



Using I.ROC in future research

Possibilities and drawbacks?

Validating I.ROC

Relevant

- Literature Review
- Focus Groups

Measures Recovery

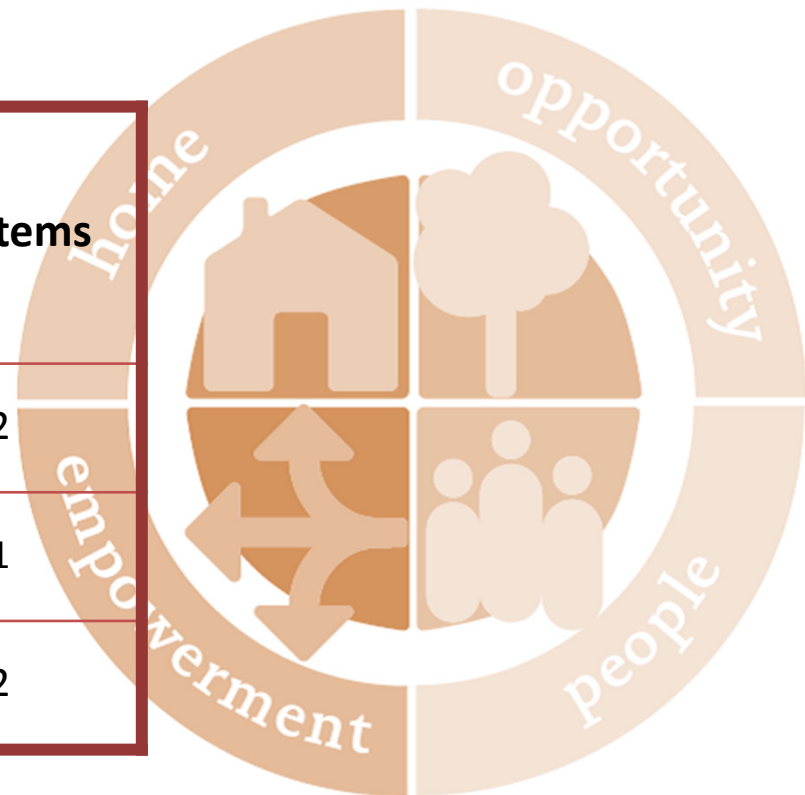
- Internal Consistency
- Concurrent Validity & Benchmarking
- Validity of the HOPE framework

Reliable

- Test-retest Reliability

Internal Consistency

Questionnaire	Cronbach's Alpha	N of Items
I.ROC	.862	12
RAS	.963	41
BASIS-32	.946	32



Benchmarking

- I.ROC
- General Health Questionnaire
 - Herth Hope Index
 - Community Living Skills Scale (CLSS)
 - International Physical Activity Questionnaire (IPAQ)
 - Well-being Scale
 - Rosenberg Self-esteem Scale
 - Making Decisions Empowerment Scale (MDES)

Convergent Validity

	Hope	IPAQ	CLSS	GHQ	I.ROC	MDES	Wellbeing	SE
Hope		.072	.371**	-.060	.524**			
IPAQ	.072		-.317*	.078	.065			
CLSS	.371**	-.317*		.085	.617**			
GHQ	-.159	.158	-.079		-.336**	.177*	-.158	-.329**
I.ROC	.524**	.065	.617**	-.359**		-.293**	.273**	.567**
MDES				.199*	-.293**		-.246**	-.407**
Wellbeing				-.178*	.273**	-.246**		.337**
SE				-.378**	.567**	-.407**	.337**	

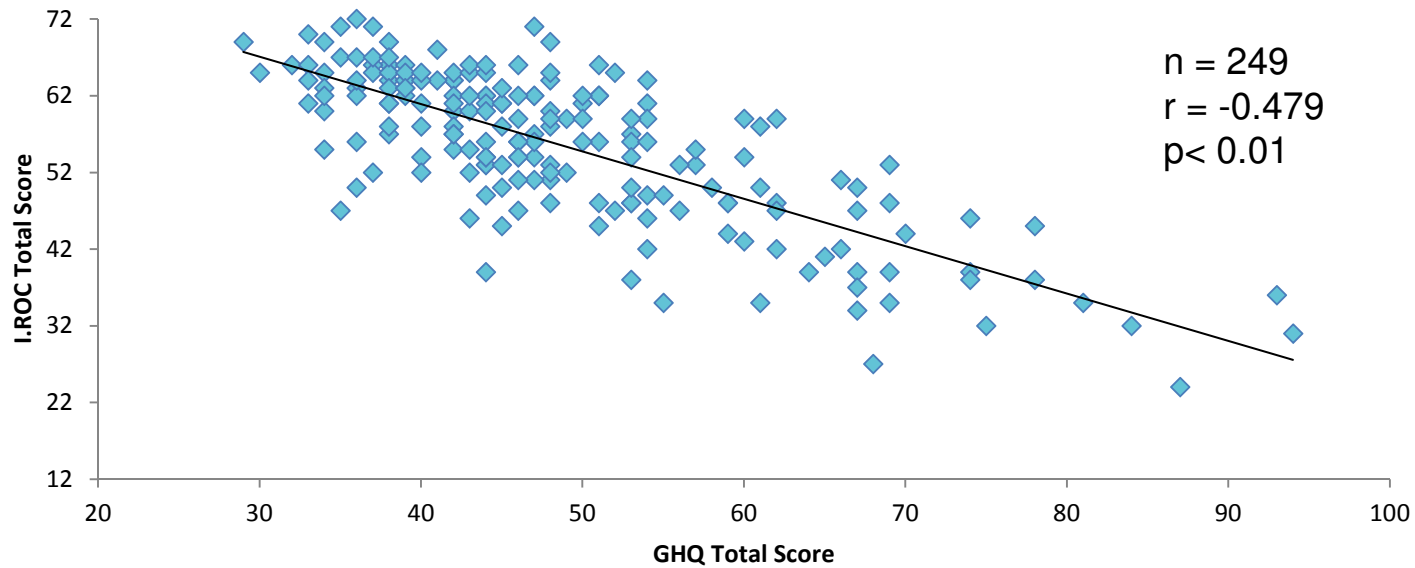
Pearson's Correlations in SPSS 19

* $p < 0.05$

** $p < 0.01$

Convergent Validity

I.ROC v GHQ total scores for combined sample



	GHQ				
	Somatic	Anxiety	Social Dysfunction	Severe Depression	Total
I.ROC Total	-0.317**	-0.239**	-0.423**	-0.475**	-0.479**

Factor Analysis: Original Study

- Exploratory Factor Analysis
- 171 participants
- 2 Factors: 51.8% of variance

Factor 1	Factor 2
Mental Health	Physical Health
Life Skills	Exercise and Activity
Safety and Comfort	Purpose & Direction
Personal Network	Social Network
Valuing Myself	Hope for the future
Participation and Control	
Self Mmgt	

Construct Validity



home

a safe and secure place
to live

Mental Health
Life Skills
Safety & Comfort



opportunity

to pursue meaningful leisure,
recreation, education and work
possibilities

Physical Health
Exercise & Activity
Purpose & Direction



people

as friends, confidantes
and supporters

Personal Network
Social Network
Valuing myself



empowerment

fully involved in decisions
affecting own life

Participation & Control
Self Management
Hope for the Future

Factor Analysis: Current Study

- Malaga University
- Abertay University
- Penumbra

- HOPE Framework vs. 2 Factor Structure
 - Exploratory Factor Analysis
 - Confirmatory Factor Analysis

Factor Analysis: Sample

- Secondary analysis of pooled data
- I.ROCs completed by Penumbra service users between Jan 2012 and Dec 2014
 - 3128 people
 - Baseline I.ROCs = 2346
- Analysed using LISREL 8.0 in Malaga
- I.ROC reference values used

Factor Analysis: Results

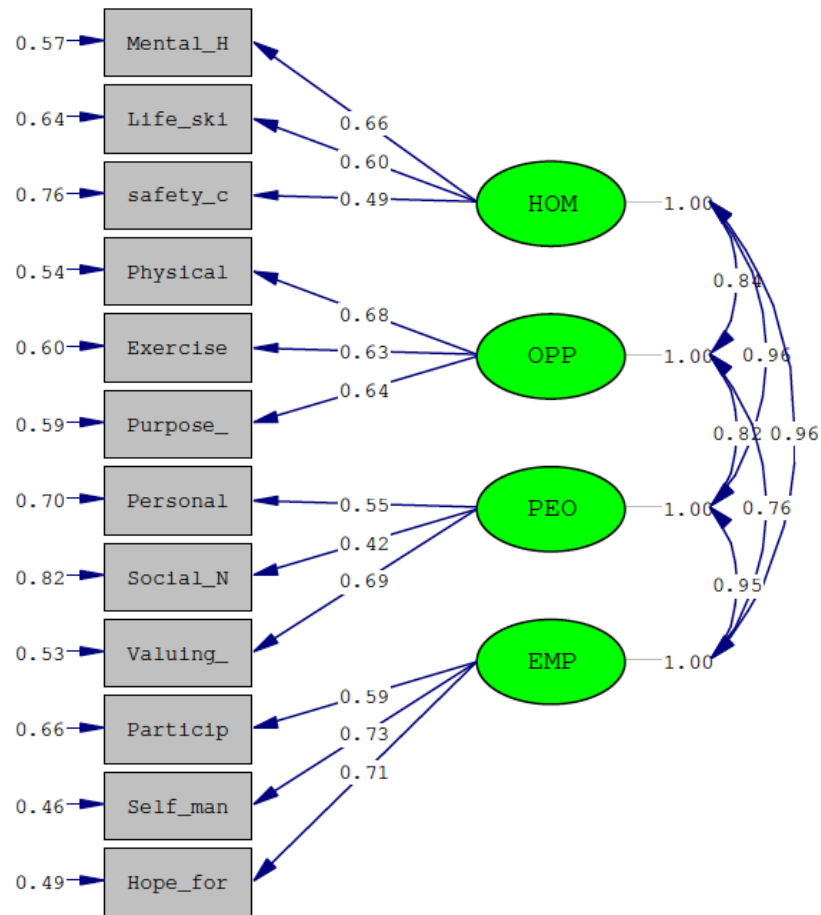
		2 Factors	4 Factors
Exploratory	Variance	49.1%	62.4%
Confirmatory	CFI*	0.97	0.99
	RMSEA*	0.07	0.0001
	NFI*	0.97	0.98

*CFI = Comparative Fit Index (Closer to 1 is better)

*RMSEA = Root Mean Square Error of Approximation (Closer to 0 is better)

*NFI = Normed Fit Index (Closer to 1 is better)

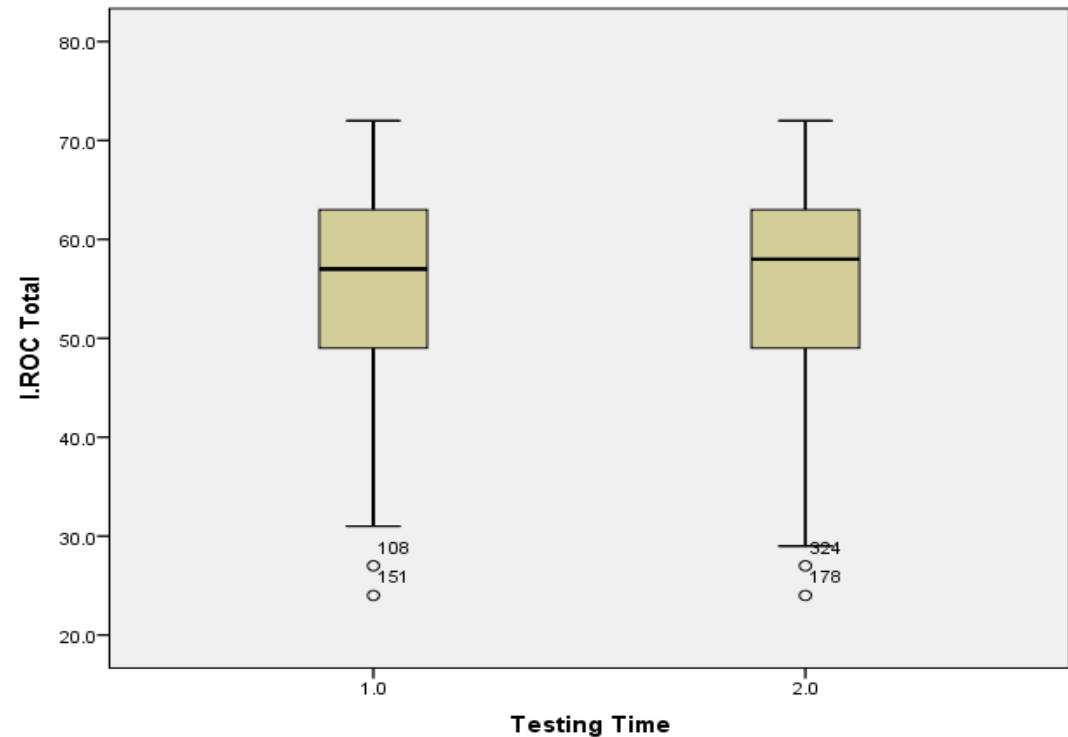
HOPE Framework



Chi-Square=-28194.67, df=48, P-value=1.00000, RMSEA=0.000

TRT I.ROC: Scores distribution

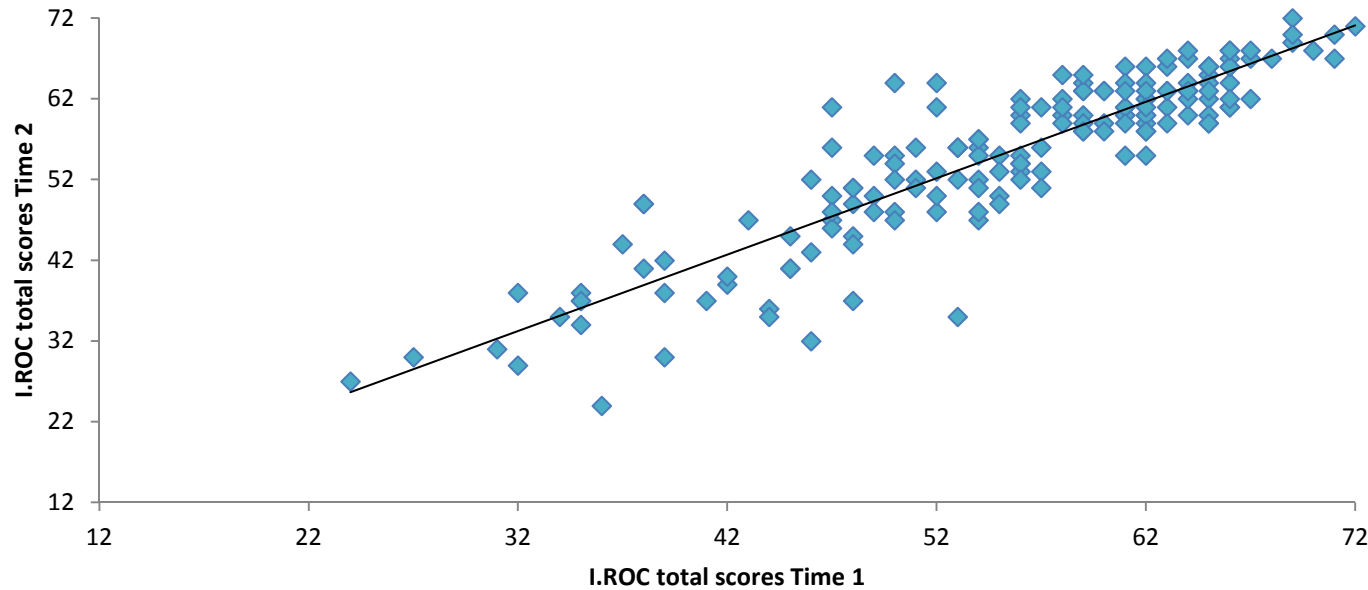
	T1	T2	Difference
Mean	55.19	55.19	0
Standard Deviation	9.93	10.43	.53
25 th percentile	49	49	0
50 th percentile	57	58	1
75 th percentile	63	63	0



Statistical test	Assessing	Statistic	Significance	Meaning
Wilcoxon signed-rank test	Difference in distribution	-.076	.939	Distribution of scores at T1 and T2 do not differ significantly

TRT I.ROC: Scores correlation

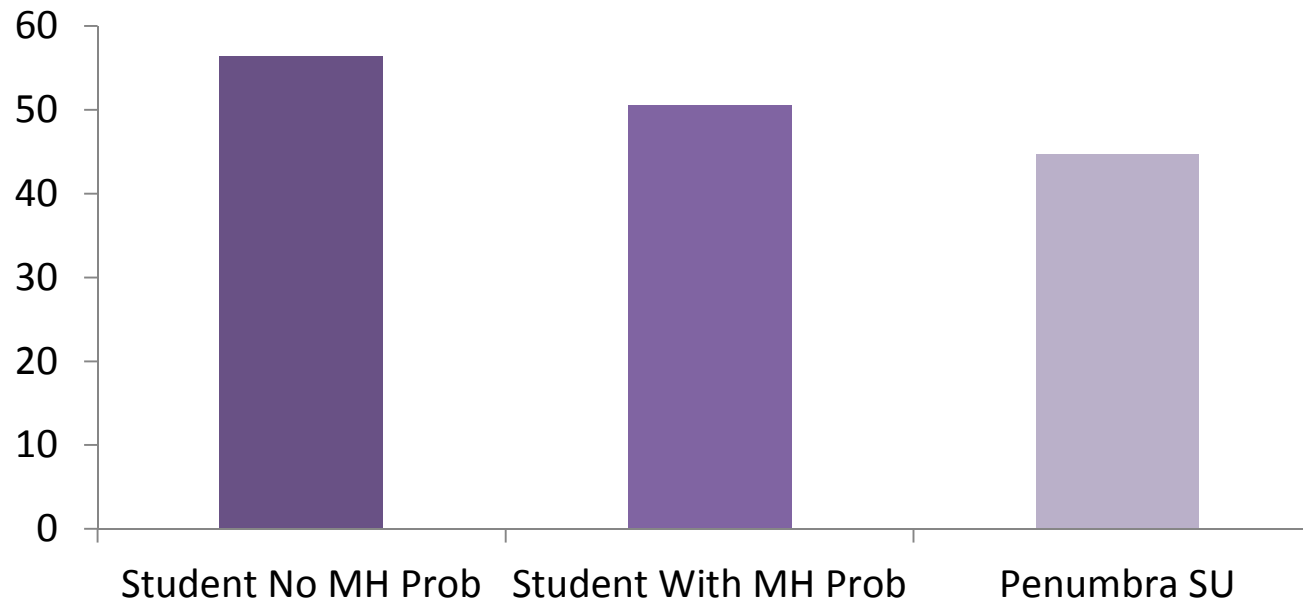
Correlation between I.ROC Total scores at T1 and T2



	Abertay	Penumbra	Combined
Correlation T1 – T2 Totals (Spearman's rho)	0.880**	0.868**	0.832**
Difference in mean total scores	0.41	-0.28	0.00
N	70	103	173

I.ROC & Mental Illness

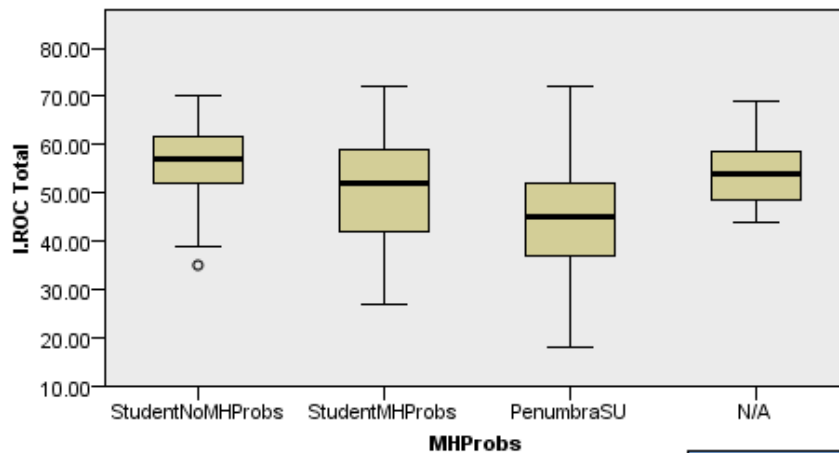
I.ROC total scores for participants with or without a history of mental health problems



- N=407
- Benchmarking
- Original validation

I.ROC & Mental Illness

Independent-Samples Kruskal-Wallis Test



Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
PenumbraSU-StudentMHProbs	64.094	16.961	3.779	.000	.001
PenumbraSU-N/A	-100.014	21.825	-4.583	.000	.000
PenumbraSU-StudentNoMHProbs	130.385	13.555	9.619	.000	.000
StudentMHProbs-N/A	-35.920	24.522	-1.465	.143	.858
StudentMHProbs-StudentNoMHProbs	66.291	17.571	3.773	.000	.001
N/A-StudentNoMHProbs	30.371	22.303	1.362	.173	1.000

Other studies...

- Complex trauma
 - recovery measure to incorporate in our battery of assessments in a project comparing the effectiveness of Compassion Focused Therapy vs. Psychoeducation (Survive & Thrive) as phase I interventions for complex trauma.
 - Edinburgh Napier University

- Forensic mental health
 - Development of a recovery measure for use within forensic settings
 - Concurrent validity with I.ROC
- Glasgow University

- Spanish translation & validation
- Translating I.ROC into Spanish and re-validating it for use within mental health services in Andalucia
- Malaga University

- NHS Testing
 - I.ROC vs Recovery Star
 - Convergent Validity
 - Preference of staff and users
- Abertay University

- Evaluation of service design
- Nested measurement validation study
- University of Queensland

Future...

- Use in cohort studies or RCT's?
- Using item, scale or total scores?

Future...

- Use in practice (i.e. usefulness as an intervention)
- Big Data
- Different cultural settings and populations

Website data collection

- What variables do we need to collect?

Other ideas!