



The importance of the academic league in promoting healthy aging

A importância da liga acadêmica na promoção do envelhecimento saudável

La importancia de la liga académica para la promoción del envejecimiento saludable

Shaumin Vasconcelos Wu 

State University of Pará (*Universidade do Estado do Pará*) - Belém (PA) - Brasil

Camila Alcântara Fernandes 

State University of Pará (*Universidade do Estado do Pará*) - Belém (PA) - Brasil

Dayane Cereja Ferreira da Silva 

State University of Pará (*Universidade do Estado do Pará*) - Belém (PA) - Brasil

Elissa Raissa Siqueira do Nascimento 

State University of Pará (*Universidade do Estado do Pará*) - Belém (PA) - Brasil

Jamylle Silva Campos 

State University of Pará (*Universidade do Estado do Pará*) - Belém (PA) - Brasil

João Sérgio de Sousa Oliveira 

State University of Pará (*Universidade do Estado do Pará*) - Belém (PA) - Brasil

ABSTRACT

Objective: To report the experience of students of Physiotherapy in the Gerontology Academic League in an action taken to promote healthy aging. **Data synthesis:** This study describes the experience of students in an action organized by the Physiotherapy in Gerontology Academic League (*Liga Acadêmica de Fisioterapia em Gerontologia - LAFIGE*) of the Pará State University and put into effect in the IV extension act promoted by the league, which was titled "Healthy Aging Promotion" and held in a public square in Belém, Pará, Brazil. Organizers of this action were: 13 LAFIGE members - 12 students and one tutor - and 50 participants aged 20 or over. Before the activity, the coordinator briefed the students with guidelines (under professional supervision) on healthy aging conditioners, physical and functional assessments, physical exercises, and promotion of healthy eating. Such experience with the action enabled the exchange of information between the community and the academia and favored the promotion of health education across the population concerning the aging process and the importance of preserving functional capacity. Furthermore, the construction of scientific and interpersonal learning in a bidirectional way was encouraged between the students and the participants, with emphasis on the importance of the insertion of physiotherapy in gerontology to promote health during aging. **Conclusion:** Health education practice is essentially needed for healthy aging and for raising people's awareness of the aging process. Besides, there is a need for adequate training of the league members involved actions aimed at promoting the health of the older adults should be encouraged.

Descriptors: Health Education; Aging; Awareness; Physical Therapy Specialty; Geriatrics.

RESUMO

Objetivo: Relatar a experiência de discentes de uma liga acadêmica de Fisioterapia em gerontologia em uma ação para promoção do envelhecimento saudável. **Síntese dos dados:** Trata-se da descrição da experiência de discentes de Fisioterapia em uma ação organizada pela Liga Acadêmica de Fisioterapia em Gerontologia (LAFIGE), vinculada à Universidade do Estado do Pará, na IV ação de extensão da liga, intitulada "Promoção do envelhecimento saudável", vivenciada em uma praça pública de Belém, Pará, Brasil. Nessa ação, participaram da organização: 13 membros da LAFIGE, sendo 12 acadêmicos e um orientador, e 50 participantes com idade igual ou superior a 20 anos. Antes da ação, o coordenador repassou as orientações aos discentes acerca de orientações (sob supervisão profissional) de condicionantes do envelhecimento saudável, avaliações físico-funcionais, exercícios físicos e incentivo à alimentação saudável. Tal experiência da ação possibilitou a troca de informações entre a comunidade e a academia, além de favorecer a educação em saúde da população acerca do processo de envelhecimento e da importância de



This Open Access article is published under the a Creative Commons license which permits use, distribution and reproduction in any medium without restrictions, provided the work is correctly cited

Received on: 02/09/2020

Accepted on: 07/20/2020

preservar a capacidade funcional. Ademais, incentivou-se a construção de aprendizados científicos e interpessoais de forma bidirecional, entre os acadêmicos e participantes, enfatizando a importância da inserção da fisioterapia em gerontologia na promoção da saúde no envelhecimento. **Conclusão:** Observou-se a essencialidade da prática de educação em saúde em busca de uma velhice saudável, com a conscientização da população sobre o processo de envelhecimento, além de uma adequada capacitação dos ligantes envolvidos, incentivando ações que visem à promoção da saúde dos idosos.

Descritores: Educação em Saúde; Envelhecimento; Conscientização; Fisioterapia; Geriatria.

RESUMEN

Objetivo: Relatar la experiencia de estudiantes de una liga académica de Fisioterapia en gerontología en una acción para la promoción del envejecimiento saludable. **Síntesis de datos:** Se trata de la descripción de experiencia de estudiantes de Fisioterapia en una acción de la Liga Académica de Fisioterapia en Gerontología (LAFIGE) que está conectada con la Universidad del Estado de Pará en la IV acción de la liga intitulada "Promoción del envejecimiento saludable" que ha sido vivenciada en una plaza pública de Belém, Pará, Brasil. Para la acción han participado de la organización 13 miembros de la LAFIGE de los cuales 12 académicos y uno tutor y 50 participantes con la edad igual o mayor de 20 años. Antes de la acción el coordinador ha hablado con los estudiantes sobre las orientaciones (bajo la observación de un profesional) de los condicionantes del envejecimiento saludable, las evaluaciones físico-funcionales, los ejercicios físicos y el incentivo para la alimentación saludable. La experiencia de la acción ha permitido el cambio de informaciones entre la comunidad y los académicos además del beneficio de la educación en salud para la población sobre el proceso de envejecimiento y de la importancia del mantenimiento de la capacidad funcional. Además, la experiencia ha incentivado la construcción de aprendizajes científicos e interpersonales de manera bidireccional entre los académicos y los participantes con énfasis para la inserción de la fisioterapia en la gerontología para la promoción de la salud en el envejecimiento. **Conclusión:** Se observó la esencialidad de la práctica de educación en salud para la vejez saludable con la concienciación de la población sobre el proceso de envejecimiento además de una capacitación adecuada de las personas involucradas para incentivar acciones para la promoción de la salud de mayores.

Descriptores: Educación en Salud; Envejecimiento; Concienciación; Fisioterapia; Geriatria.

INTRODUCTION

The world has been going through a process of demographic transition at an incredible speed, emerging as an important political issue⁽¹⁾. World projections from the World Health Organization (WHO) show that the elderly population will almost double, from 1 billion in 2019 to around 2.1 billion in 2050⁽²⁾. The pace of this process is not homogeneous since some places, such as Brazil, it will have just over 20 years to make the same adaptation as other countries, which took decades⁽³⁾.

In 2020, Brazil had a population contingent of people aged 60 years or over, estimated at 30 million. Among the states of the North region, Pará stands out, with 793,740 elderly inhabitants⁽⁴⁾. In the capital, Belém, there is the highest concentration, with approximately 257 thousand elderly (17.1% of the population), which makes it a demographically aged city^(5,6). These scenarios, at a global level, led WHO to elaborate the Decade of Healthy Aging (2020-2030), making it possible to bring together several sectors to develop fast and collaborative actions to improve the lives of the elderly, family, and community⁽²⁾.

In this scenario, it is noted that the prolongation of life is an aspiration of any society, but this process of population aging sometimes does not occur with quality of life⁽⁷⁾. The concept of health for the elderly closely links to independence and autonomy, as a result, an elderly with functional capacity is one who can manage their life, make decisions, and perform daily activities by themselves. However, in this phase, there are characteristic morphophysiological changes, which often decline some functions, which may result in physical, functional, and emotional limitations^(8,9).

Associated with this context, the allocation of care to the elderly at the community level imposes on health professionals and academics knowledge guided by public policies that involve The Global Strategy and Action Plan on Aging and Health 2016-2020, the National Health Policy of the Elderly and the National Policy for the Elderly. In addition to these, contextualization in the National Health Promotion Policy is essential, which includes solidarity, happiness, respect for diversity, humanization, social inclusion, and integrality among its values and principles^(10,11).

Currently, in the role of the Physiotherapy professional, this knowledge is strengthened by the national recognition in a resolution that recognizes and disciplines the professional specialty of Physiotherapy in gerontology⁽¹²⁾. In the academic world, the teaching-research-extension tripod is the basis for the production and stimulation of knowledge about the aging process, in addition to subsidies for the planning and execution of actions to promote health and healthy aging^(10,13-15).

This academic environment uses, linked to this tripod, academic leagues, under the guidance of a professor associated with a higher education institution, who seek to fill knowledge gaps in specific topics⁽¹⁶⁾. According to the Brazilian Society of Geriatrics and Gerontology (*Sociedade Brasileira de Geriatria e Gerontologia - SBGG*), the leagues related to aging must have in their objectives the change of the pessimistic conception and emotional insecurity about the aging process, through various extracurricular activities based on the academic tripod, aiming not only at disseminating information for health promotion to the elderly but also at integrating the community with academics⁽¹⁷⁾.

In this sense, the role of Physiotherapy in gerontology, to maintain and promote health and quality of life, seeks to contemplate not only the multiple dimensions of aging, but it also perceives the individual as an autonomous human being, who has the need to perform daily and work activities at times, as well as participating in the context that involves him⁽¹⁸⁾. It also considers human movement, using physical exercise to provide improvements in organic functions, functional capacity, and social and cultural integration^(19,20). In addition to health education, it is an important tool for empowering the care necessary to promote healthy aging, as it is understood as a practice for transforming the ways of life of individuals and the community⁽⁹⁾.

Therefore, health promotion is fundamental for actions that allow experiences and exchanging these experiences among the actors involved, in the search for a holistic perception of the pillars that involve gerontology and the use of the International Classification of Functionality, Disability and Health (*Classificação Internacional de Funcionalidade - CIF*) in physical therapy acting with the community. In this context, this article aims to report the experience of students from an academic Physiotherapy league in gerontology in an action to promote healthy aging.

DATA SYNTHESIS

It is an experience report based on the practical experiences of Physiotherapy students through an action organized by the Academic League of Physiotherapy in Gerontology (*Liga Acadêmica de Fisioterapia em Gerontologia - LAFIGE*), linked to the State University of Pará as an extension activity by the Dean's Office of Extension (*Pró-reitoria de Extensão - PROEX*), in addition to being recognized and registered with the SBGG. The action was organized and carried out by a team composed of 13 LAFIGE members, being 06 league directors, 06 permanent binders from the institution, and a league guiding professor.

LAFIGE's IV extension action, entitled Promotion of healthy aging, was held on June 4, 2017, at Batista Campos square, located in the Metropolitan Region of Belém, Pará, lasting about four hours. The sample consisted of 50 participants, aged 20 to 75 years old, selected by convenience, by recruiting the population that was present at the place and time of the action.

Over 18 years old, of both sexes, were included, who would have time available to carry out the activities. There were adults, since the theme of the aging process is inherent to all people since birth, and early knowledge about its context and necessary care in health care is essential, aiming at healthy aging. Participants with functional disability for the proposed activities were excluded if they were fasting, with altered blood pressure and/or heart rate, and/or with cognitive alterations according to the mini-exam standards of mental state adjusted for schooling. A point that deserves to be highlighted is the non-inclusion of children and adolescents, because, although the action was carried out in a public square, there was no prior notice to its regulars and the action protocol required the consent of their parents/guardians, as they were minors.

The action planning was carried out in two stages: first, the theme was idealized, and the literature was reviewed in May. Subsequently, the training of the work team and the socialization of scientific articles about the topic with the league participants took place. The structure and planning of health action were addressed, as well as: the standardization of verification of systemic blood pressure by the 7th Brazilian Guideline for Hypertension⁽²¹⁾; the measurement of height and weight, the calculation of body mass index (BMI), and dietary guidelines in the context of basic health care according to WHO criteria⁽²²⁾; the classification of functionality considering the premises of the ICF, in addition to the domains of mobility, cognition, humor and communication⁽²³⁾; kinesiotherapeutic approaches, considering the WHO Global Recommendations for Physical Activity for Health, in addition to the recommendations for Physical Activity and Public Health for Elderly Adults of the American College of Sports Medicine and the American Heart Association⁽²⁴⁾.

The second stage took place on the day of the action, divided into three moments. In the first, the guidance to participants on the determining and conditioning factors, as they are fundamental to healthy aging⁽²⁵⁾. In the second, blood pressure was measured, and height, weight, and BMI were measured when they received a card containing the measured data to control their health and follow up on care. And in the third, there was physical activity, with an average duration of 20 minutes, started by 5 minutes of warm-up, followed by stretching of the main muscle groups

of the upper and lower limbs and 10 minutes of functional activities (squat; advance; playing and catching small balls; training to sit and stand on the Swiss ball; agility training for lateral and progressive displacements using small cones) and cognitive training using a colored mat (blue, green, yellow and red), in which the participants should step, according to the verbal command of the color, with intensities and repetitions adapted for each person according to the perception of the therapist and the participants⁽²⁶⁾.

Health education is divided into two forms: traditional and dialogical. The first concerns the preventive model, focusing on the disease and a curative intervention, while the second classification is based on health promotion, characterized by a two-way dialogue between participants, that is, professionals and the population, allowing gains for both parts⁽²⁷⁾.

As a benefit to the public in question, we can mention the relevance in the formation of groups among the participants, which provided the construction of knowledge and learning and new skills, essential for the strengthening of identity⁽²⁸⁾. Added to that, it is understood that health planning and development of educational strategies are inherent to health education, which intervenes in the population's health-disease process, allowing for a more well-being living⁽²⁹⁾.

Thus, LAFIGE promoted an action aimed at the healthy aging of the population in different age groups, given the need to address the issue early. With the help of a folder, it was possible to deepen questions about promoting healthy aging, exploring the importance of physical exercise, adequate food, leisure activities, among others, which reinforces the importance of health education in promoting an awareness of health⁽²⁹⁾.

In this sense, closer contact with the population allowed knowledge to be bidirectional between academics and participants. These results are consistent with the literature, including a study that developed a weekly health education activity with an audience of sixty elderly; it is possible to observe that these actions are fundamental to strengthen bonds since the elderly, during the groups, can share the same experiences and share their anxieties⁽³⁰⁾.

Furthermore, it is noted the importance of health professionals in this context, considering that they have a continuous role in increasing the reach of quality information. The physiotherapist in gerontology has the competence to work at all levels of health care. His intervention in promotion and prevention brings multiple benefits since some activities are peculiar to him, such as evaluations of musculoskeletal functions, as well as the ergonomic, realization of physiotherapeutic prognosis, and establishment of guidelines for family members and caregivers⁽³¹⁾. However, it is emphasized that health education is not a one-way street, showing the positive impact also for those who propose these actions⁽²⁹⁾.

Based on the action, academics can be provided with the community, strengthening university extension. It is paramount to mention that it acts as a relevant cultural, interdisciplinary, and highly dialogical process, allowing a more humanistic and critical formation⁽³²⁾.

Among the relevant aspects observed, the perception of the elderly's satisfaction in sharing stories and giving examples stands out, making these moments valid for promoting educational exchange and allowing academics to practice listening⁽³³⁾. The community obtained clarifications on this topic and, therefore, received anthropometric assessments to encourage body care. Allied to this, at the time of the evaluation; the participants were informed about the results of blood pressure, height, weight, and BMI to instigate them in better health care.

However, it is worth mentioning that the activity was not based solely on the transmission of information. The guidelines given took into account the context of each participant since the physical, emotional, and social characteristics are of paramount importance⁽³⁴⁾. This fact is extremely relevant since it is linked to the National Health Policy, which states that it is necessary to understand healthy aging, a term adopted by the World Health Organization, as a rich and positive experience, which is still accompanied by essential health pillars, involving the various aspects of the daily life of the adult / elderly⁽³⁵⁾.

About the third moment of the activity, with the practice of physical exercise, it was possible to dynamically draw attention to the fundamental role of physical conditioning for healthy aging, encouraging them to practices that make them more active and that provide functional benefits. The execution of physical exercises, in addition to providing an improvement in the range of articular movement, has also been recommended as a means of mitigating the deleterious effects of the aging process⁽³⁶⁾. At the end of the activities, participants were offered fruits, highlighting another highly relevant issue, healthy eating.

Note that the association of common changes in senescence with the use of medications increases the risk of unbalanced nutrition, in addition to the appearance of diseases that can hinder the entire process of ingestion, digestion, and absorption of nutrients, which further compromises the health status of the elderly⁽³⁷⁾. Thus, it is noticeable the importance of paying attention to this subject and approaching it in the best possible way.

The association of polypharmacy with malnutrition, especially in the elderly population, may support the development of an increasingly common and worrying phenomenon, sarcopenia. It is defined as the progressive reduction of the individual's muscle mass and strength, consequently implying negative impacts on the functionality of the elderly⁽³⁸⁾.

Another important aggravating factor to be mentioned is the fact that, due to sarcopenia, many elderly stop exercising due to lack of strength, which generates increasingly sedentary habits. In this sense, the person tends to remain seated or bedridden longer, which may result in a geriatric syndrome called immobility or in the fragility syndrome itself⁽³⁹⁾. Therefore, the relevant role of Physiotherapy in this context is highlighted, increasing the range of motion, promoting muscle strength gain, improving balance, and reducing episodes of falling. However, it should be emphasized that it does not only intervene in the treatment for sarcopenia but also acts effectively in preventing this problem⁽³⁸⁾.

The academic league sought to favor the exchange of knowledge and/or assistance to the community, with the emergence of an interaction between the academy and the community, being extremely important for providing the exchange of experience, as well as the union between teaching and service. Besides, fundamental skills were developed for teaching and research, the provision of comprehensive care that strengthens interpersonal relationships and health-promoting actions, essential for the qualification of these professionals on the approaches used in the communication process, both due to the favorable evidence that determine the benefits in the interpersonal relationship as for the improvement in the quality of life and health of these users⁽⁴⁰⁾.

The easiness of carrying out the action is the fact that LAFIGE is specific to Gerontology, which made it easier to understand and understand the central theme. Besides, as it is through an academic intermediary, it was also easy to access quality literary collections with scientific support.

The difficulties highlighted are the lack of financial investments for the execution of the action by the league, having to be paid by the organizers themselves. And as for the limitation, it should be noted that it was held only in one square, not reaching the most peripheral public in the city. For this reason, other experiences are recommended, with the search for financing and resources on the part of the university or government, in addition to the realization in other places, which reached audiences with less purchasing power and less access to information.

CONCLUSION

The action proved to be essential for the development of health education practice, which is of paramount importance for building the population's awareness about the changes that occur with the aging process.

In this sense, the training of academics before acting proved to be fundamental to effectuate the knowledge passed on and, thus, to constitute a more fluid relationship with the population. In this way, it was possible to assist in the edification and exchange of information for the population, from conceptual aspects, such as the evaluation itself, to the incentive to adopt a healthy lifestyle. The binders realized the importance of the practice of physiotherapy in gerontology and health education in search of a healthy old age, the need to raise the population's awareness about the aging process and, from the scientific basis received in training, it was possible to exchange knowledge in a bidirectional way between the community and the academy, in addition to improving the social and interpersonal skills of academics.

Given the above, the present study provided health academics with learning and reflections on the importance of university extension in the commitment to provide a scientific return to the community integrally, with a holistic and multidimensional perspective, in addition to perceiving the senile process as a phase of the life cycle, which requires complete activities and which value the knowledge of each participant, aiming at promoting the health of the elderly.

CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest, both in carrying out the actions of the extension program and in writing this experience report.

CONTRIBUTIONS

All authors collaborated in all phases of the execution of actions and / or in the writing of this experience report.

REFERENCES

1. Fried LP. Investing in Health to Create a Third Demographic Dividend. *Gerontologist*. 2016;56:(S2):167-77.
2. World Health Organization. Decade of Healthy Ageing (2020-2030) [Internet]. 2020 [accessed on 2020 Abr 16]. Available from: <https://www.who.int/ageing/decade-of-healthy-ageing>
3. World Health Organization. World report on ageing and health. Geneva: WHO; 2015.

4. Instituto Brasileiro de Geografia e Estatística. Projeções Populacionais [Internet]. 2020 [accessed on 2020 Abr 16]. Available from: <https://www.ibge.gov.br/estatisticas/sociais/populacao/9109-projecao-da-populacao.html?=&t=o-que-e>
5. Instituto Brasileiro de Geografia e Estatística. Sistema IBGE de Recuperação Automática - SIDRA. População por grupo de idade, município, 1º trimestre de 2020 [Internet]. 2020 [accessed on 2020 Abr 16]. Available from: <https://sidra.ibge.gov.br/tabela/5918#resultado>
6. Instituto Brasileiro de Geografia e Estatística. Síntese de indicadores sociais uma análise das condições de vida da população brasileira. Rio de Janeiro: IBGE; 2016.
7. Mallmann DG, Galindo NM Neto, Sousa JC, Vasconcelos EMR. Educação em saúde como principal alternativa para promover a saúde do idoso. *Ciênc Saúde Colet*. 2015;20(6):1763-72.
8. World Health Organization. Good health adds life to years Global brief for World Health Day 2012. Geneva: WHO; 2012.
9. Mantovani EP, Lucca SR, Neri AL. Associações entre significados de velhice e bem-estar subjetivo indicado por satisfação em idosos. *Rev Bras Geriatr Gerontol*. 2016;19(2):203-22.
10. Ministério da Saúde (BR). Política Nacional de Promoção da Saúde (PNPS). Portaria N° 2.446, de 11 de novembro de 2014 – Redefine a Política Nacional de Promoção da Saúde. Brasília: Ministério da Saúde; 2014.
11. Dátilo GMPA, Cordeiro AP. Envelhecimento humano: diferentes olhares. São Paulo: Cultura Acadêmica; 2015.
12. Conselho Federal de Fisioterapia e Terapia Ocupacional. Resolução nº 477, de 20 de dezembro de 2016. Reconhece e disciplina a Especialidade Profissional de Terapia Ocupacional em Gerontologia e dá outras providências. *Diário Oficial [da] República Federativa do Brasil*. Brasília: COFFITO; 2016.
13. Silva LYA, Almeida MCV, Moraes MGB, Carneiro SR. A importância do projeto de extensão na formação acadêmica: relato de experiência de um discente do curso de fisioterapia. *Anais do 7º Congresso de Educação em Saúde da Amazônia (COESA)*; 2018; Pará. Belém: Universidade Federal do Pará; 2018.
14. Antonio ACFT, Tonhom SFR, Chirelli MQ. Cuidado ao idoso na atenção básica: práticas de educação em saúde do fisioterapeuta. *Rev Bras Promoç Saúde*. 2016;29(Supl):5-15.
15. Pasqual KK, Rezende KTS, Chirelli MQ. O cuidado prestado pela Estratégia Saúde da Família na percepção das mulheres idosas. *Rev Eletrônica Gest Saúde*. 2016;(2):685-99.
16. Bendenlaque DFR, Carvalho DNR, Contente RTC. Contribuição da liga acadêmica na formação e produção de conhecimento em saúde do idoso. *Braz J Hea Rev*. 2019;(2):3762-73.
17. Sociedade Brasileira de Geriatria e Gerontologia. Ligas acadêmicas e residência médica: o que é? [Internet]. [2020] [accessed on 2020 Maio 20]. Available from: <https://sbgg.org.br/ligas-academicas-e-residencia-medica/o-que-e/#>
18. Castaneda L, Bergmann A, Bahia L. A Classificação internacional de funcionalidade, incapacidade e saúde: uma revisão sistemática de estudos observacionais. *Rev Bras Epidemiol*. 2014;437-51.
19. Martins R. Envelhecimento, retrogênese do desenvolvimento motor, exercício físico e promoção da saúde. *Bol Soc Port Educ Física*. 2017;(32):31-40.
20. Amthauer C, Falk JW. Discursos dos profissionais de saúde da família na ótica da assistência à saúde do idoso. *Res Fundam Care*. 2017;9(1):99-105.
21. Malachias MVB, Souza WKSB, Plavnik FL, Rodrigues CIS, Brandão AA, Neves MFT, et al. 7ª Diretriz Brasileira de Hipertensão Arterial: capítulo 2-diagnóstico e classificação. *Arqu Bras Cardiol*. 2016;107(3):7-13.
22. World Health Organization. A guide for population-based approaches to increasing levels of physical activity: implementation of the WHO global strategy on diet, physical activity and health. Geneva: World Health Organization; 2007.
23. Moraes EN. Atenção à saúde do idoso: aspectos conceituais. Brasília: Organização Pan-Americana da Saúde; 2012.

24. World Health Organization. Global recommendations on physical activity for health. Geneve: WHO; 2010.
25. Brasil. Lei nº 8.080, de 19 de setembro de 1990. Dispõe sobre as condições para a promoção, proteção e recuperação da saúde, a organização e o funcionamento dos serviços correspondentes e dá outras providências [Internet]. 1990 [accessed on 2019 Jun 9]. Available from: <http://conselho.saude.gov.br/legislacao/lei8080.htm>
26. Formiga LMF, Oliveira EAR, Borges EM, Santos KNC, Araújo AKS, Formiga RCF. Envelhecimento ativo: revisão integrativa. *Revista Interdis Ciênc Saúde*. 2017;4(2):9-18.
27. Mendonça FTNF, Álvaro SS, Ana LZB, Bruna SSM. Health education with older adults: action research with primary care professionals. *Revista Bras Enferm*. 2017;70(4):792-9.
28. Carneiro MAP, Silva LFS, Moura TNB, Pereira LCA, Landim MBP. Contribuições da socialização e das políticas públicas para a promoção do envelhecimento saudável: uma revisão de literatura. *Rev Bras Promoç Saúde*. 2016;29(1):124-31.
29. Viana DA, Martins LC, Gonçalves AM. Educação em saúde como estratégia para promoção do envelhecimento saudável – revisão integrativa da literatura. *J Ciên Biomédicas Saúde*. 2016;1(3):2.
30. Martins JJ, Barrall DCC, Santosll TM, Hinkell V, Nascimento ERP, Albuquerque GL, et al. Educação em saúde como suporte para a qualidade de vida de grupos da terceira idade. *Rev Eletrônica Enferm*. 2007;9(2):443-56.
31. Maia FES, Moura ELR, Madeiros EC, Carvalho RRP, Silva SAL, Santos GR. A importância da inclusão do profissional fisioterapeuta na atenção básica de Saúde. *Rev Fac Ciênc Méd Sorocaba*. 2015;17(3):110-5.
32. Sampaio JF, Dantas CCDBL, Almeida Porto VF, Cavalcante JC, Medeiros ML. A extensão universitária e a promoção da saúde no Brasil: revisão sistemática. *Rev Portal Saúde Soc*. 2019;3(3):921-30.
33. Barbosa BR, Almeida JM, Barbosa MR, Rossi-Barbosa LAR. Avaliação da capacidade funcional dos idosos e fatores associados à incapacidade. *Ciênc Saúde Colet*. 2014;19:3317-25.
34. Cavalcanti AL, Moreira RS, Barbosa JMV, Silva VL. Envelhecimento ativo e estilo de vida: uma revisão sistemática da literatura. *Estudo Interdisciplin Envelhec*. 2016;21(1):71-89.
35. World Health Organization. Envelhecimento ativo: uma política de saúde. Brasília: Organização Pan-Americana da Saúde; 2005.
36. Silva FLC, Santana WR, Rodrigues TS. Envelhecimento ativo: o papel da fisioterapia na melhora da qualidade de vida da pessoa idosa: revisão integrativa. *Revista Uningá*. 2019;56(4):134-44.
37. Malta MB, Papini SJ, Corrente JE. Avaliação da alimentação de idosos de município paulista: aplicação do Índice de Alimentação Saudável. *Ciênc Saúde Colet*. 2013;18:377-84.
38. Souza AF Jr, Silva TPDS, França ICO, Dias GA. Efeitos de um protocolo fisioterapêutico na funcionalidade de idosas institucionalizadas com sarcopenia. *Rev Kairós Gerontol*. 2018;21(4):191-207.
39. Oliveira MDJ. Sarcopenia associada ao envelhecimento: fatores que interferem na qualidade de vida do idoso [manuscrito]. 2019.
40. Torres GMC, Figueiredo IDT, Cândido JAB, Pinto AGA, Morais APP, Araújo MFM, et al. Comunicação terapêutica na interação profissional de saúde e hipertenso na estratégia saúde da família. *Rev Gaúch Enferm*. 2017;38(4):2016-66.

Mailing address:

Shaumin Vasconcelos Wu
Universidade Federal do Pará
Rua dos Mundurucus, s/n
Bairro: Guamá
CEP: 66073-000 - Belém - PA - Brasil
E-mail: shauminvwu@gmail.com

How to cite: Wu SW, Fernandes CA, Silva DCF, Nascimento ERS, Campos JS, Oliveira JSS. The importance of the academic league in promoting healthy aging. Rev Bras Promoç Saúde. 2020;33:10518.
