A Home-Based Information Communication Technology Training Program for Aging-in-Place: Development and Randomized Controlled Study

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Who we are?

Researchers Testing a Novel ICT Training Program for seniors….

Living in the small town communities who are:

- 75+ or
- Living Alone or
- Widowed or
- Low socioeconomic status or
- Education- High School or below or
- Disability or Chronic Health Condition or
- Caregiver

At-risk Population

With "Low ICT Profile"

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Vroman, Arthanat & Lysack, 2014

Who we are?

What is novel about the training?

- One-on-one
- Home-based
- Individualized
- Inter-generational

Arthanat, Vroman & Lysack, 2015

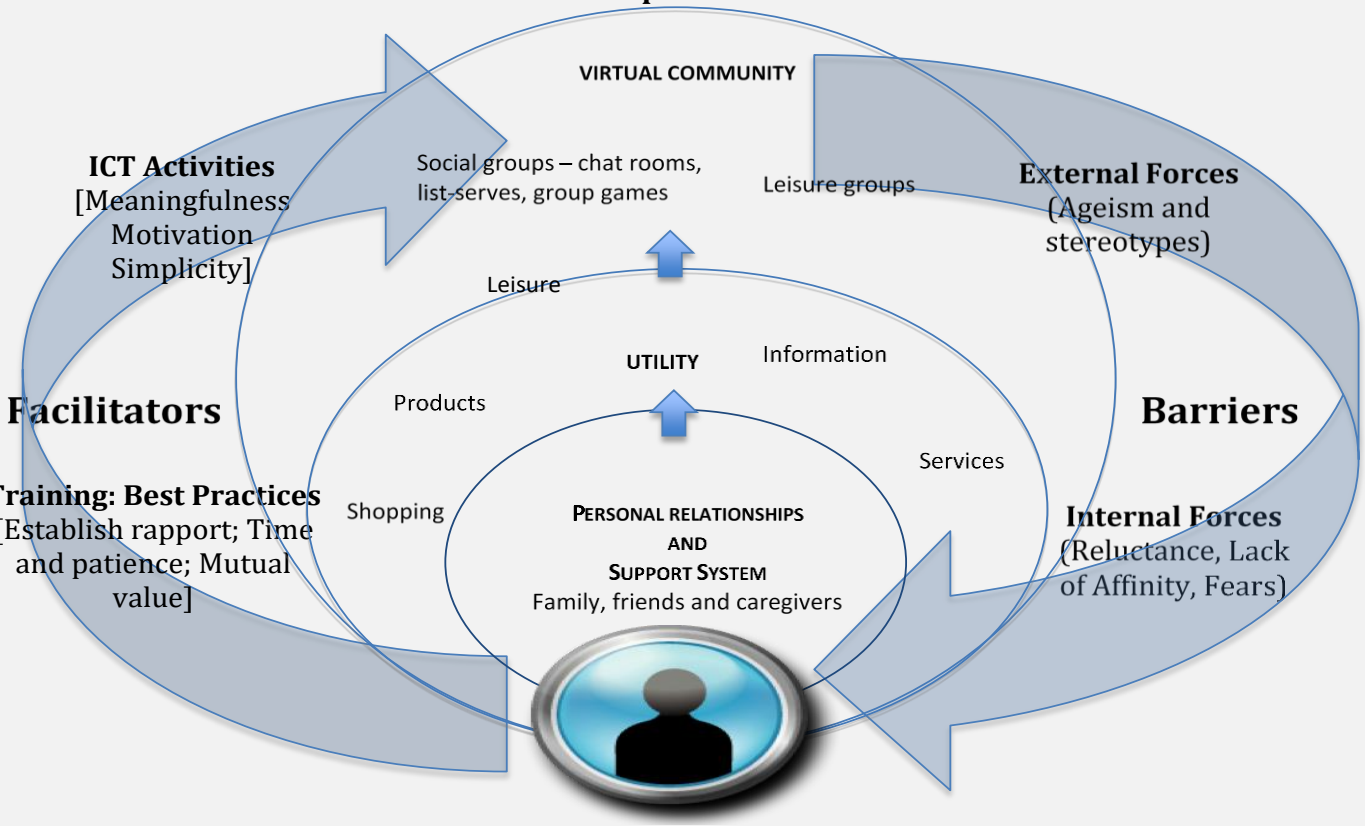
Development

Stakeholders	Source	Procedure	n
Care Providers	Community Agencies	Focus Groups	14
Trainers	Student Coaches: AT Course	Personal Reflection Journals	35
Older Adult Trainees	Pilot Training Program	Two-year Follow up Face-to-Face Interview	12
		Total	61

Our Model

Model for Promotion of ICT for Older Adults based on Facilitators and Barriers to its Adoption

Outcomes:
Sustainable use, Initiation and self-exploration, Sense of Autonomy and Competence



Personal/Client Factors
Background, Experiences, Socio-contextual, Demographic Attributes

Training Protocol

3-Month Training Program

- Orientation session and an OTPF activity priority list completed
- Participant paired with a student coach
- An iPad (with iTunes card and account) loaned for six months
- Student coaches conduct 3 home visits
  - Teach basic features and functions
  - Review and download iPad applications in accordance to priority checklist
  - Address ongoing questions and concerns
  - Scheduled check-ins

For reference: Arthanat, S., Vroman, K., & Lysack C. (2014). A Home-Based Individualized Information Communication Technology Training Program for Older Adults: A Demonstration of Effectiveness and Value. *Disability and Rehabilitation: Assistive Technology, 16*, 1-9

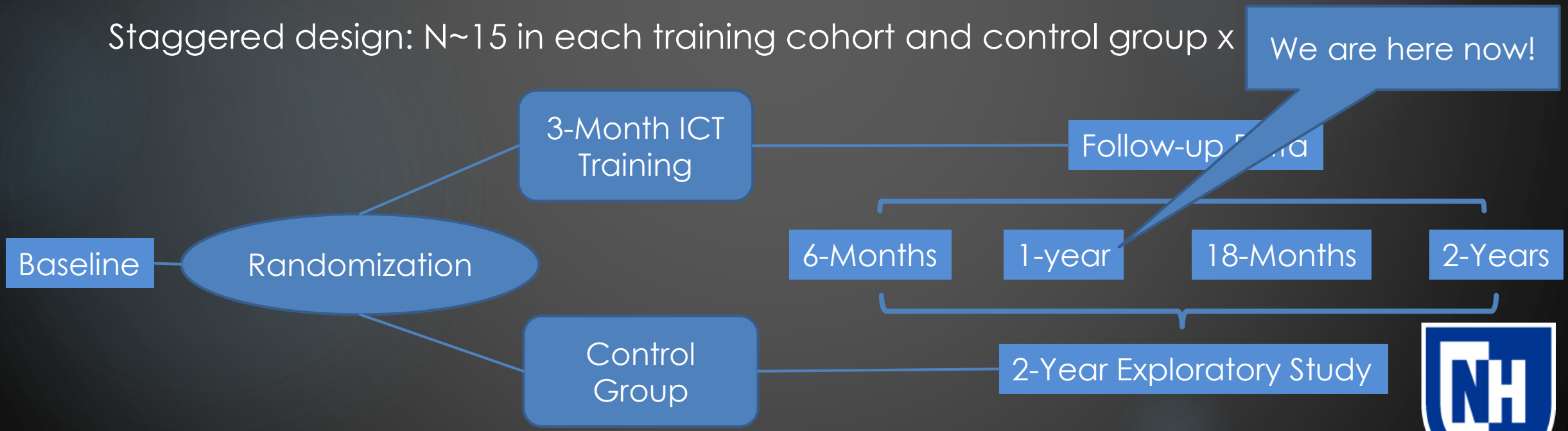
Two-year RCT [Efficacy] Study

Method

Participants (65+) who met our at-risk / low profile ICT inclusion criteria

Recruited from various community agencies

Staggered design: N~15 in each training cohort and control group x



Measures

- Expanded Breadth of Internet Use (BIU) & & OTPF - Frequency of 56 ICT Activities [Shklovski's et al. (2004) (AOTA, 2015)]
- Survey of Technology Use- Attitudinal dispositions to technology [(Scherer & Gluechauf, 2005; Federici et. al., 2003)]
- UCLA Loneliness Scale [3.0]- Social Participation [(Russell, 1996)]
- SF-36 Short Form- Health and well being
- CES-D- Depression scale

Preliminary Results: Demographics

N= 86 (Training group= 48; Control group 38)					
Age	**Average=76.2** (Std. Dev=6.8); Min=65 and Max=93				
Gender	Male=15 (17%)		**Females=73 (83%)**		
Education	**Graduate (23%)**	**College Degree (28%)**	Some college (18%)	**High School (26%)**	Some high school (5%)
Living Status	Living with spouse partner (18%)		**Living Alone (79%)**		Living with family (2%)
Living Arrangement	**Own home (47%)**		Rented home (30%)		Senior community (23%)

Results: Frequency of ICT Activities

- Mixed Repeated Measures ANOVA with baseline scores adjusted (df=2)

5=Everyday;

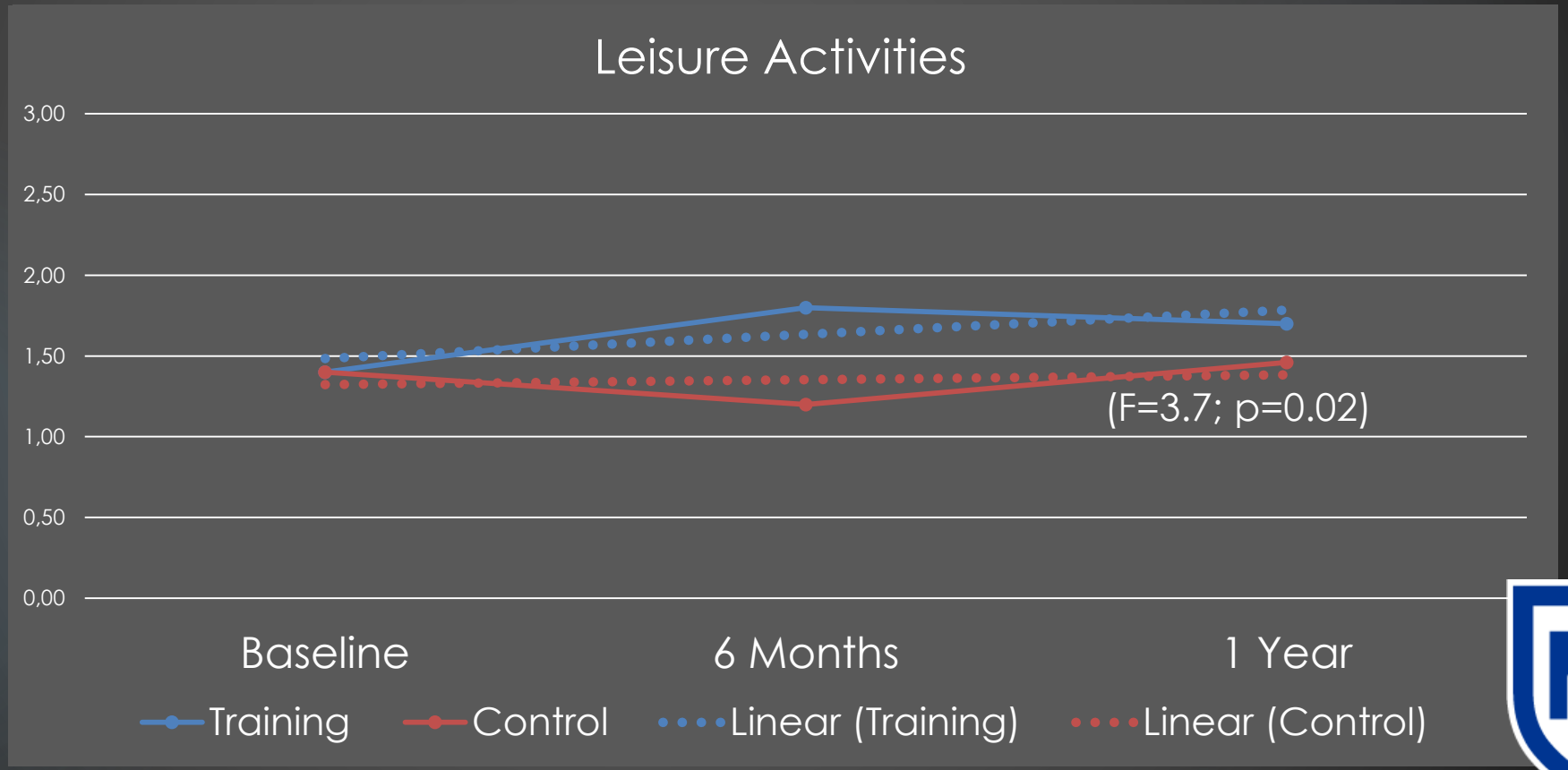
4=Several times/week;

3=Once a week;

2=2-3 times/month;

1=Once/Month;

0=Did not Perform



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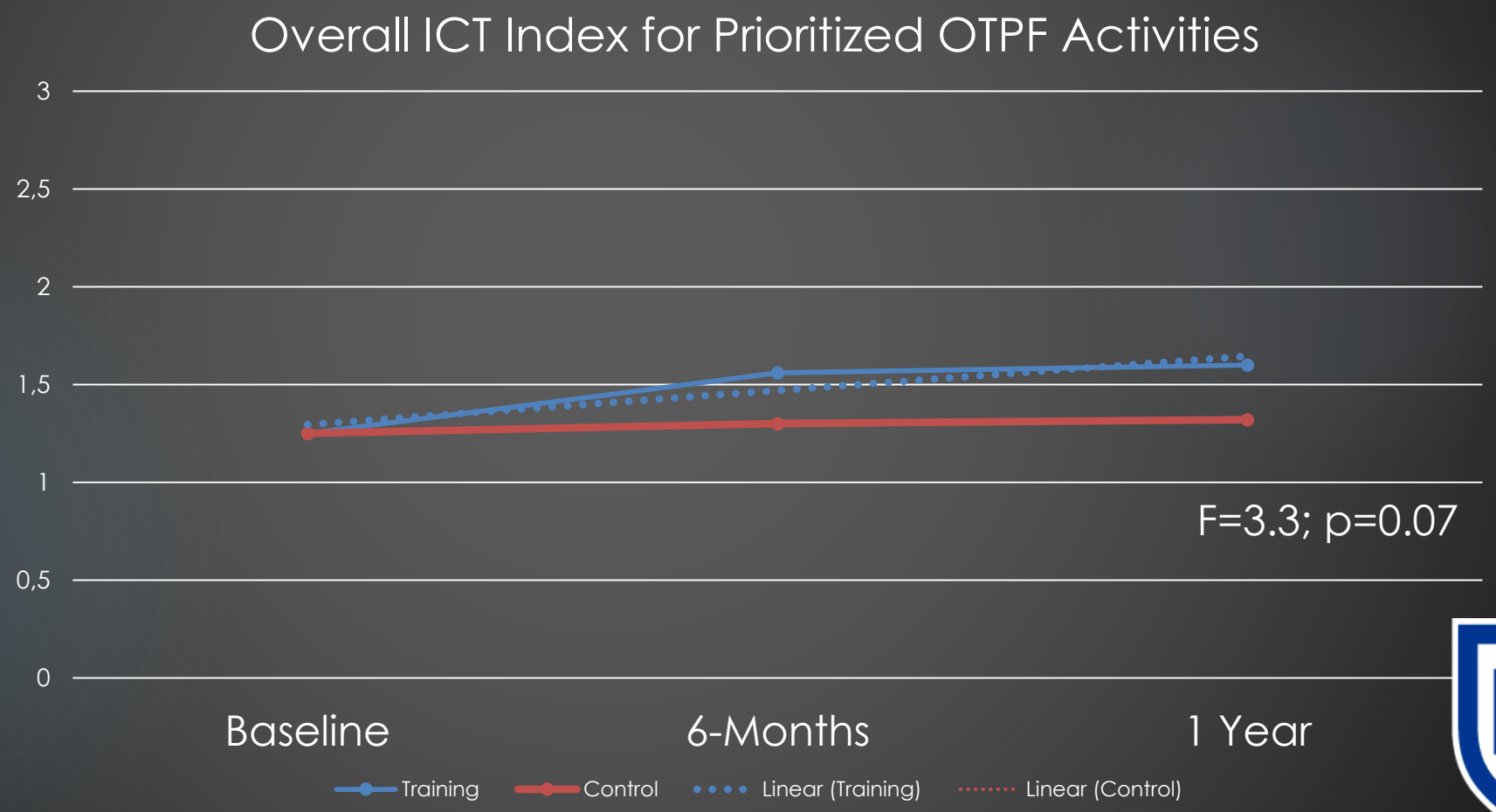
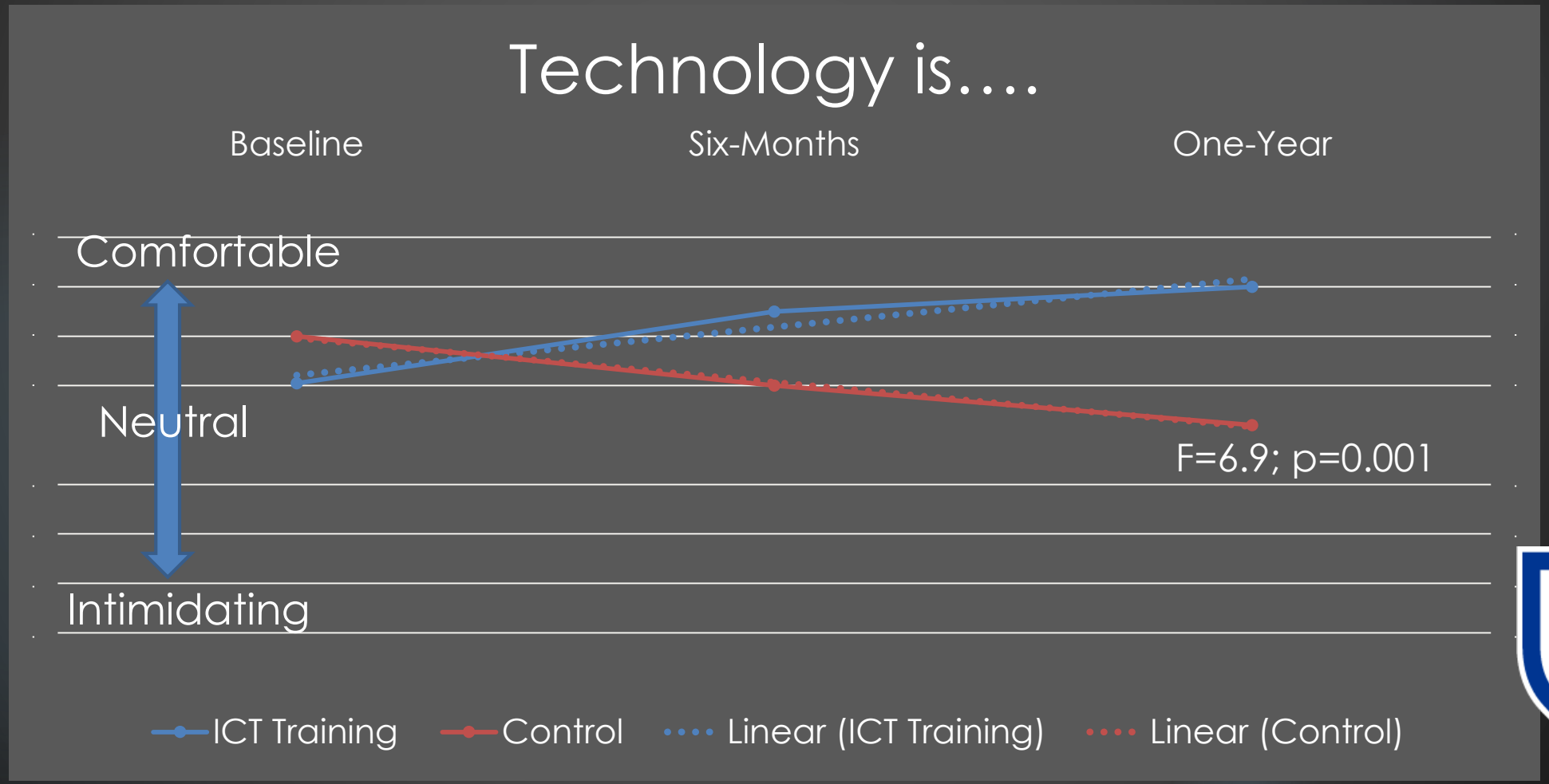


Results: Attitudinal Disposition to Technology (SOTU)



Discussion & Conclusion

Increases in frequency of ICT activities was marginal, yet significant for seniors in the training group compared to that of the control group

Several specific activities with medium effect size differences (partial eta squared): Send or receive email; exchange pictures; Going online for leisure; Staying in touch with friends and well wishers out of town etc

Increasing trend in inherent disposition to technology among seniors in training group with significant changes in 4 key attitudinal items

Further analysis of psycho-social and health-based data is pending

Long-term effects of the training will be analyzed and reported to corroborate these preliminary findings

One-on-one individualized ICT training for seniors with low-ICT profile lead to selective increases in ICT activities and disposition to technology

Thanks / Questions

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