



Exploring AgrAbility Quality of Life Profiles

2024 AgrAbility National Training Workshop-Atlanta, GA March 25th-28th
Tuesday March 26, 2024
1:45-2:30 pm

By Brian French & Sarah Ullrich-French, Washington State University
Robert J. Fetsch, Colorado State University
& NAP Evaluation Committee 14 SRAPs
AANTW Profiles 3.2624 v5 (Rev. 3.0824)

Our Team



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Our AgrAbility Vision

“The vision of AgrAbility is to enhance the quality of life for farmers, ranchers, and other agricultural workers with disabilities, so that they, their families, and their communities continue to succeed in rural America.”

Source: Retrieved from www.agrability.org/about/program/#mission

AgrAbility

- **Priorities** are to
 - Develop service capacity,
 - Encourage networking,
 - and Provide direct services to individuals and their families.
- **Outcomes** include gainful employment, access to assistive technology for work and life activities, treatment and rehabilitation of disabling conditions, support for individual and family, and Quality of Life.

Quality of Life

- Quality of Life (QOL) is a multidimensional construct of a person's overall physical, emotional, social, financial, and spiritual well-being.
 - QOL measures are multidimensional. They capture various aspects of QOL ranging from Physical well-being, to Psychological well-being, to Existential well-being, to Social support.
 - Used in areas ranging from Special Education, Health, Aging, and Disabilities.
- QOL supports and is related to many aspects of our lives including finances, health, relationships, activities in our communities, recovery, and so forth.

Sources:

Bogue P, Phelan J. Exploring the quality of life of farm families in Ireland: implications for extension. *J Int Agri Ext Educ*. 2005;12(1):79-90.

Cummins RA. Assessing quality of life for people with disabilities. In: Brown RJ., ed. *Quality of Life for Handicapped People*. Cheltenham, UK: Stanley Thomas, 1997:116-150.

McGill Quality of Life Survey

- “Considering all parts of my life—physical, emotional, social, spiritual, and financial—*over the past two (2) days* the quality of my life has been:
very bad 0 1 2 3 4 5 6 7 8 9 10 excellent”
- **69%** ($N = 205/299$) AgrAbility clients reported improving all parts of their life—physical, emotional, social, spiritual, and financial between when they began and completed their work with AgrAbility in 17 states.
- 17-year longitudinal study (2/20/2007-2/20/2024)

PART C Please choose the number which best describes your feelings and thoughts **OVER THE PAST TWO (2) DAYS.**

5. Over the past two (2) days, I have been depressed:

not at all 0 1 2 3 4 5 6 7 8 9 10 **extremely**

6. Over the past two (2) days, I have been nervous or worried:

not at all 0 1 2 3 4 5 6 7 8 9 10 **extremely**

7. Over the past two (2) days, how much of the time did you feel sad?

never 0 1 2 3 4 5 6 7 8 9 10 **always**

8. Over the past two (2) days, when I thought of the future, I was:

not afraid 0 1 2 3 4 5 6 7 8 9 10 **terrified**

9. Over the past two (2) days, my life has been:

utterly meaningless and without purpose 0 1 2 3 4 5 6 7 8 9 10 **very purposeful and meaningful**

10. Over the past two (2) days, when I thought about my whole life, I felt that in achieving life goals I have:

made no progress whatsoever 0 1 2 3 4 5 6 7 8 9 10 **progressed to complete fulfillment**

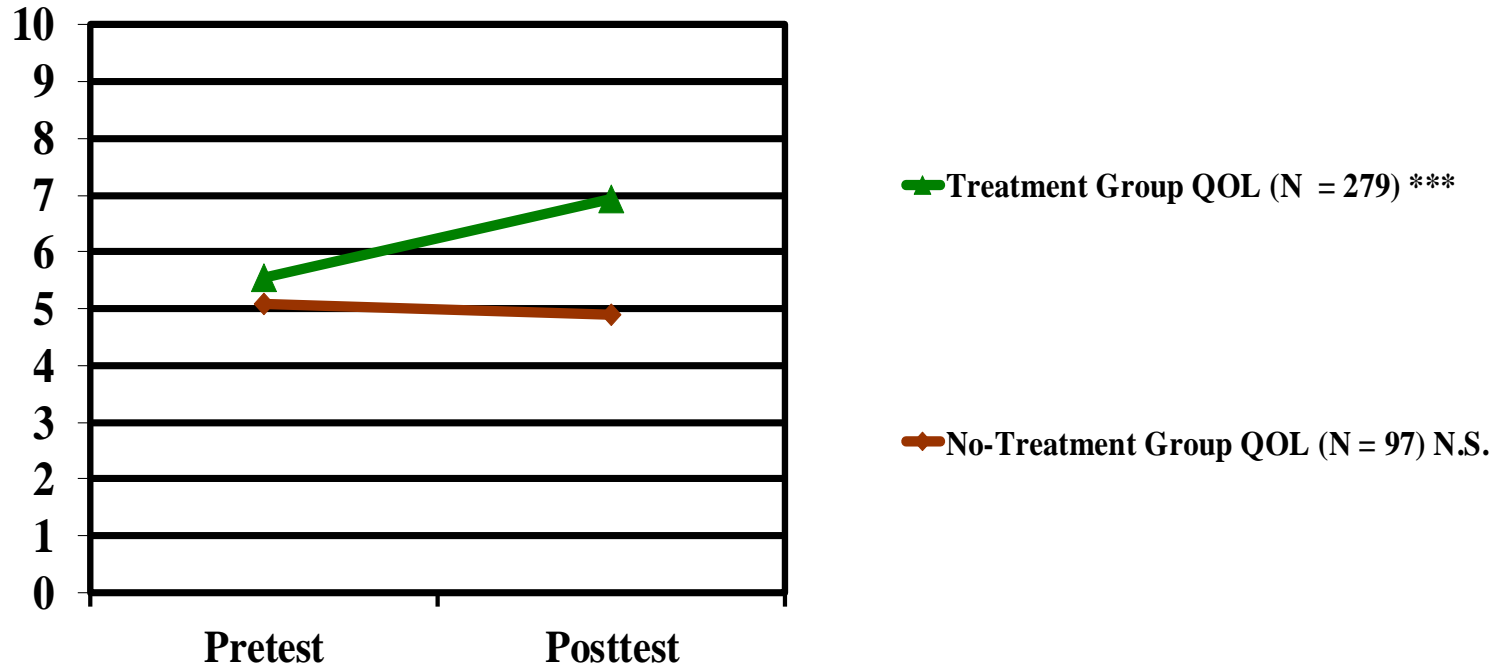
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Example of the McGill QOL items

AgrAbility and Quality of Life

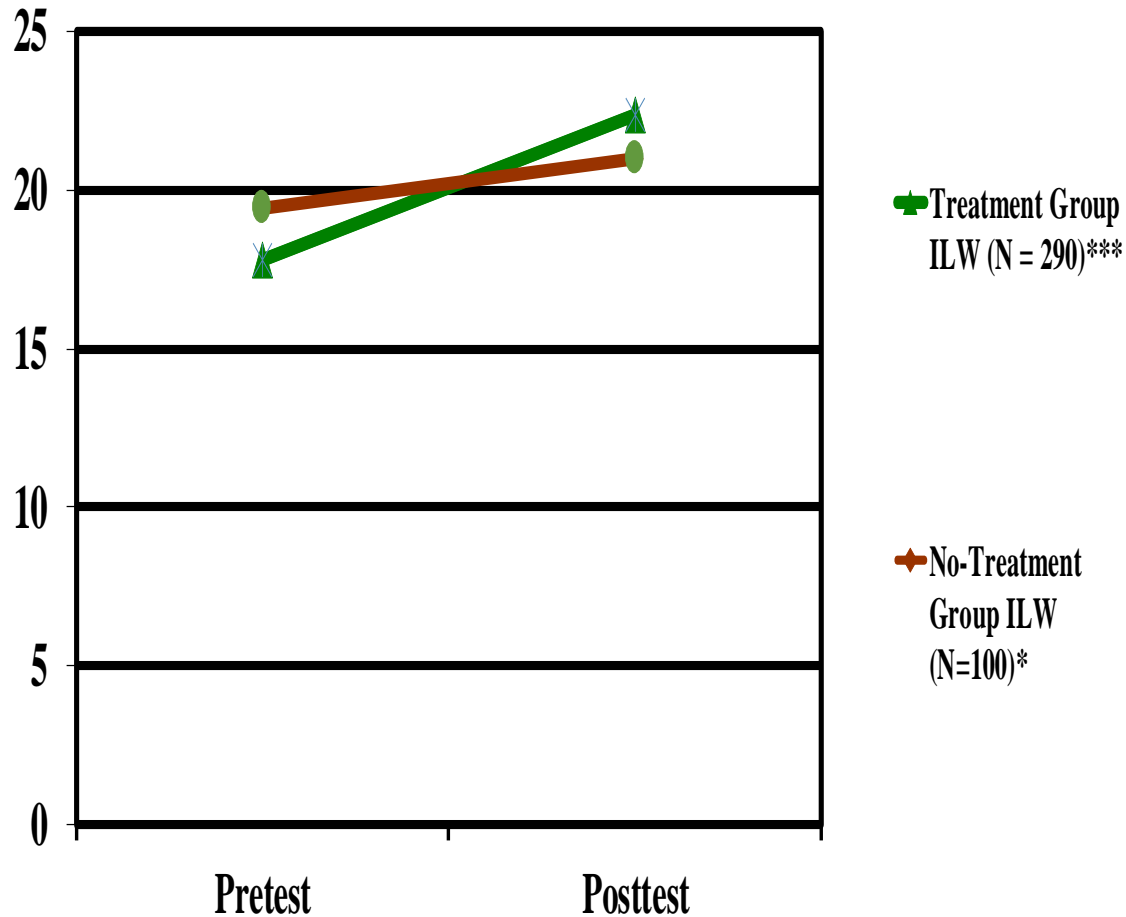
- Individuals involved in AgrAbility
 - Improve on Quality of Life (QOL) when involved in the program
 - Improve on Independent Living and Working
 - Fetsch, Jackman, & Collins, 2018
 - Improve on all domains of QOL including Physical, Psychological, & Existential well-being, Support, and Physical symptoms
 - Fetsch & Collins, 2018
- AgrAbility on-site visits with information, education and assistive technology was effective at increasing agriculturalists' QOL levels versus a non-AgrAbility comparison group
 - Fetsch & Turk, 2018

McGill QOL Pretest-Posttest Overall QOL Score Changes for AgrAbility Treatment & Non- AgrAbility Treatment Comparison Groups



Source: Fetsch, R. J., & Collins, C. L. (2018). The effects of AgrAbility on the mental/behavioral health of farmers and ranchers with functional limitations: A comparison study. Medical Research Archives, 6(2). <http://www.journals.ke-i.org/index.php/mra/article/view/1691/1762> & Fetsch AAMcGillQOL10.0522 (Rev. 2.2623)

ILW Pretest-Posttest Total Score Changes for AgrAbility Treatment and No-AgrAbility Treatment Groups



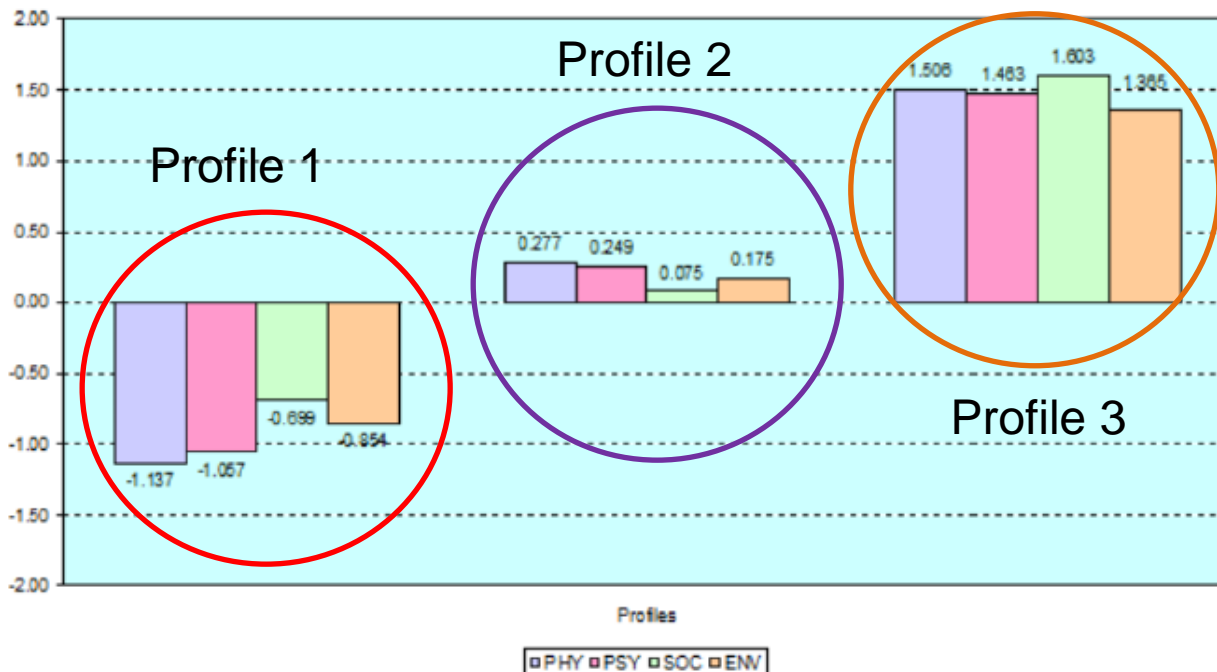
Source: Fetsch, R. J., & Collins, C. L. (2018). The effects of AgrAbility on the mental/behavioral health of farmers and ranchers with functional limitations: A comparison study. Medical Research Archives, 6(2). <http://www.journals.ke-i.org/index.php/mra/article/view/1691/1762> & Fetsch AAMcGillQOL10.0522 (Rev. 2.2623)

AgrAbility Quality of Life Study: New Staff Training

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Kirk Ballin (ESVA),
Betty Rodriguez, Michele Proctor & Madeline McCauley (ECU),
Kristen VanValkenburg (WSU),
Esmeraldo Mandujano (UC Davis), &
Rhonda Miller (USU).

Quality of Life Profiles

- In many domains, QOL profiles have been identified.
- In the Aging Adult literature—3 profiles identified
- There is heterogeneity in aging across these domains



High, Medium, and Low profiles on Physical, Psychological, Social, & Environment domains for aging adults

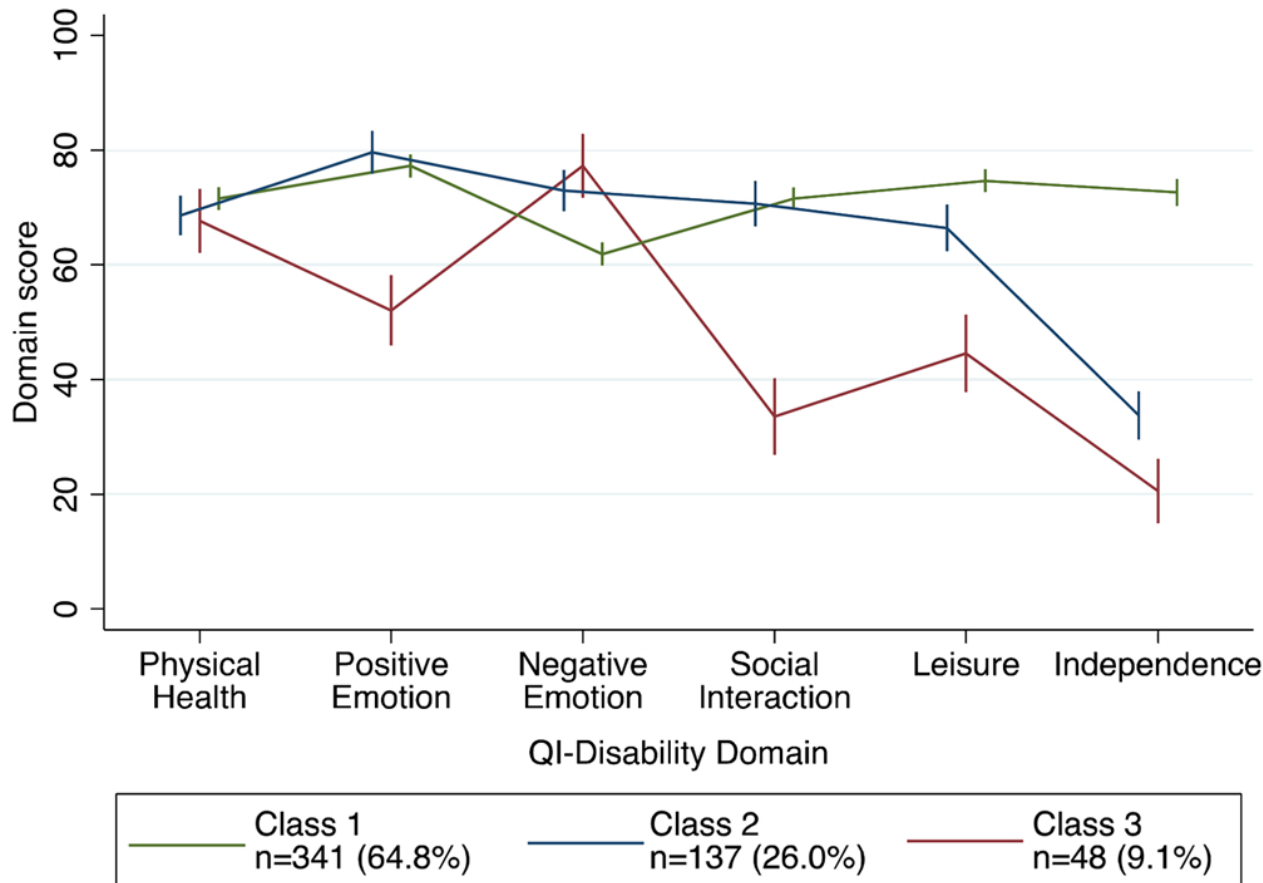
Bajenaru et al., 2022

Quality of Life Profiles (1)

- Past results assume all individuals involved in AgrAbility are similar or homogenous on outcome measures....but maybe they are not.
- It may be that there are groupings of individuals that allow us to understand more about this population at a finer grain level.

Quality of Life Profiles (2)

- Example in the disability non-AA literature



Profiles of individuals highlight the “peaks and valleys” on skills where groups differ.

This can inform future delivery of service or interventions

Leonard et al., 2022

Study Purpose

- Research Questions:
 - What profiles exist for our AgrAbility sample based on their Quality of Life scores?
 - What are the characteristics of individuals in our AgrAbility profiles?
- Use latent profile analysis to examine different patterns of Quality of Life within individuals who are accessing AgrAbility Information, Education, and Services.
- Examine characteristics of the resulting profiles.

Method

Data are from QOL study for the years—2007-2023

- Sample 1; $n = 1401$; 29 states represented
 - Male = 76%, Female = 24%
 - Average Age = 56 years
 - 77% were owners or operators
 - Majority (55%) origins of disabilities were chronic or not incident-related
- Sample 2; $n = 597$; 27 states represented, from sample 1
 - Male = 75%; Female = 25%
 - Average Age = 58 years
 - 73% were owners or operators
 - Majority (57%) origins of disabilities were chronic or not incident-related

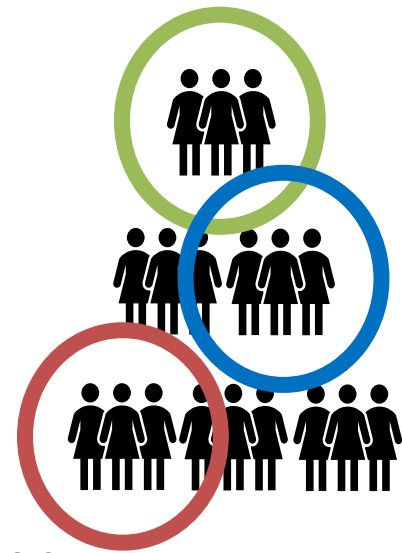
Method (2)

Instrument

- McGill Quality of Life Survey by Robin Cohen
 - Widely used in many domains (e.g., Health, Recovery)
 - Domains assessed: Physical Symptoms, **Physical Well-Being, Psychological Well-Being, Existential Well-Being, and Support.**
 - We used the four domains highlighted in blue
- Scale technical quality is well used and supported in existing literature

Method (3)

- Latent Profiles Analysis
- Within-group subgroups, referred to as profiles
 - Not preexisting or labeled groups
 - Examining how individuals group together based on similar pattern of scores
 - Iterative procedure comparing different models and then selecting the best model (number of groups)
 - Indices used for model selection: AIC, BIC, SABIC, profile size and theory & interpretation, with the most important being theory and interpretation

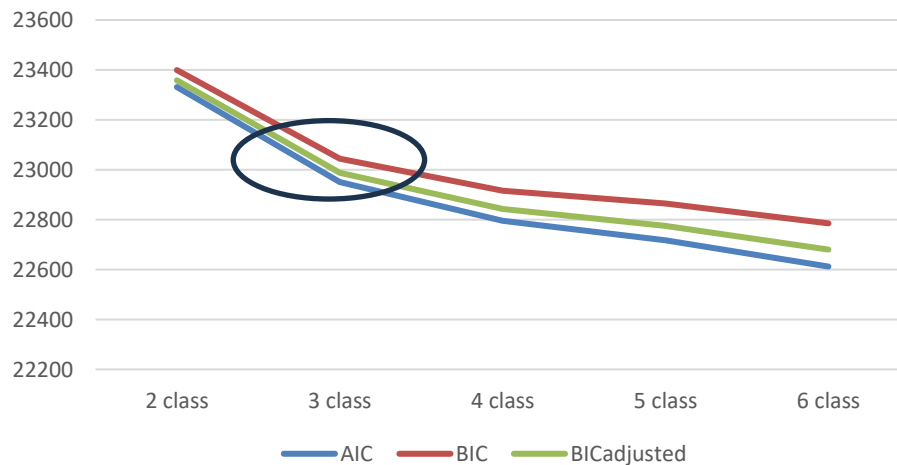


Results

Table 1. *AgrAbility Sample One Model Fit Comparison for Profile 2-6 Solutions*

Sample One							
	AIC	BIC	BIC adjusted	Entropy	BLRT p	Vuong-LMR p	LMR adjusted p
2 profiles	23331.08	23399.27	23357.97	0.739	<0.001	<0.001	<0.001
3 profiles	22949.91	23044.34	22987.16	0.764	<0.001	0.0005	0.0005
4 profiles	22794.99	22915.65	22842.58	0.74	<0.001	0.0328	0.0351
5 profiles	22717.56	22864.44	22775.49	0.773	<0.001	0.0419	0.0448
6 profiles	22611.65	22784.76	22679.93	0.75	<0.001	0.4967	0.5036

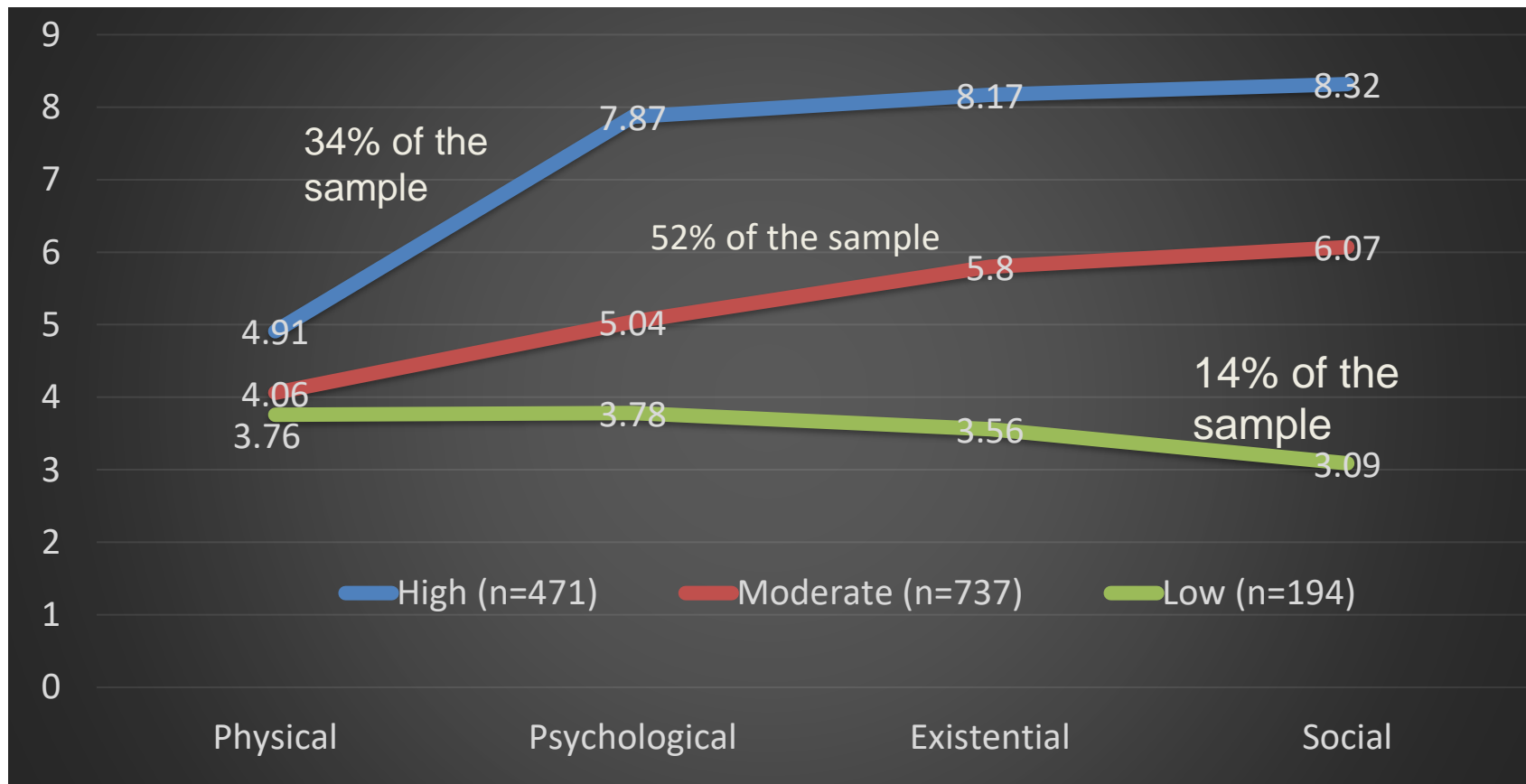
Figure 1. *Sample One Model Fit Comparison for Profile 2-6 Solutions*



Results for Sample 2 support 3 profiles also.

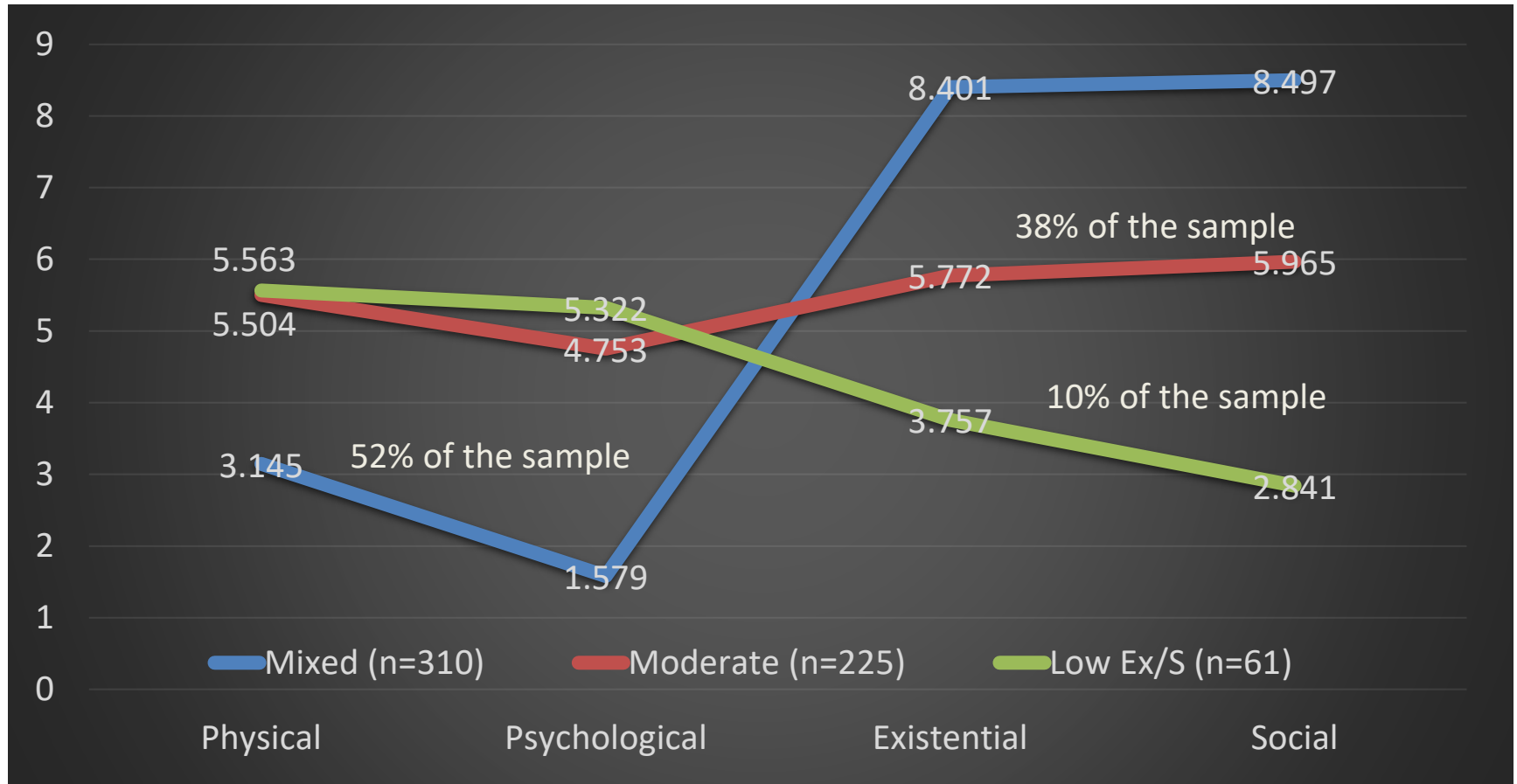
Results (2)

Sample 1 Weighted Means for Estimated Classification Profile Probabilities



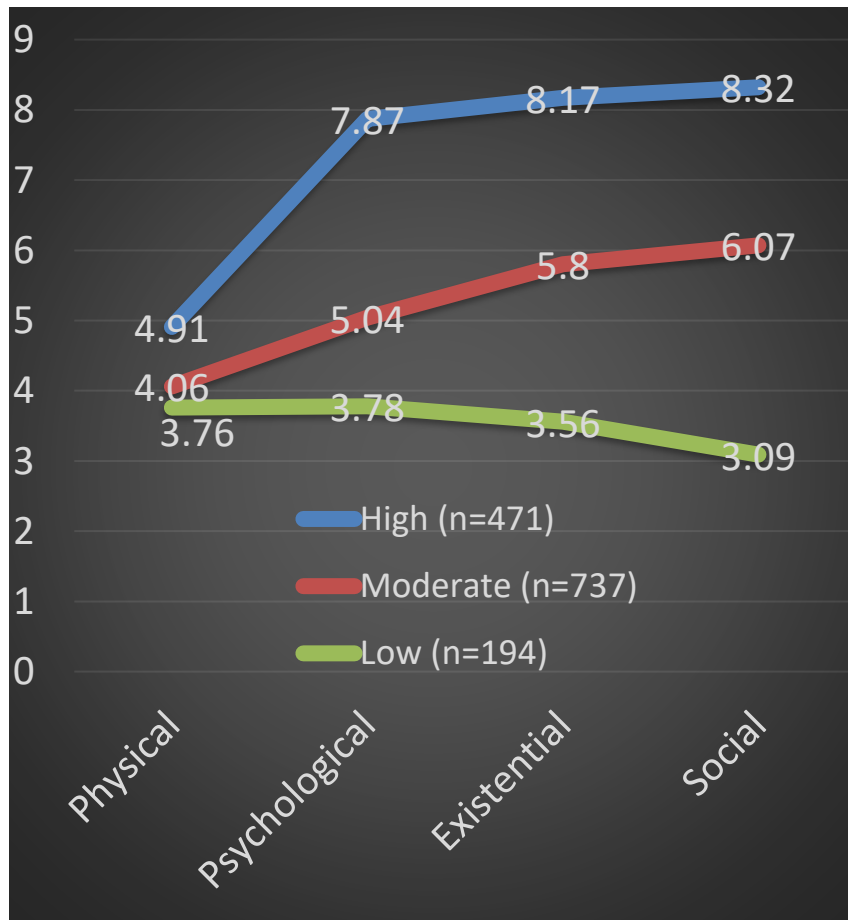
Results (3)

Sample 2 Weighted Means for Estimated Classification Profile Probabilities

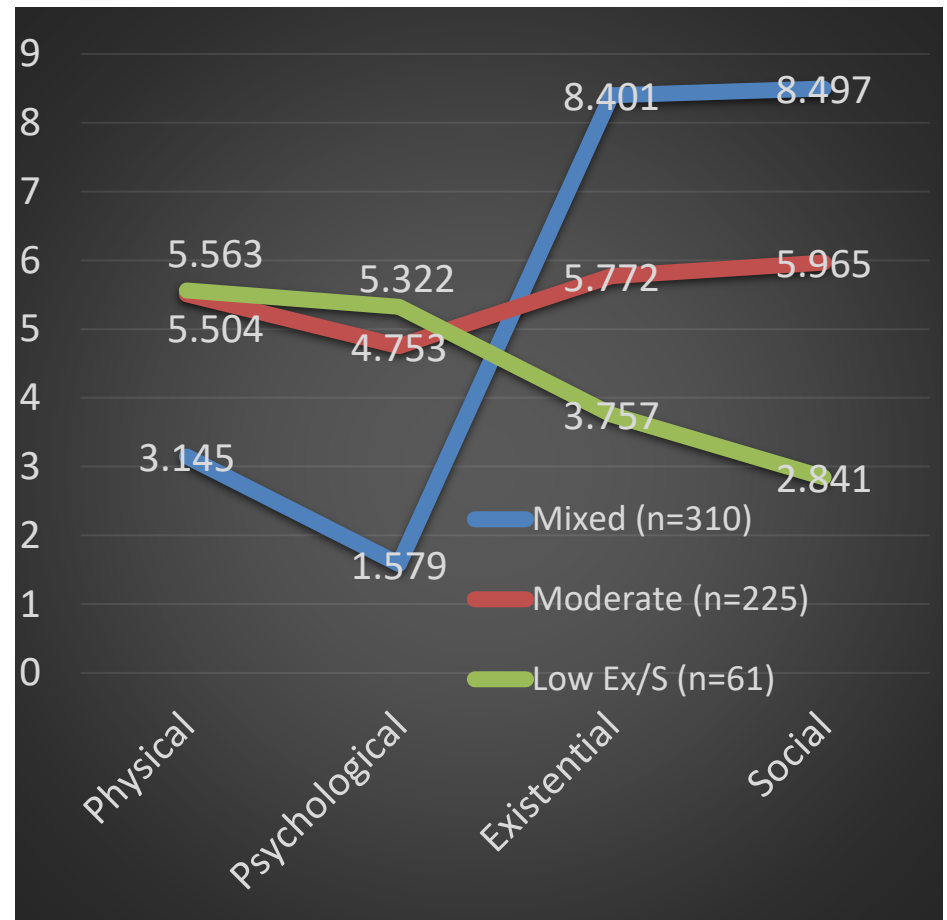


Results (4)

Sample 1



Sample 2



Results (5)

- Characteristics of AgrAbility Profiles

	Sample 1 Profiles			Sample 2 Profiles		
	Low	Moderate	High	Low Ex/S	Mixed	Moderate
Age	55.6 (11.7)	55.6 (14.1)	56.7(14.4)	53.8(13.7)	59.1(15.4)	57.1(12.5)
Male	70.1%	76.6%	77.9%	70.5%	72.6%	68.9%
Female	26.8%	20.9%	17.0%	24.6%	21.0%	28.0%
Unreported	3.1%	3.5%	5.1%	4.9%	3.5%	3.1%
Full time work status	54.1%	59.4%	65.6%	47.5%	61.9%	60.4%
Comparison AgrAbility¹	12.4%	10.2%	0.2%	47.5%	0%	31.6%
AgrAbility²	29.4%	20.6%	24.2%	36.1%	68.4%	38.2%
AgrAbility²	58.2%	69.3%	75.6%	16.4%	31.5%	31.1%

AgrAbility¹ Individuals in AgrAbility matched at time 1 and time 2

AgrAbility² Individuals in AgrAbility not matched at time 1 and time 2

Conclusions

- There are 3 unique QOL profiles (High, Moderate, and Low) of individuals using the 4 domains assessed for sample 1 and for sample 2.
- The pattern of profiles appears to differ across the two time points.
- Males and females and Age are consistent across profiles.
- The low profile contained the least number of individuals who work full time.
- AgrAbility may be most beneficial for helping QOL Existential and Social domains—Mixed profile.

Implications

- Profiles assist in seeing patterns of QOL
 - Give insight to groups of individuals across these domains.
 - Target possible additional contact with individuals in the low profile at time 1 assessment.
 - AgrAbility may be good at targeting aspects of Social and Existential domains.

Future Directions

- Examine the path of individuals from Time 1 to Time 2.
 - Latent Transition Analysis to identify movement between profiles.
 - How is involvement in AgrAbility related to transitions from one profile to another?
 - What are characteristics of those who transition between profiles ?
- Examine if AgrAbility needs to consider how to target all domains of QOL.
 - Which domains are most aligned with purpose of AgrAbility



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