Health education is essential in improving self-care management, yet less investigated in older adults with knee osteoarthritis who have type 2 diabetes and overweight or obesity. Evidence revealed that modification self-care behaviour focusing on knowledge, self-efficacy, and outcome expectations is the key for reducing severity of OA progression especially in older adults with type 2 diabetes and overweight or obesity. To enhance the quality of care; thus, this study aimed to explore the effects of a comprehensive health education program on knowledge of knee osteoarthritis, self-efficacy, and expectation of treatment outcomes of this population.

Methods

Design: This quasi-experimental— one group pre-posttest—design was conducted in community older adults.

Sample: A total of 119 overweight and diabetic older adults with knee osteoarthritis based on the diagnostic criteria of American College of Rheumatology.

Intervention: The participants joined the comprehensive health education program—a 3-session workshop including 1) providing health knowledge/information, 2) doing physical activities and 3) providing knowledge about food/nutrition. The intervention was run by interdisciplinary team.

Data collection: Data were collected before and after 2 weeks of the experiment by using knee osteoarthritis knowledge test, a questionnaire on self-efficacy, and a questionnaire on expectation of treatment outcomes.

Data analysis: Data were analyzed using Paired t-test. A p-value of <.05 was considered significance.

Results

Most of participants were female (83.03%; n = 100) with the mean age of 68.17 (SD = 8.55). Nearly half of the participants (47.89%) had comorbidities other than overweight and diabetes. After participating in the intervention, the scores of the participants were: knowledge of knee osteoarthritis (Mean ± SD = 7.66 ± 1.17), self-efficacy (Mean ± SD = 26.07 ± 2.84), and expectation of treatment outcomes (Mean ± SD = 10.68 ± 4.43).

Table 1. Mean and Standard Deviation Scores of the Study Variables Pre-Posttest (n = 119)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Baseline (M ± SD)</th>
<th>Posttest (M ± SD)</th>
<th>Paired t-test p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of knee OA</td>
<td>6.68 ± 1.12</td>
<td>7.66 ± 1.17</td>
<td>.197</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>22.68 ± 4.43</td>
<td>26.07 ± 2.84</td>
<td>.284</td>
</tr>
<tr>
<td>Expectation of treatment</td>
<td>8.98 ± 2.36</td>
<td>10.68 ± 4.33</td>
<td>.969</td>
</tr>
</tbody>
</table>

Discussion

Our findings emphasized the effectiveness of the comprehensive health education program on knowledge of knee osteoarthritis, self-efficacy, and expectation of treatment outcomes of this population. After intervention in the program, the participants increased in scores of all study variables when compared to the baseline. Similarly to previous studies, self-efficacy based intervention contributed to a change in study outcomes. However, the long-term effectiveness of health education in improving self-care is required for further study.

Conclusion

Health professionals should use this program as a guideline to prevent and control knee osteoarthritis, especially with overweight and diabetic older adults with knee osteoarthritis. Applying effective health education program has more benefit in providing better care in overweight and diabetic older adults with knee osteoarthritis.

Acknowledgement

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References