allah F et al. Estimation of the global prevalence of dementia in 2019 and forecasted prevalence in 2050: an analysis for the Global Burden of Disease Study 2019. *The Lancet. Public health*, 7(2): e105–e125. Disponível em: [https://doi.org/10.1016/S2468-2667\(21\)00249-8](https://doi.org/10.1016/S2468-2667(21)00249-8)

6. Melo SC, Champs APS, Goulart RF, Malta DC, Passos VMA. Dementias in Brazil: increasing burden in the 2000–2016 period. Estimates from the Global Burden of Disease Study 2016. *Arquivos de Neuro-Psiquiatr.* 2020;78(12):762-771.
7. Pais M, Martinez L, Riveiro O, Loureiro J, Fernandez R, Valiengo L et al. Early diagnosis and treatment of Alzheimer's disease: new definitions and challenges. *Braz J Psychiatry* 2020; 42 (4). Disponível em: <https://doi.org/10.1590/1516-4446-2019-0735>
8. Santos S, Bueno CFOB, Pires JAW, Bonini JS. Funcionalidade nas atividades instrumentais de vida diária em idosos com doença de Alzheimer. *Desafios: Revista Interdisciplinar da Universidade Federal do Tocantins* 2021;8(3),1-8. Disponível em: <https://doi.org/10.20873/uftv8-9074>
9. Mattos EBT, Francisco IC, Pereira GC, Novelli MMPC. Grupo virtual de apoio aos cuidadores familiares de idosos com demência no contexto da COVID-19. *Cader Bras de Ter Ocup* 2021; 29, c2882.
10. Novelli MMPC, Nitrini R, Caramelli P. Cuidadores de idosos com demência: perfil sociodemográfico e impacto diário. *Rev Ter Ocup. Univ. São Paulo.* 2010; 21(2):139-47.
11. Katz N. Routine Task Inventory – Extended (RTI-E). In: Hemphil-Pearson J, Urish C. (Eds.). *Assessments in occupational therapy mental health: an integrative approach.* 4a ed. Thorofare: Slack; 2020. p.378-392.
12. Franssen NL, Holz M, Pereira A, Fonseca RP, Kochhann R. Acurácia do desempenho funcional em idosos saudáveis, com comprometimento cognitivo leve e doença de Alzheimer. *Trends Psychol* 2018;26(4):1907-19.
13. Öhman LN, Kottorp A. Occupational performance and awareness of disability in mild cognitive impairment or dementia. *Scand J Occup Ther* 2011;18(2):133-42.
14. Oliveira, GSR, Bressan L, Balarini F, Silva RSJ, Brito MMCM Foss M et al. Direct and indirect assessment of functional abilities in patients with Parkinson's disease transitioning to dementia. *Dementia & Neuropsychologia.* 2020, v. 14, n. 2. p. 171-177. Disponível em: <https://doi.org/10.1590/1980-57642020dn14-020011>
15. Katz N. Routine Task Inventory - Expanded RTI-E: manual 2006 [acesso em 14 mai. 2022]. Disponível em: <http://allen-cognitive-network.org/index.php/allen-cognitive-model/routine-task-inventory-expanded-rti-e>
16. Earhart CA, McCraith DB. Cognitive disabilities model. Allen Cognitive Level Screen-5 and Allen Diagnostic Module Assessments. In: Hemphil-Pearson J, Urish C. *Assessments in occupational therapy mental health: an integrative approach.* 4a ed. Thorofare: Slack; 2020. p.320-377.
17. Zimnavoda T, Weinblatt N, Katz N. Validity of the Kohlman evaluation of living skills (KELS) with Israeli elderly individuals living in the community. *Occup Ther Int.* 2002; 9(4):312-25.
18. Bar-Yosef C, Weinblatt N, Katz N. Reliability and validity of the Cognitive Performance Test (CPT) in an elderly population in Israel. *Physical and Occupational Therapy in Geriatrics.* 1999;7:65–79. Disponível em : https://doi.org/10.1080/J148v17n01_06
19. Ziv N, Roitman D, Katz N. Problem solving, sense of coherence and Instrumental ADL of elderly people with depression and normal control group. *Occup Ther Int.* 1999; 6(4):243-56.
20. Beaton DE, Bombardier C, Guillemin F, Ferraz MB. Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine* 2000;24(25):3186-91.
21. Heimann NE, Allen CK, Yerxa EJ. The routine task inventory: a tool for describing the function behavior of the cognitive disabled. *Occup Ther Pract* 1989;1(1):67-74.
22. Faul F, Erdfelder E, Lang AG, Buchner A. G*Power 3: a flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behav Res Methods.* 2007;39(2),175-91.
23. Mello PCH. Tradução, adaptação transcultural e validação do inventário das tarefas rotineiras – estendido (RTI-E) em idosos com a doença de Alzheimer [dissertação]. São Paulo: Universidade de São Paulo, Faculdade de Medicina. 2018. [acesso em 24 mai 2022]. Disponível em: <https://teses.usp.br/teses/disponiveis/5/5142/tde-17082018-091711/publico/PatriciaCottingHomemDeMello.pdf> p.118-143.
24. Schlindwein-Zanini R, Cruz RM *Psicometria e Neuropsicologia: interrelações na construção e adaptação de instrumentos de medida.* *PsicolArgum.* 2018;36(91):1-21.