

Using Strengths Based Measures to Assess and Manage Risk of Future Negative outcomes

Simone Viljoen, M.Sc.

Indian Health Service Clinical Rounds

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Objectives

1. Discuss common negative outcomes present in AI/AN youth.
2. Describe the rationale for the use of a new risk assessment instrument (START-AV) focused on short-term risk of multiple negative outcomes common among AI/AN youth
3. Identify the role of dynamic risk and protective factors in the assessment and management of short-term risk of negative outcomes common among AI/AN youth
4. Evaluate the utility of START-AV with a residential AI/AN youth sample

Negative Outcomes Common in AI/AN Youth

- Violence
- Gang involvement
- Suicide
- Substance abuse
- Victimization
- Bullying
- Health problems (i.e. obesity & diabetes)



- Reference: American Indian/Alaska Native Behavioral health Briefing Book
- (2011) Indian Health Service.

Risk Assessment

Unstructured Clinical Judgement

- Based on the experience and knowledge of psychiatrist or psychologist, unstructured

Actuarial

- Use of statistically derived risk items to come up with a probability estimate for future negative outcome
- Prediction vs. Risk Management

Structured Professional Judgement (SPJ)

- Use of items derived from empirical literature and combined with clinical judgment to assess likelihood of future negative outcome to inform treatment planning
- Risk Management vs. Prediction

Risk Assessment

Weaknesses Unstructured Clinical Judgement

- Subjective and particularly susceptible to bias
- Research found no better than chance accuracy (sometimes worse)
- Not systematic

Weaknesses of Actuarial

- Nomothetic approach
 - exclude individual factors
- Include almost entirely static risks factors
 - exclude of dynamic risk factors
- Exclude Strengths/protective factors

Weaknesses of SPJ

- Clinical judgment is subjective and can be influence by our biases

Why Include Strengths in Assessments?

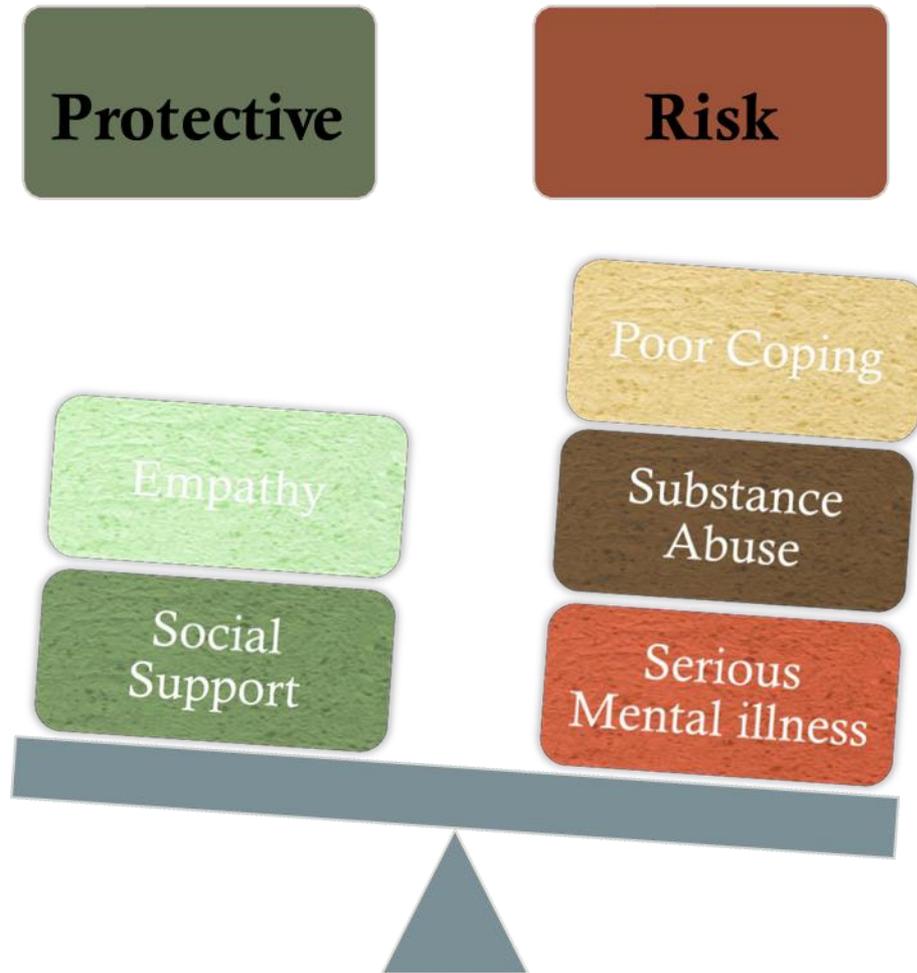
- Until recently predominantly risk/weakness focused approach in research and clinical practice
- Comprehensive psychological assessments need to include protective factors/strengths (Rogers, 2000; Snyder et al., 2006; Rashid & Ostermann, 2009; Webster et al., 2009).
 - Biased in terms of overestimating the risk/weakness
 - May lead to stigmatisation
 - Can provide hope for clients
 - Can help facilitate treatment planning
- Individuals can very resilient and all of us have personal resources

What are Strengths/Protective Factors?



de Vries Robbe & Vivienne de Vogel (2010)

What are Strengths/Protective Factors?



Some Strength Based Measures Child/Adolescent

- *State-Trait-Cheerfulness-Inventory Youth version* (STCI-YV; Ruch, Köhler, & van Thriel, 1996).
 - Child, parent and peer versions
- *Strengths and Difficulties Questionnaire* (SDQ; Goodman, 1997)
- *Behavioral and Emotional Rating Scale* (BERS; Epstein, 2000)
- *VIA Youth Surveys* (Park, 2004)
- *The Structured Assessment of Violence Risk in Youth* (SAVRY; Borum, & Forth, 2006).
- *Short Term Assessment of Risk and Treatability Adolescent Version*
- **(START:AV; Viljoen et al, in Press)**
- Etc...

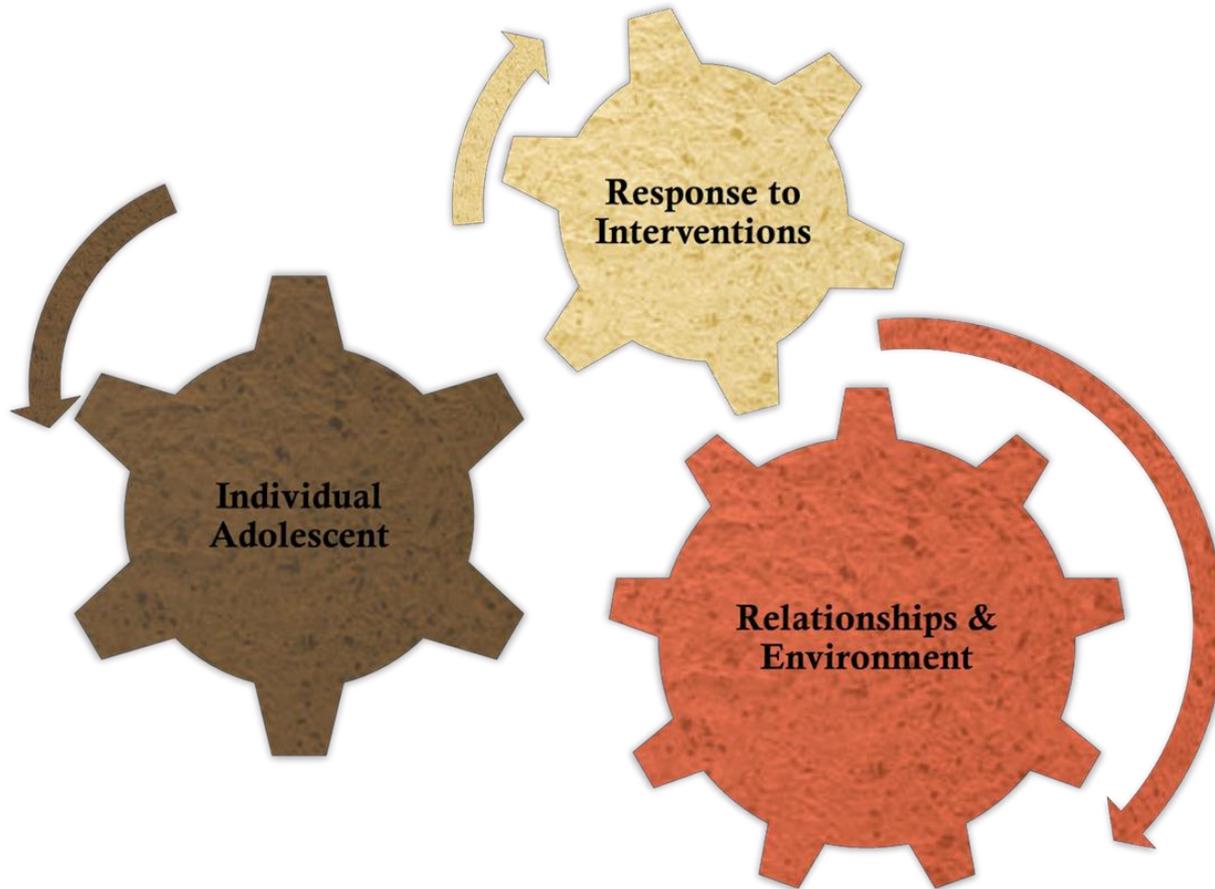
START:AV

Violence	Non-Violent Offending	<ul style="list-style-type: none">• SPJ guide for dynamic assessment of clients' short-term risk risks, strengths, and treatability• START:AV was developed for use with:<ul style="list-style-type: none">• Male and female adolescents aged 12-18 years.• Adolescents in mental health settings• Adolescents with involvement in the justice system
Substance Abuse	Unauthorized Absence	<ul style="list-style-type: none">• 25 items simultaneously rated on separate strength and vulnerability scale<ul style="list-style-type: none">• Items each rated Low, Moderate, High on both scales• 8 Risk Estimates<ul style="list-style-type: none">• Low, Moderate, High
Suicide	Non-Suicidal Self Injury	<ul style="list-style-type: none">• Time frame of 2 week to 6 months
Victimization	Health Neglect	

START:AV Items

1. School and Work
2. Recreation
3. Substance Use
4. Rule Adherence
5. Conduct
6. Self-Care
7. Coping
8. Impulse Control
9. Mental/Cognitive State
10. Emotional State
11. Attitudes
12. Social Skills
13. Relationships – Caregivers/
 - a) Relationships – Peers
14. Social Support – Adults
 - a) Social Support – Peers
15. Parenting
16. Parental Functioning
17. Peers
18. Material Resources
19. Community
20. External Triggers
21. Insight
22. Plans
23. Medication Adherence “ N/A
24. Treatability
25. Case-Specific Item Adults

START: AV Items



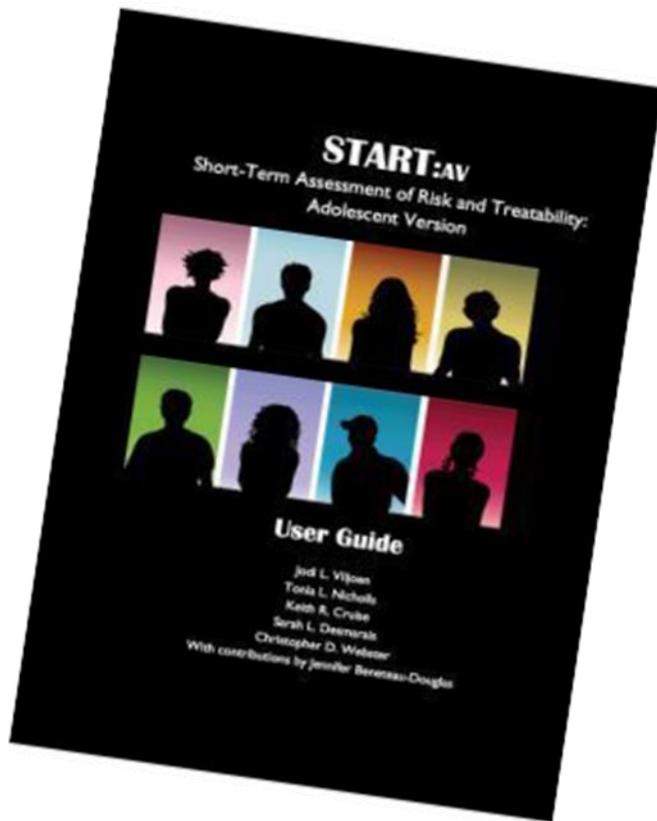
Diagnoses: <input type="checkbox"/> DSM-V <input type="checkbox"/> ICD-10									Physical Health Concerns:							
Key Item	Strengths			STRENGTH AND VULNERABILITY ITEMS	Vulnerabilities			Critical Item	ADVERSE AND POSITIVE OUTCOMES							
	High	Mod	Low		Low	Mod	High		History		Risk Estimate			THREAT		
									Prior	Recent		Low	Mod	High	No	Yes
<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. School and Work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>								
<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Recreation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	1. Violence	<input type="checkbox"/>				
<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Substance Use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	2. Non-Violent Offense	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Rule Adherence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	3. Substance Abuse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Conduct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	4. Unauthorized Absence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Self-Care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	5. Suicide	<input type="checkbox"/>				
<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. Coping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	6. NSSI	<input type="checkbox"/>				
<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. Impulse Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	7. Victimization	<input type="checkbox"/>				
<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. Mental/Cognitive State	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	8. Health Neglect	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. Emotional State	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>		9. Case-Specific Adverse:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11. Attitudes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>								
<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12. Social Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	10. Case-Specific Positive Outcome:							
<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13a. Relationships – Caregivers/ Adults	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>								

Psychometric Properties of the START Adult Version



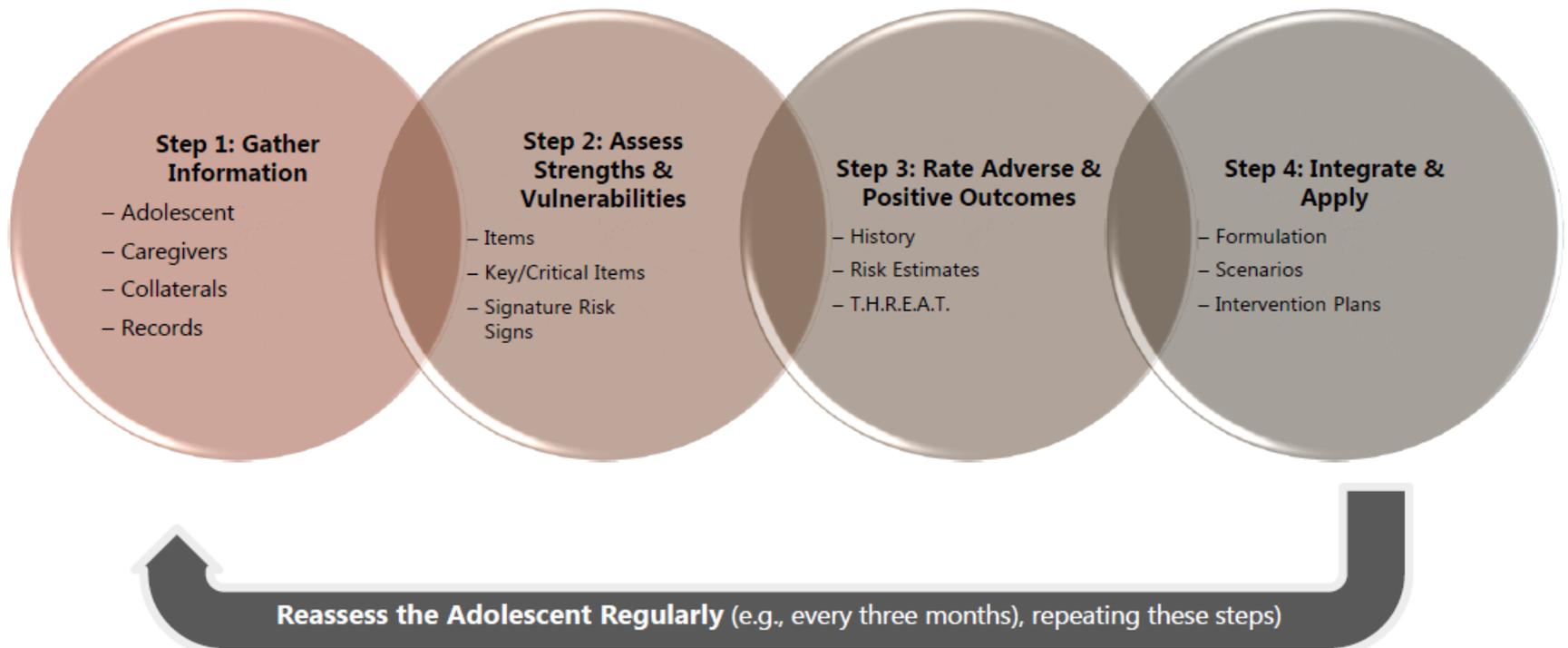
- Reliability
 - Structural
 - Internal consistency: good ($\alpha=.87$)
 - Item homogeneity (MIC>.30)
 - Inter-rater
 - Excellent (ICC=.81-.87)
- Validity
 - Construct validity
 - Scores change with security level changes
 - Predictive validity
 - Mostly violence
 - Convergent and divergent validity
 - With HCR-20 (Assessment of risk for violence)

Psychometric Properties of the START:AV



- Reliability
 - Structural
 - Internal consistency: good ($\alpha=.89$)
 - Item homogeneity (MIC .26-.37)
 - Inter-rater
 - Good-Excellent (ICC=.60-.92)
- Validity
 - Construct validity
 - None yet
 - Predictive validity
 - Vulnerability scores predict all outcomes
 - Strength scores predict of outcomes
 - Risk estimates predict relevant outcome
 - Convergent and divergent validity
 - With SAVRY and DAP

START:AV Assessment Process



START:AV

Culture Item

- **STRENGTHS:**

- Interested in learning further about his or her culture, or others' cultures (e.g., interested in receiving culturally-relevant services). Has pride in his or her culture. Has strong, positive role models within his/her culture (e.g., mentors, Elders). Participates in cultural events or ceremonies (e.g., sweat lodges). Values diversity. Feels comfortable moving across cultural groups (e.g., has friends from various cultures). Strong and healthy connectedness to his or her cultural group(s).

- **VULNERABILITIES:**

- Lacks basic knowledge about his or her culture. Has inaccurate or discriminatory views of his/her culture or other cultures. Disconnected from the dominant culture and/or his/her culture of origin. Ashamed of his or her culture. Experiences put-downs, stigma, prejudice, or discrimination as a result of culture (e.g., racist comments). Feels alienated (e.g., feels he/she does not fit in to any cultural group).

START: AV

Culture Item

- **Example Interview Questions:**
 - Tell me about your cultural background. Which cultural group(s) do you identify with the most?
 - How involved are you in culture? What sort of events have you participated in? Do most of your friends have a similar background?
 - What is the first language you learned?
 - Are you proud of your culture?
 - Have you ever been discriminated against because of your race, ethnicity, or culture, etc.?
 - Are you interested in learning more about your culture? Are you interested in received cultural services such as . . . ?

Current Project

- **Objectives**

- To assess the internal consistency and item homogeneity of the START-AV with a Residential AI/AN sample
- To evaluate the predictive validity of the START-AV
- To compare the efficacy of START-AV with
 - both male and female adolescents.
- To evaluate construct validity by examining change in scores before treatment and after treatment



Procedure

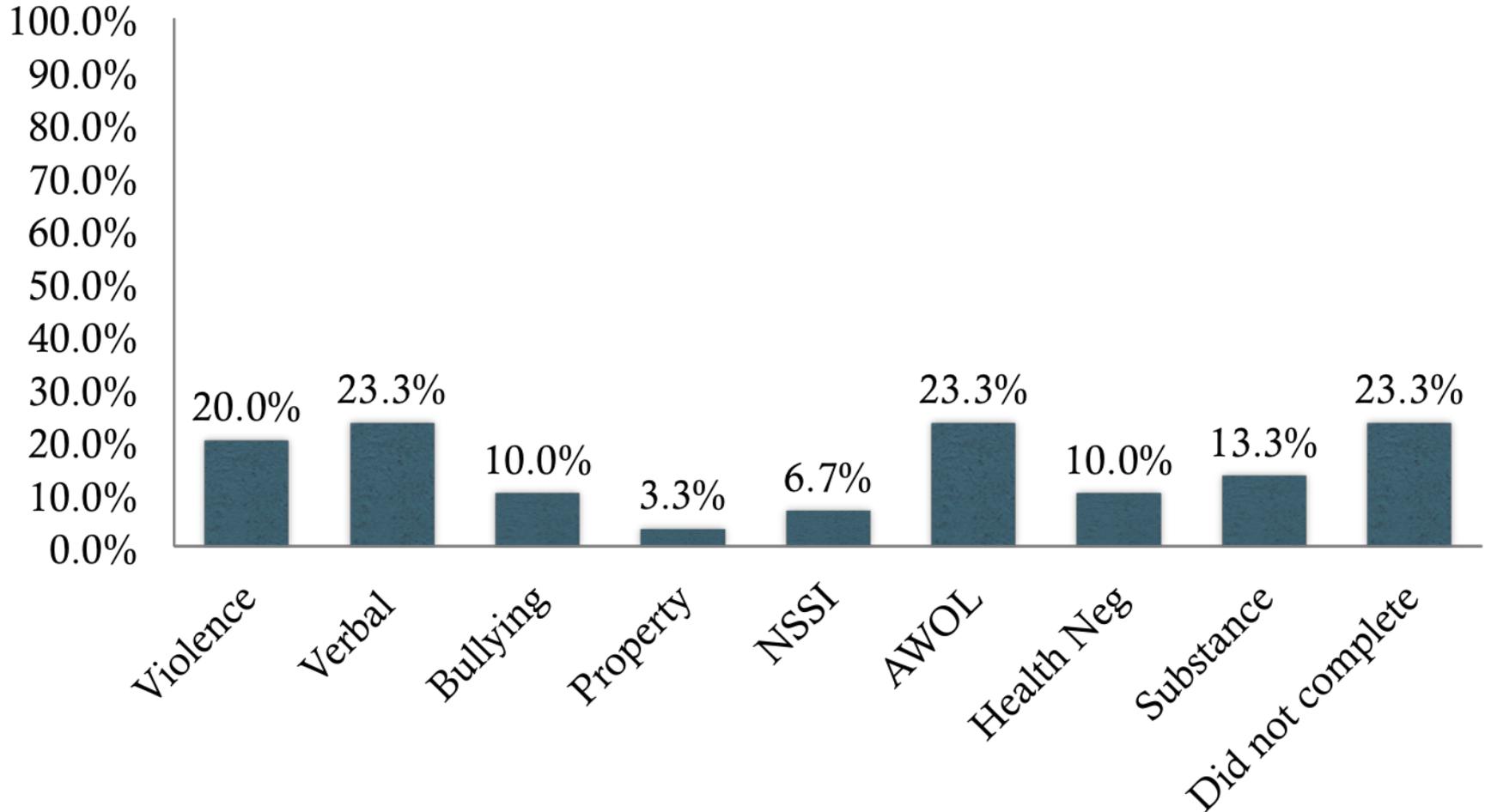
- Participants
 - 30 AI/AN youth who were residents of the New Sunrise Regional Treatment Center between 2009-2013
 - Equal sample size of males and females ($N=15$ each)
- Design and Procedure
 - Retrospective chart review
 - Pseudo-Randomly selected 30 charts for inclusion
 - Coded baseline START using referral and admission information only
 - Coded follow up START and negative outcome variables at the end of treatment (or after 3 months)

Sample Demographics

Variable	% (n)/M (SD)
Age	16.0 (1.15)
Type Of Admit: Court Ordered	60.0% (18)
# Days In Treatment	85.6 (31.93)
Gender: Male	50.0% (15)
In School: Yes	53.3% (16)
Living With:	46.7 (14)
Parents	16.7 (5)
Relatives	3.3 (1)
Foster Care	23.3 (7)
Jail	3.3 (1)
Homeless	6.7 (2)
Other	
Previous Mental Health: Yes	89.7 (26)
Previous Substance Abuse: Yes	80.0 (24)

Diagnosis	% (n)
Dual Diagnosis: Yes	76.7 (23)
Cannabis Abuse	13.3 (4)
Cannabis Dependence	50.0 (15)
Alcohol Abuse	33.3 (10)
Alcohol Dependence	30.0 (9)
Cocaine Abuse	6.7 (2)
Drug Dependence	3.3 (1)
Polysubstance Dependence	23.3 (7)
Other Substance Abuse	3.3 (1)
Oppositional Defiant Disorder	30 (9)
Conduct Disorder	23.3 (7)
Major Depressive Disorder W/Psychosis	6.7 (2)
Major Depressive Disorder	6.7 (2)
ADHD	3.3 (1)
Adjustment Disorder	10.0 (3)
Dysthymic Disorder	10.0 (3)
Reactive Attachment	6.7 (2)
Depressive Disorder NOS	10.0 (3)
Sexual Abuse of a Child	6.7 (2)
PTSD	3.3 (1)

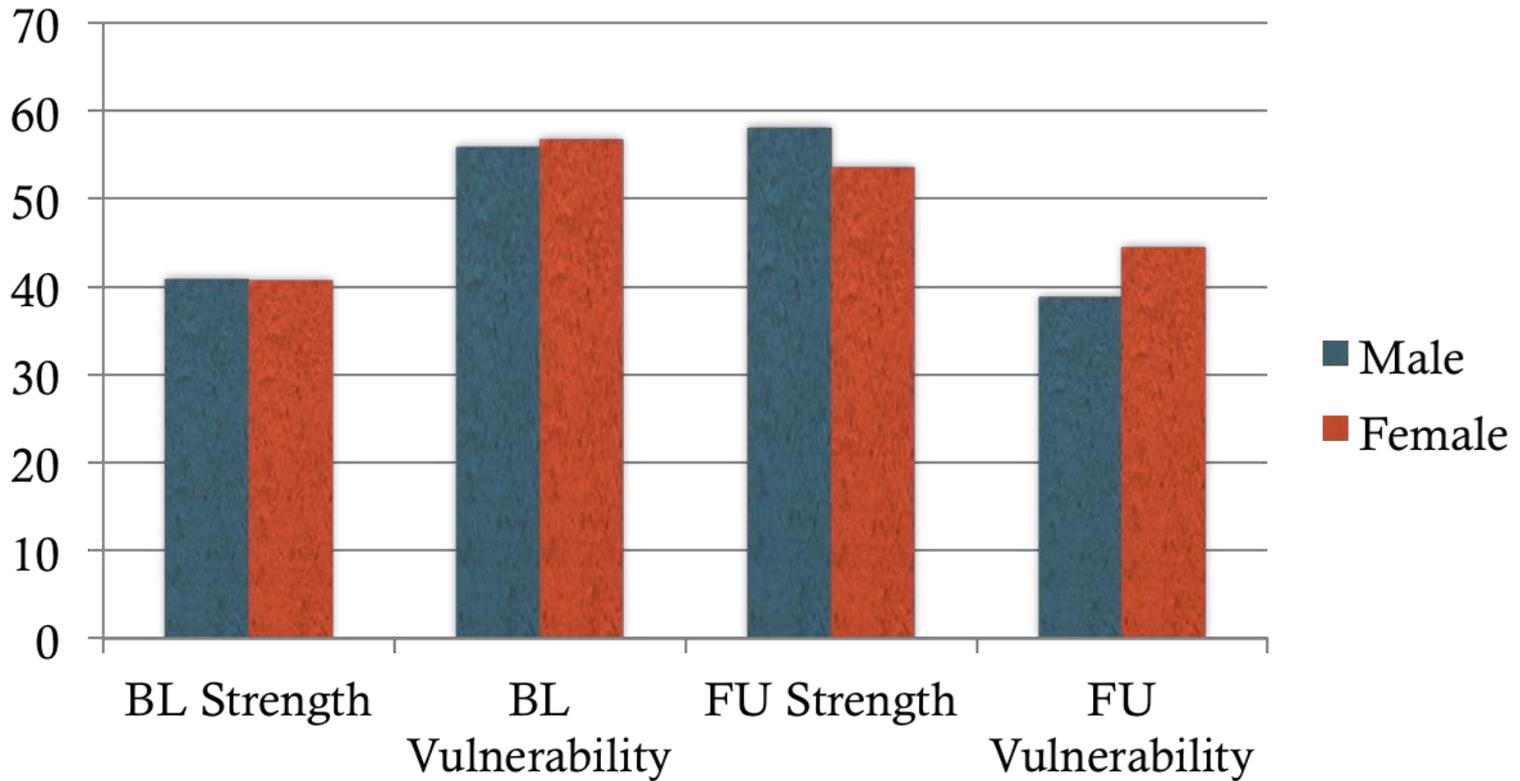
Results: Base Rates



Results

Psychometric Property	START:		AV	Scale
	Strength		Vulnerability	
	Baseline	Follow up	Baseline	Follow up
Mean	40.75	55.59	56.23	41.83
SD	6.69	8.05	9.18	9.91
Range	30-61	36-69	38-73	31-63
MIC	0.28	0.23	0.27	0.27
Alpha	0.91	0.89	0.92	0.92

Results: Gender



No significant difference between genders

Results: Predictive

Outcome Variable	Strength Score AUC	Vulnerability Score AUC
Did not complete Program	0.80	0.81
Treatment effective	0.69	0.93
Used Substances	0.32	0.28
Health Neglect	0.64	0.74
AWOL	0.67	0.66
Violence	0.67	0.78
Verbal	0.72	0.81
Bullying	0.70	0.80
NSSI	0.53	0.57
Property Damage	0.64	0.83

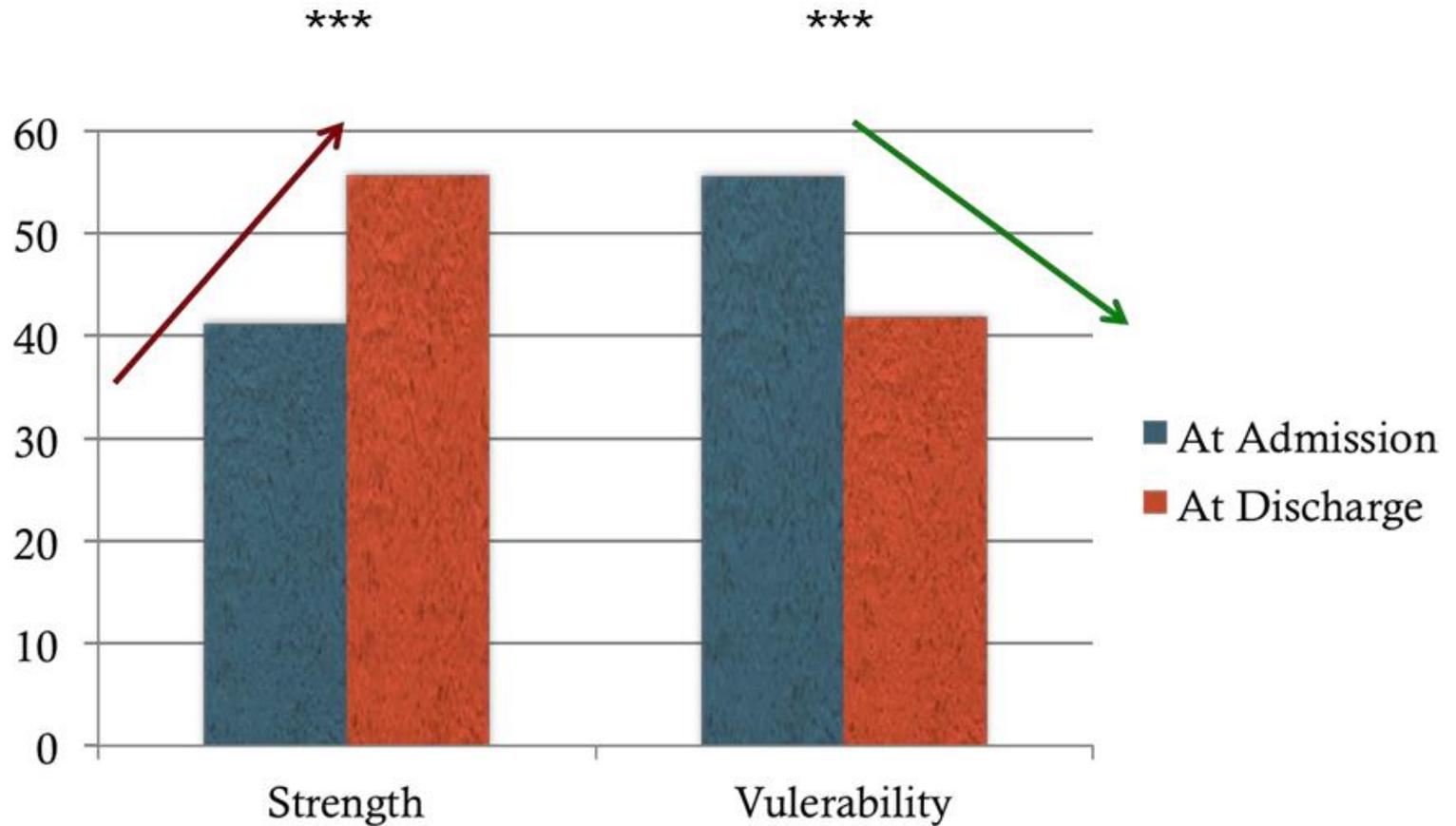
AUC Values: 0.55-0.63 = Fair | 0.64 -0.71 = Good | 0.71 0 1.00 = Excellent

Results: Predictive

Outcome Variable	Relevant SPJ AUC
Used Substances	Substance Abuse SPJ 0.52
Health Neglect	Health Neglect SPJ 0.59
AWOL	AWOL SPJ 0.57
Violence	Violence SPJ 0.72
Verbal	0.73
Bullying	0.78
NSSI	NSSI SPJ 0.82
Property Damage	Non-Violent Offending 0.91

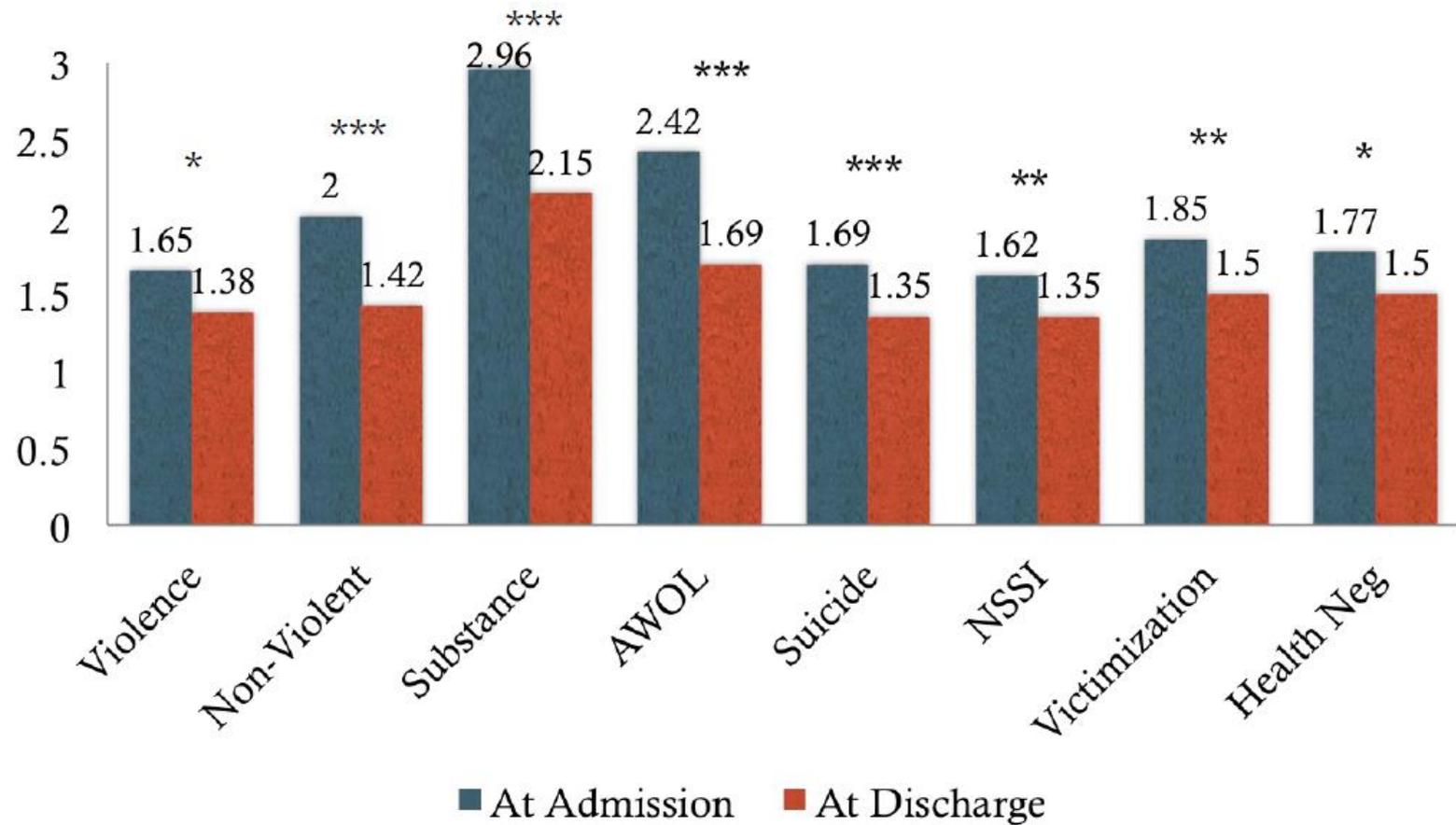
AUC Values: 0.55-0.63 = Fair | 0.64 -0.71 = Good | 0.71 0 1.00 = Excellent

Results: Change in Scores



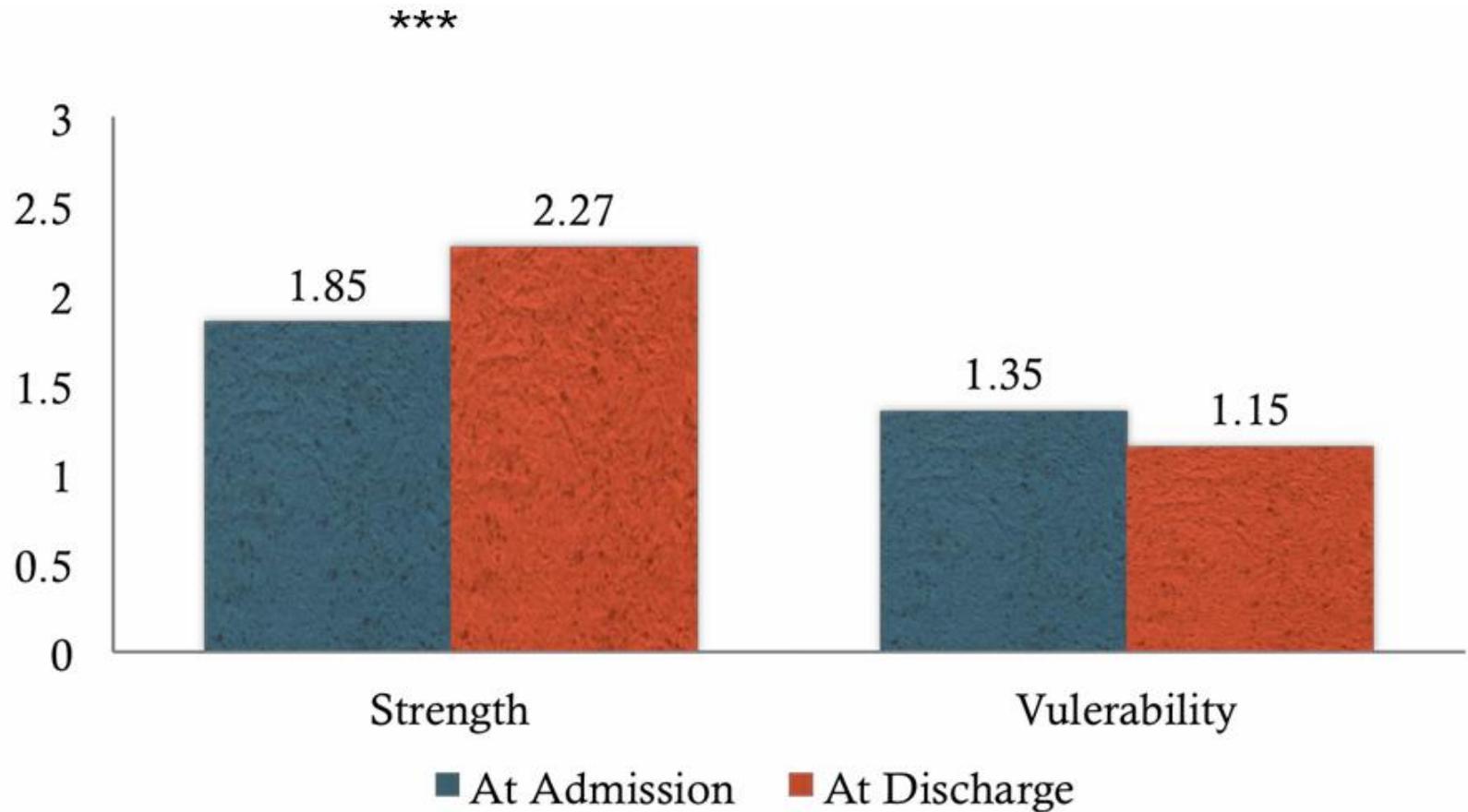
Note. *** $p \leq 0.001$ level (2-tailed).

Results: Change in SPJ Rating



Note. *** $p \leq 0.001$ level ** $p \leq 0.01$ level * $p \leq 0.05$ level † $p \leq 0.1$ level (2-tailed).

Results: Change in Culture Item



Note. *** $p \leq 0.001$ level (2-tailed).

Discussion

- Support for use of START-AV
- Psychometric properties good
- Predictive validity
- Strength and ↑ vulnerabilities ↓
- SPJ risk judgments ↓
- Culture item ↑ strength
- Predicts treatment success & dropout

Limitations

- Small sample size
- Relatively Short follow up
- Low Base Rate of outcomes
- Ratings are from file only
- No interrater Reliability

Clinical Implications

- START-AV provides clinical practitioners with an evidence based tool
 - Can help to predict future adverse events
 - Can help to predict future success
- START-AV helps clinical practitioners with intervention and management planning
 - Identifying gaps in services, supports, and skills
 - Identifying avenues for fostering success

Clinical Implications ³⁴

- START-AV can potentially help improve therapeutic alliance
 - Identifying client's strengths & create shared goals for treatment
- START-AV is a good means of structuring clinical
- team discussions
- Can also help facilitate continuation of care
 - i.e. provide a common language

Contact Information

- Thank you for your attention!
- Further information contact simviljoen@gmail.com
- Interested in ordering START-AV? Contact startav@sfu.ca
- Interested in START-AV training? Contact authors startav@sfu.ca or for training opportunities in South West contact simviljoen@gmail.com