

# Applying ACT in Sierra Leone: Examining the impact of ACT training on health professionals

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H.

# Overview



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- *commit + act*: Who we are & what we do



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Studies 1 & 2



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- Examining the impact of ACT training:  
Studies 1 & 2
- Future directions



# *Commit + act*

## **Mission:**

To bring psychotherapeutic support to people in areas of conflict & Low & Middle Income Countries (LMICs)

## **Goals:**

To train local health care workers & NGO staff in evidence-based approaches (i.e., ACT)

To provide ongoing support & supervision

To increase access to psychotherapeutic for local people

*Connecting*

*Caring*

*Creating*

# Sierra Leone



Population: 6 million

Life expectancy: 48 years

Income: \$340 per capita

Ranked 180<sup>th</sup> out of 187 in Human Development Index  
60% live below poverty line (\$1.25 per day)



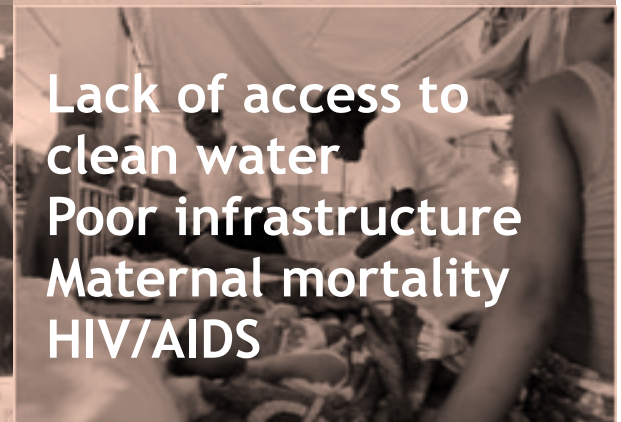
10 year civil war  
50,000 killed  
10,000 child soldiers  
Amputation & rape  
weapons of war



41% adult illiteracy  
70% youth unemployed or underemployed



Gender inequality  
Domestic & sexual violence  
Female Genital Mutilation (FGM)



Lack of access to clean water  
Poor infrastructure  
Maternal mortality  
HIV/AIDS

\* Figures from United Nations Development Programme (2012) & United Nations Population Fund (2005)

# Services

*commit* + *act* facilitate beginners & advanced training workshops in ACT for local health care workers & NGO staff in Freetown, Bo, & Makeni



The *commit* + *act* center, Bo, now provides a space for training, supervision, therapy for clients, & outreach to local communities



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# Measures

- **Acceptance & Action Questionnaire-II (AAQ-II; Bond et al., 2011)**  
(e.g., *“Emotions cause problems in my life”*)
- **Satisfaction with Life Scale (SWLS; Diener et al., 1985)**  
(e.g., *“In most ways my life is close to my ideal”*)
- **Valuing Questionnaire (VQ; Davies et al., 2011)**  
(e.g., *“I did things that brought me closer to what really matters to me in my life”*)
- **Cognitive Fusion Questionnaire (CFQ; Gillanders et al., 2013)\***  
(e.g., *“I tend to react very strongly to my thoughts”*)
- **Primary Care PTSD screen (Prins et al., 2003)**  
(e.g., *“Were constantly on guard, watchful, or easily startled?”*)
- **Workshop Evaluation & Feedback Forms**  
(e.g., *“How valuable did you find the experiential part of the workshop?”*; *“I have used the following ACT exercises in my daily work:”*)



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- Given Sierra Leone's recent traumatic history & ongoing socioeconomic issues, it was anticipated that a significant proportion of participants would present with PTSD symptoms
- Participants who screen positive on the PC-PTSD screen would show greater inflexibility & fusion, & lower life satisfaction & valued living than those who did not

# Data analyses

- All participants inc. in correlational analyses & calculation of internal reliability
- Only participants present at all 3 time points inc. in analyses of changes in scores over time & in relation to PC-PTSD screen
- Threshold for sig. for correlations & post hoc tests adjusted by Bonferroni correction

# Study 1

## Participants:

57 participants (26 males; 31 females; mean age=34yrs) attended a beginners workshop in either Bo ( $n=31$ ) or Freetown ( $n=26$ )

Ethnicity: 52.6% were Mende; others were Temne, Kissi, Limba, Mandingo, Kono, Loko, Fula & Sherbro

37 participants (16 males; 21 females; mean age=34.7yrs) completed the measures at all 3 time points (baseline, post-workshop & follow-up)

# Results: Study 1

# Correlations & internal reliability

	AAQ-II	SWLS	VQ
AAQ-II			
SWLS	<b>-.053</b>		
VQ	<b>-.221</b>	<b>.501*</b>	

\* $p < .01$



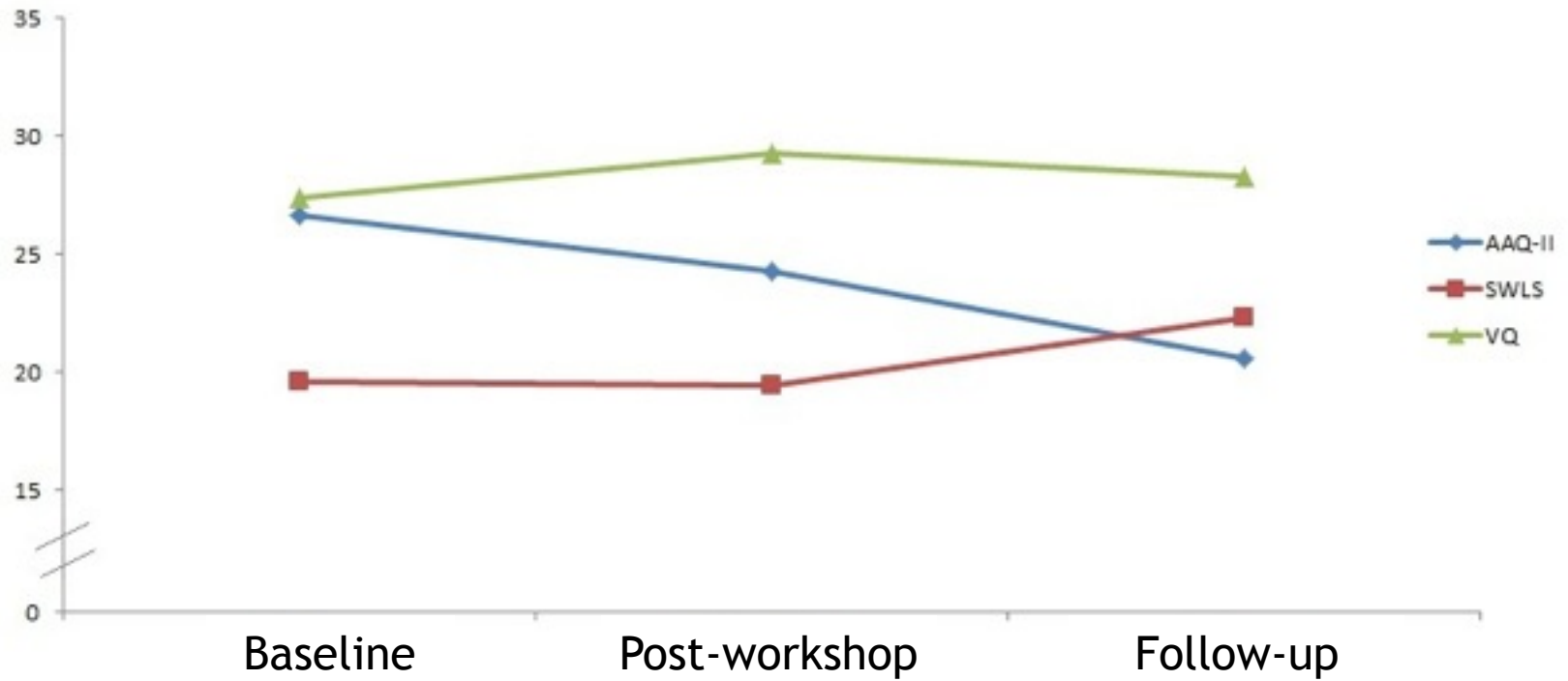
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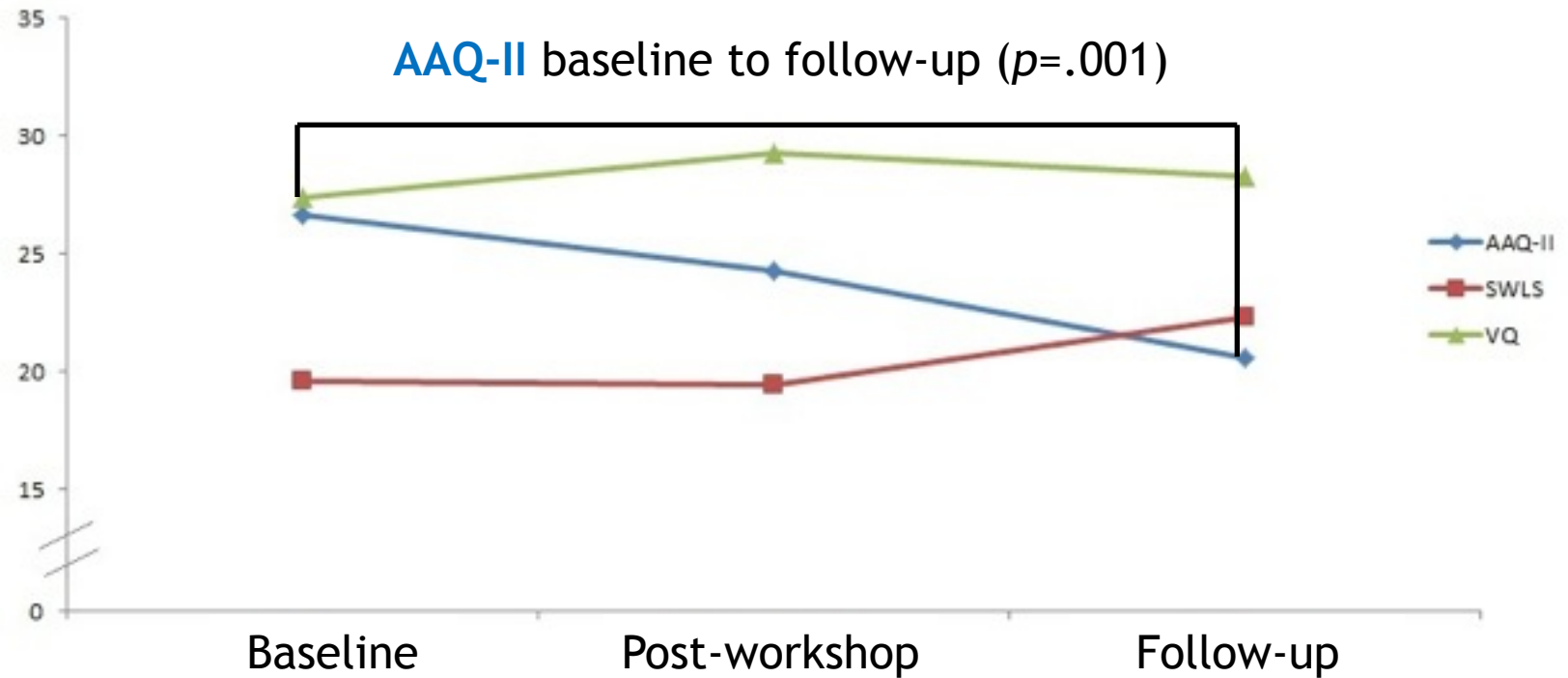
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Measure	Cronbach's alpha
AAQ-II	<b><math>\alpha = .78</math></b>
SWLS	<b><math>\alpha = .602</math></b>
VQ	<b><math>\alpha = .395</math></b>

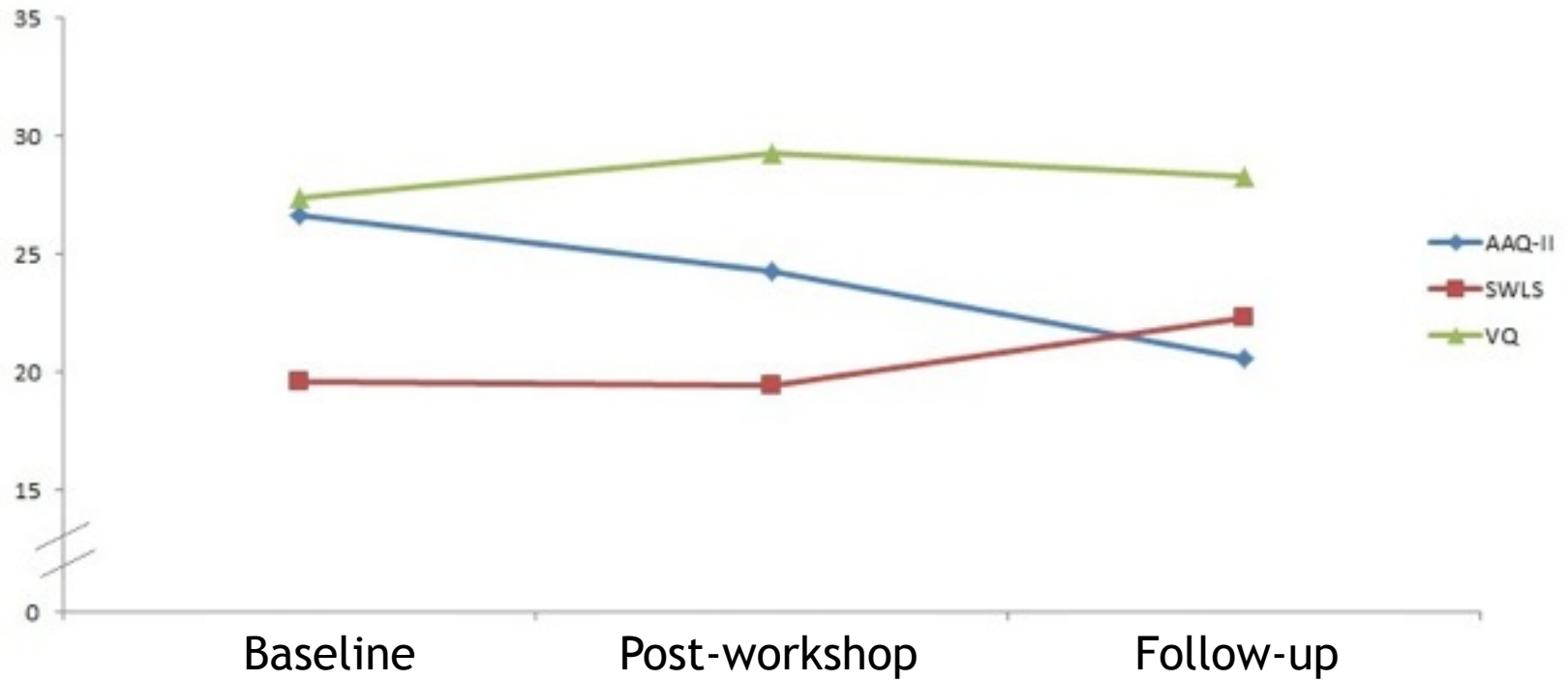
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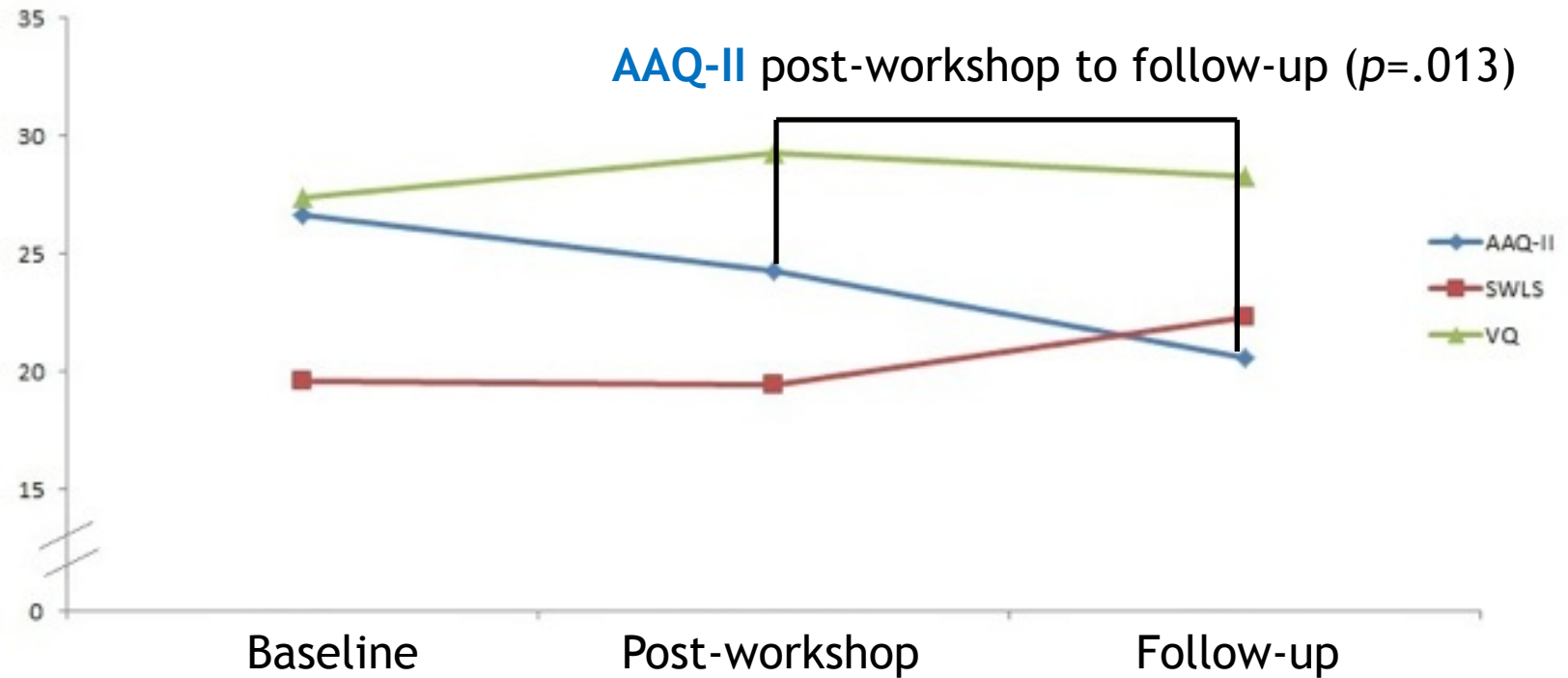
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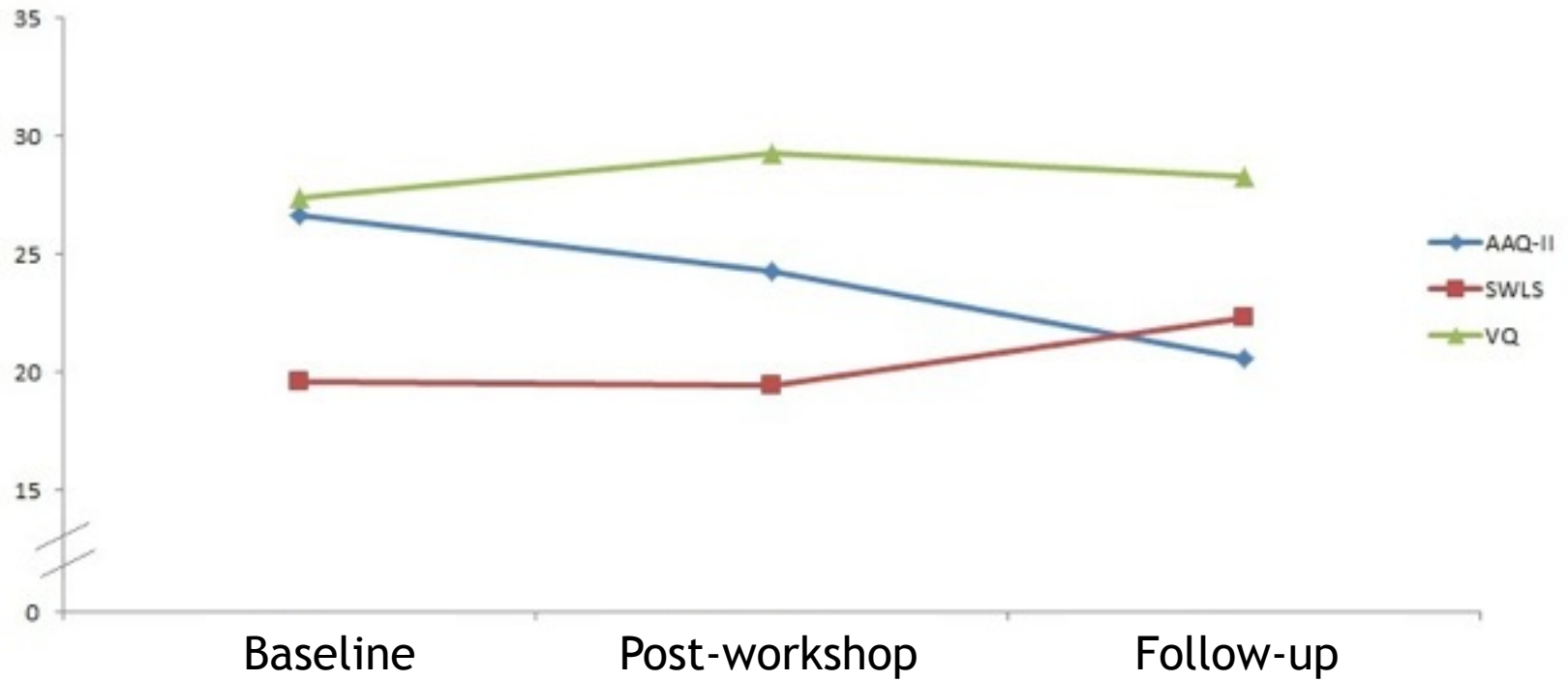
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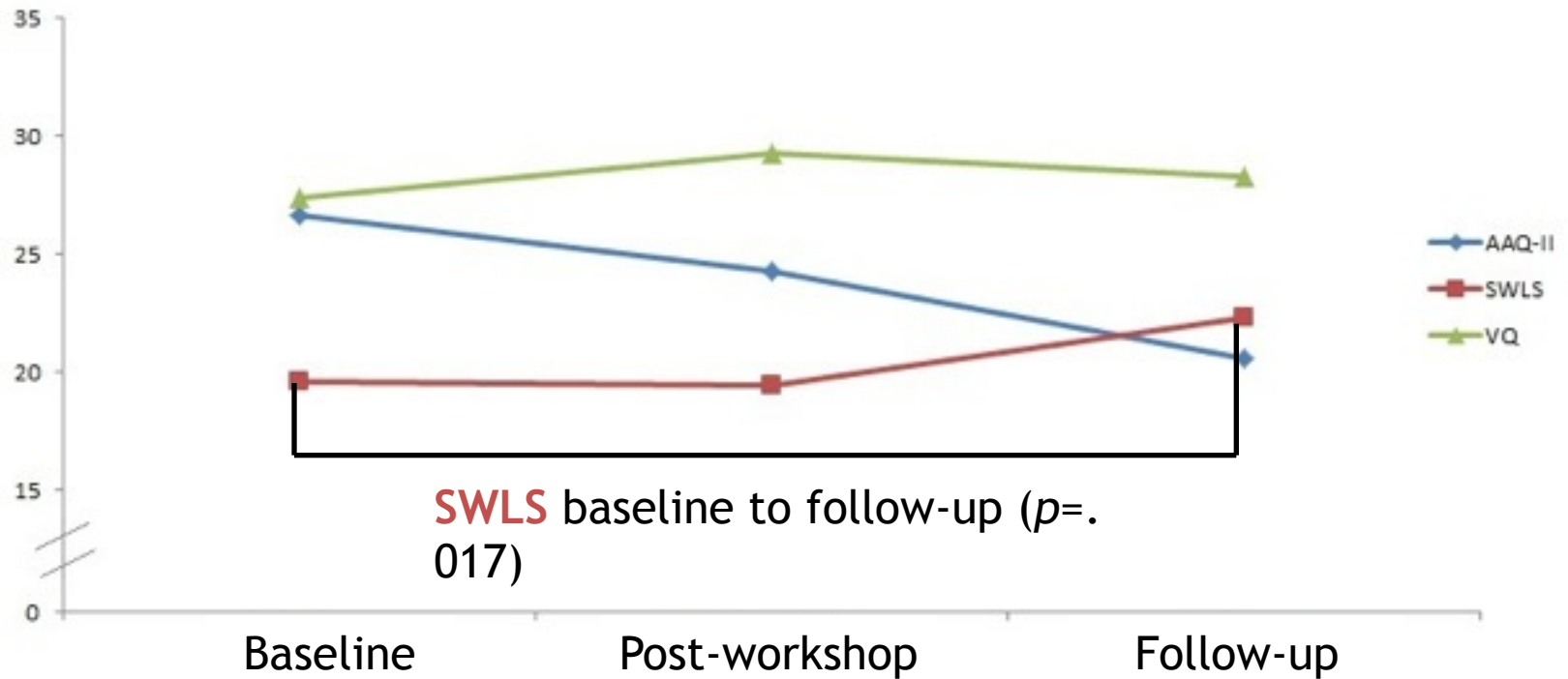
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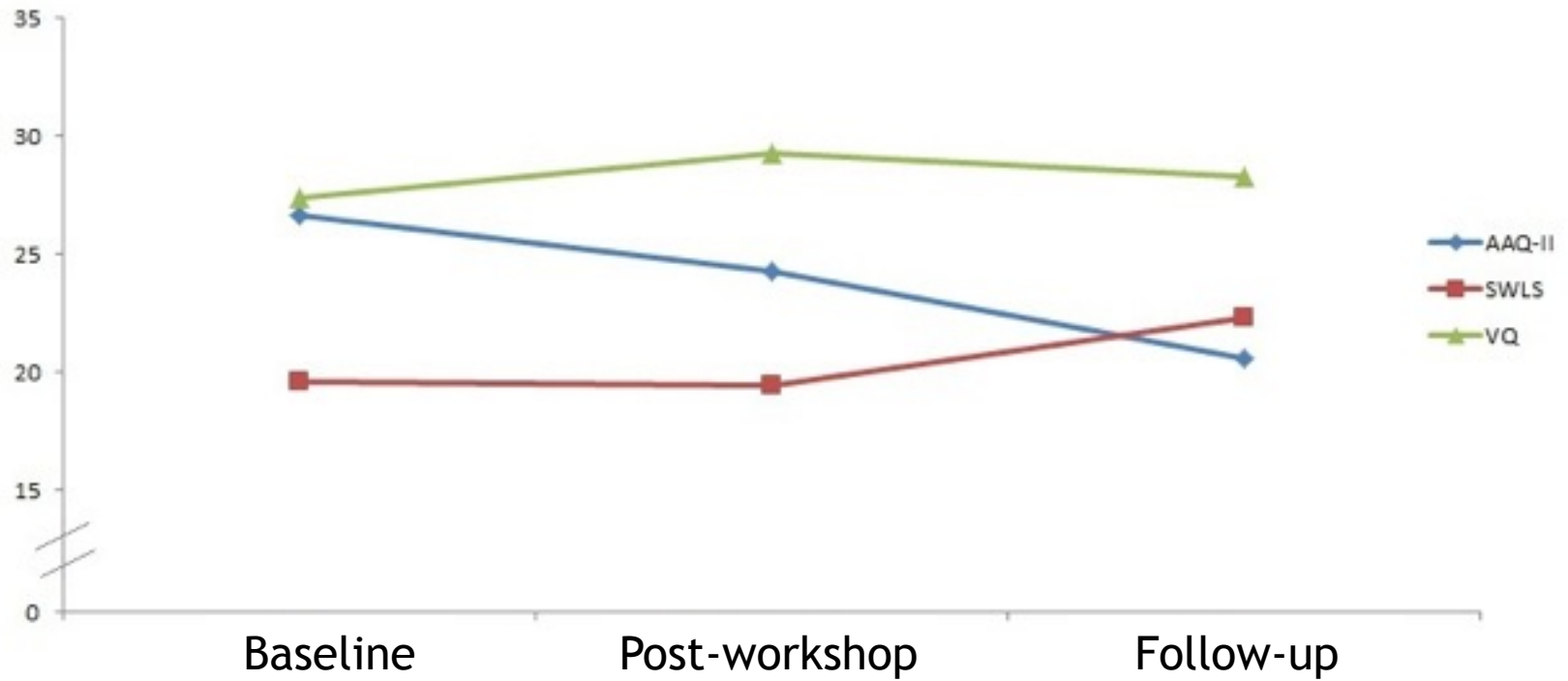
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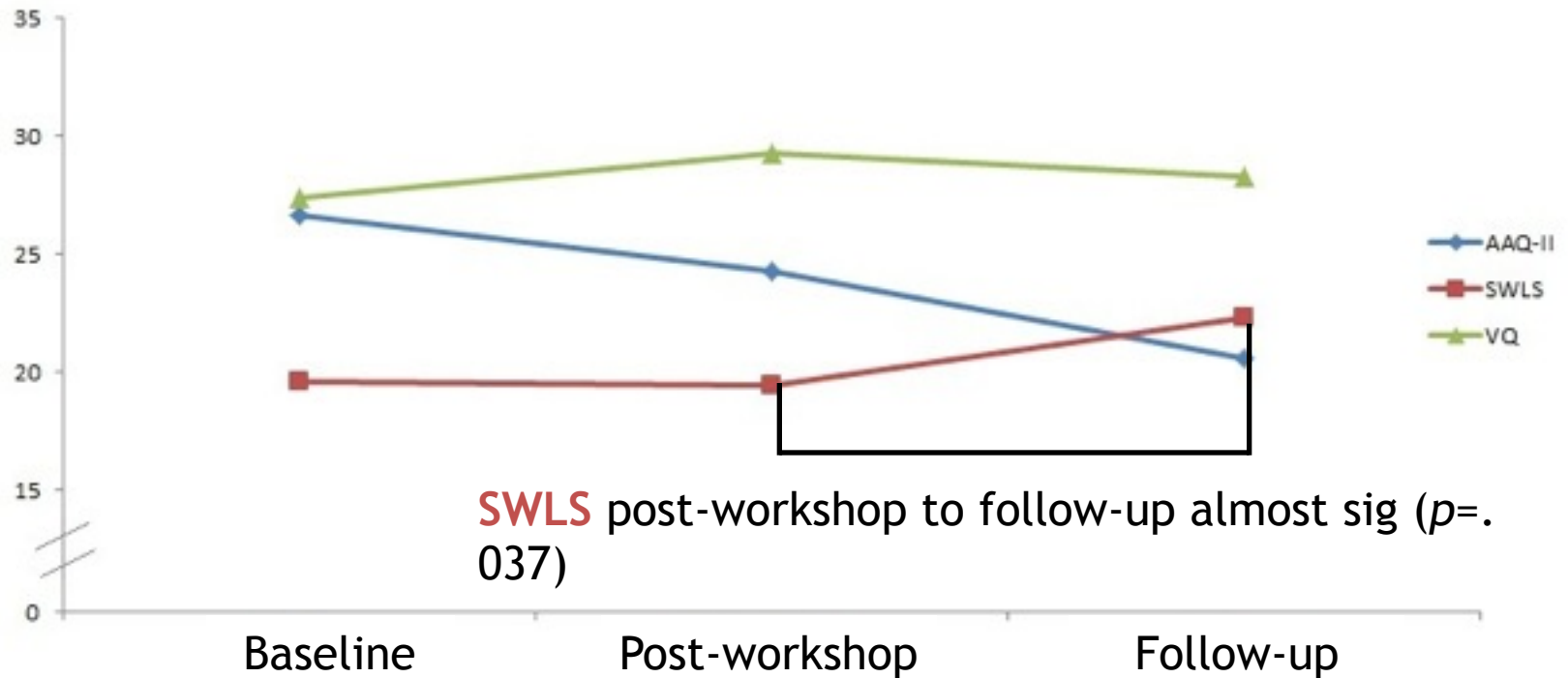


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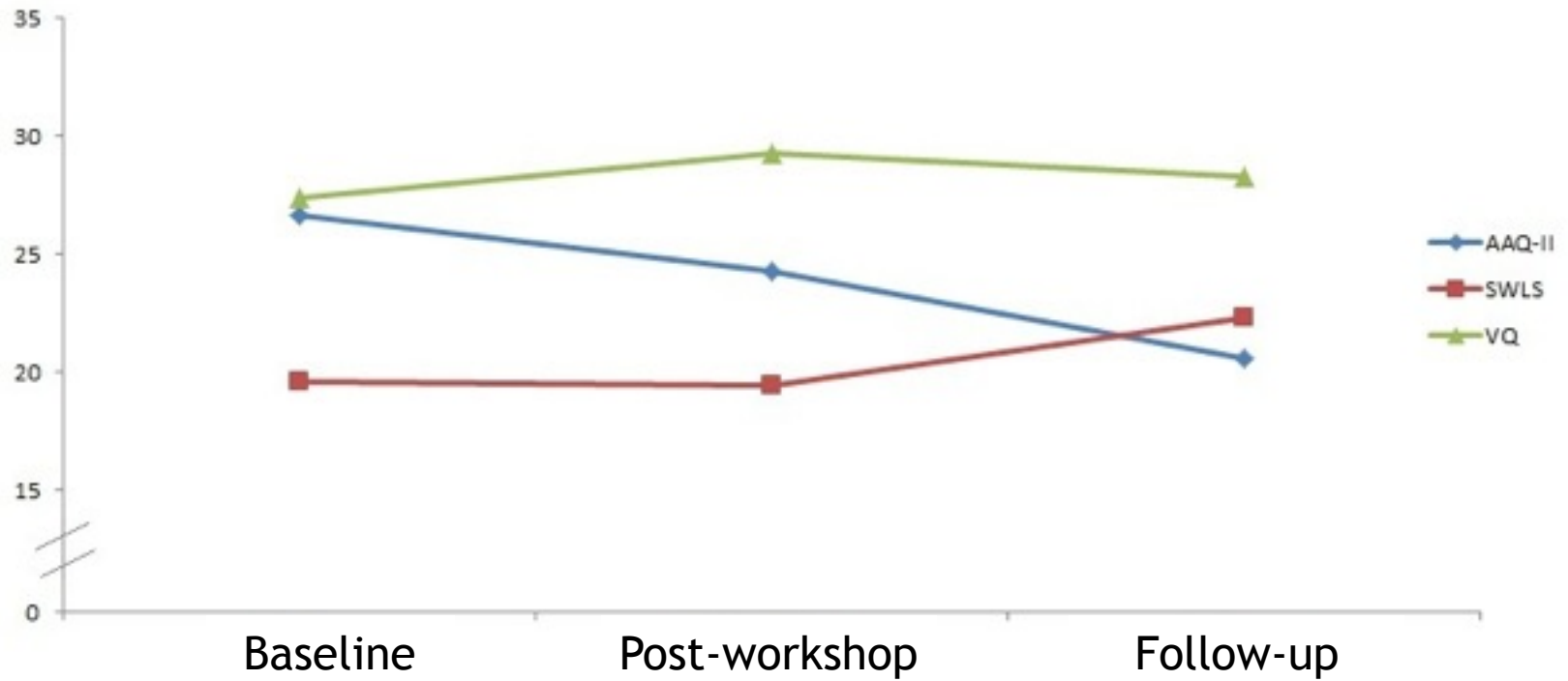




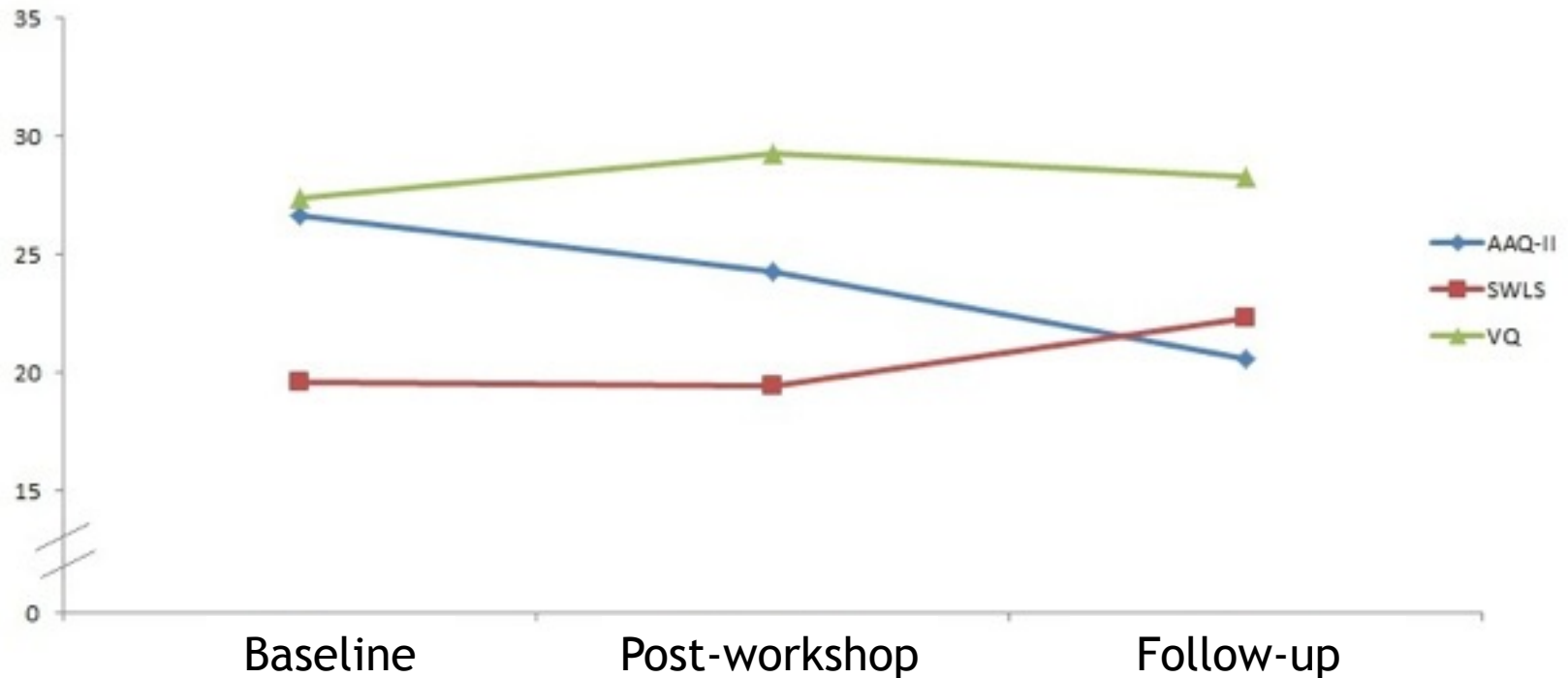
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- Significant decreases in psychological inflexibility from baseline to follow-up & from post-workshop to follow-up
- Significant increases in life satisfaction from baseline to follow-up; increase from post-workshop to follow-up trending towards significance

# PC-PTSD Screen

- 45.95% ( $n=17$ ) of the 37 participants screened positive at baseline; 35.14% ( $n=13$ ) screened positive at follow-up (non-sig.)
- No significant between-group differences on any measure
- Both participants who screened positive & those who didn't demonstrated sig. reductions in psychological inflexibility from baseline to follow-up ( $p=.001$ ) & from post-workshop to follow-up ( $p=.008$ )
- Increases in life satisfaction for both groups also trended towards sig. from baseline to follow-up ( $p=.022$ ) & from post-workshop to follow-up ( $p=.046$ )

# Feedback

- Positive feedback on Evaluation Form & requests for further supervision in ACT
- At follow-up, participants reported using ACT techniques in their work :

Exercise	Percentage (%)
<i>Life Line exercise</i>	<b>82.86</b>
<i>Mindfulness exercises</i>	<b>40</b>
<i>Passengers on a bus metaphor</i>	<b>20</b>
<i>The Matrix</i>	<b>14.29</b>
<i>Values exercises</i>	<b>14.29</b>
<i>70<sup>th</sup></i>	<b>11.43</b>

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- Significant reductions in psychological inflexibility over time & increases in life satisfaction
- No between groups differences on any measure re PC-PTSD screen, however all participants (inc. positive on PC-PTSD screen) demonstrated improvements across time
- Positive feedback; participants used techniques in their work with clients following training

# Study 2

## Participants:

57 participants (26 males; 31 females; mean age=36.12yrs) attended an advanced workshop in either Freetown ( $n=33$ ) or Bo ( $n=24$ )

Ethnicity: 68.4% Mende, 10.5% Temne, Limba, Kono, Krio, Mandingo, Loko, & Liberian

27 participants (14 males; 13 females; mean age=36.28 yrs) completed measures at all three time points

# Results: Study 2

# Correlations

	AAQ-II	CFQ	SWLS	VQ
AAQ-II				
CFQ	<b>.576**</b>			
SWLS	<b>-.307*</b>	<b>-.246</b>		
VQ	<b>-.473**</b>	<b>-.541**</b>	<b>.450**</b>	

\* $p < .05$  \*\* $p < .01$

## Sig. negative correlations

between:

AAQ-II & VQ

CFQ & VQ

\*AAQ-II & SWLS approaching sig.

## Sig. positive correlations

between:

AAQ-II & CFQ

VQ & SWLS

# Internal Reliability

Measure	Cronbach's alpha
<i>AAQ-II</i>	<i>a=. 823</i>
<i>SWLS</i>	<i>a=.786</i>
<i>CFQ</i>	<i>a=.671</i>
<i>VQ</i>	<i>a=.69</i>

- Higher internal reliability compared to Study 1
- Improved reliability for VQ may reflect better understanding on ACT conceptualisation of values & of term “auto-pilot” for advanced workshop compared to beginners

# Changes over time

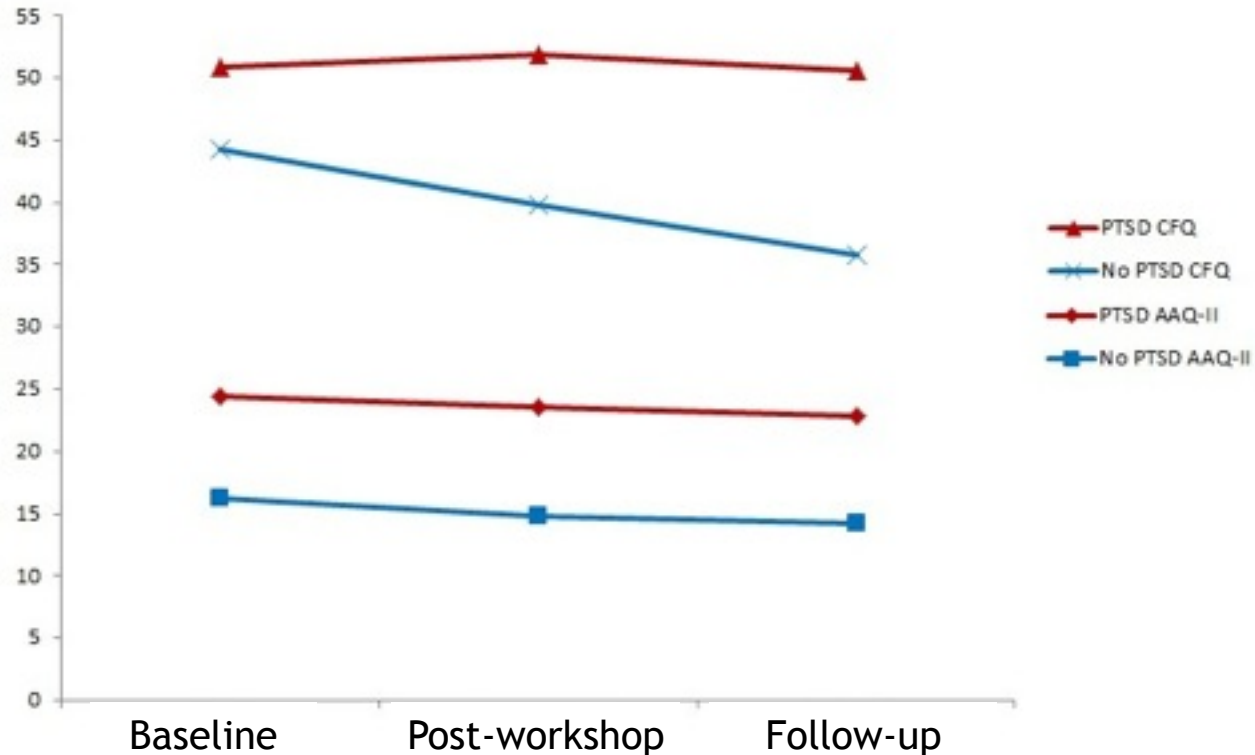
- No significant changes on any measure over time in Study 2
- However, baseline AAQ-II scores in the advanced workshop ( $M=21.44$ ;  $SD=7.66$ ) were much lower than those in the beginners workshop in Study 1 ( $M=26.69$ ;  $SD=7.93$ )

# PC-PTSD Screen

- 63% ( $n=17$ ) of the 27 participants screened positive on PC-PTSD screen at baseline ; 33.3% ( $n=9$ ) did so at follow-up
- McNemar's test revealed that the reduction was statistically significant ( $p=.021$ )
- Mixed factorial ANOVAs revealed significant differences between those who screened positive & those who didn't on all measures (but no changes in scores over time)

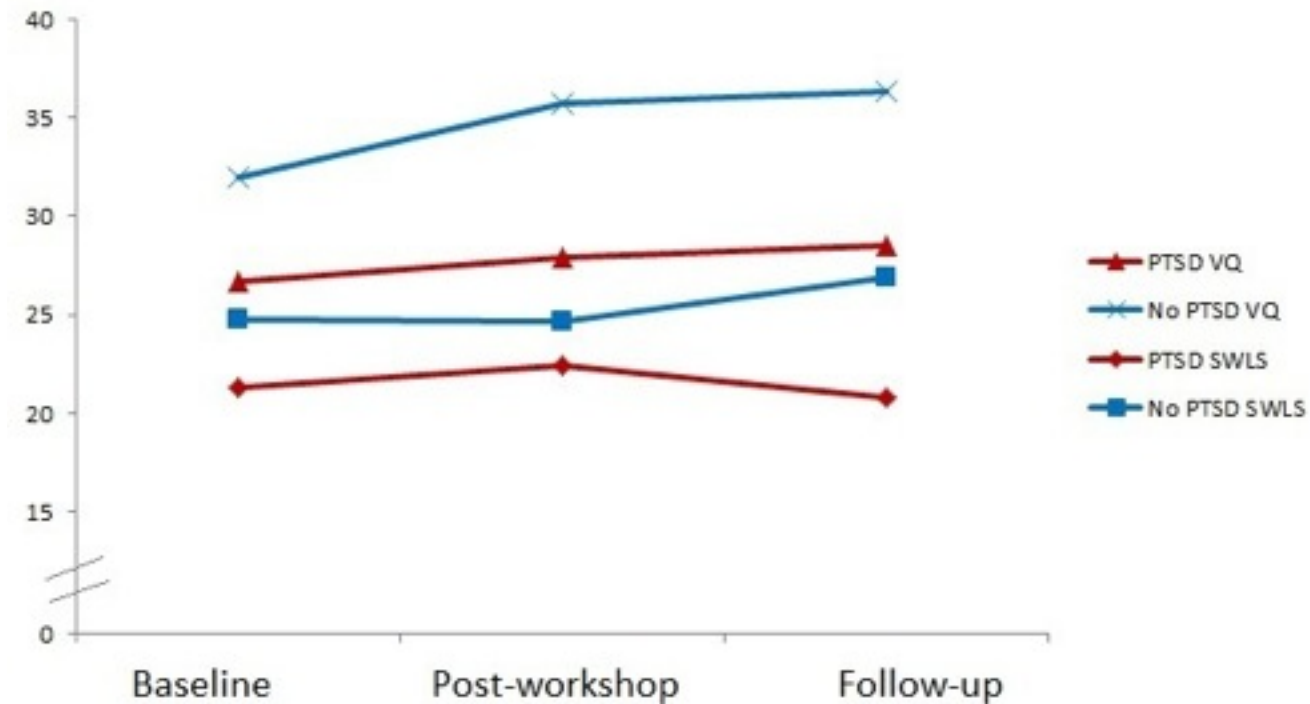


# PC-PTSD Screen



- Significant between groups effects for AAQ-II ( $p=.003$ ) and CFQ ( $p=.000$ )
- Participants who screened positive on PC-PTSD screen demonstrated higher psychological inflexibility & cognitive fusion at each time point

# PC-PTSD Screen



- Significant between groups effects for SWLS ( $p=.015$ ) and VQ ( $p=.003$ )
- Participants who screened positive on PC-PTSD screen demonstrated lower life satisfaction & valued living at each time point

# Feedback

- Participants gave positive feedback & expressed interest in pursuing future ACT training & supervision
- At follow-up, participants reporting using ACT techniques in the work following training:

Exercise	Percentage (%)
<i>Life Line exercise</i>	<b>70.83</b>
<i>The Matrix</i>	<b>70.83</b>
<i>Mindfulness exercises</i>	<b>50</b>
<i>“Eyes On”</i>	<b>33.33</b>
<i>Defusion</i>	<b>25</b>

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- Participants who screened positive on the PC-PTSD screen differed sig. on all measures from those who didn't
- Participants who screened positive demonstrated greater inflexibility & fusion, & lower life satisfaction & valued living at each time point
- Positive feedback & participants continued to use ACT techniques in their work with clients

# Conclusions

- This research is an important first step in investigating the impact of *commit + act*'s work & the acceptability of ACT in Sierra Leone
- Findings provide evidence for acceptability & effectiveness of ACT in this population  
(reductions in psychological inflexibility & increases in life satisfaction)
- Preliminary evidence for reliability & validity of AAQ-II



# Future directions



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- Currently investigating the feasibility of conducting an RCT (clients who attend the *commit + act* center)
- “*Idioms of distress*”: Cross-cultural differences in conceptualisation of mental health difficulties (e.g., PTSD)
  - Implications for how this is measured



**TENKEY BORKU BORKU!!**

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