

PATH: An Emotion Regulation Intervention for Older Adults with Cognitive Difficulties



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- Alzheimer's Association



Depression in Older Adults with Cognitive Impairment

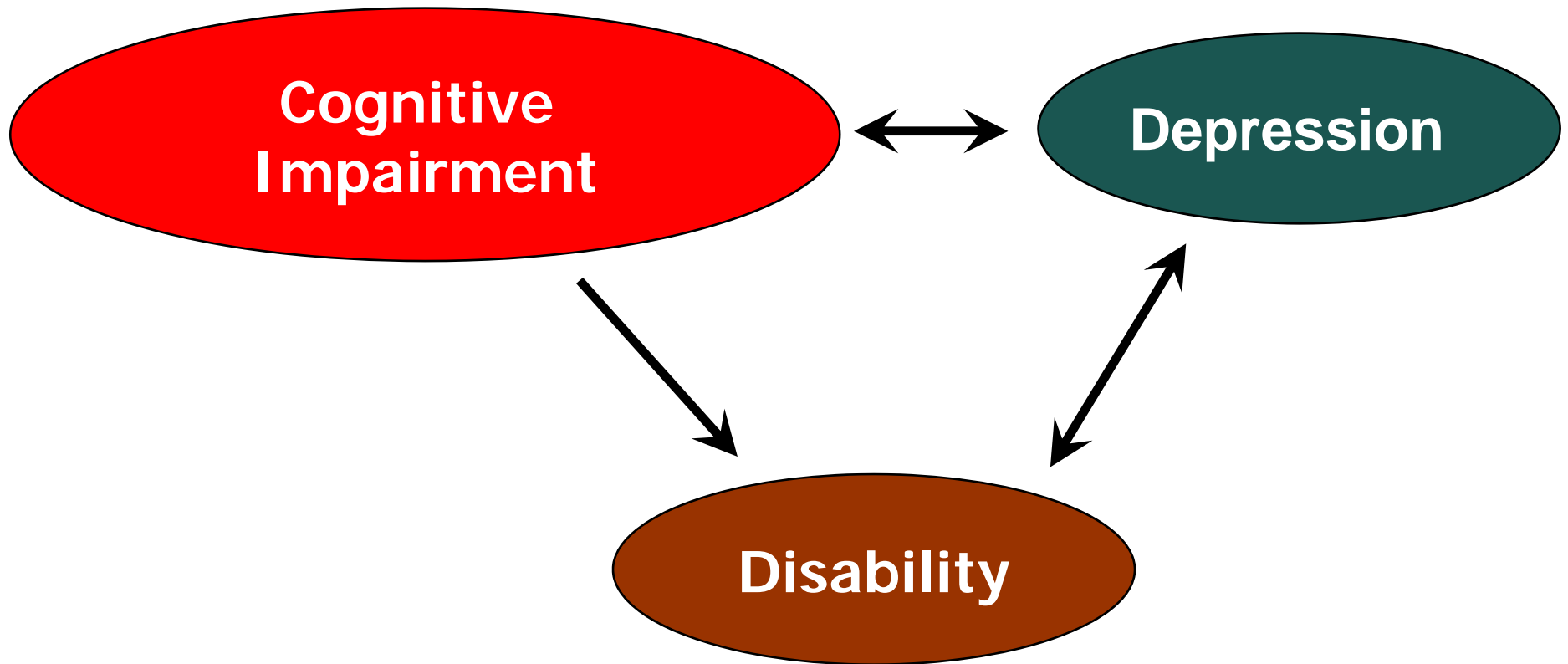


Late-life Depression

- What usually differentiates late-life depression is the presence of:
 - Cognitive impairment
 - Medical burden
 - Disability
- 85 yo, active, without significant medical problems, without functional impairment
- 70 yo, diabetes, stroke, cognitive deficits



Older Adults



PATH: Problem Adaptation Therapy for Depressed, Cognitively Impaired Elders



Need for a New Intervention for Cognitively Impaired Older Adults

- Cognitive deficits are associated with poor and/or slow response to antidepressant medication treatment (*Alexopoulos et al., 2004, 2005; Sneed et al., 2007*).
- Despite the need for psychotherapeutic treatment for depressed, cognitively impaired elders, most RCTs focus:
 - on cognitively intact, “young - old” depressed elders (average age=67 yo) (*Kiosses et al., 2011*) or
 - on moderately to severely demented patients (*Teri et al., 1997*)
- PST for mild executive dysfunction reduces depression and disability in depressed elders (*Arean et al., 2010*)



PATH: Problem Adaptation Therapy for Depressed, Cognitively Impaired Elders

- To meet the needs of this population, we developed PATH:
 - Targeting the patient’s “ecosystem”: patient, caregiver, home environment
 - Home-delivered
 - Using a Problem Solving Therapy (PST) approach as the therapeutic framework
 - Integrating environmental adaptations / compensatory strategies
 - to bypass functional and physical limitations
 - Utilizing the assistance of family member/caregiver



Home-Delivery

- Why is it important?
 - Accurate assessment of problems
 - Employment of emotion regulation strategies in natural environment
 - Older adults with depression, cognitive impairment, and disability may have difficulty following weekly outpatient visits



Involvement of Family Member / Caregiver

- Participation is problem specific.
- Caregiver may provide important information in every stage of problem solving.
- Caregiver may participate in emotion regulation techniques to improve care-recipient's emotion regulation.
- Caregiver participation increases caregiver's self-efficacy and decreases distress (*Gitlin et al., 2001*).



Environmental Adaptations / Compensatory Strategies

- Tools for planning, motivational tools, attentional tools: “distract and refocus”, signs, calendars, timers, written goals, and others.
- Depend on older adult’s severity of cognitive impairment, physical and behavioral limitations.
- Effectively used in other cognitively impaired populations (i.e. patients with schizophrenia or mental retardation) (*Velligan et al., 2001*).



PATH: Problem Adaptation Therapy

- ◆ Fits well with the process model of emotion regulation (Gross JJ, 2014)
- ◆ Goals: Reduce negative emotions (i.e. depressed mood, hopelessness, irritability, worthlessness, guilt, anxiety, helplessness), increase positive emotions (e.g. pleasure), and reduce the negative emotional impact of cognitive, behavioral and functional limitations



<u>Emotion Regulation</u>	<u>How PATH works</u>
Situation Selection	Identify situations that trigger negative or positive emotions; devise a plan to select positive situations
Situation Modification	Identify compensatory strategies or environmental adaptation tools to bypass functional limitations that trigger a strong negative emotional reaction.
Attentional Deployment	Utilize attention, planning, visual and acoustic tools to bypass functional limitations, reduce negative emotions and redirect patient's attention to positive aspects of life.
Cognitive Change	Develop a realistically hopeful approach to limitations
Response Modulation	Utilize techniques during emotionally charged situations



Inclusion Criteria

- Age: 65 years and older
- Diagnosis: Unipolar Major Depression
- Disability, i.e. at least 1 impairment in Instrumental Activities of Daily Living but the average subject had impairment in 6 out of 9 IADLs
- At least mild cognitive deficits
- Off antidepressants, cholinesterase inhibitors, or memantine or on a stable dosage for at least 6 weeks



Exclusion Criteria

- High suicide risk, i.e. intent or plan to attempt suicide in near future
- Moderate to Severe Dementia (MMSE <17)
- Current involvement in psychotherapy
- Aphasia, sensory problems, and inability to speak English



Problems / Concerns

<u>Reported Problem</u>	<u>% of Subjects</u>
Lack of pleasurable activities	74%
Social isolation / Loneliness / Withdrawal	50%
Conflict with family or caregiver	45%
Health issues (including declined cognitive abilities)	43%
Physical disability / Mobility	33%
Medication management	26%
Financial difficulties	17%
Chronic pain	12%
Day date orientation	12%
Managing doctors' appointments	12%

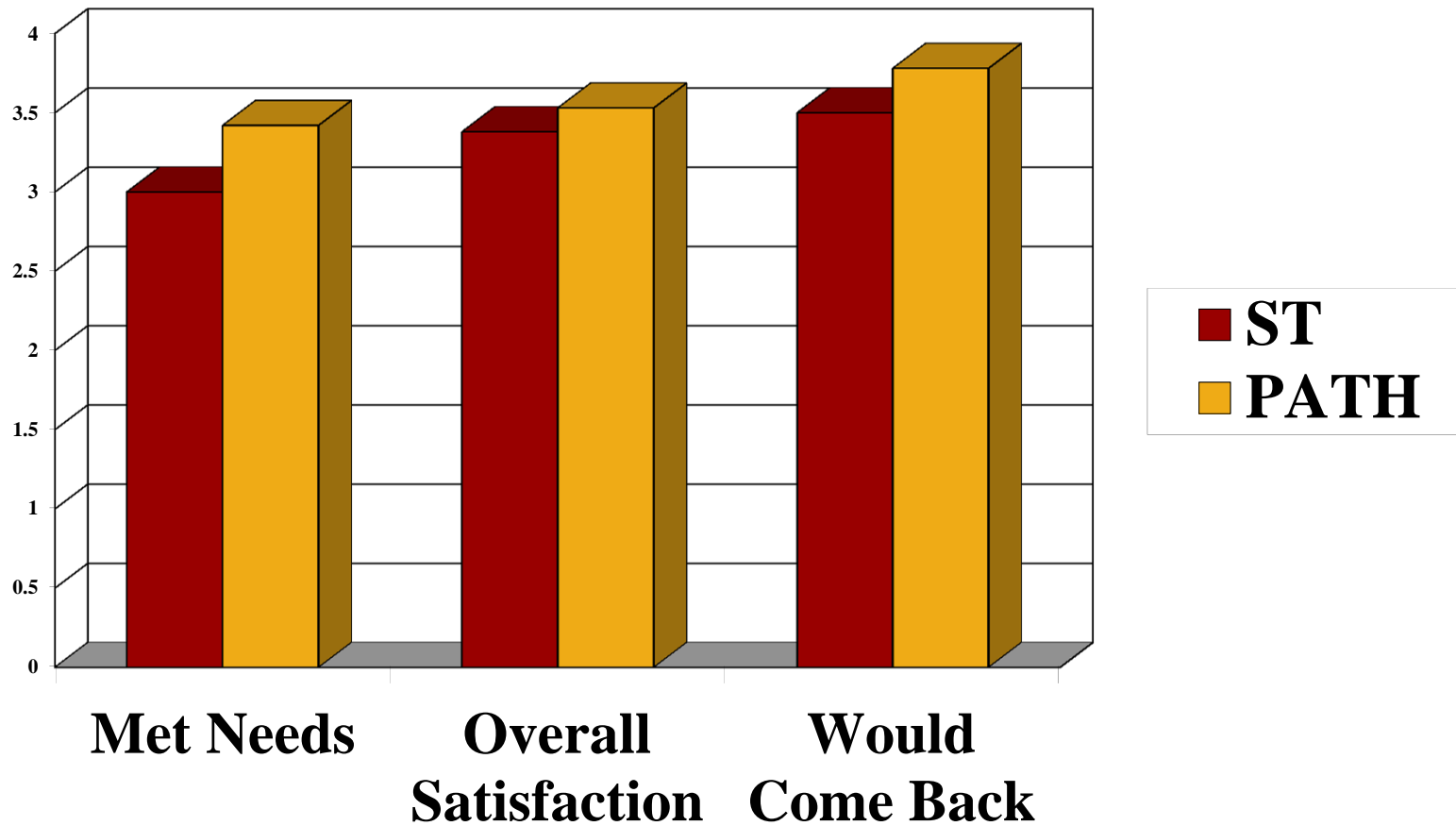


Intent to Treat (N=74)

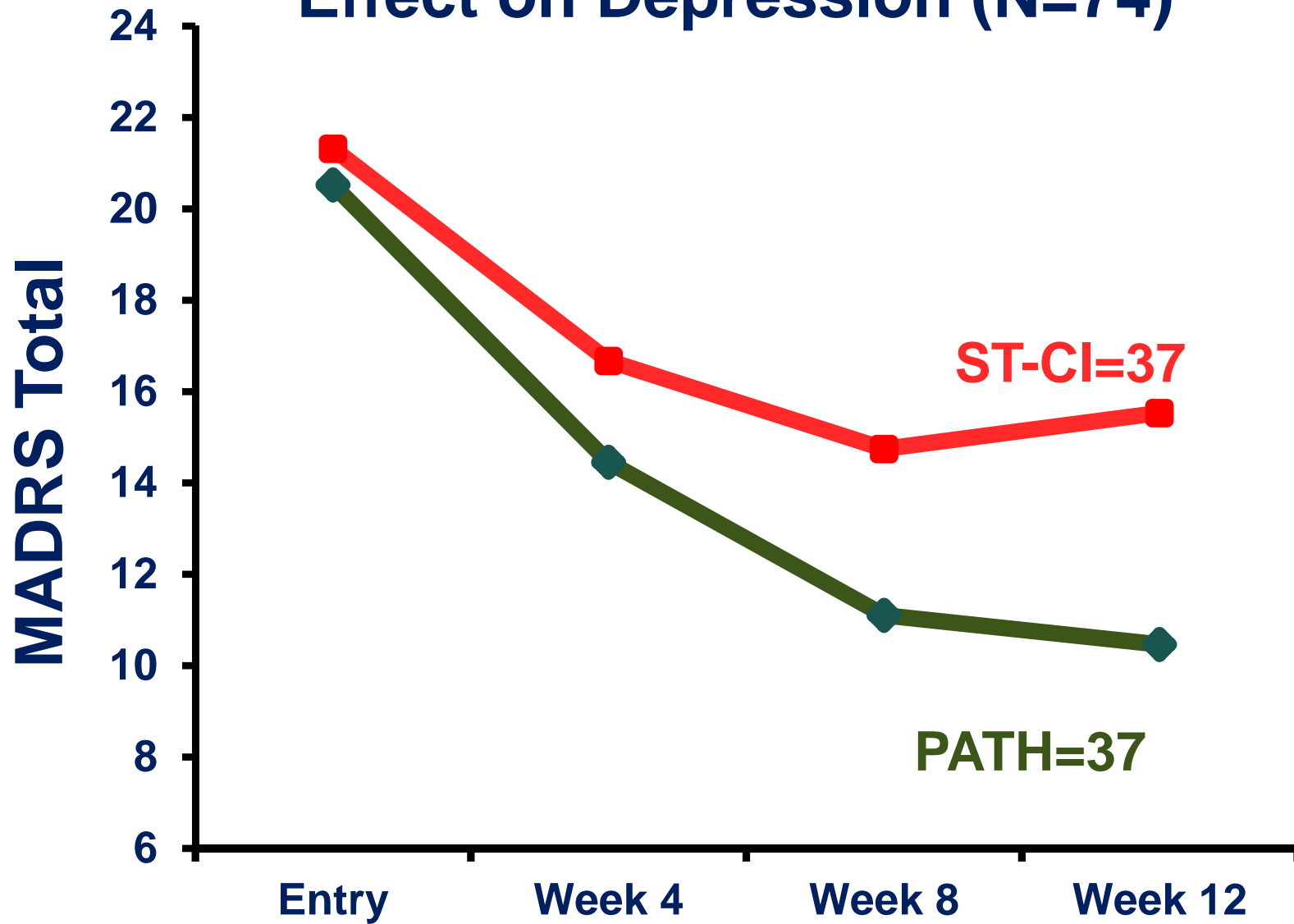
	ALL		PATH		SUPPORTIVE		MANN-WHITNEY
	Mean	STD	Mean	STD	Mean	STD	
AGE	80.91	7.48	80.78	7.23	81.03	7.61	NS
EDUCATION	13.01	3.16	12.86	3.37	13.35	2.72	NS
<u>BASELINE</u>							
MADRS Total	21.24	3.55	21.08	3.74	21.41	3.26	NS
WHODAS - II (12-item)	32.82	5.82	33.19	8.10	32.35	4.75	NS
DRS Total	118.58	11.66	115.80	13.88	121.14	8.97	NS
HVLT RECALL 1	3.69	1.76	3.31	2.06	4.11	1.31	NS
HVLT DELAYED RECALL	4.65	2.71	4.31	2.97	5.19	2.16	NS
STROOP COLOR-WORD	19.14	8.94	19.07	11.50	19.28	6.62	NS



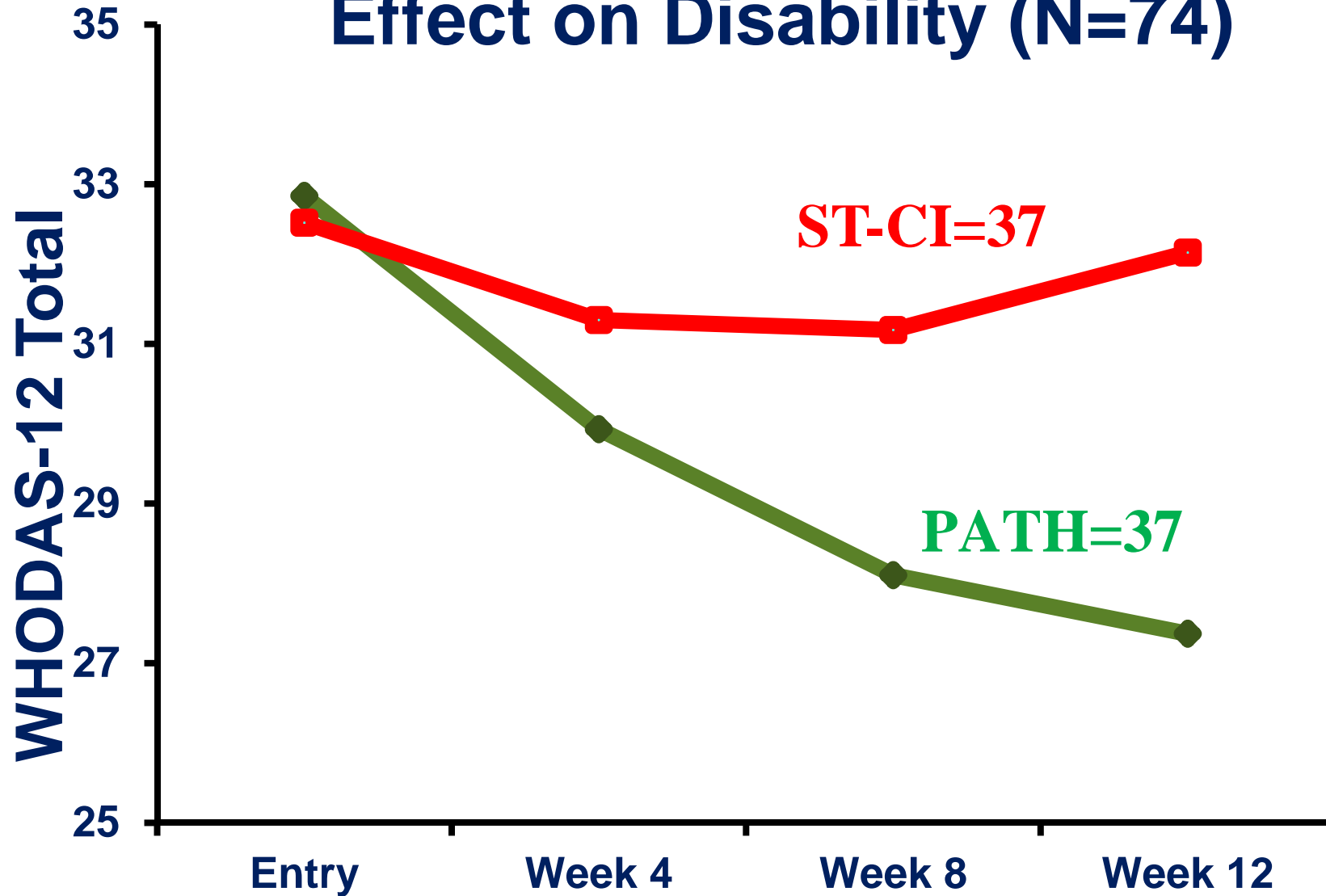
Client Satisfaction Questionnaire



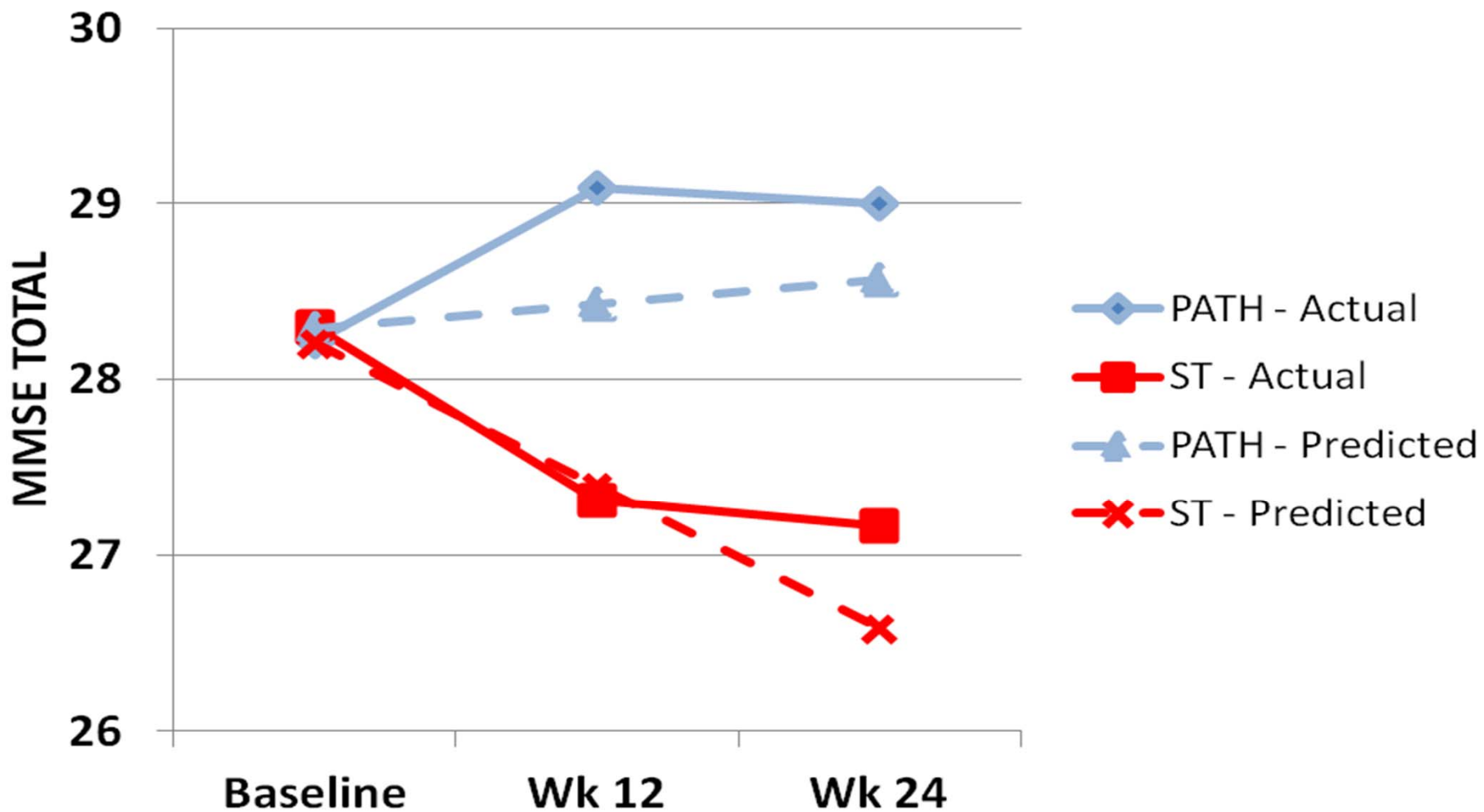
Effect on Depression (N=74)



Effect on Disability (N=74)



Course of MMSE Over 24 weeks in 35 CIND Subjects with Major Depression



Summary

- Acceptability and efficacy of PATH vs. ST-CI in reducing depression and disability.
- Clinically significant because in this population antidepressants have limited efficacy and psychotherapies are underdeveloped
- Preliminary data that PATH may improve cognitive outcomes in older adults with mild cognitive deficits, who are at risk for developing dementia



Current Applications of PATH

- In Montefiore Home-care Program, 8 weekly sessions for older adults with depression and cognitive impairment (PIs: Jessica Zwerling, Mirnova Ceide).
- The UK NIHR put a request for application to study PATH in patients with depression and dementia with the aim of incorporating PATH into UK's health system (PIs: Rob Howard, Rebecca Gould - UCL).
- In outpatient setting, 12 weekly sessions for older adults with mild cognitive impairment (MCI) (PIs: Paul Rosenberg; JH)
- In primary care practice, 8 weekly sessions for older adults with chronic pain, negative emotions, and cognitive impairment.



Dissemination Challenges and Opportunities

- Therapists: Currently social workers but promising for non-mental health workers
- In-office vs. home visits
- 12 vs. 8 sessions
- Other languages: Spanish
- Technology, e.g. WellPATH



WeIIPATH App

- A tablet app that is designed to use the PATH techniques outside of therapy sessions
- It can be used by patient or caregiver
- It incorporates the PATH techniques that the patient or caregiver can use during emotionally charged situations or during scheduled reminders
- It collects data on emotional triggers, response, ratings after using the techniques



How does it work?

Patient View

WellPATH

Welcome to WellPATH!
How are you feeling today?

VERY GOOD

GOOD

OKAY

BAD

VERY BAD

Therapist View

WellPATH

Supervisor Mode

ADD AN EMOTION

ADD A TRIGGER

CREATE A WRITTEN STRATEGY

CREATE A VIDEO STRATEGY

LINK AN APP TO A TRIGGER

LINK A PREEXISTING VIDEO

SET THERAPY SCHEDULE

ADD APPROVED EMERGENCY CONTACTS

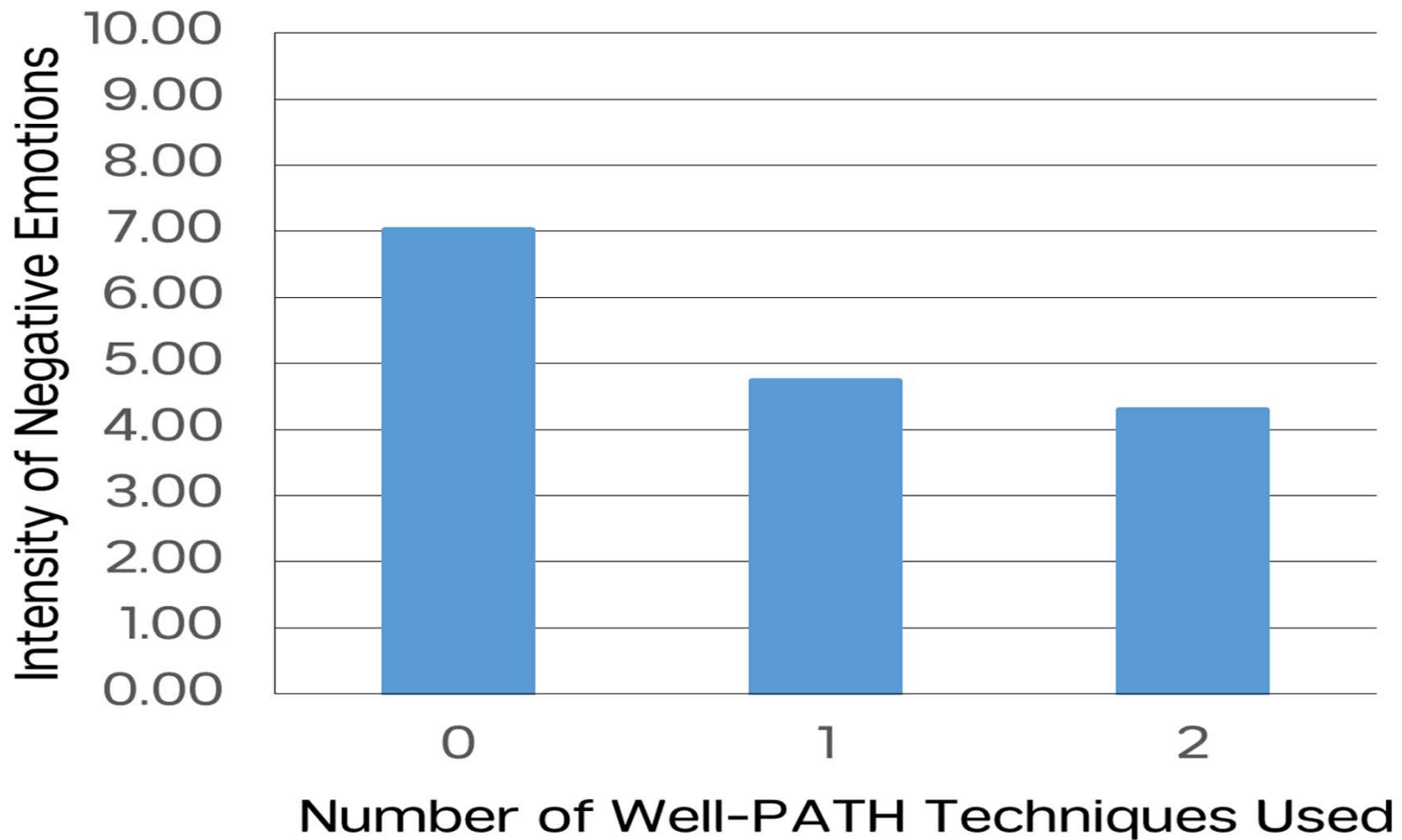
EXPORT USER DATA

CLEAR USER DATA



Preliminary Results

Negative Emotions Before and After Using WellPATH



PATH Team

- *Research Coordinator:* Laurie Evans
- *Assistant Research Coordinator:* Elizabeth Arslanoglou
- *Research Assistants:* Theresa Ebo, Joanna Pantelides, Emma Heisler-Murray, Hannah Reich
- *Therapists:* Amy Stern, Jody Monkovic, Rebecca Bent, Bess Steiger
- *Data Manager:* Brian Liles



Thank you

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