Readiness to adopt new technology among people with dementia

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Introduction

The increasing need for implementing new technologies among people with dementia require their readiness to adopt new solutions. The aim of the study was to investigate the readiness to adopt new technologies based on different context of life situations and choices among people with Alzheimer disease and early dementia stages. The study was conducted within the framework of RAMCIP project (Robotic assistance for mild cognitive impairment patients) founded by European Programme Horizon 2020.

Methods

Data from 42 surveys was analysed: 30 individuals with dementia who now need support of other people in everyday activities and 12 age-matched healthy older adults. In the surveys various situations were presented which may occur in connection with the loss of independence by persons performing daily activities . Using dichotomized outcomes "ready", "not ready", the readiness to adopt new technology was identified regarding specific situations.

Results

Over 80% of individuals with dementia are ready to adopt new technologies as a way to stay healthy and safe in their own homes in order to avoid moving to other place of living or to be burden for their relatives. On the other hand, when the question was whether they are ready to adopt new technology in general regarding their convenience, only 13% of them were ready. The majority of healthy older adults group (about 78%) are not ready to adopt new technologies

Crucial situations where differences between two groups were the most visible	Readiness to adopt a robotic assisstant			
	healthy volunteers		potential users	
	ready	not ready	ready	not ready
1) to avoid living in nursing home	**22%**	78%	**84%**	16%
2) to avoid living in relatives home	**10%**	90%	**81%**	19%
3) loss of ability to perform daily activities such as:				
- making her/himself meal (hot baverages)	**18%**	82,00%	**74%**	26,00%
- dressing	**21%**	79,00%	**78%**	22,00%
- medication intake	**9%**	91,00%	**80%**	20,00%
- finding personal belongings	**11%**	89,00%	**83%**	17,00%
4) frequency of homecare visits				
- less than 4 visits a week	**3%**	97,00%	**74%**	26,00%
- equal and more than 4 visits a week	**7%**	93,00%	**87%**	13,00%
5) housing situation:				
- living in flat	**9%**	91,00%	**71%**	29,00%
- living in house	**17%**	83,00%	**85%**	15,00%
6) level of motor impairment				
- high	**29%**	71,00%	**93%**	7,00%
- low	**7%**	93,00%	**67%**	33,00%

Conclusion

Readiness to adopt new technology is a matter of perceiving of the level of self-efficiency. In a different life situations.