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REVIEW ARTICLE

THE SELF-CARE (RE) CONSTRUCTION IN OLDER PEOPLE STROKE SURVIVORS: A LITERATURE REVIEW

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ABSTRACT

Purpose: Cerebrovascular disorder (Stroke) is the leading cause of morbidity in old people in Portugal, fostering high levels of dependency to self-care. This study aimed to understand the process of (re)construction of self-care in old people stroke survivors.
Method: A review followed PIC[O]S method, in MEDLINE and CINAHL databases in the last decade (2002-2012). 651 articles were retrieved and only eight were included based on the inclusion criteria established by the authors.
Results: The main results suggest the importance of the rehabilitation process within the first few months in old people after a stroke. There were scores of independence in self-care, 3 and 12 months post-discharge. Relevant indicators and influencers were reported in several studies. The nature of the event, functional capacity, satisfaction with life and self-esteem were considered as predictors in self-care performance post-stroke.
Conclusion: Despite the results suggesting self-efficacy and 'persistence' in the recovery process, as key elements in the (re)construction, more research is needed to understand the self-care (re)construction in old people stroke survivors.

INTRODUCTION

Stroke are the largest socio-economic impact worldwide and are the leading cause of disability in the Western world (Wolf, 2000; Truelsen *et al.*, 2006; Larson *et al.*, 2005; Lincoln *et al.*, 2004; Marsden *et al.*, 2010). It is estimated that the prevalence of this condition is 0.2% of the world population, 30% of whom did not survive, 30% are functionally dependent and only 40% have a recovery with lowest disability (Wolf, 2000). A projection for the year 2025 suggests that the incidence of stroke will increase in the coming decades, driven by demographic change (Truelsen *et al.*, 2006). The World Health Organization estimates that in just twenty-five years (2000-2025) the incidence rate of people suffering a cerebrovascular disease will rise from approximately 1.1 million to 1.5 (Truelsen *et al.*, 2006). The Portuguese Health System provides monitoring of stroke survivors at hospitals and at rehabilitation units (convalescence, medium and long-term) by the Integrated Continuous Care Network (Ministério da Saúde, 2006). These units are designed to rehabilitate and prepare survivors to reconstruct their self-care. Self-care is a condition for older people becoming competent and managers of their own health condition (Hoy *et al.*, 2004; Orem, 2001). This concept depends of several determinants; economic, social, physical and psychological resources (Orem, 2001; Penning, 2000). Self-care is also a process in which a lay person acts on their own behalf with purpose the promotion of health, prevention and treatment of the illness (Dean, 1989). With an aging population and increasing prevalence of chronic and debilitating illnesses (WHO, 2011; WHO, 2001) in which we highlight cerebrovascular disease, the importance of research studies of the assistance activities which promote independence emerges (e.g. self-care). This study aimed to understand the process of (re) construction of self-care in old stroke victims, identifying the factors which promote benefits within this process.

METHODS

Based on the understanding of the process of (re)construction to self-care in older people after a stroke and with the core objective of systematizing the "state of the art" reconstruction process of self-care, we set out the literature review.We applied the method PIC[O]S (Centre for review and dissemination, 2008): Participants and clinical situation (old people dependent to self-care post-stroke), Intervention (a (re) construction of self-care post-stroke); Context (rehabilitation units and home-dwelling) and Study Design (qualitative and quantitative studies). We also define the inclusion and exclusion criteria for study selection as follows in the table 2. Protocol and registration were made in PROSPERO: CRD42012003274 available from http://www.crd.york.ac.uk/PROSPERO/display_record.asp?ID=CRD42012003274

Search Strategy

To undertake a systematic review, electronic databases described above (Table 1) between April and June 2012 were used. We had English idiom as criteria, and performed a restriction on the date (2002-2012). The search conducted was based on three key concepts: (i) concept 1 – old people, (ii) concept 2 - self-care and

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(iii) concept 3 - stroke. After the identification of these concepts it was necessary to make some research in order to identify synonyms terms/ related search terms. The search expression corresponds to the intersection of the concepts identified and isolated in the systematic review.

Study selection

Study selection was defined, piloted and discussed within the research team. In addition, the inclusion criteria were applied by the first researcher; two independent reviewers who screened titles and abstracts against predefined inclusion criteria. Full manuscripts of all potentially relevant citations were obtained and these were screened independently by two reviewers using a screening form with clearly defined criteria. Other disagreements were discussed and resolved by the third reviewer.

RESULTS

Using the query described above, 32 165 articles in different databases were identified. Those, 31 514 were excluded: (i) did not meet the criteria of peer review; (ii) the idiom used was not English; (iii) publications before 2002. Full copies retrieved and assessed for eligibility (651 articles), but 635 articles were excluded: (i) 423 studies reported people with dementia disease, (ii) 126 studies reported people with osteoarticular pathologies (mostly fractures), (iii) 6 studies had unclear results; (iv) 82 were repeated; (v) 8 reported institutionalized old people.

Table 1 Results from databases

Databases
CINAHL Plus, MEDLINE, MedicLatina, Nursing & Allied Health Collection: Comprehensive Edition, British Nursing Index, Cochrane of Abstracts of Reviews of Effects, Cochrane Database of Systematic Reviews, SCOPUS

Figure 1 synthesizes the process of decision making carried out the authors. Table 3 has the purpose highlighting the selected articles between 2002 and 2012 for this review, detailing information on this authors, year of publication, source and country, participants in the study, intervention / study objective, context, approach to the method (s) used by the authors and also the main results.

Table 2 Search filter for this systematic review

	AND		
OR	older	self-care*	stroke
	old*	self-efficacy	cerebrovascular accident
	elderly	independ*	cerebrovascular disorder
	eld*	autonomy	ischemic stroke
	elder	function*	
	age*		
	old-aged		
	older people		
	oldest people		
	old people		

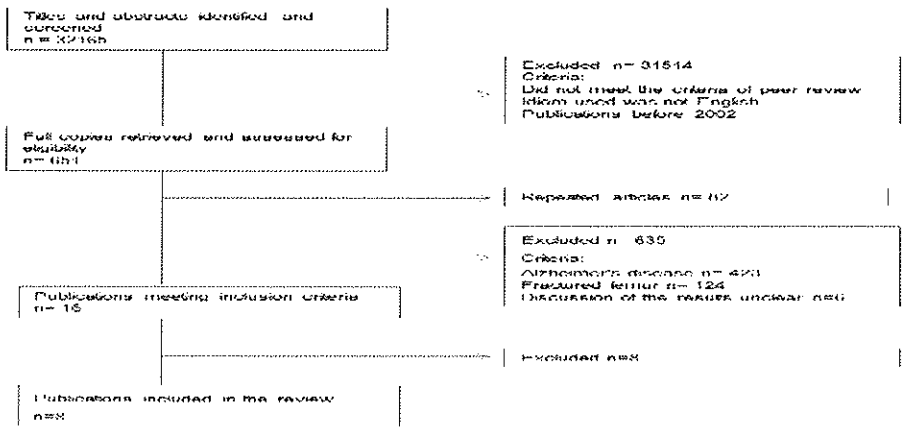

Fig. 1 Flow chart of study selection process

DISCUSSION

This systematic review focused on self-care reconstruction phenomenon in older stroke survivors. The main studies were quantitative, longitudinal, prospective and centered on self-care activities at rehabilitation units and home-dwelling, where data collection took place. The intensity of the rehabilitation process was considered the key to the success in the self-care reconstruction (Hama *et al.,* 2008; Lierberman *et al.,* 2005). The maintenance of appropriate levels of weight (body mass index) and the driving force of the knee are important determinants to sustain self-care (Bohannon, 2007). Other studies support the evidence that three months after a stroke the old survivors reveal independence in activities: eating, drinking, bathing, getting up, dressing, undressing and transferring from bed to chair. One year post-stroke, the old survivors becomes independent in all activities of self-care, except transfer to the bath and / or elimination (Hama *et al.,* 2008; Hershkovitz *et al.,* 2004; Gosman-Hedstrom & Blomstrand, 2003).

Different dimensions of self-care should be clarified as well as the relationship between cognitive ability and self-care (Man *et al.,* 2006). Despite that factors related to self-care and neurocognition are not described in this review (Man *et al.,* 2006), results showed that low levels of cognition reflect higher rates of dependence in self-care (Lierberman *et al.,* 2005). Dependency is a predictor of depression (Gosman-Hedstrom & Blomstrand, 2003; Hama *et al.,* 2008) and decrease quality of life levels, where we highlight the emotional changes, and also alteration of sleep patterns, anhedonia, pain and isolation (Gosman-Hedstrom & Blomstrand, 2003). In addition, feelings of high self-esteem and volition lead to more positive results in self-care, even in the old people (over 85 years) (Lierberman *et al.,* 2005). High levels of self-efficacy at the time of hospital discharge reflect better results in self-care (Hellstrom *et al.,* 2004). Addressing the three domains of self-efficacy ("Self"; "Others" and "Process") proposed by Dixon *et al.,* (2007) is important to clarify each one of them. The first domain "Self", self-confidence, determination and independence are the key indicators related to the person, determining the recovery process. The resources and privileged contact with stakeholders (healthcare professionals, family and friends) in the rehabilitation process correspond to the second domain of self-efficacy as a determinant factor in the self-care reconstruction. The necessary information, spent time in the recovery process and setting individual goals are relevant parts of the process proposed by these authors (Dixon *et al.,* 2007).

Table 3 Summary of results

Author, Publication Year Country	Participants / Sample	Intervention / Objective	Setting	Method	Results/Conclusion
Bohannon 2007 USA	61 old people stroke victims	To evaluate the ability of knee extension, promotion of independence after a stroke	Rehabilitation Units	Descriptive study	The results suggest the importance of the strength of the knee to stimulate the body's movement. Scores of reduced strength in the knee associated with excess weight reduces the possibility of recovery and independence in self care.
Dixon *et al.*, 2007 UK	24 stroke victims (17--59 aged)	Explore / analyze the concept of self-efficacy in a neurological context	Rehabilitation units (neurological)	Qualitative methodology, semi-structured interview	11 items emerged, reflecting 3domains allocated to the concept of self-efficacy. (1) Self: self-confidence, determination and independence, (2) the resources, experience and work with professionals, (3) definition of objectives, the information required and the time spent in rehabilitation. The authors suggest two types of models: Recovery Model and Adaptation Model. Both are crucial in the reconstruction process of independence after a stroke, based on the construct of self-efficacy.
Gosman-Hedstrom *et al.*, 2003 Sweden	151 stroke victims (≥ 70 aged)	Describe the level / type of dependency in activities of daily living and quality of life of older patients after a stroke	Rehabilitation Units /home-dweeling (3 and 12 months post-stroke)	A quantitative longitudinal	The study indicates that the degree of dependence decreased by 3 and 12 months after a stroke. At 3 months the results were positive in self-care: eating, drinking, bathing, getting up, dressing / undressing and transfer. After 12 months, old people became independent for all types of self-care except transfer to the bath and / or disposal. With regard to quality of life, results suggest that older dependents reported worse levels of quality of life (emotional reactions, sleep, lack of energy, pain, mobility and isolation) compared with older adults who were victims of strokes but didn´t have sequels.
Hama *et al.*, 2007 Japan	231 stroke victims (136 ≥ 65 aged)	To evaluate the effect of acceptance of disability or the insistence on recovery / rehabilitation	Rehabilitation Units (≥ 3 months post-stroke)	Prospective study	Results shows that people who have suffered a stroke improve functional capacity during hospitalization. 'Insistence' on rehabilitation / recovery determines success. The most significant results occur in the first 3 months after stroke. Despite of positive results, the physical changes must be attended by professionals preparing them for the uncertain future. The ambivalent feelings coexist (positive and negative). Feelings of depression decreased, favoring the physical recovery. Among the elderly, the loss of functionality, leads to feelings of depression and loss of will to live.
Hellstrom, *et al.*, 2003 Sweden	37 stroke victims (66--89 aged)	To determine the risk of falls on older people post-stroke.	Rehabilitation Units /home-dwelling	Prospective study	The results suggest that old people stroke victims, with low levels of self-efficacy at the time of hospital discharge showed worse results in recovery compared with older adults who have higher scores of self-efficacy. The study indicates that to minimize dependency ratios it is necessary to incorporate the concept of self-efficacy on the old people who suffered a stroke.
Hershkovitz *et al.*, 2004 Israel	207 stroke victims (≥ 65aged)	Assess how a rehabilitation program decrease the inability of the old people after stroke	Geriatric Rehabilitation Units	Prospective and longitudinal study	This study shows a reduction in the degree of disability in older stroke victims. There is a relationship between education and the degree of disability of the old people stroke victims.
Lieberman *et al.*, 2005 Israel	265 stroke victims (45 ≥ 85 aged; 220≥ 75-84 aged)	Compare the rehabilitation process of stroke victims (i) 45 ≥ 85 years, (ii) ≥ 75-84 years	Rehabilitation Units	Prospective study	In the oldest group, over 85´s the clinical evaluation regarding functionality, cognitive ability was similar to the group 75-84 year olds. Although the success of rehabilitation has been favorable in the oldest group (over 85´s), volition was found as the predictor of recovery in the old people.
Man *et al.*, 2006 China	148 stroke victims (45-91 aged)	Evaluating the state neuro cognitive behavioral (NCSE) To evaluate the functional capacity of stroke survivors	Rehabilitation Units	Prospective study	The study supports the relationship between cognitive ability and functional capacity of people who had suffered a stroke. The authors suggest that future studies should explore the factors that relate to each other, eg: how the neurocognitive impairment interferes with the functionality and the process of rehabilitation of stroke victims.

CONCLUSION

Although several studies have presented some relevant indicators and influencers in self-care, as the nature of dependence, functional capacity, satisfaction with life and self-esteem as predictors of the performance of activities related to self-care (key to success), there is no clear evidence to understand the process of self-care (re)construction on older stroke survivors. Similarly, there was no clear evidence to identify how social resources available, as well as the respective caregivers influence the self-care reconstruction. The main implication for clinical practice focus on the need to study the factors that explain the phenomenon of reconstruction of self-care in order to develop individualized interventions to old people who have experienced a phenomenon of dependence in self-care. It is suggested that research in the development of structured intervention programs might be developed, tested and implemented in different contex. Despite the efforts in area of primary prevention, the prevalence of cerebrovascular diseases was not stopped increasing, the interventions delivered by nurses ought to be a priority in order to avoid complications associated with dependency phenomena and to improve the quality of life of stroke survivors. Moreover, future research should be done, especially on family's role in the reconstruction process of self-care.

Conflict of interest

The authors have no conflict of interest.

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References

1. Bohannon, R. (2007). Knee extension strength and body weight determine sit-to-stand independence after a stroke. Physiotherapy theory and practice, 23, 291 297.
2. Centre for review and dissemination (2008). Systematic Reviews: CRD's guidance for undertaking reviews in health care. University of York.
3. Dean k. (1989). Self-care components of lifestyles: the importance of gender, attitudes and the social situation. *Soc Sci Med.* 29, 195 204.
4. Dixon, G., Thornton, E. W., & Young, C. A. (2007). Perceptions of self-efficacy and rehabilitation among neurologically disabled adults. Clinical Rehabilitation, 230 240.
5. Gosman-Hedstrom, G., & Blomstrand, C. (2003). Dependence and health-related quality of life in elderpy people using assistive devices after acute stroke, 15, 247-257.
6. Hama, S., Yamashita, H., Kato, Y., Shigenobu, M., Watanabe, A., Sawa, M., *et al.,* (2008). 'Insistence on recovery'as a positive prognostic factor in Japanese stroke patients. Psychiatry and clinical neurosciences, 386 395.
7. Hellstrom, K., Lindmark, B., Wahlberg, B., & Fugl-Meyer, A. R. (2003). Self-efficacy in relation to impairments and activities of daily living disability in elderly patients with stroke: a prospective investigation. J Rehabil Med. 202 207.
8. Hershkovitz, A., Beloosesky, Y., Brill, S., & Gottieb, D. (2004). Is a day hospital rehabilitation programme associated with reduction of handicap in stroke patients? Clinical Rehabilitation, 261 266.
9. Hoy B., Wagner L., & Hall E. (2004). Self-care as a health resource of elders: an integrative review of the concept. *Nordic College of caring Science*, 21, 456 466.
10. Larson, J., Franzén-Dahlin, A., Billing, E., von Arbin, M., Murray, V., & Wredling, R. (2005). The impact of a nurse-led support and education programme for spouses of stroke patients: a randomized controlled trial. Journal of Clinical Nursing, 14, 995 1003.
11. Lierberman, D., & Lieberman, D. (2005). Rehabilitation following stroke in patients aged 85 and above. Journal of Rehabilitation Research & Development, 47 54.
12. Lincoln, N., Walker, M., Dixon, A., & Knights, P. (2004). Evaluation of a multiprofessional community stroke team: a randomized controlled trial. Clinical Rehabilitation, 18, 40-47.
13. Man, D. W.-K., Tam, S. F., & Hui-Chan, C. (2006). Prediction of functional rehabilitation outcomes in clients with stroke, Brain Injury, 20, 205-211.
14. Marsden, D., Quinn, R., Pond, N., Golledge, R., Neilson, C., White, J., *et al.,* (2010). A multidisciplinary group programme in rural settings for community-dwelling chronic stroke survivors and their carers: a pilot randomized controlled trial. Clinical Rehabilitation, 328 341.
15. Ministério da Saúde. (2006). *Decreto-Lei n.º 101/06.* Rede Nacional de Cuidados Continuados Integrados. Diário da República, 1ª Série, (109), 6 de Junho de 2006, 3856 3865.
16. Orem, DE. (2001). Nursing. Concepts of practice, (2nd ed.). Mosby: St Louis MO.
17. Penning MJ. (2000). Self-care, informal and formal care: partnerships in community-based and residential long-term care settings. *Can J,* 19, 75 100.
18. Truelsen, T., Piechowski-Józwiak, B., Bonita, R., Mathers, C., Bogousslavsky, J., & Boysen, G. (2006). Stroke incidence and prevalence in Europe: a review of available data. European Journal of Neurology, 13, 581 598.
19. World Health Organization. (2001). Active aging: a policy framework.
20. World Health Organization. (2011). Noncommunicable diseases: country profiles.
21. Wolfe CDA. (2000). The impact of stroke. *Brit Med Bull.*, 56, 275 286.

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