



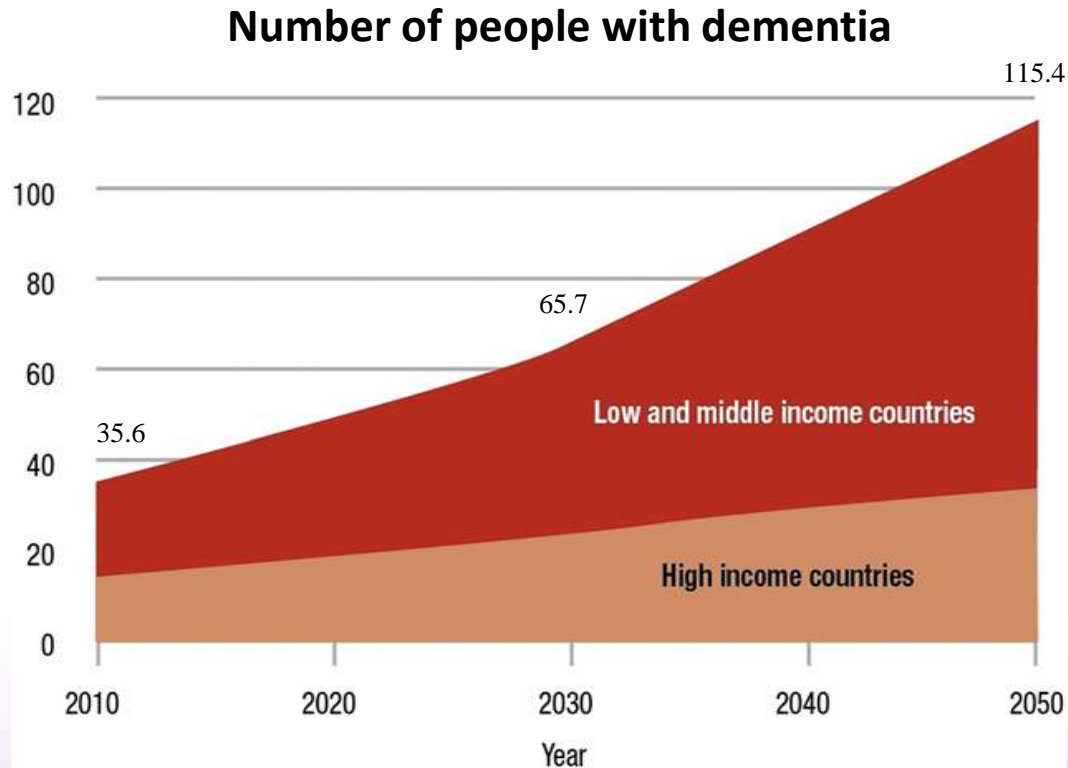
Effects of Integrated Care Model for Older Adults with Dementia in the Community

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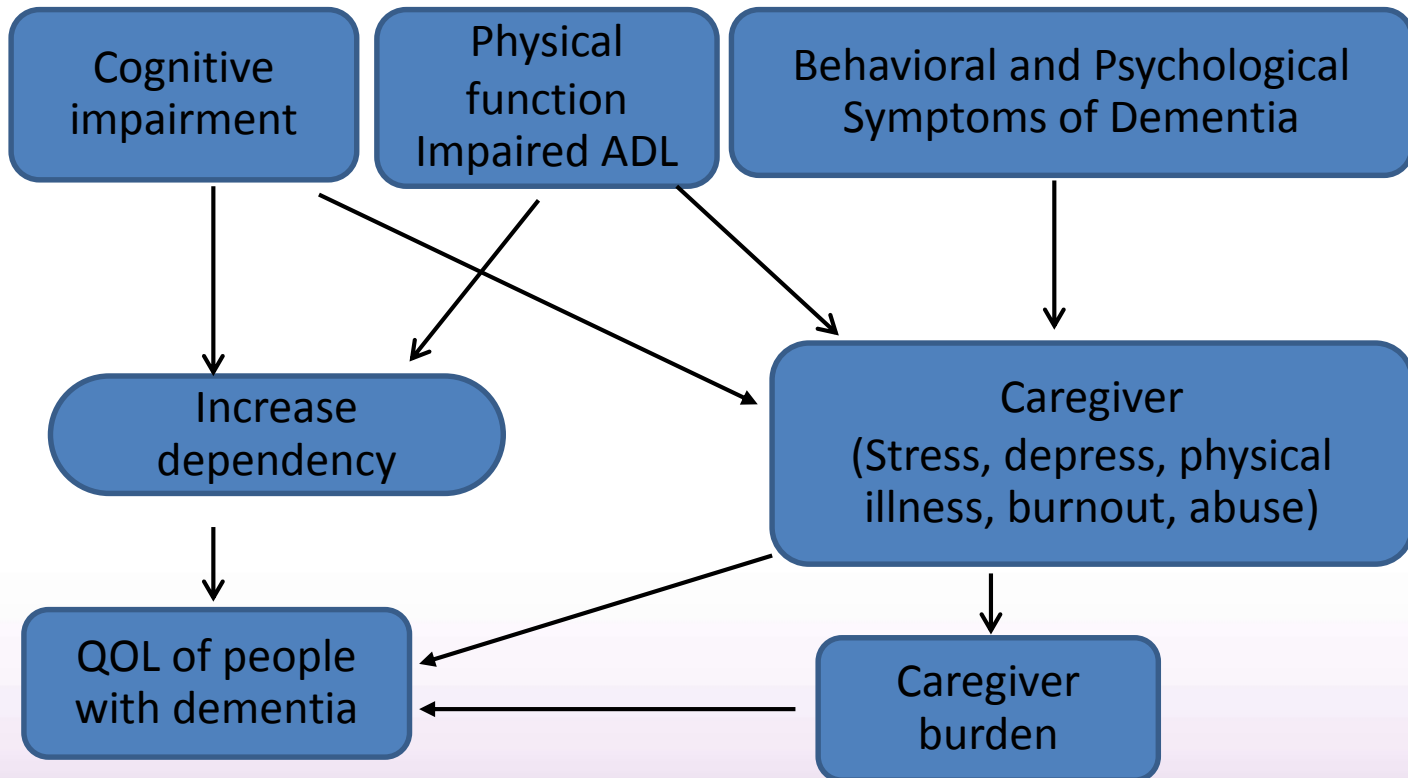
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Background and significance

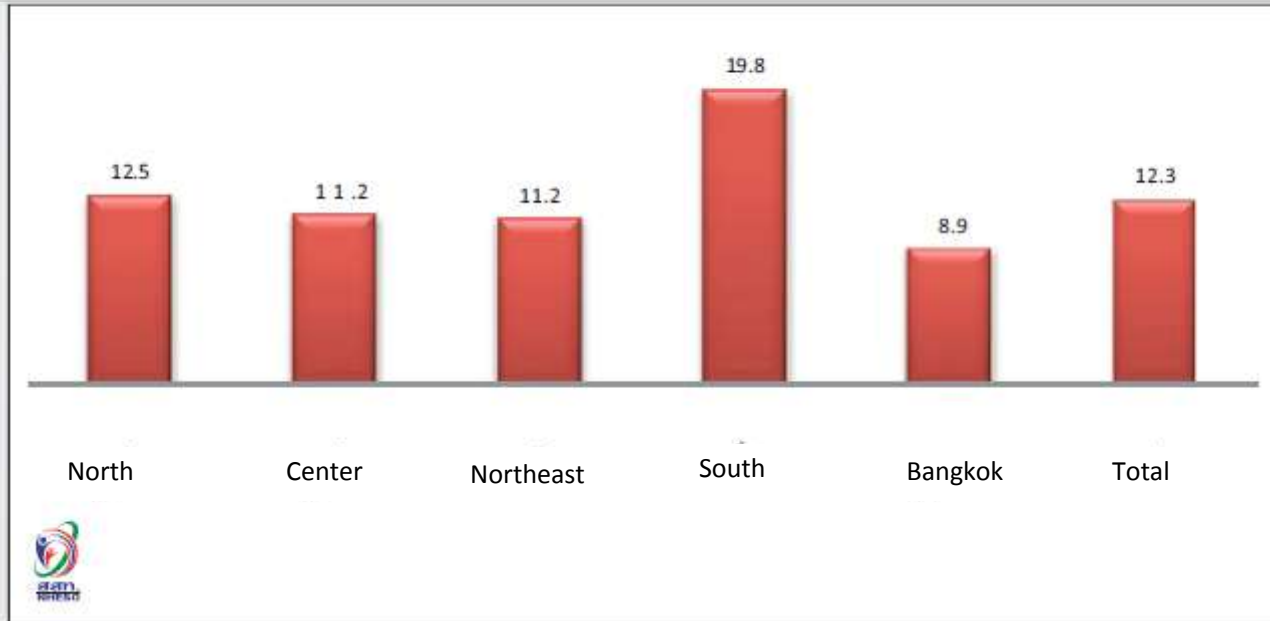


Source: Ana Luisa Sosa-Ortiz, Isaac Acosta-Castillo, and Martin J. Prince. Review article Epidemiology of dementias and Alzheimer's disease. 2012

Impact of dementia on individuals and caregiver

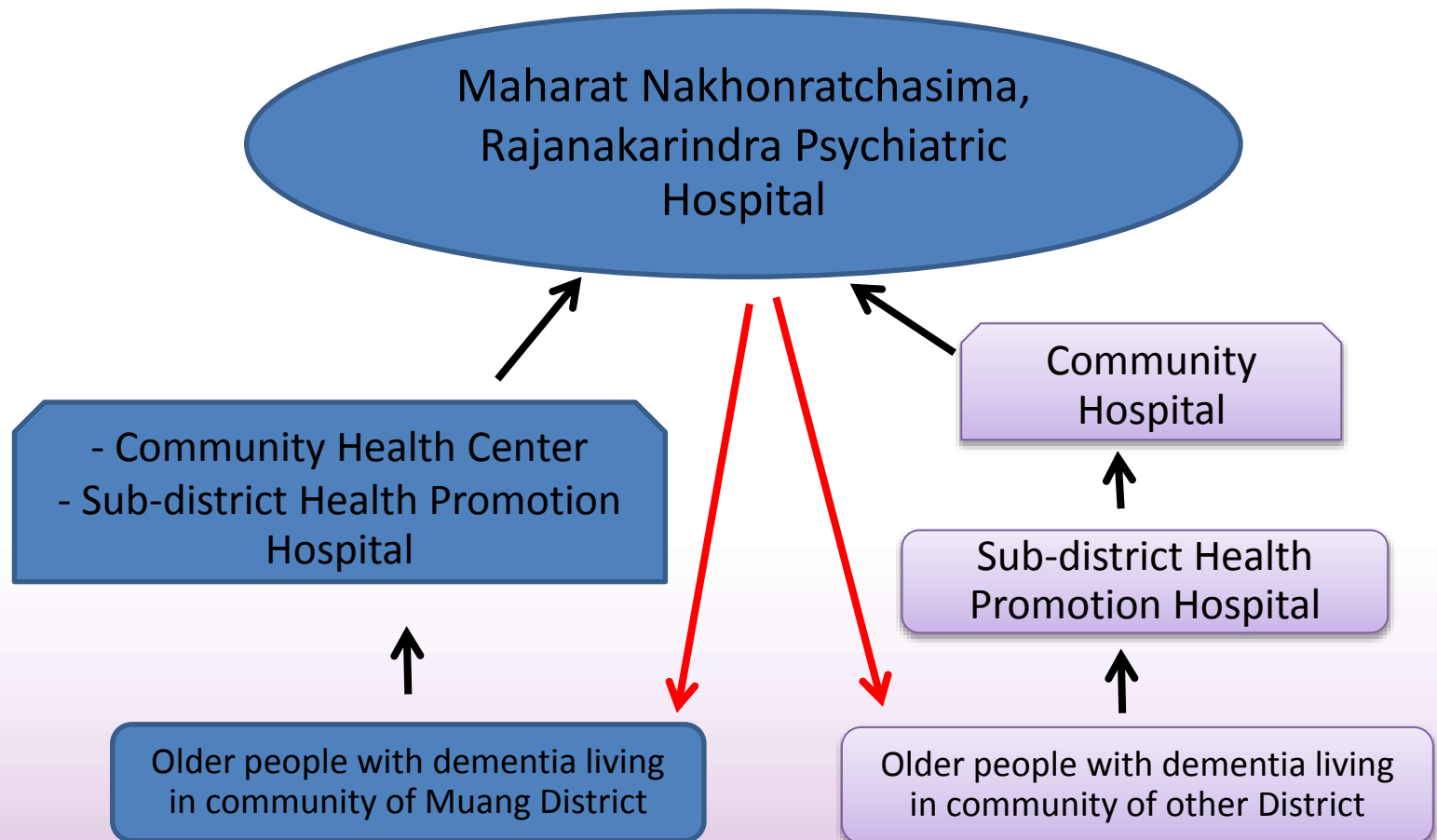


Prevalence of dementia in Thailand



Source: The 4th report of Thai Health population survey in 2008-9

Existing care for dementia in Nakhonratchasima Province, Thailand



Existing of selected interventions

Interventions	Outcomes
1. Multimodal program: cognitive therapy & physical exercise, support gr & recreation therapy	↑ Cognitive, physical abilities, emotional function
2. Multicomponent program: education, home service, telephone	↓ Behavioral problem ↓ Caregiver burden
3. Skill training, education, enhancing support/self-care technique, collaboration care with health professional	Positive effect on BPSD reduce adverse reaction of caregiver
4. Integrated model: - a comprehensive screening - Interdisciplinary team - proactive, longitudinal tracking system	Improve in distress Improve BPSD Quality of care
5. Information giving, Mutual group support	Improve QoL of caregiver

Source: 1.Burgener et al., 2009 2.Easom et al., 2011 3.Thomson et al., 2012 4.Austrom et al, 2006 5.Wang et al., 2012

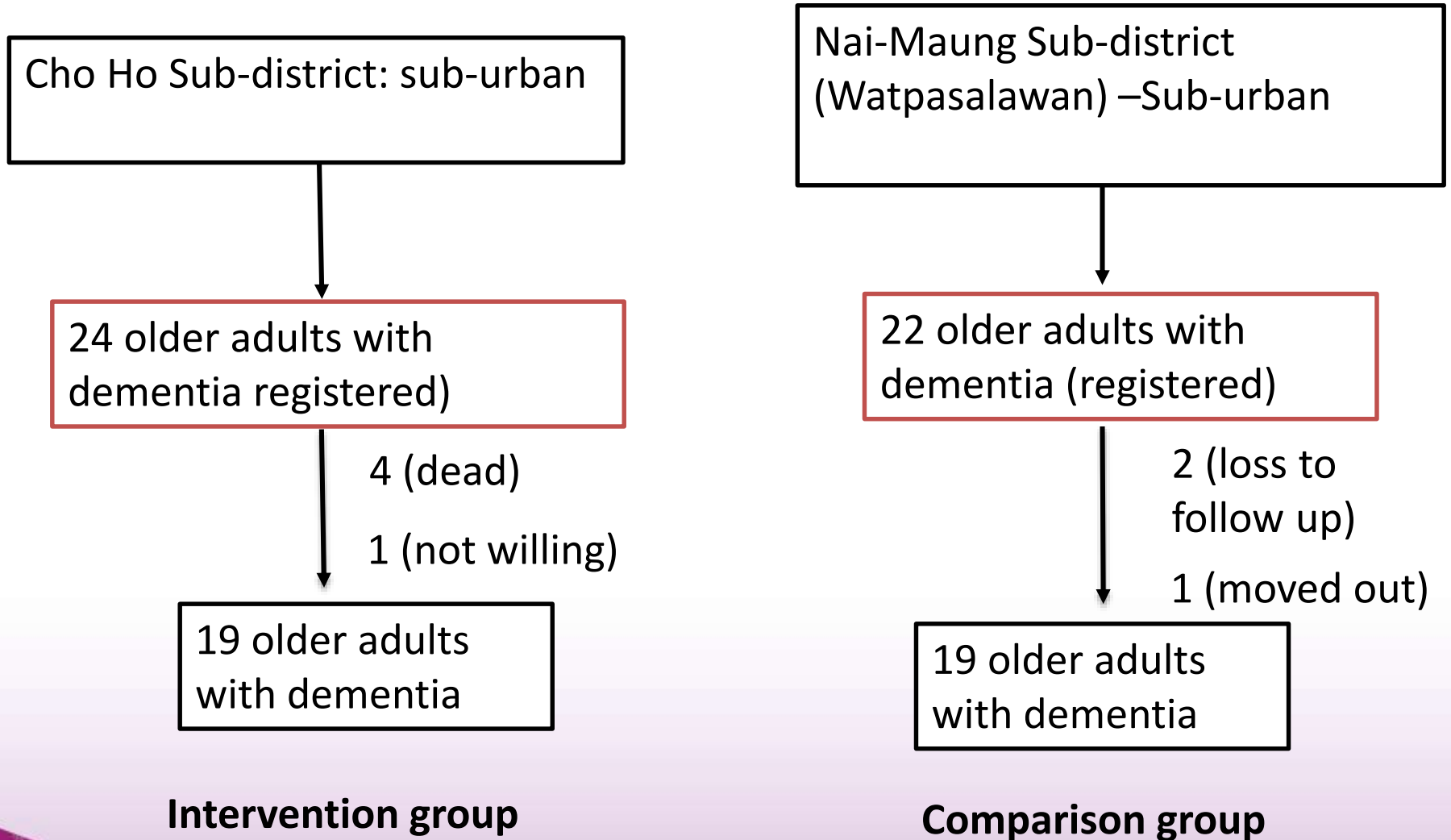
- **Gaps of study:**

- Limited evidence of care model for older adults with dementia and family caregiver in the community
- Lack of dementia care model which need multi-level, multi-modal, demand driven and patient-centered strategy in community

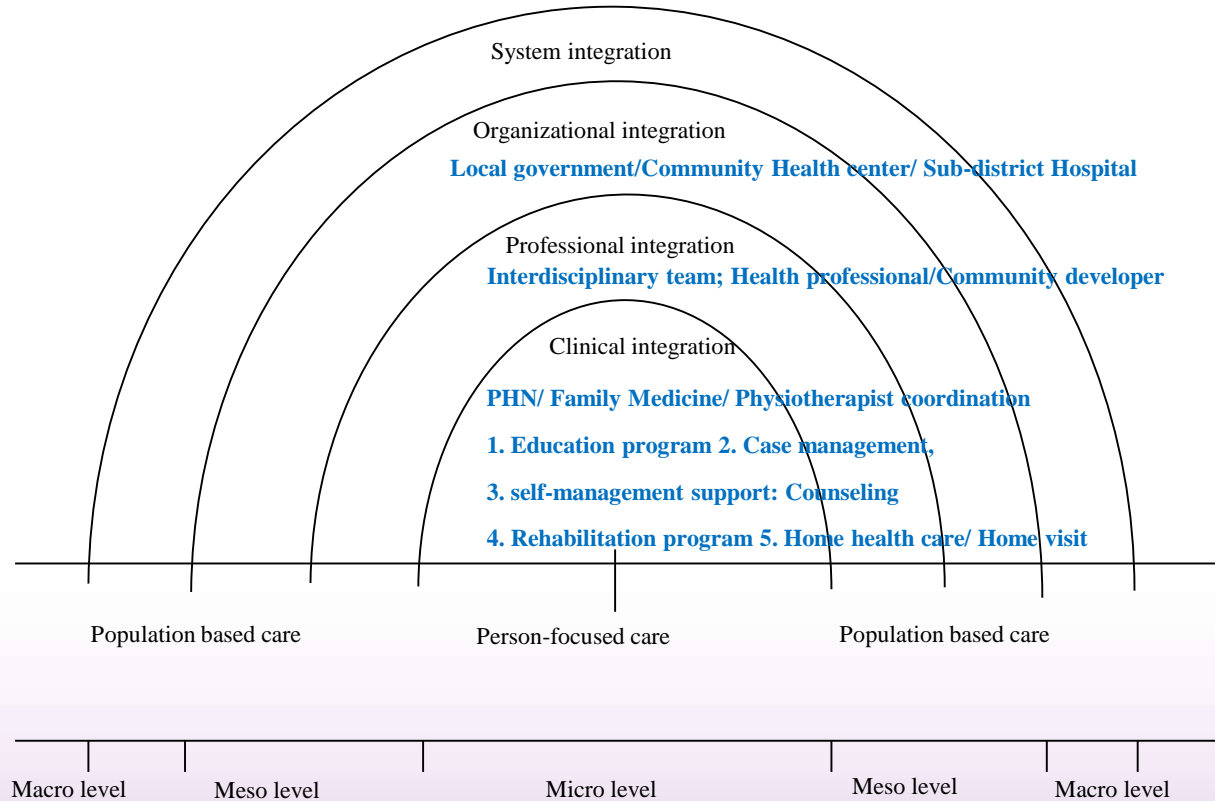
- **Purpose:** To examine effects of the integrated care model on cognitive and physical functions, quality of life of older adults with dementia, and their caregiver's burden.

- **Design:** A quasi-experimental pretest-posttest study was conducted in a sub urban community in Nakhon Ratchasima Province, Thailand.

Sample



Components of integrated care model for older adults with dementia in Cho Ho Sub-district



Intervention

- Pre-test: MMSE, BADL, IADL, QOL, Caregiver burden
- Model implementation
Capacity building program; education program, Case management, Self management support, Rehabilitation program, Home health care by multidisciplinary team
- Post-test

(12 weeks)



RESULTS : Demographic characteristics of older adults with dementia (N= 38)

Demographic Characteristic	Intervention group n (%)	Comparison group n (%)	P- value
Sex			0.15
Male	3 (15.79)	8 (42.11)	
Female	16 (84.21)	11 (57.89)	
Age			0.11
60 – 69 years	3 (15.79)	0	
70-79 years	6 (31.58)	6 (31.58)	
80 years and over	10 (52.63)	13 (68.42)	
Education level			0.07
Primary school	18 (94.74)	14 (73.68)	
High school	1 (5.26)	3 (15.79)	
Higher than high school	0	2 (10.53)	
Marital status			0.12
Married	2 (10.53)	9 (47.37)	
Widow/ Divorced	17 (89.47)	10 (52.63)	

RESULTS: Demographic characteristics of their caregivers

Demographic Characteristic	Intervention group n (%)	Comparison group n (%)	P- value
Sex			0.15
Male	3 (15.8)	3 (15.8)	
Female	16 (84.2)	16 (84.2)	
Age			< 0.01
Mean age ± SD	51.73 ± 10.75	61.89 ± 11.28	
Education level			0.11
Primary school	11 (57.9)	10 (52.7)	
High school	6 (36.9)	6 (36.9)	
Higher than high school	2 (10.6)	3 (15.8)	
Marital status			0.12
Single	3 (15.8)	2 (10.5)	
Married	15 (78.9)	10 (73.7)	
Widow/ Divorced	1 (5.3)	3 (15.8)	

RESULTS: Effects of the model on Individuals

Variables	Group	Mean (before)	Mean (after)	P value
MMSE	Intervention gr	9.63 ± 1.40	10.42 ± 1.51	0.09 a
	Comparison gr	10.26 ± 1.39	10.05 ± 1.49	0.48 a
BADL	Intervention gr	14.79 ± 1.76	14.00 ± 1.74	0.10 a
	Comparison gr	16.00 ± 1.61	15.31 ± 1.67	0.07 a
IADL	Intervention gr	4.36 ± 0.64	4.15 ± 0.68	0.46 b
	Comparison gr	4.10 ± 0.49	3.89 ± 0.53	0.10 b
QOL	Intervention gr	32.68 ± 0.95	32.63 ± 0.86	0.96 b
	Comparison gr	33.47 ± 0.93	31.26 ± 1.08	< 0.01 b
BPSD (severity)	Intervention gr	3.47 ± 0.80	2.63 ± 0.57	0.14 a
	Comparison gr	4.47 ± 0.67	4.11 ± 0.71	0.23 a
BPSD (Distress)	Intervention gr	3.78 ± 1.05	2.63 ± 0.54	0.18 a
	Comparison gr	4.79 ± 0.73	4.32 ± 0.76	0.21 a

a : Wilcoxon Sign Rank Test
b : Pair t- test

RESULTS: Effects of the model on caregiver

Group	Number (n)	Caregiver burden (Mean \pm SD)		P value
		Before	After	
Intervention	19	18.57 \pm 2.48	13.32 \pm 2.04	< 0.01 a
Mild	10	15.40 \pm 2.49	11.40 \pm 2.91	
Moderate	4	30.50 \pm 6.96	17.50 \pm 5.83	
Severe	5	15.40 \pm 3.47	13.80 \pm 2.59	
Comparison	19	20.05 \pm 3.37	23.47 \pm 2.99	0.03 a
Mild	10	20.70 \pm 5.38	23.50 \pm 6.34	
Moderate	4	25.50 \pm 7.54	30.00 \pm 7.70	
Severe	5	14.40 \pm 3.93	18.20 \pm 4.91	

a : Wilcoxon Sign Rank Test

Discussion

MMSE, ADLs and BPSD

- **Similar**, 20 session of physical exercise moderate and severe dementia could not improve ADLs (Bürge et al., 2017) , multimodal cognitive and physical rehabilitation program (Chew et al, 2015), 3-4 wk of rehabilitative program and a psycho-educational program (Schiffczyk et al., 2013)
- **Contrast**, Non-pharmacological interventions in mild and moderate dementia improved cognitive function (Sampath et al., 2015), 24 sessions of rehabilitation improved MMSE (Tanaka et al., 2017) and 10 session of experience based group therapy improved the cognitive function of elderly people with mild dementia (Kim, 2015)

Discussion

QOL

- Similar, Multiple training modalities (Tai et al, 2016)/ Rehabilitation program and a psycho-educational program (Schiffczyk et al., 2013) /Cognitive Stimulation Therapy (Orrell et al., 2017)
- Contrast, 10 session of therapy with cooking and physical activity, QOL were improved (Kim, 2015)/ creative reminiscing on individuals (Flecher et al., 2014)

Caregiver Burden

- Similarly, Multicomponent psychoeducational interventions related with combination of dementia education, skill training, and coping strategies reduced caregiver burden (Piersol et al., 2017, Chen et al., 2015 and Schiffczyk et al., 2013)

Conclusion and recommendations

- The findings support that the integrated care model can improve patient's outcome and caregiver's burden.
- The results can be applied for clinical nursing guideline for dementia management in primary care settings.
- Future study should duplicate this intervention with a large sample size.



Acknowledgement

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**Thank you
for your attention**