

Post Acute and Long Term Care: instrument for evaluating outcomes

National Network for Integrated Continuous Care Portugal – RNCCI
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Background

In Portugal, National Network for Integrated Continuous Care - RNCCI has a scope of services of health and social support that is applicable to situations of post acute care (PAC), with a predicable end, and to situations that may stand all lifelong related to long term care.

The development of Integrated Continuing Care (“CCI”) is an international reality for several years and has common principles, such as the need for better service related to continuous support to frail people, for rehabilitation in post acute care and to decrease unnecessary admissions to acute care. These assumptions has led to the adoption of some key objectives in health policy, to be achieved by developing networks of integrated continuum of care with flexible organization and planning resources on the basis of local identification of care needs. Promotion and maintenance of functional independence to the highest degree that is reasonably possible is the primary goal of care in National Network for Integrated Continuous Care - RNCCI.

Comprehensive Multidisciplinary Care include high risk screening to identify frail people at risk; assessment for further evaluation; effective and efficient multidisciplinary care management. In addition to treating any underlying conditions, a multidisciplinary approach is critical in addressing issues related to functional impairment.

After assessment and identification of risks, implementation of recommended individual care plan is coordinated with physicians, nurses, social workers, and other members of the multidisciplinary care team (*Carpenito-Moyer L, 2004*).

Although the individual aspects of health and social care services for people who depend on continuous support are now an area of extensive research in many countries, the concepts, indicators and models for international comparisons and for the identification of good practice across countries are still very much in their infancy. Even at a national level, methodology and measurement is often deficient to bring these aspects or elements together (*Health systems and long-term care for older people in Europe, 2008*).

Data from post-acute and long-term care are not widespread in the literature and are essential for international benchmarking. There are different instruments to characterize the needs for those citizens eligible to promotion of autonomy due to disability.

International recommendations point to an integrated bio-psychosocial instrument for initial and ongoing evaluation to assess results of care and research (*Cruz-Jentoft AJ et al, 2008*).

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Objectives

To develop an integrated instrument for bio-psychosocial evaluation and its implementation on the evaluation of users in need of post acute and long term care.

Methods

For the creation of the instrument it was established a partnership with a university to assemble different instruments of evaluation regarding physical autonomy, activities of daily living, mental and cognitive status, nutrition, falls, pressure ulcers and social.

At the end the instrument gives a score for each parameter analyzed and a combined score.

The evaluation must allow making placement decisions related to the most appropriate PAC setting and services; serving as a core set of information that should be transmitted to the receiving provider to enhance the safety and quality of care transitions; and providing baseline information for longitudinal follow-up of health and function, elements of which would be repeated over time. (*Andrew Kramer, 2006*).

These issues have been the target of the studies that led to the development of the Integrated bio-psychosocial Evaluating Instrument - "IAI", based on a set of standard scales in the form of structured survey, in Portuguese, and validated under the standpoint of reproducibility and applicability. The experience thus gained, as well as reading and reflection kept updated on the issue, led to the necessity and opportunity for restructuring this type of evaluation, a model that can be sufficiently comprehensive and synthetic, and allow a structured, standardized, tracking, recording and classifying individuals on the bio-psychosocial dependency.

This assessment tool/instrument is divided into areas, variables and its components:

1. "BIO":
 - a. Gender
 - b. Age
 - c. Health complaints
 - d. State of nutrition,
 - e. Falls
 - f. Locomotion
 - g. Activities of daily physical autonomy or self care (Katz adjusted to 4 levels of categorization: 0- incapacity; 1 - dependent, 2- autonomous, 3- independent) (*Katz S et al, 1963*)
 - h. Daily activities of instrumental autonomy or adaptation to the environment (Lawton and Brody adjusted to 4 levels of categorization: 0-incapacity; 1 - dependent, 2-autonomous, 3- independent) (*Lawton MP, Brody EM, 1969*)
2. "PSYCHO":
 - i. Emotional complaints
 - j. Cognitive status (based in Mini-mental State – MMS- examination) (*Folstein MF et al, 1975*)
3. "SOCIAL":
 - k. Social status
 - l. Habits

The quotations/scores of variables and its components leading to the classification of areas are predominantly quotations/scores of four levels: "0", "1", "2" or "3".

These scores mean: 0 – Incapacity - Need, indispensably and regularly, *caregivers* and / or means of support for functional replacement; *does not cooperates*. 1 – Dependent - Need, indispensably and regularly, *caregivers* and / or means of support for functional replacement; *cooperates*. 2 – Autonomous - Need means (*not caregivers*) of support for functional replacement; *cooperates*. 3 – Independent - No need for caregivers and / or means for functional replacement.

The result obtained, transcribed sequentially, allows a record set of synthetic evaluation, called “Bio-psychosocial Profile” with the following sequence: Gender, Age, Health Claims, Nutrition, Locomotion, Physical Self, Autonomy, Instrumental, Emotional, Cognitive Status, Social Status, Habits, and is presented as a sequence of 12 digits between 0 and 3, for example: 01 013 323 23 23.

"IAI" items related to the ability to complete every day activities: "Activities of Daily Living" and "Instrumental Activities of Daily Living", consider two international scales - Katz and Lawton respectively - adapted and validated by Medicine University to standardize categorization with the remaining items of this instrument in 0/1/2/3 where: 0 and 1 - bad / undesirable; 2 and 3 - favorable / desirable. For the item "falls", this instrument allows the identification of their number and their causes: intrinsic (person), extrinsic (environmental) or both. The item "health complaints" identifies whether there are "complaints of skin and thus to evaluate and characterize the wounds identified (eg: pressure ulcers).

Results

After the validation of the instrument in the university it was implemented in the National Network for Continuous Integrated Care - RNCCI, to be used for evaluating users in need of post acute and long term care and their outcomes. The introduction of the tool allowed ongoing monitoring of different parameters in a holistic approach gathering bio-psychosocial data from a single tool and benchmarking.

There are four different types of inpatient units: Convalescence, for expected 30 days recovery, Midterm Rehabilitation (UMDR), for expected 90 days recovery, Long Term Maintenance (ULDM) that aims avoid deterioration and Palliative care.

Evaluation of the users with the tool is made every two weeks for Convalescence, monthly for Midterm Rehabilitation (UMDR) and every three months for long term care - Long Term Maintenance (ULDM).

Discussion

“IAI” is an evaluation and monitoring screening tool of bio-psychosocial information, which is based on international validated scales. The opportunity for an instrument like “IAI” is due to the fact that there is heterogeneity in evaluation in this field, related to content and scaling, and applied as non-standardized adaptations that compromise their comparability.

The compilation of the variables that compose “IAI” and the decision of their categorization in four levels come from work done in Portugal, based on the analysis of a series of studies performed with adequate samples, namely the last one done in almost three thousand people representative of national population (*Botelho, 1999*).

The advantage of summarizing the information in a numerical layout gives the possibility of obtaining a short and confidential report of extended data, which detail is implicit and can always be detailed. It also allows easily compare data, in the same and in groups of individuals, and the sum of its components can be used as a score, this one needing validation.

The National Institute of Administration performed a study to characterize the users of the National Network for Integrated Continuous Care - RNCCI with data gathered with this instrument (Rato, H., Rodrigues, M. 2009).

“IAI” also presents some useful operational properties, the possibility of being applied by a trained professional of any category, in different care settings, to people with diverse health states, by interview with the patient and/or a caregiver, part of it with the possibility of being collected by observation.

Heinemann refers that comparing outcomes across post acute settings has been hampered by the lack of a common outcome assessment instrument across settings and that there is absence of scientific evidence and a way to compare outcomes across settings. Post acute rehabilitation care is a key component of the health care delivery system, yet we know little about the active ingredients of the rehabilitation process that produce the best outcomes. Critical research needs include developing validated measures, standardizing measures and timing of routine measurement and quality assurance purposes across sites of care, examining differences in content and processes of care both within facilities of the same type and across types of facilities, identifying patient characteristics that vary by region, cultural characteristics, and referral patterns and implementing a “strategic plan for effectiveness research” that is characterized by collaboration between health authorities, researchers, and care sites (Heinemann AW, 2007).

Haley et al refer that, efforts to evaluate the effectiveness of a broad range of post acute care services have been hindered by the lack of conceptually sound and comprehensive measures of outcomes. A variety of outcome instruments are currently in use in post acute care that have been developed for defined patient populations and/or specific clinical settings. The World Health Organization's *International Classification of Functioning, Disability and Health* (ICF) provide a conceptual framework and classification system for developing comprehensive outcome instruments for post acute care. An initial step in using the ICF to guide outcomes assessment is to determine the major domains of activity that are most critical to postacute care services, and to develop a pool of activity items to examine each activity domain. (Haley SM at al, 2004).

The construction of an integrated evaluation tool, with ICF for physical autonomy, needs development and validation for postacute and long term care. We are aiming this evolution but with the international recommendations, this should be done with international partnerships, to obtain an instrument that will allow international benchmark of outcomes.

Conclusion/Application to practice

Evaluating users in post acute and long term care is based on a holistic approach and there is a need for research regarding care needs and outcomes using a tool for biopsychosocial evaluation. This instrument allows accomplishing these recommendations

and allows comparability between evaluations, following the evolution of every “IAI” component, in the same or in different settings.

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