PERSONAL CENTERED CARE IN LONG TERM RESIDENCES: HOW TO EVALUATE CLIENT SATISFACTION?

Fernando Augusto Pereira
Professor Adjunto Instituto Politécnico de Bragança
Investigador do Centro de Investigação e Intervenção educativas da FPCEUP – CIIE
Núcleo de Investigação e Intervenção do Idoso da Escola Superior de Saúde de Bragança
Portugal
Cristina Teixeira
EPIUnit - Instituto de Saúde Pública, Universidade do Porto, Portugal
Instituto Politécnico de Bragança, Portugal
Ana Rita Falcão
Instituto Politécnico de Bragança - Escola Superior de Saúde
Universidade de Trás-os-Montes e Alto Douro
Portugal
Vitor Manuel Costa Pereira Rodrigues
Centro de Investigação em Desporto, Saúde e Desenvolvimento Humano, CIDESD
Universidade de Trás-os-Montes e Alto Douro, UTAD
Escola Superior de Saúde.
Vila Real. Portugal
vmcpr@utad.pt
Maria Helena Pimentel
Instituto Politécnico de Bragança - Escola Superior de Saúde
Unidade de Investigação em Ciências da Enfermagem – UICISA-E
Núcleo de Investigação e Intervenção do Idoso da Escola Superior de Saúde de Bragança
Portugal

Recepción Artículo: 02 noviembre 2019
Admisión Evaluación: 04 noviembre 2019
Informe Evaluador 1: 09 noviembre 2019
Informe Evaluador 2: 10 noviembre 2019
Aprobación Publicación: 30 noviembre 2019

ABSTRACT

The evaluation of client's satisfaction allows improving the quality of services as a result of feedback from their clients. The purpose of this study is to develop a scale to assess the client s satisfaction under the scope of personal-centered care model (PCC). A cross-sectional study, based on personal interviews by using a client's satisfaction questionnaire, was conducted among 160 older adults from 12 long-term care services (LTC). Principal component analysis was performed to assess the underlying scale structure and factor loadings were computed. We excluded questions on issues that are not easily assessed by the elderly and we reworded others items to make them clear and simple questions for comprehension among elderly and unambiguous in regards the theoretical construct. We proposed a more succinct instrument, sensitive to the personal-centered care issues, to assessing the client's satisfaction of the LTC.

Keywords: patient satisfaction scale; long-term care; person-centered care.

INTRODUCTION

Long Term Care (LTC) has been an emergent issue in caring frail older people demanding assistance not only for their personal needs but also for their health constraints (Feldman & Kane, 2003). Organizations providing LTC need to evaluate the client's satisfaction in order to improve quality of services and to achieve excellence (N. G. Castle, Furnier, Ferguson-Rome, Olson, & Johs-Artisensi, 2015). The use of elderly resident satisfaction scores has been recognized as a powerful indicator of the quality of care because reveals the provider's ability in meeting needs, expectations and wishes of frail older people (Kane & Kane, 2000; Ryden et al., 2000). Quality assessment can be addressed in several ways (O'Keeffe, 2014); firstly, it includes the availability and reliability of care itself but also the respect concerning autonomy and independence of care receiver; secondly, it includes clients satisfaction in regards the structures governing the care and the amenities provided; and, thirdly, it can be objectively measured through health indicators, such as falls, infection rates and medication management.

Nowadays, the Person Centered Care model (PCC) has been promoted on the level of legislation and regulation of health care. According to this model the focus moves from the health care provider or the health care practices to the patient and their expectations and particular needs (Athwal et al., 2014; Louw, Marcus, & Hugo, 2017). Within PCC model patients play an active role in the decision-making process that affects their health and their well-being (Athwal et al., 2014). PCC is based on trust, constancy, mutual caring, mutual knowledge and mutual understanding of roles and responsibilities (Athwal et al., 2014; Scholl, Zill, Härter, & Dirmaier, 2014). Communication, assessing patient needs and family needs, information provision, enablement, engagement, shared decision-making are some of behaviors underlying the PCC (Louw et al., 2017). PCC applied to health care services has been associated with significant improvements in health outcomes (Olsson, Jakobsson Ung, E. Swedberg, & Ekman, 2003) and has benefits in terms of patient satisfaction and perceived quality of care (McMillan et al., 2013) and reduces complaints against health care providers (Louw et al., 2017).

Over the last decades, the patient-centeredness philosophy has been moved to nursing homes or LTC services (Koren, 2010; Rockwell, 2012). A set of principles guide the implementation of PCC model in LTC. First, each person is unique and is worthy of respect regardless of disease or disability (White, Newton-Curtis, & Lyons, 2008). Care providers should design an individualized, goal-oriented care supported not only by medical, functional and social assessment but also by the person's preferences (Bangerter, Van Haitsma, Heid, & Abbott, 2016; Goodwin, 2016; White et al., 2008). Resident's care and activities should be planned by evolving them, whom would be offered choices and encouraged to make their own decisions about their daily routines, occupational activities and meals (Koren, 2010; Rockwell, 2012). Second, PCC program aims in fostering relationships. Caregivers should be available both to give individualized attention to resident's needs and to spent time for develop relationships (Rockwell, 2012). Building close relationships between staff, residents and their families have emerged as fundamental to the experiences of life within LTC (Brown Wilson, 2009; Koren, 2010; Ploeg et al., 2013; Rockwell, 2012). Third, compliance with PCC demands that LTC structural and environmental characteristics ensure resident privacy and the opportunity for personalizing the space where older people could feel comfortable (Bangerter, Van Haitsma, et al., 2016; Koren, 2010; Rockwell, 2012; Zimmermen et al., 2016). Fourth, PCC emphasizes the empowerment of consumers by keeping them informed such that consumers will be able to make decisions about their care and activities (White et al., 2008).

PCC has been recognized as an important issue to improving quality of life of LTC residents and to provide safe and high-quality health care that can address the demands created by a growing aged population with increasing rates of chronic conditions (McMillan et al., 2013; Williams, Hadjistavropoulos, Ghandehari, Yao, & Lix, 2015). In accordance, a good tool to assess the satisfaction with LTC should include questions on PCC issues.

Portugal is one of the contemporary western societies with the highest share of older people. Near 20% of the population have 65 years or more (Eurostat, 2014). Therefore, there has been a growing need of aged care

services. Over the last decade, many LTC were implemented in Portugal, with both private and non-profit legal status. Consequently the need in assessing the quality of services provided has also increased.

In Portugal, the assessment of client satisfaction has been made based on QASERI - Residential Structure Satisfaction Assessment Questionnaire for the Elderly, developed by ISS - Social Security Institute (Instituto de Segurança Social, 2009). This questionnaire covers a set of domains that fit the PCC model. Therefore QUASERI could be an interesting tool in assessing client's satisfaction in regards to LTC. The work presented here aims to analyze this instrument (QASERI) and to propose its improvement making it easier in terms of comprehension among elderly and of interpretation of results among providers of aged care.

METHODS

For the purpose of the present research we used the baseline data from a cross-sectional study described elsewhere (Falcão, Pereira, Pimentel, Teixeira, & Rodrigues, 2016). Briefly, fourteen LTC owned by different entities (nine private and five non-profit organizations) were sampled in three geographically spread areas in Portugal between March and May 2014. LTC residents were invited to participate if they were: (a) 65 years or older; (b) cognitively able to answer questions as well as to give informed consent and (c) full-time LTC residents. A total of 160 older adults volunteered to participate in the study and satisfied the inclusion criteria.

Data collection was based on a personal interview by using a structured questionnaire. Questions covered the following topics (1) sociodemographic and clinical characteristics; (2) the Katz index of independence in activities of daily living; (3) the World Health Organization Quality of Life Instrument (WHOQOL-BREF); (4) circumstances of elderly as LTC resident and (5) QASERI - Residential Structure Satisfaction Assessment Questionnaire for the Elderly. Characteristics of the LTC were provided by the manager/head office. The procedures for obtaining informed consent and the data collection methods were approved by the LTC administration.

QASERI is a questionnaire developed and used by the Portuguese Social Security Institute, in order to assess the client's satisfaction of LTC residents (Instituto de Segurança Social, 2009) which is based on the Conceptual Model of Service Quality (Parasuraman, Zeithaml, & Berry, 1985). This questionnaire presents a five-dimension structure covering 33 items and each item was rated on a 5-point Likert scale (1 = not at all satisfied; 2 = a little satisfied, 3 = satisfied 4 = very satisfied, and 5 = totally satisfied).

The QASERI was analyzed and modified based on the following procedures. Firstly, the distribution of participant's answers by item was checked in order to exclude items presenting high proportion of missing values (more than 80%). Secondly, Principal Component Analysis (PCA) with varimax rotation was performed to assess the underlying structure of the scale based on this PCA items presenting a loading factor less than 0.400 were excluded. Thirdly, after excluding items presenting high proportion of missing values and also those presenting low loading factor, PCA was repeated. The internal consistency was assessed by Cronbach's alpha and the sampling adequacy was measured by the Kaiser-Meyer-Olkin (KMO) and the Barttlet's Test of Sphericity. Finally the items of the original scale were checked and rewritten to ensure that they are clear, unambiguous in regards the construct and ask a single question.

RESULTS

Sample characteristics

General data of residents and LTC are showed in Table 1. The median age was 83, mostly women, more frequently living without a partner (most are widowed) and having basic education degree. The majority entered into LTC by their own decision, mainly due to the lack of informal caregiver. The median length of stay as resident was 20 months and the majority reported to have social contacts with family and friends.

In regards to the health issues, most elderly reported the diagnosis of at least one chronic disease; the median level of dependence (Katz index) was 5 corresponding to mild dependence for basic activities of life. The median core for general life quality index (WHOQOL BREF) was 50 (range from 0 to 100). Finally, most of these LTC are

medium-sized, with the legal registration of non-profit organization, and with the status of IPSS (Private Institution of Social Solidarity), the majority of them linked to the Catholic Church.

Tabela 1
Sociodemographic, clinical and WHOQOL description of sample and LTC size and legal status

	n (%) or median [first quartile – third quartile]
Age (years old)	83.0 [78.0 - 87.0]
Gender	
female	118 (73.8)
male	42 (26,3)
Education Level	
< 4 schooling years	126 (79.7)
>= 4 schooling years	34 (21.3)
Marital Status	
Single/widowed/divorced	136 (85.0)
With companion	24 (15.0)
Chronic Diseases	
yes	111 (69.4)
no	49 (30.6)
Katz Index	5.0 [3.0 – 5.0]
WHOQOL – BREF	50.0 [37.5 – 62.5]
Length of stay as resident (months)	20.0 [11.1 – 48.0]
Reason to the entry into LTC	
No care support outside	101 (63.1)
Other reason	59 (37.9)
Who decided the entry into LTC	
own	83 (51.9)
other	77 (48.1)
Number of social contacts	
never/seldom	50 (31.3)
often	110 (68.7)
Size of LTC	
small	44 (27.5)
medium	68 (42.5)
large	48 (30.0)
Legal status of the LTC	
Private	64 (40.0)
Non-profit	96 (60.0)

PRINCIPAL COMPONENT ANALYSES

Table 2 shows the dimensional structure of the original scale and results that emerged from the PCA. Before PCA, items 29 ("*Management of client's complaints*") and 30 ("*Respect in regards client's suggestions*") were excluded because they presented high proportion of missing values. PCA was performed by including 31 items. Accordingly the item 22 ("*Security systems against theft, fire and intrusion*") presented a low loading factor (0.351), thus it was also excluded from the scale. Second PCA was performed by including 30 items. The internal consistency assessed by Cronbach's alpha was 0.908 for the whole item pool and varied between 0.756 and 0.893 for the five dimensions of the scale (Table 2). The KMO measure of sampling adequacy was 0.821, the Barttlet's Test of Sphericity was highly significant (qui-square test = 2453.02; $p < 0.001$) and the total variance explained by the model was 62.96%.

Table 2 - Comparison between the original scale and the new scale

	New scale dimensions and item loading factors				
Original scale: Dimensions/Items	1	2	3	4	5
Tangible factors:					
1. Conservation condition of buildings.			0.802		
2. Conservation condition of equipment.			0.798		
3. Cleanliness and tidiness of the LTC facilities.			0.722		
4. Comfort and adequacy of the LTC facilities.			0.684		
5. Security and comfort of transport.			0.701		
6. Accessility, circulation and movement in the LTC facilities.			0.586		
7. Presentation and image of employees.			0.405		
Reliability:					
8. Participation in the planning of the services provided.					0.824
9. Planning, organization and execution of the services and occupational activities.				0.829	
10. Information about regulation and procedure rules within the LTC.					0.654
11. Information and participation in the elaboration of your individual development plan.					0.882
12. Information on how to access to other services which are also provided.					0.693
13. Confidence in regards to the organization ability to help you to solve your problems.		0.735			
Effectiveness:					
14. How employees provide care services.	0.751				
15. Adequacy of meals to your taste and needs.		0.479			
16. Support in the hygiene and image care you need.	0.853				
17. Support in carrying out health care procedures you need.	0.602				
18. Support in carrying out your personal activities.	0.746				
19. Adequacy of occupational activities to your interests and needs.				0.904	
20. Diversity of the occupational activities.				0.902	
21. Availability of employees whenever you need support.		0.810			
Trust and Safety:					
22.Security Systems against theft, fire and intrusion	-	-	-	-	-
23. Fulfillment of your rights for all employees.	0.745				
24. How organization ensures the confidentiality of your confidential data.	0.846				
25. Sympathy, education and attention of employees.		0.767			
26. Explanation and information provided by employees when you need it.		0.835			
27. How organization respect your decisions and options.		0.787			
28. How employees carry out your personal development plan.	0.849				
Empathy:					
29. Management of client's complaints.	-	-	-	-	-
30.Respect in regards client's suggestions	-	-	-	-	-
31. Information about the changes occurred in the organization of services.		0.718			
32. Availability of employees to listen and to support the solution of your personal problems.		0.871			
33. Support of employees on your motivation to participate in occupational activities.				0.846	

Similar to the original instrument we found a five-dimension structure for the client's satisfaction scale. However, the distribution of items by dimension presented some differences in comparison with original scale. Dimension 1 emerged as a seven-item dimension which factor loading varied from 0.602 to 0.846 and the Alpha-Cronbach value was 0.854. This dimension aggregated the items asking for quality of care provided; support in carrying out personal development plan and procedures related with hygiene, image, healthcare that elderly need. In addition, the items asking for "*how organization ensures the confidentiality of your confidential data*" and "*fulfillment of your rights for all employees*" were also included in this dimension.

Dimension 2 aggregated eight items which factor loading varied from 0.479 to 0.871 and the Alpha-Cronbach value was 0.888. This dimension emerged from our PCA by including six items asking for availability, sympathy and education of employees towards elderly, respect in regards options of residents, as well as two items about staff performance in providing useful information for the elderly and confidence in regards to the organization ability to help elderly to solve their problems. Dimension 3 emerged by including all items from "tangible factors" in the original scale, the only dimension that remained unchangeable. This dimension included 7 items, which factor loading varied from 0.405 to 0.802 and the Alpha-Cronbach value was 0.790. Dimension 4 includes all four items that explicitly ask for occupational activities. Factor loading varied from 0.829 to 0.904 and Alpha-Cronbach value was 0.893. In the original scale, these items were scattered by four different dimensions but now they belong to the same dimension which could be an indicator of the institutional performance in providing leisure activities and hobbies to the elderly. Dimension 5 is a four-item dimension which factor loading ranged between 0.654 and 0.882 and an Alpha-Cronbach value of 0.756. This dimension is a measure of the level of information provided by the institution to the residents and also an indicator of whether elderly are engaged in the decision-making process concerning the provision of services.

Proposal of a New Scale

We intended to improve the scale based on the following criteria. Firstly, we excluded items asking about issues that are not easily assessed by elderly people. Secondly, in regards to overlapping items we selected the clearest, simple in syntax and embracing item. Thirdly, we reworded items in order to obtain clear questions, with simple syntax, unambiguous in regards to the construct and asking for a simple issue. Fourthly, some items were moved to the most appropriate dimension by rewording the item to refer explicitly the subject assessed by the dimension. All decisions about proposal changes in original scale are shown in Table 3 and the new scale we propose is shown in Table 4.

Table 3 – Scale dimensions according to our PCA

14. How employees provide care services.	Deleted as overlap other questions
16. Support in the hygiene and image care you need.	Reworded to refer to organization because is an indicator of effectiveness of organization
17. Support in carrying out health care procedures you need.	Reworded to refer to organization because is an indicator of effectiveness of organization
18. Support in carrying out your personal activities.	Reworded to refer to organization because is an indicator of effectiveness of organization. Replicated in order to ask three aspects related with personal activities: those inside and outside the facility, as well as those related with social contacts.
23. Fulfillment of your rights for all employees.	Reworded to refer to organization because is an indicator of effectiveness of organization
24. How organization ensures the confidentiality of your confidential data.	Reworded to refer to organization because is an indicator of effectiveness of organization
28. How employees carry out your personal development plan.	Deleted because it overlaps other questions.
Dimension 2	
13. Confidence in regards to the organization ability to help you to solve your problems.	Deleted because it overlaps other questions.
15. Adequacy of meals to your taste and needs.	Reworded and moved because it is an indicator of effectiveness of organization.
21. Availability of employees whenever you need support.	Replicated to ask also about competency of employees and moved to dimension 4 because it is an indicator of interaction with the caregivers.
25. Sympathy, education and attention of employees.	Reworded to ask the most embracing one issue.
26. Explanation and information provided by employees when you need it.	Deleted because it overlaps other questions
27. How organization respect your decisions and options.	Reworded and moved to dimension 5 because this item about engagement of residents in the decision-making process.
31. Information about the changes occurred in the organization of services.	Deleted because it overlaps other questions.
32. Availability of employees to listen and to support the solution of your personal problems.	Deleted because it overlaps other questions.
Dimension 3	
1. Conservation condition of buildings.	Deleted because this item overlaps items asking about adequacy, tidiness and comfort of the facility.
2. Conservation condition of equipment.	Deleted because this item overlaps items asking about adequacy, tidiness and comfort of the facility.
3. Cleanliness and tidiness of the LTC facilities.	Reworded to ask the most embracing one issue.
4. Comfort and adequacy of the LTC facilities.	Replicated in order to ask one issue (comfort or adequacy) at a time
5. Security and comfort of transport.	Reworded and included in the same item asking about availability of the transport. Adequacy and availability of transport systems are the most important issues for consumers.
6. Accessibility, circulation and movement in the LTC facilities.	Deleted because this item overlap items asking about quality, adequacy, tidiness and comfort of the facility.
7. Presentation and image of employees.	Kept as in the original scale.
Dimension 4	
9. Planning, organization and execution of the services and occupational activities.	Deleted because this is a complex item asking about services as a whole and occupation activities at same time issues.
19. Adequacy of occupational activities to your interests and needs.	Replicated in order to include two aspects: interests and needs
20. Diversity of the occupational activities.	Deleted because it overlaps others questions.
33. Support of employees on your motivation to participate in occupational activities.	Reworded

Dimension 5	
8. Participation in the planning of the services provided.	Deleted because it overlaps other questions
10. Information about regulation and procedure rules within the LTC.	Reworded
11. Information and participation in the elaboration of your individual development plan.	Reworded
12. Information on how to access to other services which are also provided.	Deleted because this item overlaps question on information about functioning rules
22.Security Systems against theft, fire and intrusion	Deleted due to high proportion of missing answers
29. Management of client's complaints.	Deleted due to high proportion of missing answers
30.Respect in regards client's suggestions	Deleted due to low loading factor

Table 4. New scale to evaluate client's satisfaction with LTC

	Level of satisfaction					
	Not at all satisfied	Slightly satisfied	Satisfied	Highly satisfied	Do not know	Not applicable
Effectiveness of organization:						
1. How the organization ensures your privacy.						
2. How the organization ensures the health care you need.						
3. How the organization ensures the hygiene and image care you need.						
4. How the organization ensures the fulfillment of your rights.						
5. How the organization helps you on your personal activities inside the facility.						
6. How the organization helps you on your personal needs outside the facility.						
7. How the organization helps you on your encounters with people from outside the facility (family, friends, and colleagues).						
8. How the organization ensures the quality of meals.						
Interaction with the caregivers:						
9. Competency of collaborators whenever you need support.						
10. Sympathy of caregivers whenever you need support.						
11. Availability of collaborators whenever you need support.						
Structural and Environmental factors:						
12. Comfort of the facility.						
13. Adequacy of the facility.						
14. Tidiness of the facility.						
15. The possibility of adjusting your room to your personal liking.						
16. Availability of transport system to your personal needs.						
17. Presentation and image of collaborators.						
Occupational activities:						
18. Adequacy of occupational activities to your needs.						
19. Adequacy of occupational activities to your interests.						
20. Support in your motivation to participate in occupational activities.						
Information and participation in the decision making process:						
21. Participation in drafting your individual plan.						
22. Information about functioning rules within the facility.						
23. Respect in regards to your own options.						

DISCUSSION

The proposal items of the new scale are in accordance with two assumptions that are central in the field of the gerontology. The first assumption is based on the Service Quality Model from which the original scale emerged (Parasuraman et al., 1985). Accordingly, the assessment of client's satisfaction covers the evaluation of both process and results. In this way the satisfaction scale should be sensitive to (1) the outcome or final product represented by the effectiveness of organization in providing care; (2) the process based on how the system works that is reflected in empathy and closeness with employees; and (3) the mixture of product and process reflected in environmental and structural factors (Parasuraman et al., 1985). The second assumption is that high quality care should cover issues based on PCC model (Chaudhury, Hung, Rust, & Wu, 2017; Koren, 2010; Rockwell, 2012; White et al., 2008; Zimmermen et al., 2016).

The dimension 1 (Effectiveness of organization) of the scale covers items related with the role of the organization in providing care, in solving problems and in giving support to personal activities of LTC residents. LTC should provide services to replace lost capabilities of elderly, such dimension is a measure of effectiveness of the organization in providing quality of care according to the elderly needs and interests. This issue has been considered by elderly and their families as the most important issue in regards the consumer's satisfaction with LTC (Boldy, Davison, & Duggan, 2014).

The dimension 2 of the scale (Interaction whit caregivers) is in accordance with the Service Quality Model (Parasuraman et al., 1985). Such dimension allows to assess the process in providing care, reflected in the interpersonal relationships between clients and staff. Such issue has been recognized as an important component of the quality of care (Rodríguez-Martín, Martínez-Andrés, Cervera-Monteagudo, Notario-Pacheco, & Martínez-Vizcaíno, 2013). Furthermore, high quality care based on successful PCC depends on whether caregivers are able to nurture relationships with residents by giving individualized attention to resident's needs (Brown Wilson, 2009; Koren, 2010; Ploeg et al., 2013; Rockwell, 2012).

The dimension 3 (Structural and environmental factors) captured items that have been described in the literature as tangibles and physical factors (Brownie & Nancarrow, 2013; Nicholas G. Castle & Ferguson, 2010; Lucas et al., 2007). This dimension assesses the quality concerning not only the outcome but also the process. Indeed, the quality and adequacy of environment and structures is an outcome (performance, safety and esthetic) but it could be a means to enhance well-being and to improve healthcare services (Parasuraman et al., 1985). Environmental and structural characteristics have been considered crucial factors in providing high quality care among LTC residents. According to PCC model this factors should allow an agreeable and adequate place where older people can perform daily activities with no barriers or constraints, where they nurture social contacts and where they feel comfortable according to their wishes (Bangerter, Van Haitsma, et al., 2016; Koren, 2010; Rockwell, 2012; Zimmermen et al., 2016).

The dimension 4 (Occupational activities) allows assessing diversity and adequacy of occupational activities, which has been considered an important factor in increasing satisfaction among LTC residents (Bangerter, Abbott, Heid, Klumpp, & Haitsma, 2016; Rodríguez-Martín et al., 2013). Nowadays there has been an increased interest in providing recreational activities that meet not only the needs of the residents, but also their interests (Bangerter, Van Haitsma, et al., 2016).

The dimension 5 (Information and participation in the decision making process) included items that are strongly related with PCC principles which has been considered the foundation of programs focused on improving the quality of life (Williams et al., 2015). Information of residents, respect in regards their wishes, as well as, their engagement in the decision-making process about daily routines, occupational activities and the care they need and they want are crucial issues in providing PCC (Bangerter, Abbott, et al., 2016; Koren, 2010; Rockwell, 2012; White et al., 2008; Zimmermen et al., 2016).

CONCLUSIONS

We propose a scale for assessment of resident's satisfaction with LTC. We considered a better choice to modify an existing questionnaire rather than develop a completely new scale, to take advantage of relevant items that have been used in this context. We excluded questions on issues that are not easily assessed by the elderly and we reworded others items to make them clear and simple questions for comprehension among elderly and unambiguous in regards the theoretical construct. From our PCA emerged a set of dimensions which are in accordance with the assumptions considered crucial issues related with gerontological care which could be seen as good tools in measuring such issues.

We proposed a more succinct instrument, sensitive to the personal-centered care issues, to assessing the client's satisfaction of the LTC. Further research should provide validation of this new instrument.

BIBLIOGRAPHIC REFERENCES

Athwal, L., Marchuk, B., Laforêt-Fliesser, Y., Castanza, J., Davis, L., & Lasalle, M. (2014). Adaptation of a Best Practice Guideline to Strengthen Client-Centered Care in Public Health. *Public Health Nursing*, *31*(2), 134–143. https://doi.org/10.1111/phn.12059

Bangerter, L. R., Abbott, K., Heid, A. R., Klumpp, R. E., & Haitsma, K. Van. (2016). Healthcare Preferences among Nursing Home Residents: Perceived Barriers and Situational Dependencies, *42*(2), 11–16. https://doi.org/10.3928/00989134-20151218-02

Bangerter, L. R., Van Haitsma, K., Heid, A. R., & Abbott, K. (2016). "make me feel at ease and at home": Differential care preferences of nursing home residents. *Gerontologist*, *56*(4), 702–713. https://doi.org/10.1093/geront/gnv026

Boldy, D., Davison, M., & Duggan, R. (2014). Client satisfaction as a driver of quality improvement in services for older people: A Western Australian case study. *Australasian Journal on Ageing*, *34*(1), 62–67. https://doi.org/10.1111/ajag.12191

Brown Wilson, C. (2009). Developing community in care homes through a relationship-centred approach. *Health Soc Care Community*, *17*(2), 177–186. https://doi.org/10.1111/j.1365-2524.2008.00815.x

Brownie, S., & Nancarrow, S. (2013). Effects of person-centered care on residents and staff in aged-care facilities: A systematic review. *Clinical Interventions in Aging*, *8*, 1–10. https://doi.org/10.2147/CIA.S38589

Castle, N. G., Furnier, J., Ferguson-Rome, J. C., Olson, D., & Johs-Artisensi, J. (2015). Quality of care and long-term care administrators' education: Does it make a difference? *Health Care Management Review*, *40*(1), 35–45.

Castle, Nicholas G., & Ferguson, J. C. (2010). What is nursing home quality and how is it measured? *Gerontologist*, *50*(4), 426–442. https://doi.org/10.1093/geront/gnq052

Chaudhury, H., Hung, L., Rust, T., & Wu, S. (2017). Do physical environmental changes make a difference? Supporting person-centered care at mealtimes in nursing homes. *Dementia*, *16*(7), 878–896. https://doi.org/ 10.1177/1471301215622839

Eurostat. (2014). Health. In *Eurostat regional yearbook 2014* (pp. 53–72). Retrieved from http://ec.europa.eu/eurostat/documents/3217494/5785629/KS-HA-14-001-EN.PDF/e3ae3b5c-b104-47e9-ab80-36447537ea64

Falcão, A., Pereira, F., Pimentel, H., Teixeira, C., & Rodrigues, V. (2016). The academic background of gerontologists and client satisfaction in long-term residential care for older persons. *Educational Gerontology*, 1–11. https://doi.org/10.1080/03601277.2016.1259288

Feldman, P. H., & Kane, R. L. (2003). Strengthening research to improve the practice and management of long-term care. *Milbank Quarterly*, *81*(2), 179-+. https://doi.org/10.1111/1468-0009.t01-1-00051

Goodwin, C. (2016). Person-Centered Care: A Definition and Essential Elements. *Journal of the American Geriatrics Society*, *64*(1), 15–18. https://doi.org/10.1111/jgs.13866

Instituto de Segurança Social. (2009). Questionário de avaliação da satisfação de estrutura residencial para ido-

sos. Lisboa: Instituto de Segurança Social.
Kane, R. L., & Kane, R. A. (2000). Assessment in Long-Term Care. *Annu. Rev. Public Health.*, *3*, 659–686.
Koren, M. J. (2010). Person-centered care for nursing home residents: the culture-change movement. *Health Affairs (Project Hope)*, *29*(2), 312–317. https://doi.org/10.1377/hlthaff.2009.0966
Louw, J. M., Marcus, T. S., & Hugo, J. F. M. (2017). Patient- or person-centred practice in medicine? – A review of concepts. *African Journal of Primary Health Care & Family Medicine*, *9*(1), 1–7. https://doi.org/https://doi. org/10.4102/phcfm
Lucas, J. A., Levin, C. A., Lowe, T. J., Robertson, B., Akincigil, A., Sambamoorthi, U., & Crystal, S. (2007). The relationship between organizational factors and resident satisfaction with nursing home care and life. *Aging & Social Policy*, *19*(2), 125–151.
McMillan, S. S., Kendall, E., Sav, A., King, M. A., Whitty, J. A., Kelly, F., & Wheeler, A. J. (2013). Patient-Centered Approaches to Health Care. *Medical Care Research and Review*, *70*(6), 567–596. https://doi.org/10.1177/10 77558713496318
O'Keeffe, V. (2014). Client Perceptions of Quality Care in Aged Care Services. Adelaide: Centre for Work + Life University of South Australia.
Olsson, L. E., Jakobsson Ung, E. Swedberg, K., & Ekman, I. (2003). Efficacy of person-centred care as an intervention in controlled trials - a systematic review. *J Clin Nurs*, *22*(3–4), 456–465. https://doi.org/10.1111/jocn.12039
Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *The Journal of Marketing*, *49*(4), 41–50. https://doi.org/10.2307/1251430
Ploeg, J., Kaasalainen, S., McAiney, C., Martin-Misener, R., Donald, F., Wickson-Griffiths, A., … Taniguchi, A. (2013). Resident and family perceptions of the nurse practitioner role in long term care settings: a qualitative descriptive study. *BMC Nursing*, *12*(1), 24. https://doi.org/10.1186/1472-6955-12-24
Rockwell, J. (2012). From Person-Centered to Relational Care: Expanding the Focus in Residential Care Facilities. *Journal of Gerontological Social Work*, *55*(February), 233–248. https://doi.org/10.1080/01634372.2011.63 9438
Rodríguez-Martín, B., Martínez-Andrés, M., Cervera-Monteagudo, B., Notario-Pacheco, B., & Martínez-Vizcaíno, V. (2013). Perception of quality of care among residents of public nursing-homes in Spain: a grounded theory study. *BMC Geriatrics*, *13*(1), 65. https://doi.org/10.1186/1471-2318-13-65
Ryden, M. B., Gross, C. R., Savik, K., Snyder, M., Lee Oh, H., Jang, Y. P., Krichbaum, K. E. (2000). Development of a measure of resident satisfaction with the nursing home. *Research in Nursing & Health*, *23*(3), 237–245. https://doi.org/10.1002/1098-240x(200006)23:3<237::aid-nur8>3.0.co;2-i
Scholl, I., Zill, J. M., Härter, M., & Dirmaier, J. (2014). An Integrative Model of Patient-Centeredness – A Systematic Review and Concept Analysis. *PLoS ONE*, *9*(9), e107828. https://doi.org/10.1371/journal.pone.0 107828
White, D. L., Newton-Curtis, L., & Lyons, K. S. (2008). Development and initial testing of a measure of person-directed care. *The Gerontologist*, *48 Spec No*(I), 114–123. https://doi.org/10.1093/geront/48.Supplement_1. 11
Williams, J., Hadjistavropoulos, T., Ghandehari, O. O., Yao, X., & Lix, L. (2015). An evaluation of a person-centred care programme for long-term care facilities. *Ageing and Society*, *35*(03), 457–488. https://doi.org/10.1017/ S0144686X13000743
Zimmermen, S., Allen, J., Cohen, L., Pinkowitz, J., Reed, D., Coffey, W., … Sloane, P. (2016). A Measure of Person-Centered Practices in Assisted Living: The PC-PAL. *J. Am Med Dir Assoc.*, *16*(2), 132–137. https://doi.org/10.1016/j.pep.2014.09.013.Overproduction