THE ASSOCIATION BETWEEN SELF-REFLECTION AND SELF-CONTROL AMONG ELDERLY IN NURSING HOMES

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Abstract
Health behavior among elderly is related to an individual’s ability to reflect on and control their behavior. This research aimed to identify the correlation between elderly self-reflection and self-control in nursing homes. This cross-sectional study involved 113 elderly selected using Simple Random Sampling. The Brief Self-Control Scale (BSCS) and The Self-Reflection and Insight Scale (SRIS) were used to measure self-control and self-reflection. Somers’d and Spearman-Rank were used to analyze the association between variables. This study showed that most older people had moderate levels of self-reflection and self-control, 59.3% and 66.4%, respectively. Gender was significantly correlated to self-reflection (p-value 0.033, r=−0.201), and a self-reported past medical history was significantly related to self-control with a weak relationship strength (p-value 0.015, r=-0.211). The Spearman-Rank Analysis indicated a strong and significant correlation between self-reflection and self-control (p-value 0.000, r=0.687). The higher the self-reflection in the elderly, the higher their self-control. Self-reflection and self-control are related to elderly behavior, including how elderly know their behavior, learn from experience, and regulate behavior to suit the health goals they want to achieve. Therefore, there is a need to increase self-reflection and self-control in the elderly, especially in the elderly at nursing homes.

Keywords: self-reflection, self-control, elderly, nursing homes

1. INTRODUCTION
Demographic shifts due to population aging have increased globally, while aging has various impacts on health and quality of life. Elderly are vulnerable to experience physical and psychological problems that lead to health decrease and disturb daily activities (Ati et al., 2022; Sharma, 2023). Elderly with a high perception of subjective health status have an adequate quality of life.
Quality of life is one of the main well-being factors in the elderly (Zin et al., 2020). Although there are not statistically significant differences in the overall health perception and quality of life of the elderly, there are differences between the elderly living in nursing homes and the elderly living in the community (Pigłowska et al., 2023; Saputri et al., 2020). A positive attitude and modifications in the older adult's lifestyle are needed to improve health behavior. Self-reflection and self-control can protect against adverse health outcomes and are associated with positive outcomes (Caorong, 2021; Demnitz-King et al., 2022).

Nowadays, life expectancy rise for those aged 70 and over, increasing the elderly population (Tyrovolas et al., 2022). It is estimated that 1 in 6 people worldwide will be 60 in 2030 (WHO, 2022). In Indonesia, the percentage of the older adult population reached 10.7% in 2020 and is expected to almost double in 2045 to 19.9% (Badan Pusat Statistik, 2021). East Java is one of eight provinces in Indonesia that is included in the old age population structure, with the number of elderly reaching 14.53%, where almost 10% of the elderly live alone (Badan Pusat Statistik, 2021). Older people who live alone are at greater risk of adverse health consequences and mortality than those living with others (Jiang et al., 2023; Vo et al., 2021), including mental health problems such as depression. Elderly who live in nursing homes are 2.9 times more likely to experience depression than those who live at home (Xiu-Ying et al., 2012). The increase of population is in line with a raised risk of health problems, both physical and mental. Elderly living alone or in nursing homes is more at risk of experiencing adverse health impacts.

Health-related behavior in individuals is correlated to the individual's capacity to restrain impulses, stop habits, and avoid temptation, which is referred to as self-control (Hagger et al., 2019). Individuals with good self-control have cognitive and behavioral control, they develop habits and intentions for healthy behavior (Conner et al., 2023). In addition, self-reflection is associated with changes in attitudes and behavior in how a person learns. It is related to enhancing self-motivation and developing skills in independent learning (Koshy et al., 2017; Shukla et al., 2022). Self-reflection describes how individuals assess or cast themselves in physical, psychological, or moral terms. Individuals whose self-assessments match those of others demonstrate better clinical outcomes (Conner et al., 2023). Self-control and self-reflection in individuals can stop habits, avoid temptation, and carry out self-assessments related to a person's health behavior.

In elderly, self-control is linked to positive life outcomes, including life satisfaction. Meanwhile, self-reflection at an optimal level, which means not too high and very low, is related to optimal well-being. Our previous research showed elderly in nursing homes had moderate and low quality of life, 70.7% and 8.5%, respectively (Saputri et al., 2020). A previous study in the Philippines proved that elderly' self-control is significantly related to life satisfaction (Caorong, 2022). However, research on self-control and self-reflection has yet to be carried out in Indonesia, especially for elderly living in nursing homes. Therefore, researchers aimed to identify the correlation between self-control and self-reflection in elderly and factors related to these two variables, considering the importance of these two variables on health behavior. Determining the correlation between self-control and self-reflection is expected to enrich an understanding of factors related to health outcomes and well-being in elderly in nursing homes.

2. RESEARCH METHOD

This study used a cross-sectional design conducted in Jember and Bondowoso nursing homes in East Java Province, Indonesia, in May – July 2023. The population in this study was self-reliant elderly living in nursing homes. Participants were selected using a simple random sampling with a sample size of 113 elderly, calculated using the Yamane, Isaac, and Michael formula. The inclusion criteria in this study were: 1) Elderly aged more than 60 years and 2) elderly willing to become research participants. Meanwhile, the exclusion criteria for participants in this study were 1) elderly who experience severe cognitive problems.
The instrument was a questionnaire. Researchers used three sets of questionnaires: demographic data, self-control, and self-reflection. The demographic data questionnaire consists of age (older 60–74 years, old 75–90 years), gender (male, female), education (none, elementary school, junior high school, senior high school, Bachelor degree), marital status (none, divorced (widowed), unmarried), and self-reported past medical history (have or did not have).

The self-control in this study was measured by Brief Self-Control Scale (BSCS) questionnaire (Tangney et al., 2004). This questionnaire consists of 13 questions with a Likert scale of 5 answer categories: not at all (1) - very much like me (5) for the positive statement, and vice versa for negative statements (Tangney et al., 2004; Yusainy, 2017). Self-control in the elderly in this study was classified into very low (score 13 – 26), low (score 27 – 39), medium (score 40 – 52), and high (score 53 – 65) (Caorong, 2022). BSCS scores range from 13 to 65; the higher the BSCS score indicated, the higher the self-control reported by the participant and vice versa (Tangney et al., 2004, Yusainy, 2017). The validity and reliability of this questionnaire were obtained from previous studies, which showed corrected item-total correlation values of 0.477 - 0.869 and Cronbach alpha 0.914 (Nafisa et al., 2017).

To measure self-reflection in the elderly, we used the self-reflection and insight scale (SRIS) questionnaire (Bahiyah & Savitri, 2018; Grant et al., 2002). This questionnaire was valid and reliable with a corrected item-total correlation range of 0.303 - 0.730 and Cronbach alpha 0.843. This questionnaire consists of 12 questions, divided into two domains, namely the self-reflection domain (6 questions) and the insight scale domain (6 questions). This questionnaire used a Likert scale with seven ranges: strongly disagree (1) to strongly agree (7), and for unfavorable statements, strongly agree (1) to disagree (7) strongly (Silvia, 2022). The SRIS questionnaire used an interval scale of 12 – 84; the higher the score, the better the self-reflection (Silvia, 2022). In this study, self-reflection in the elderly was classified into three categories: high self-reflection (score ≥ 60), moderate self-reflection (score 36 – 59), and low self-reflection (score < 36). This category is based on the Mean (Mean 48) and Standard deviation (SD ±6). All questionnaires used in this research are in Indonesian and accompanied by instructions. The participants were accompanied by a researcher who guided them using a semi-interview procedure to complete the questionnaire.

Descriptive analysis was used to summarize the demographic data of the participant's characteristics and each variable. Data analysis was carried out using the SPSS version 26 program. Spearman Rank was used to analyze the correlation between Self-control and self-reflection. At the same time, Somers’d was performed to analyze the other determinant factors with self-control and self-reflection in elderly. The level of significance was set at a p-value < 0.05.

This research has obtained permission from the Ethical Committee of Medical Research Faculty of Dentistry University of Jember with Ethical Approval Number 2014/UN25.8/KEPK/DL/2023. Before participating in the study, participants have been explained the objectives, benefits, and disadvantages that might be experienced in the research process. Participants who were willing to participate in the study signed informed consent. Respondents' participation in this study was voluntary.

3. RESULT AND DISCUSSION

The finding of this research showed that 113 elderly who participated in this study, most of them were women (59.3%) and aged 60 – 74 years (73.5%) (Table 1). Over one-third of elderly did not attend school (37.2%) and had elementary school (38.1%). More than 60% of elderly did not have a life partner because they were divorced or widowed. Meanwhile, in self-reports on past medical history, it was seen that 46% and 54% of elderly had and did not have a history of disease. Regarding self-reflection and self-control, most elderly in nursing homes had moderate levels of self-reflection and self-control, 59.3% and 66.4% (table 2).

Somers’d analysis results indicated that gender was significantly correlated to self-reflection with low association strength (p-value 0.033, r = -0.201). At the same time,
we found that elderly with no presence of past medical history were significantly related to self-control with a weak association strength (p-value 0.015, r = -0.211). The Spearman-Rank analysis was carried out, which revealed a strong and significant correlation between self-reflection and self-control (p-value 0.000, r = 0.687) (Table 2).

It could be concluded that the higher the self-reflection, the higher the self-control of the elderly in nursing homes, and vice versa.

Table 1. Characteristics of Respondents and Results of Somers’d Analysis (n = 113)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>n</th>
<th>%</th>
<th>Self-reflection P-value (r)</th>
<th>Self-control P-value (r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elderly</td>
<td>83</td>
<td>73.5</td>
<td>0.552 (0.064)</td>
<td>0.408 (0.088)</td>
</tr>
<tr>
<td>Old</td>
<td>30</td>
<td>26.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>46</td>
<td>40.7</td>
<td>0.033*</td>
<td>0.275</td>
</tr>
<tr>
<td>Female</td>
<td>67</td>
<td>59.3</td>
<td>(-0.201)</td>
<td>(-0.098)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>42</td>
<td>37.2</td>
<td>0.240 (0.089)</td>
<td>0.149 (0.107)</td>
</tr>
<tr>
<td>Elementary School</td>
<td>43</td>
<td>38.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior High School</td>
<td>12</td>
<td>10.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior High School</td>
<td>14</td>
<td>12.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>2</td>
<td>1.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not married</td>
<td>13</td>
<td>11.5</td>
<td>0.503</td>
<td>0.956</td>
</tr>
<tr>
<td>Divorced/Widowed</td>
<td>78</td>
<td>69.0</td>
<td>(-0.061)</td>
<td>(-0.004)</td>
</tr>
<tr>
<td>Married</td>
<td>22</td>
<td>19.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past Medical History</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have a past medical history</td>
<td>52</td>
<td>46</td>
<td>0.589</td>
<td>0.015* (-0.211)</td>
</tr>
<tr>
<td>Did not have</td>
<td>61</td>
<td>54</td>
<td>(-0.050)</td>
<td></td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level

This present study indicated that self-reflection in the elderly was significantly associated with gender, while the past medical history experienced by the elderly was associated with self-control. Meanwhile, this study also showed a strong association between self-reflection and self-control in elderly. Older women have a better level of self-reflection compared to older men. Women have higher self-reflection (Tyler et al., 2022). Women are involved in reflective activities accompanied by a qualitatively adequate depiction of reflective activities than men (Costello et al., 2022; Tyler et al., 2022), because men consider their activities as their identity concerning their work situations or ways of solving problems. Women are more comfortable expressing the emotional side of some of their activities (Tyler et al., 2022).

Table 2. The Correlation between the Elderly’ Self-Reflection and Self-Control

<table>
<thead>
<tr>
<th>Self-Reflection</th>
<th>Very Low n (%)</th>
<th>Low n (%)</th>
<th>Moderate n (%)</th>
<th>High n (%)</th>
<th>Total n (%)</th>
<th>p-value (r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>1 (0.9)</td>
<td>1 (0.9)</td>
<td>1 (0.9)</td>
<td>0 (0)</td>
<td>3 (2.7)</td>
<td>0.000*</td>
</tr>
<tr>
<td>Moderate</td>
<td>0 (0)</td>
<td>16 (14.2)</td>
<td>50 (44.2)</td>
<td>1 (0.9)</td>
<td>67 (59.3)</td>
<td>(0.687)</td>
</tr>
<tr>
<td>High</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>24 (21.2)</td>
<td>19 (16.8)</td>
<td>43 (38.0)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1 (0.9)</td>
<td>17 (15.0)</td>
<td>75 (66.4)</td>
<td>20 (17.7)</td>
<td>113 (100)</td>
<td></td>
</tr>
</tbody>
</table>

However, older women who do a lot of other activities, such as household activities, show that they have less time than older men for reflection activities, especially if older women have friends to confide in (González-González & Requena, 2023). This
current study showed different results, perhaps because all the participants were no longer working; as a result, women have a higher self-reflection.

The elderly in nursing homes did not report any past medical history that was significantly linked to self-control. Self-control shows an individual's ability to regulate themselves, and self-control influences health promotion behavior to maintain and improve health (Li et al., 2022). Individuals with self-control are goal-oriented and can maintain the goals they want to achieve by suppressing temptations that arise (Tipkanjanaraykha & Rittiwong, 2023). This research revealed that elderly with past medical history have better self-control than elderly who do not report a history of disease. This may be because past medical history enables elderly to regulate detrimental behavior and is oriented towards maintaining their health because they already have a history of certain diseases. The life history perspective is related to understanding self-control and self-understanding and the consequences related to the health (Fennis, 2022).

This study indicated that the higher the self-reflection, the higher the self-control in the elderly in nursing homes. Self-reflection describes a state in which a person can regulate themselves, including controlling their behavior and being aware of their thoughts (Leal et al., 2019; Tyler et al., 2022). Individuals with high self-reflection demonstrate the ability to carry out an activity without feeling pressured, have space to think and understand their situation and distance themselves from stress triggers (Ahmed, 2018; Tyler et al., 2022). Meanwhile, self-control is related to forming habits and behavior through affective processes (Conner et al., 2023). Self-reflection helps individuals learn from experiences and improve their condition from reflection (Ooi et al., 2021). On the other hand, self-control enables individuals to prevent impulsive behavior that can cause stress (Hamilton et al., 2014). Self-reflection and self-control help individuals be aware of thoughts and behavior so that they impact the formation of habits, in this case, habits related to healthy behavior and individual well-being (Harrington & Loffredo, 2010; Zhao et al., 2022).

In elderly, reflection is a critical process linked to the experience of the meaning of life, where most elderly have thought about the meaning of their life (Dewitte & Dezutter, 2021). The presence of meaningful life is a mediator between self-reflection and mental health problems, while self-control is a mediator between a crisis of meaning in life and general mental health problems (Dewitte & Dezutter, 2021; Schnell & Krampe, 2020). Self-reflection is an introspective process that involves evaluating one's thoughts, feelings, and behavior so that it is associated with health behavior, as well as self-control, which is related to health behavior because it represents the individual's ability to stop habits and avoid temptations about individual health behavior (Demnitz-King et al., 2021; Hagger et al., 2019). It can be concluded that self-control is forming habits and preventing impulsive behavior, which can impact health conditions. At the same time, self-reflection is the process of introspection of this behavior. Self-control in the elderly is essential because it leads to more positive life outcomes where the elderly feel more satisfied with their lives than others (Caoron, 2022).

The limitation of this research was that it was a cross-sectional study, so it could not identify a causal relationship between self-reflection and self-control. In addition, the presence or absence of past medical history was measured based on self-reported elderly, which might cause bias with the actual medical condition. However, to the best of our knowledge, this research was the first study to identify the association between self-reflection and self-control in elderly, especially in Nursing Homes.

4. CONCLUSION AND SUGGESTION

According to the study's findings, elderly residents of nursing homes who engage in more self-reflection also exhibit higher levels of self-control. There was a strong and significant correlation between self-reflection and self-control in the elderly. Self-reflection in the elderly was significantly related to gender, while self-control was associated with the elderly's past medical history. Self-reflection and self-control are linked to elderly behavior, including how the elderly are aware of their behavior, learn from experience, and regulate their behavior to pursue the goals they
want to achieve, including health behavior. Therefore, there is a need to boost self-reflection and self-control in the elderly, especially in nursing homes. Health workers can train the elderly to improve their ability to self-reflect and self-control. Also, there is a need for further research on the impact of self-reflection on individual self-control and other factors related to self-reflection and self-control in the elderly.

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CONFLICT OF INTEREST

The author declared that there is no conflict of interest.

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5. REFERENCE


Piglowska, M., Kostka, T., & Guligowska, A. (2023). Do Determinants of Quality of Life Differ in Older People Living...


