

**Table S2.** Factors influencing PA participation in people with dementia based on empirical implementations with new factors printed in bold.

Barriers	Motivators <sup>a</sup>	Facilitators
<b>Intrapersonal level</b>		
Physical or Mental Health		
<ul style="list-style-type: none"> <li>• Health conditions [51,52,54]</li> <li>• Problems with cognition; attention, memory and confusion [54,56,62]</li> <li>• Lack of motivation [50,51,62] <ul style="list-style-type: none"> <li>• Fatigue [51,57]</li> </ul> </li> <li>• <b>Low sense of efficacy PwD (or caregiver)</b> [55] <ul style="list-style-type: none"> <li>• <b>Lack of confidence at home</b> [55] <ul style="list-style-type: none"> <li>• Emotional barriers (fear) [51]</li> </ul> </li> <li>• Disruptive behaviour PwD [62]</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Perceived/experienced physical benefits [51,52,55-58,61]</li> <li>• Expectation/believe in possible physical benefits [54,56] <ul style="list-style-type: none"> <li>• Meaningful purpose of PA [56]</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Adapt exercises to physical capabilities/patients' needs [51,55,57,58,60,61]</li> <li>• Strategies to overcome memory problems (external memory aids) [53,55,56] <ul style="list-style-type: none"> <li>• <b>Behavioural problem solving</b> [61]</li> </ul> </li> </ul>
Individual preferences		
<ul style="list-style-type: none"> <li>• <b>Negative perception/dislike of specific PA</b> [52,55] <ul style="list-style-type: none"> <li>• <b>Not enjoying PA</b> [54] <ul style="list-style-type: none"> <li>• Boredom or lack of enthusiasm [53]</li> <li>• Lack of accommodating PA [52]</li> </ul> </li> </ul> </li> <li>• <b>Difficulty finding appropriate activities</b> [50]</li> </ul>	<ul style="list-style-type: none"> <li>• Enjoyment of PA [54,57]</li> <li>• Positive (past) association with PA [56] <ul style="list-style-type: none"> <li>• Sense of commitment [54]</li> </ul> </li> <li>• <b>Using preferred or familiar activities/hobbies</b> [53,58] <ul style="list-style-type: none"> <li>• <b>PwD chooses PA</b> [53]</li> <li>• <b>Activities related to everyday life</b> [60]</li> </ul> </li> </ul>	
<b>Interpersonal level</b>		
General support from informal caregiver, family or health professional		
<ul style="list-style-type: none"> <li>• Caregiver factors (burden, doubts) [50,62]</li> <li>• <b>Caregiver and PwD not living together</b> [54]</li> <li>• <b>Lack of practical and emotional support</b> [56] <ul style="list-style-type: none"> <li>• <b>Lack of guidance</b> [55]</li> <li>• Concerns regarding safety [62]</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Doing it together with caregiver</b> [54]</li> </ul>	<ul style="list-style-type: none"> <li>• Caregiver/family support/ dyadic approach [54-56,60,62] <ul style="list-style-type: none"> <li>• Advice, feedback and support experts [50,54,56,58] <ul style="list-style-type: none"> <li>• <b>Quality/trained of instructor/staff</b> [52,55,58,62]</li> </ul> </li> </ul> </li> <li>• <b>Trusting relationship trainer, PwD and caregiver</b> [50,62] <ul style="list-style-type: none"> <li>• Educating caregivers and PwDs [61,62]</li> <li>• <b>Positive feedback/environment</b> [55]</li> </ul> </li> </ul>
Support from staff in nursing homes		

<ul style="list-style-type: none"> <li>• <b>Understaffing</b> [58,59]</li> <li>• <b>Limited time for personalized care and stimulation</b> [58]</li> <li>• <b>Staff doubts</b> [58]</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Benefits for staff</b> [57,58]</li> <li>• <b>Staff prepared to deliver PA</b> [58,59]</li> </ul>
Social identification	
<ul style="list-style-type: none"> <li>• Social participation/connectedness [50,55]</li> <li>• Networking [62]</li> </ul>	
<b>Community level</b>	
Structural and organizational (intervention) factors	
<ul style="list-style-type: none"> <li>• Limited organised activities [50,62]</li> <li>• Competing commitments (activities, holiday,) [54] <ul style="list-style-type: none"> <li>• <b>Amount of content delivered</b> [55] <ul style="list-style-type: none"> <li>• <b>Strict timing of walks</b> [57]</li> <li>• <b>Armrests of chairs</b> [60]</li> </ul> </li> </ul> </li> <li>• Practical reasons (time, location) [52] <ul style="list-style-type: none"> <li>• <b>Cost</b> [52]</li> </ul> </li> <li>• <b>Collaboration between experts</b> [50]</li> <li>• <b>Difficulty transferring dyads to expert</b> [50] <ul style="list-style-type: none"> <li>• Collaboration practitioner [62]</li> <li>• <b>Understanding protocol</b> [61]</li> <li>• <b>Adhering to time schedule</b> [61]</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Instruction methods</b> [53,58,60]</li> <li>• <b>Program/intervention accommodation</b> [60]</li> <li>• Development of habit/daily routine [54,56] <ul style="list-style-type: none"> <li>• Program characteristics [51,52]</li> <li>• <b>Individual supervision</b> [60]</li> <li>• Providing transportation [62]</li> <li>• <b>Low cost PA opportunity</b> [50]</li> <li>• <b>Support AAA agencies</b> [61]</li> </ul> </li> </ul>
Physical environment	
<ul style="list-style-type: none"> <li>• Environment (weather, inaccessible, not safe) [57]</li> </ul>	

<sup>a</sup> Motivators were classified by the author (W.R.F)

New barriers, facilitators and motivators are presented in bold. Abbreviations: AAAs = Area Agencies on Aging; PwD = people with dementia.