

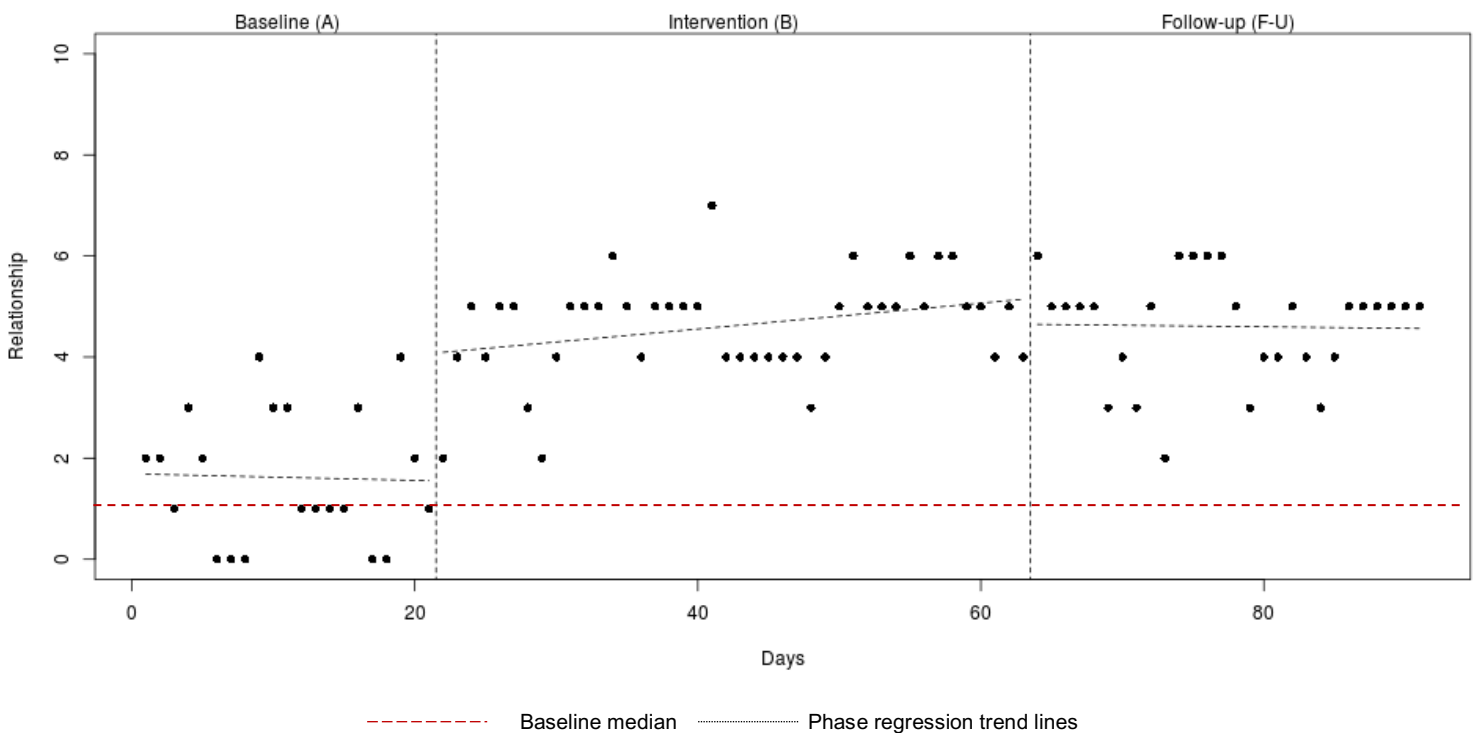
# AB-F/U design

Setting	Adult mental health
Design	AB-F/U
Length of baseline (A)	21
Length of intervention phase (B)	42
Length of follow-up (F/U)	28
<b>Idiographic measures</b>	<b>Scale</b>
Relationship	0-10 (Increase)
Sleep quality	0-10 (Increase)
Flashbacks	0-10 (Decrease)
<b>Nomothetic measures</b>	<b>Outcome</b>
CORE-OM	General distress
IES-R	PTSD symptoms

## 1. Visual analysis

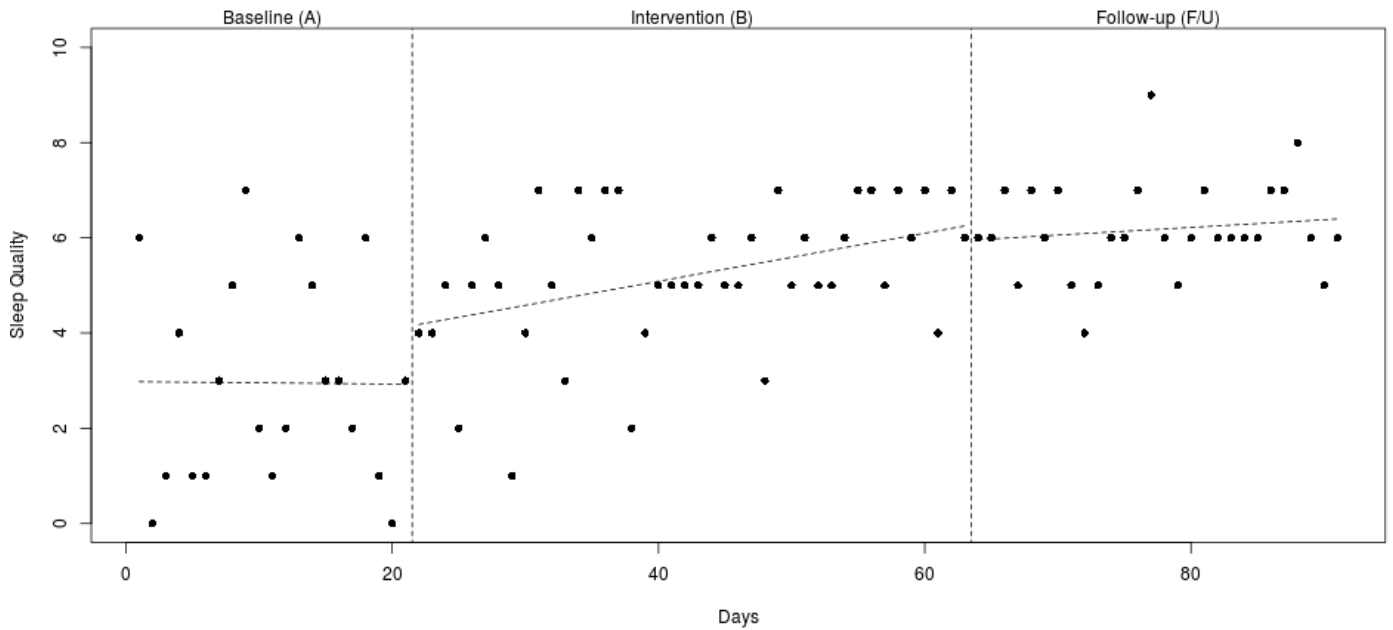
Idiographic measure 1: Relationship (OLS regression trend line)

Regression trend line plot produced in SCDA shiny app and manually customised using text boxes and shapes in Microsoft Word to add baseline median line and legend. See [Box 1](#) in the Analysis Guide for tips.



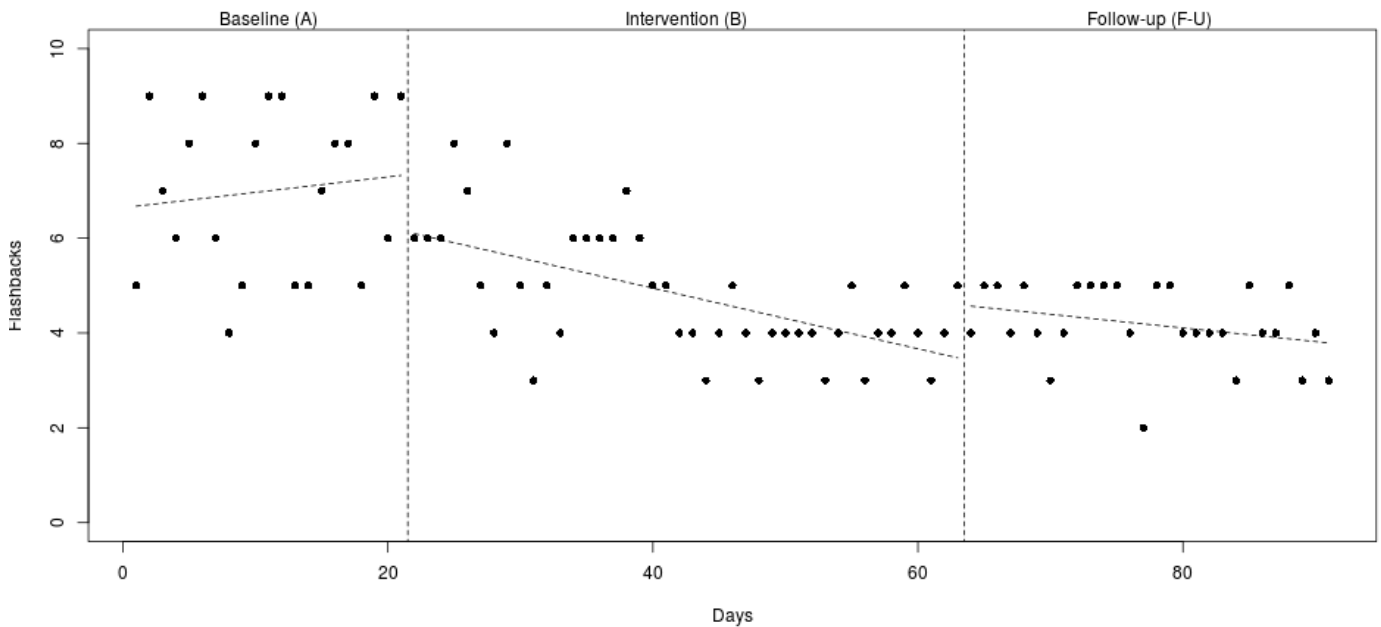
Idiographic measure 2: Sleep Quality (OLS regression trend line)

- Cut directly from app with no customisation. For your assignment add the customisation features – median baseline and legend – for each ideographic measure plot.



Idiographic measure 3: Flashbacks (OLS regression trend line)

- Cut directly from app with no customisation. For your assignment add the customisation features – median baseline and legend – for each ideographic measure plot.



## 2. Statistical analysis

Table 1: Nonoverlap effect and Tau-u statistics for ideographic measures between specific phases of SCED

Idiographic measure	Baseline (A) vs. Intervention (B)				
	Baseline trend ( $\tau^{\text{trendA}}$ )	<sup>1</sup> Tau ( $\tau^{\text{AvsB}}$ ) <sup>2</sup> Tau-U ( $\tau^{\text{AvsB} - \text{trendA}}$ )	PEM	PAND	NAP
Relationship	-0.053	<sup>1</sup> 0.678*	100	90.48	95.80
Sleep quality	0.030	<sup>1</sup> 0.419*	90.48	80.95	78.80
Flashbacks	0.099	<sup>1</sup> -0.493*	92.86	79.37	83.56
Idiographic measure	Baseline (A) vs. Follow-up				
	Baseline trend ( $\tau^{\text{trendA}}$ )	<sup>1</sup> Tau ( $\tau^{\text{AvsB}}$ ) <sup>2</sup> Tau-U ( $\tau^{\text{AvsB} - \text{trendA}}$ )	PEM	PAND	NAP
Relationship	-0.053	<sup>1</sup> 0.690*	100	85.71	95.07
Sleep quality	0.030	<sup>1</sup> 0.595*	100	85.71	88.52
Flashbacks	0.099	<sup>1</sup> -0.669*	100	87.76	92.43

\* = Significant at  $p = <.05$ . <sup>1</sup>If baseline trend is not significant, Tau between phase effect size is reported ( $\tau^{\text{AvsB}}$ ). <sup>2</sup>If baseline trend is not significant, Tau-U between phase effect size is reported ( $\tau^{\text{AvsB} - \text{trendA}}$ ).

Baseline (A) vs. Intervention (B)					
Interpretation guide	Baseline trend ( $\tau^{\text{trendA}}$ )	<sup>1</sup> Tau ( $\tau^{\text{AvSB}}$ ) <sup>2</sup> Tau-U ( $\tau^{\text{AvSB} - \text{trendA}}$ )	PEM (%)	NAP (proportion)	PND (%)
<i>Interpretation:</i>	<p>Higher <math>\tau^{\text{trendA}}</math> value indicates more evidence of baseline trend – positive or negative values indicate direction of trend (increasing/decreasing). P value indicates if trend is significant or not (if &lt;.05).</p> <p>Larger (<math>\tau^{\text{AvSB}} / \tau^{\text{AvSB} - \text{trendA}}</math>) values indicate larger differences between phases. Where improvement = increased scores, larger positive Tau values reflect improvement due to intervention/sustained improvement in follow-up. Where improvement = decreased scores, larger negative Tau values reflect improvement due to intervention/sustained improvement in follow-up.</p>		<p><i>For baseline (A) vs. intervention (B) comparisons; Higher scores reflect improvement due to intervention.</i></p> <p><i>For baseline (A) vs. follow-up (FU) comparisons; Higher scores reflect sustained improvement in follow-up.</i></p> <p>Higher scores reflect sustained improvement in follow-up. Scruggs &amp; Mastropieri (1998) suggested interpretation;            &gt; 0.90(or 90%) indicative of a very effective treatment            0.70-0.89 (or 70-89%) represent moderate effectiveness            0.50-0.69 (or 50-69%) are debatably effective            &lt;0.50 (50%) are regarded as not effective</p>		

### 3. Descriptive analysis

Table 2: Means and Standard deviations of each phase

Idiographic measure	Means (SD)		
	Baseline (Phase A) (21 days)	Intervention (Phase B) (42 days)	Follow Up (28 days)
Relationship	1.62 (1.32)	4.62 (1.01)	4.61 (1.07)
Sleep quality	2.95 (2.16)	5.21 (1.51)	6.18 (1.02)
Flashbacks	7.00 (1.73)	4.79 (1.32)	4.18 (0.82)

### 4. Nomothetic measures

Table 3: Nomothetic measures and reliable and clinically significant change analysis

Nomothetic measure	Outcomes				Norms		RCSI analysis (Pre-baseline to follow-up)			
	Pre-baseline	Post-baseline	Post-intervention	Follow Up	Community / non-clinical	Clinical	Reliable change criteria	Clinical cut-off	Clinical change (Y/N)	Reliable change (Y/N)
CORE-OM	29 (severe)	25 (severe)	13 (mild)	14 (mild)	2.5 (1.8)	18.3 (7.1)	>=6	<10	No	Yes
IES-R	2.99	2.93	2.09	2.01	1.82 (1.05)	2.64 (0.69)	>=0.38	<2.31	Yes	Yes

CORE-OM – RCSI analysis based on reliable change index (RCI) and clinical cut-off reported in Connell et al. (2007) - (Cronbach's alpha reliability =0.91)

IES-R - RCSI analysis based on clinical and community norms and reliability of scale (alpha = 0.96) reported in Creamer et al. (2003). The information was inputted into the single-case-V8 spreadsheet to calculate the RCI value and CSC cut-off (using criterion C) .

### ***Summary of findings***

**Visually** – all three idiographic measures showed an improvement trend in the intervention phase that appeared to plateau in the follow-up phase.

**Statistics** – The statistical analysis supported the visual analysis. There was no evidence of a significant baseline trend in any of the measures ( $Tau^{trendA}$ ). The A vs B non-overlap results indicated that the intervention was effective for all 3 outcomes ( $Tau^{AvsB}$  was significant, PEM, PAND & NAP had high scores). Using Scruggs and Mastropieri's (1998) suggested thresholds, the intervention appeared to be highly effective for improving the clients relationship, and overall moderately effective at improving the clients sleep quality and reducing flashbacks. The A vs F/U non-overlap results indicated that improvements were sustained during follow-up for all 3 outcomes ( $Tau^{AvsB}$  was significant, PEM, PAND & NAP had high scores).

**Nomothetic** – CORE-OM showed reliable but not clinical change from baseline to follow-up – the client had shown a reliable improvement in symptoms but did not finish treatment in the non-clinical range. The IES showed both reliable and clinically significant change from pre-baseline to end of follow-up.