Older adults’ behavior for health promotion: analysis according to Nola Pender’s theory

Comportamento de idosos para a promoção da saúde: análise segundo a teoria de Nola Pender

Comportamiento de ancianos para promover la salud: análisis según la teoría de Nola Pender

ABSTRACT

Objective: To analyze older adults’ behavior in relation to health promotion according to Nola Pender’s theory. Methods: This is participatory research with a qualitative approach, carried out at a Higher Education Institution in Brasília (Federal District), Brazil. Data were collected over four on-site meetings, through the reflection group strategy, based on specific guiding questions for each meeting. For data analysis, Nola Pender’s Health Promotion Theory was used, which presupposes assessing individual characteristics and experiences, behavior-specific cognitions and affect and behavioral outcome. Results: The study included 13 older adults, who revealed that self-esteem, work and participation in various family, cultural and religious activities help them carry out actions that promote their health. They wish to modify some behaviors and maintain others, depending on the perceived benefit. Interpersonal influences and situations such as income, illness, religion, education and access to goods and services are highlighted as factors that influence changes in health behavior. Conclusion: Older adults’ behavior revealed efforts to maintain and expand their health and degrees of autonomy.

Descriptors: Health Behavior; Aging; Aged; Health Promotion; Nursing Theory.

RESUMO

Objetivo: Analisar o comportamento de idosos em relação à promoção da saúde segundo a teoria de Nola Pender. Métodos: Pesquisa participante de abordagem qualitativa, realizada em uma Instituição de Ensino Superior de Brasília (Distrito Federal), Brasil. Os dados foram coletados ao longo de quatro encontros presenciais, por meio da estratégia de grupo de reflexão, com base em questões norteadoras específicas para cada encontro. Para a análise dos dados, utilizou-se a Teoria de Promoção da Saúde de Nola Pender que pressupõe a avaliação de características e experiências individuais, dos sentimentos e conhecimentos sobre o comportamento que se quer alcançar e do comportamento de promoção da saúde desejável. Resultados: Participaram 13 idosos, os quais revelaram que a autoestima, o trabalho e a participação em diversas atividades familiares, culturais e religiosas os ajudam a realizar ações que promovem sua saúde. Eles desejam modificar alguns comportamentos e conservar outros, em função do benefício percebido. Influências interpessoais e situações como renda, doenças, religião, escolaridade e acesso a bens e serviços são apontados como fatores que influenciam as mudanças de comportamento em saúde. Conclusão: o comportamento dos idosos revelou esforços para manter e ampliar sua saúde e graus de autonomia.

Descritores: Comportamentos relacionados com a saúde; Envelhecimento; Idoso; Promoção da saúde; Teoria de enfermagem.
INTRODUCTION

Population aging and its social impacts led Brazil to develop public policies for older adults\(^1\)–\(^3\), in order to promote healthy, citizen and sustainable aging, highlighting the Senior Friendly Brazil Strategy\(^1\) as a way of advance with the Brazilian National Health Promotion Policy\(^2\) among people aged 60 or older.

In this framework\(^2\), health promotion consists of a set of strategies and ways of producing health, at the individual and collective levels, related to the conditions and instruments for integrated and interdisciplinary action that includes the subjective, social, political, economic and cultural dimensions of human experience. Furthermore, health promotion considers the autonomy of subjects, communities and territories, respecting the specificities and potentialities in the construction of therapeutic and life projects and valuing the knowledge and actions produced in different fields of knowledge\(^2\).

In the context of nursing, health promotion is the main focus of Nola Pender’s theory, which proposes integrating behavioral science into nursing, identifying factors that influence healthy behaviors and exploring the biopsychosocial process that motivates individuals’ engagement in health-producing behaviors\(^4\). In this context, health promotion occurs as individuals are included as subjects in transformation processes\(^5\).

Promoting health is essential for the well-being of the world’s population and for achieving health equity across diverse racial, ethnic and economic groups\(^5\). Therefore, encouraging behaviors aimed at maintaining autonomy and healthy aging is crucial\(^6\).

Although advances have been observed, the health promotion actions developed have not yet been consolidated to the point of significantly altering the way health is produced and tackling the social determinants of the health-disease process\(^3\). In health services, there is a predominance of normative culture, with prescriptions for behaviors and lifestyle habits, in addition to holding individuals accountable and putting the blame on them. Health promotion needs to focus on changing behavior, from the expansion of subjects’ degrees of autonomy that are implemented through participatory approaches, which consider the people under care as a subject, and not as an object of action\(^9\).

Therefore, it is essential to study health promotion through models and theories that can contribute to understanding health problems as well as working, together with people, families and interested groups on measures that are more appropriate to their needs and interests. These reference frameworks can, additionally, contribute to producing knowledge, reflection and discernment about the ways of producing care, facilitating the achievement of the objectives proposed for health promotion\(^7\).

Therefore, this study aimed analyze older adults’ behavior in relation to health promotion according to Nola Pender’s theory.

METHODS

Participant research\(^8\) with a qualitative approach\(^9\) was carried out at a physiotherapy clinic of a Higher Education Institution in Brasilia, in the second half of 2019.

Recruitment occurred through publicity about a Reflection Group in the research setting. For those interested in participating, a contact telephone number was requested. Thus, they were informed on how groups would take place, and doubts were clarified and possible dates for on-site meetings were raised, according to older adults’ preferences. Those available to participate in group meetings were included.
The Reflection Group\(^{(10)}\) consisted of four on-site meetings, lasting one hour and thirty minutes, with an interval of one week, and was coordinated by a researcher with experience in the area, who was assisted by undergraduate nursing students to welcome participants, record data and organize materials used.

In the first meeting, the team and older adults were introduced, the research was explained and the Informed Consent was read and signed by the older adults who agreed to participate. Afterwards, the discussion about health began using guiding questions for reflection on each meeting. The questions were prepared based on the Health Promotion Framework\(^{(2)}\), encouraging participants’ reflective movement regarding their understanding about health and related behaviors. In subsequent meetings, after welcoming the group, the discussion began based on the guiding questions (Chart 1).

In each meeting, participants described their perceptions, sensations and feelings generated during the group discussion, and their statements were simultaneously noted down, from which summary tables were prepared, as recommended for this type of data collection strategy\(^{(9)}\). The records were analyzed at the group level, separated by content and synthesized according to the items that make up Pender’s Health Promotion Model diagram\(^{(11)}\). To preserve participants’ identity, the acronym GP was used to identify the statements that emerged from the group’s reflection process.

Nola Pender’s Health Promotion Model proposes to assess behavior that leads to health promotion through the study of the interrelationship of three main points:

1. Individual characteristics and experiences;
2. Behavior-specific cognitions and affect; and
3. Behavioral outcome (Figure 1)\(^{(11)}\).

The diagram proposed by Pender\(^{(11)}\) has been tested and used in countries on different continents\(^{(4)}\). The theory’s assumptions support a look at nursing, supported by behavioral science perspectives, including the following assumptions\(^{(4)}\):

1. People seek to create living conditions through which they can express their unique potential for human health;
2. People have the capacity for reflective self-awareness, including assessment of their own competencies;
3. Individuals actively seek to regulate their own behavior;
4. Individuals in all their biopsychosocial complexity interact with the environment, progressively transforming the environment and being transformed over time;
5. Health professionals are part of the interpersonal environment, which influences people throughout their lives;
6. Self-initiated reconfiguration of person-environment interactive patterns is essential for behavior change.

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**Chart 1 - Guiding questions planned and used in each reflection group meeting, Brasília, Federal District, Brazil, 2019**

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<tr>
<th><strong>Guiding questions</strong></th>
<th><strong>First meeting</strong></th>
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<tbody>
<tr>
<td></td>
<td>What do I do that is good for my health and I want to keep doing?</td>
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<tr>
<td></td>
<td>What do I do that is not good for my health and that I want to stop doing?</td>
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<tr>
<td></td>
<td>What do I do that is not good and that I want to change?</td>
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<tr>
<td></td>
<td>What do not I do that is good and that I would like to do?</td>
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<td>What was it like for you to experience this meeting?</td>
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<tr>
<th><strong>Guiding questions</strong></th>
<th><strong>Second meeting</strong></th>
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<tr>
<td></td>
<td>What resources do I have to help me do what is good for my health?</td>
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<tr>
<td></td>
<td>What does the community I live in have to help me do what is good for my health?</td>
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<tr>
<td></td>
<td>What am I missing, that I cannot do what I want and that is good for my health?</td>
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<tr>
<td></td>
<td>What does the community I live in not have, that I think makes it difficult to do what I want and think is good for my health?</td>
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<td>What was it like to experience this meeting for you?</td>
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<th><strong>Guiding questions</strong></th>
<th><strong>Third meeting</strong></th>
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<tbody>
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<td></td>
<td>Which of the phrases, created by yourselves, exposed here today, catches your attention the most and makes an impact on you?</td>
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<td>Since the first meeting of this group, has there been any change?</td>
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<td></td>
<td>What can you do from now on?</td>
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<td></td>
<td>What would you change about the organization of the meeting venue?</td>
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<td></td>
<td>How would you like the next meeting to end the group to be?</td>
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<td></td>
<td>What was it like to experience this meeting for you?</td>
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<th><strong>Guiding questions</strong></th>
<th><strong>Fourth meeting</strong></th>
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<td></td>
<td>What was it like experiencing these meetings for you?</td>
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The study was approved by the Research Ethics Committee from the Higher Education Institution with Certificate of Presentation for Ethical Review (In Portuguese, Certificado de Apresentação de Apreciação Ética — CAAE) number 15116919.4.0000.5056.

RESULTS

The study included 13 older adults, of which 12 were present in the three reflection groups, and one of them participated in two, as his son, who helped him with mobility as he was in a wheelchair, was unavailable on one of the scheduled dates.

Older adults’ individual characteristics and experiences: personal factors (biological, psychological and sociocultural)

Older adults were aged between 61 and 80 years; nine were female; seven were married; six had incomplete elementary school; ten were retired; six had income between two and five minimum wages; nine lived in their own properties; five lived with their spouses; and all used the Brazilian Health System (In Portuguese, Sistema Único de Saúde — SUS).

As for individual experiences, joy and high self-esteem were identified, in addition to participation in various family, cultural and religious activities, which helped participants to practice what was good for their health.

Regarding previous behavior, they expressed that they wanted to modify some behaviors, as they did not promote health, such as drinking coffee, excessive intake of salt and sugar in the diet, physical inactivity and sleeping late, as described in the following statements.

I want to stop drinking coffee because I know it’s bad for me, I lose sleep at night. (GP)
Behavior-specific cognitions and affect

Perceived benefits of action
Older adults reported a desire to continue with some behaviors, such as participating in groups similar to those in the research itself, due to the benefits they perceived for their health, such as feeling happy, feeling alive, exchanging knowledge, talking, meeting new people.

For me, it was great, I even managed to speak because I never say anything, I stay mute, silent. (GP)

I'm happy because it's a way for me to share with people of the same age, to learn from others. I want to continue, I'm happy! (GP)

Perceived barriers to action
Older adults expressed some barriers, such as physical characteristics, illnesses, financial situation, personal preferences, place of residence, social context, which make it difficult to change behavior, as described below.

I wanted to play soccer like I used to, but I can’t because I have asthma and it makes me short of breath. (GP)

If I had money, I would fly. (GP)

I love sweets, but I have to stop (…) I have to be aware that this is not good for my health, because I have hypothyroidism. (GP)

There is a lack of people trained to assist older adults, we wait 1 hour in line and don’t have a chair to sit on. (GP)

Perceived self-efficacy
When asked about the resources that each person had to help them do what was good for their health, participants recognized some virtues and personal experiences, as described below.

Make a firm and strong decision. It’s the way to remember and think that you can do everything to improve health. (GP)

Determination. I face sun and rain to do something for my health. (GP)

I eat well, thank God. I try to eat things that are good to me. (GP)

Activity-related affect
Some statements expressed the feelings of older adults regarding their health-promoting behaviors, such as participating in meetings and other social activities.

I'm happy, I like groups! (GP)

Meeting different people, getting to know different things, it boosts your self-esteem. (GP)

I'm happy, I go on trips, I drink beer, I have friends; having interaction with people we like makes us happy: family (…) (GP)

I feel very good here because I like to talk, express what I think. (GP)

Interpersonal influences (family, peers, providers; norms, support, models)
Through some statements, the influence of family, friends and religion on achieving health was observed.

Now I’m going to talk about something that is good for any human being, which is socializing, but I don’t do it and I want to do it, because it boosts self-esteem and high spirits, because a settled life leads to depression. (GP)

My father used to say that experience knows more than wisdom. (GP)

I go to mass because it is a therapy that helps me spiritually and mentally. (GP)

Situational influences (opinions, demand characteristics, aesthetics)
Several situations were mentioned that influence older adults’ behavior and affect their health, including access to education, community resources in which older adults live, promotion of a safe and friendly environment to carry out physical activities and contact with nature, as described below.

You really have no idea how frustrated I am because I didn’t study, but I wanted to know more, to know about the resources, I would like to be doing something, but now… knowledge, in my opinion, opens horizons, opens everything, you see how different it is. (GP)

Having a park, lake, breathing fresh air, nature helps me do what is good for my health. (GP)
Behavioral outcome

Among the behavioral outcomes for which there is low control are those with barriers that are difficult to manage, such as lack of money, not knowing how to ride a bike, health problems that limit physical activities.

In turn, among the behaviors related to personal preferences, with a high level of control, are those that provide pleasure, such as participation in courses of musical and artistic expression activities, physical exercise, as described in the following statements.

Exercise at the health center, craft classes, music, singing, my week is full! (GP)

I like participating in groups; I participate in music groups, sing and interact with people. (GP)

Dancing “forrozinho” (Brazilian music genre that originated in Northeastern Brazil). (GP)

Behavioral outcomes include both those already adopted by older adults and those that require immediate changes. For the latter, commitments to a plan of action were expressed, indicated in the following statements.

Quitting sugar. (GP)

Stop sleeping late and keep waking up early. (GP)

In Figure 2, there is a synthesis of the records about reflection group participants’ speeches, which were analyzed and categorized according to the diagram proposed by Pender²³.

DISCUSSION

Care is built from consideration of the uniqueness, concrete living conditions, projects and desires of people who seek professional healthcare. Thus, this study makes contributions by enabling health professionals to reflect on the creation of new strategies for implementing health promotion actions for older adults, qualifying the care provided.

Participant-type research allows creating spaces for meetings and dialogues between professionals, research-
ers and the community to produce knowledge and disseminate ideas, practices and care alternatives (12).

Adopting a theoretical framework to guide nursing care production is relevant, as it supports health work aimed at a purpose, such as promoting older adults’ health. Thus, Pender’s theoretical model (4,13) contributes to: providing nurses with the necessary tools in the healthcare for older adults; facilitating the approach to the complexity of care; helping to know older adults in their uniqueness; considering their feelings and knowledge regarding desired behaviors; and mobilizing them to commit to a plan of action to promote their health (13) while focusing on their autonomy to fulfill their desires and life projects (7).

Changing health-promoting behaviors is challenging, especially for older adults, as it is important to recognize the knowledge accumulated throughout their lives, which can be perceived as favorable for their health. However, they are often faced with limitations of different natures, due to the impact of social determinants of health (14,15), which make it difficult to incorporate healthy behaviors and/or access necessary resources.

Regarding “individual characteristics and experiences”, the reflections shared by older adults indicate that their behaviors are related to personal characteristics, which, in Pender’s model, include biological factors, age, sex and weight (4,16). Age was an element that interferes with their attitudes, as being older adults encouraged them to participate in reflection group meetings, in addition to encouraging them to socialize.

Encouraging the recognition of previous behavior and realizing behavior that can be changed are essential actions, as they are the beginning of the development of nursing care (16) and self-care from the perspective of active aging, seeking to increase older adults’ autonomy (17).

Therefore, the information obtained allows nurses and the health team to understand individuals’ living, illness and death conditions. When considering social, economic, cultural, demographic and epidemiological characteristics of the territory, it becomes possible to analyze the health situation and identify individuals exposed to risks and vulnerabilities, such as older adults, in order to plan health actions and monitor the local community (15-18).

The psychological factor as a component of “individual characteristics and experiences” includes variables such as self-esteem, self-motivation, personal competence and perceived health status (4,16). Feelings of joy and strength in life helped and motivated older adults to carry out activities that promote their health, feelings associated with happiness, which can guide health promotion actions and strategies (19). It is noteworthy that psychological elements are also highlighted in the “perceived benefits of action” component, as seen in the diagram (Figure 2).

Regarding the sociocultural factor as an “individual characteristics and experiences” (4,16) component, heterogeneous characteristics were observed among older adults, such as income and education, identified as important barriers to health promotion.

Thus, implementing policies that strengthen social protection and improve the population’s economic conditions can impact health conditions, contributing to reducing social inequality (20). To guarantee their right to health, it is important to promote spaces for reflection and discussion that involve people in social participation, which is essential for strengthening the SUS (3,21).

Older adults also reported the importance of quality education for health. Problems such as disruptions in education and increasing learning inequalities affect health (22). These inequalities can also affect health literacy, which is related to an individual’s ability to access, understand, assess and use information to maintain good health (23).

Functional health literacy is associated with health promotion strategies, as it allows older adults to be able to make health-related decisions in their daily lives (24). That said, investing in increasing the level of health literacy in older adults can improve the results of health promotion strategies and improve quality of life.

Feelings and knowledge about oneself influence an individual’s behavior and the adoption of healthy behaviors occurs as people perceive benefits for their own lives (4). In this study, participating in the research and attending the reflection group were considered healthy, due to the benefits that the activities provided, such as the opportunity to speak.

There is an urgent need for an active voice for older adults in order to increase the visibility of this population to consolidate strategies that improve their quality of life. Coexistence groups are successful examples to be used as strategies to improve different aspects of health, as they are spaces that provide socialization, learning, engagement in pleasurable activities and experience of positive feelings, improved autonomy and active aging (25).

For older adults, low purchasing power, lack of time, dependence, pain and preference for sweet foods were factors preventing them from carrying out pro-health actions. “Perceived barriers to action” can make it difficult to commit to plan of action and change behaviors considered necessary by individuals (4).

Implementing an Older Adult Care Network has been encouraged as a strategy for comprehensive...
healthcare; however, lack of social support network, low income of the local population, fragmentation of the health system, deficiency of human resources and the scenario of social devaluation are limitations to be overcome.

The difference between the type and access to food, housing, education, transport, health services and work influences behaviors and lifestyles, which expose individuals, families and communities to different vulnerabilities. Equity for this population would depend on multisectoral actions at all stages of life cycle on social determinants of health.

Perceived barriers are inversely proportional to perceived self-efficacy, i.e., greater perceived self-efficacy results in fewer perceived barriers to health behavior, in addition to increasing the probability of commitment to carrying out healthy behaviors and a plan of action.

Self-efficacy is related to personal experiences about human beings’ ability to perform actions during their development. It is considered a possible protective factor that predicts older adults’ well-being, quality of life and mental health.

Positive feelings about certain behaviors can increase self-efficacy, and these positive emotions related to some behavior increase the likelihood of committing to action. Thus, it is possible that the feelings of well-being expressed by participants are sources of encouragement for them to realize their ability to continue participating in activities that are good for them, with a potential positive impact on their health.

Regarding the “Interpersonal and situational influences” component, people tend to commit more to healthy behaviors when individuals important to them model such behaviors and offer support.

Although it is relevant to consider genetic inheritance in healthy aging, physical and social environments such as one’s home, neighborhood and community can affect health or impose barriers or incentives that influence individuals’ opportunities, decisions and behaviors.

In this study, older adults reported that participating in activities in different institutions facilitated their commitment to health. However, some reported situations, such as the lack of people trained to assist them, may reduce commitment to health. Therefore, when talking about health promotion, encouraging intersectoral actions aiming at comprehensive care is important.

Actions such as providing green areas in urban spaces contribute to improving health, at the same time possible barriers must be minimized, such as difficult access and lack of facilities friendly to older adults, providing a non-slip surface and adequate lighting.

When reflecting on interpersonal and situational influences, guidelines to promote active and healthy aging and Brazilian National Health Policy for Older Adults recommendations emerge, which aims to recover, maintain and promote older adults’ autonomy and independence.

It is recommended to value aspects of community life to identify potential for physical, social and mental well-being throughout their life course, in addition to taking advantage of all opportunities to promote older adults’ participation in social groups, with health promotion actions that value their experiences, considering them as citizens with rights, agents of actions directed at them.

In Pender’s Model, “Behavioral outcome” covers three variables: commitment to a plan of action, which are actions that enable individuals to maintain the expected health-promoting behavior; immediate competing demands, which are related, respectively, to individuals’ low control over behaviors that require immediate changes for better health and to the self-control that people have regarding actions to change behavior with a view to health; and, finally, health promoting behavior, understood as the result of the Health Promotion Model implementation.

Some statements from older adults refer to what would lead them to commit to a plan of action, because, when analyzing and realizing the benefits they would have for their health, some behaviors could be modified, such as drinking coffee (insomnia), eating sweets (hypothyroidism) or lying down (unwell).

It was observed that older adults are aware of the immediate competing demands and preferences that interfere with the behavior of their actions and directly in their health status. When there are competing demands that require immediate attention, over which individuals have little control, commitment to a plan of action is less likely to result in healthy behaviors. Likewise, commitment to a plan of action is less likely to result in healthy behaviors when more attractive actions are preferred over the behavioral outcome.

Several activities were reported that denote healthy behaviors among older adults. To be effective in relation to health promotion, they must be sustained. The probability of maintaining healthy behavior in the long term is related to greater commitment to a plan of action. This assumption leads to reflection on the importance of longitudinal care, recommended by the SUS as a principle of Primary Health Care, which provides constant dialogue between nurses and the health team with individuals, families and communities, making it possible to reflect on behaviors and un-
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Understand the motivations, desires and needs that lead people to such behaviors\(^{(5)}\).

Knowing older adults’ motivations, which influence their behaviors and encourage self-reflection, helps in the joint construction (health professional and individual) of health promotion strategies. The defense and expansion of this population's degrees of autonomy influence dignity, integrity, freedom and independence, and have been identified as a central component of well-being. Autonomy must be reinforced, regardless of the level of capacity of older adults, who have the right to choose and take control of their existence, including choosing to care for their health\(^{(17)}\).

The expansion of the power to self-govern through health promotion actions is related to the interaction among health professionals, individuals, families and the community in care production encounters\(^{(32)}\). Therefore, nursing and other health professional training is important to acquire knowledge and skills that promote this population's health\(^{(30,33)}\). Studies, dissemination of health theories, discussions and research are essential for advances in care practices, allowing a transformative approach in defense of life\(^{(5,6)}\).

CONCLUSION

It is understood that, in light of Nola Pender's theoretical model, older adults’ behavior in relation to health promotion indicate efforts to maintain and expand their health and their degrees of autonomy to live life.

The reflection group reveals itself as a health promotion strategy that respects and allows different views and speeches, in addition to listening to living conditions and behaviors that favor or hinder health promotion.

FUNDING

This research did not receive financial support.

CONFLICT OF INTEREST

None.

AUTHORS’ CONTRIBUTIONS - CRediT

TCRS: conceptualization; data curation; formal analysis; investigation; methodology; project administration; resources; visualization; supervision; writing – original draft; writing – review & editing.

AGOF: formal analysis; visualization; writing – original draft; writing – review & editing.

KDF: formal analysis; visualization; writing – original draft; writing – review & editing.

LRSS: formal analysis; visualization; writing – original draft; writing – review & editing.

VBC: formal analysis; visualization; writing – original draft; writing – review & editing.

SM: conceptualization; formal analysis; investigation; methodology; project administration; supervision; visualization; writing – original draft; writing – review & editing.

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