

Provocation Index pre–post multilevel regression analysis

Service user

Dependent variable is key worker-reported Provocation Index post intervention.

Variable	β	p-value	95% CI	
			Lower bound	Upper bound
Intercept	–42.1	0.160	–101.6	17.5
Service user PI pre intervention	0.6	<0.001	0.5	0.8
Age of service user	–0.26	0.061	–0.5	0.0
Gender of service user (males vs females)	–5.1	0.080	–10.8	0.6
BPVS	0.0	0.650	–0.1	0.1
IQ	–0.1	0.713	–0.5	0.3
RSES pre intervention	0.1	0.780	–0.7	1.0
ComQoL pre intervention	0.0	0.410	–0.0	0.1
Lay therapist qualification (NVQ/SVQ level 2 or GCSEs or less vs relevant degree or professional qualification)	4.1	0.637	–14.0	22.2
Lay therapist qualification (NVQ/SVQ level 3, Highers/A-levels or HNC vs relevant degree or professional qualification)	2.5	0.681	–10.9	16.0
Lay therapist qualification (NVQ/SVQ level 4, HND or irrelevant degree vs relevant degree or professional qualification)	3.7	0.660	–14.1	21.5
Gender of lay therapist (males vs females)	7.7	0.127	–2.5	18.0
Age of lay therapist	0.8	0.006	0.3	1.3
Region (Scotland vs Wales)	–2.4	0.701	–15.7	10.9
Region (England vs Wales)	–0.1	0.997	–17.2	17.2
Group size (fewer than four service users in a group vs more than six in a group)	3.1	0.648	–11.5	17.7
Group size (between four and six service users in a group vs more than six in a group)	6.4	0.255	–5.7	18.6
No. of sessions attended	–1.2	0.012	–2.1	–0.3
Group fidelity rating	0.5	0.016	0.1	0.9

Note: β is the regression coefficient and refers to the change in outcome per one unit change in covariate.

Key worker

Variable	β	p-value	95% CI	
			Lower bound	Upper bound
Intercept	20.2	0.396	-27.8	68.2
Key worker PI pre intervention	0.6	<0.001	0.4	0.7
Age of service user	-0.2	0.086	-0.4	0.0
Gender of service user (males vs females)	-1.7	0.455	-6.1	2.8
BPVS	0.0	0.755	-0.1	0.1
WASIQ	-0.3	0.040	-0.7	-0.0
RSES pre intervention	-0.8	0.034	-1.5	-0.1
ComQoL pre intervention	0.0	0.237	-0.0	0.1
GDS pre intervention	0.8	0.004	0.3	1.3
GAS pre intervention	-0.2	0.082	-0.5	0.0
Lay therapist qualification (NVQ/SVQ level 2 or GCSEs or less vs relevant degree or professional qualification)	10.5	0.192	-5.9	26.8
Lay therapist qualification (NVQ/SVQ level 3, Highers/A-levels or HNC vs relevant degree or professional qualification)	6.9	0.299	-6.9	20.6
Lay therapist qualification (NVQ/SVQ level 4, HND or irrelevant degree vs relevant degree or professional qualification)	8.5	0.335	-9.8	26.7
Gender of lay therapist (males vs females)	2.0	0.643	-7.2	11.3
No. of years lay therapist has worked in learning disability services	0.2	0.400	-0.04	0.9
Group size (fewer than four service users in a group vs more than six in a group)	-61,095.0	0.433	-227,342.000	105,153.000
Group size (between four and six service users in a group vs more than six in a group)	0.1	0.981	-11.7	12.0
Region (Scotland vs Wales)	7.4	0.247	-5.9	20.8
Region (England vs Wales)	3.3	0.686	-13.9	20.4
Group fidelity rating	0.3	0.155	-0.1	0.7

Note: β is the regression coefficient and refers to the change in outcome per one unit change in covariate.

Profile of Anger Coping Skills pre–post multilevel regression analysis

Service user

Dependent variable is self-reported PACS post intervention.

Variable	β	p-value	95% CI	
			Lower bound	Upper bound
Intercept	21.9	0.548	-51.0	94.7
PACS service user pre intervention	0.3	0.008	0.1	0.6
Age of service user	0.0	0.821	-0.3	0.4
Gender of service user (males vs females)	1.9	0.626	-5.9	9.7
BPVS	0.1	0.264	-0.1	0.2
WASIQ	-0.3	0.359	-0.8	0.3
RSES pre intervention	-0.5	0.413	-1.7	0.7
COMQOL pre intervention	0.1	0.269	-0.0	0.2
GDS pre intervention	0.8	0.072	-0.1	1.8
GAS pre intervention	-0.5	0.045	-1.0	-0.0
Lay therapist qualification (NVQ/SVQ level 2 or GCSEs or less vs relevant degree or professional qualification)	-3.0	0.782	-25.4	19.4
Lay therapist qualification (NVQ/SVQ level 3, Highers/A-levels or HNC vs Relevant degree or professional qualification)	-9.5	0.236	-26.5	7.5
Lay therapist qualification (NVQ/SVQ level 4, HND or irrelevant degree vs Relevant degree or professional qualification)	-8.1	0.470	-32.2	16.0
Gender of lay therapist (males vs females)	13.3	0.044	0.4	26.1
Number of years lay therapist has worked in learning disability services	0.3	0.469	-0.5	1.1
Region (Scotland vs Wales)	-8.8	0.296	-26.3	8.8
Region (England vs Wales)	-17.2	0.111	-39.1	4.7
Group size (fewer than four service user in a group vs more than six in a group)	-3.5	0.710	-23.9	16.8
Group size (between four and six service user in a group vs more than six in a group)	3.1	0.643	-12.0	18.2
Number of sessions attended	1001.0	0.999	-1.3	1.3
Group fidelity rating	0.3	0.236	-0.2	0.8

Note: β is the regression coefficient and refers to the change in outcome per one unit change in covariate.

Key worker

Dependent variable is key worker-reported PACS post intervention.

Variable	β	p-value	95% CI	
			Lower bound	Upper bound
Intercept	50.7	0.123	-14.7	116.1
PACS key worker pre intervention	0.5	< 0.001	0.2	0.7
Age of service user	-0.1	0.324	-0.4	0.1
Gender of service user (males vs females)	2.5	0.366	-3.0	8.0
BPVS	-5783.0	0.899	-0.1	0.1
WASIQ	-0.1	0.498	-0.5	0.2
RSES pre intervention	0.4	0.396	-0.5	1.2
ComQoL pre intervention	-0.0	0.199	-0.1	0.0
Lay therapist qualification (NVQ/SVQ level 2 or GCSEs, or less vs relevant degree or professional qualification)	-18.1	0.118	-41.4	5.2
Lay therapist qualification (NVQ/SVQ level 3, Highers/A-levels, or HNC vs relevant degree or professional qualification)	-18.9	0.058	-38.6	0.8
Lay therapist qualification (NVQ/SVQ level 4, HND or irrelevant degree vs relevant degree or professional qualification)	-22.7	0.084	-48.9	3.6
Gender of lay therapist (males vs females)	9.6	0.150	-4.0	23.1
No. of years lay therapist has worked in learning disability services	0.5	0.224	-0.4	1.4
Region (Scotland vs Wales)	-16.9	0.079	-36.0	2.3
Region (England vs Wales)	-13.9	0.242	-38.6	10.8
Group size (fewer than four support workers in a group vs more than six in a group)	4.8	0.676	-19.1	28.6
Group size (between four and six service users in a group vs more than six in a group)	9.9	0.233	-7.4	27.2
Group fidelity rating	-0.3	0.267	-0.9	0.3
No. of sessions attended	-0.2	0.590	-1.0	0.6

Note: β is the regression coefficient and refers to the change in outcome per one unit change in covariate.

Aberrant Behaviour Checklist pre–post multilevel regression analysis

Key worker

Dependent variable is key worker-reported ABC post-intervention.

Variable	β	p-value	95% CI	
			Lower bound	Upper bound
Intercept	26.8	0.143	-9.3	62.9
ABC pre intervention	0.8	< 0.001	0.6	0.9
Age of service user	-0.2	0.078	-0.3	0.0
Gender of service user (males vs females)	-3.5	0.094	-7.6	0.6
BPVS	0.0	0.604	-0.1	0.1
WASIQ	-0.2	0.232	-0.5	0.1
RSES pre intervention	-0.4	0.199	-1.1	0.2
ComQoL pre intervention	0.0	0.538	-0.0	0.1
GDS pre intervention	-0.3	0.101	-0.7	0.1
Lay therapist qualification (NVQ/SVQ level 2 or GCSEs, or less vs relevant degree or professional qualification)	-4.8	0.412	-16.2	6.7
Lay therapist qualification (NVQ/SVQ level 3, Highers/A-levels, or HNC vs relevant degree or professional qualification)	-3.5	0.354	-10.8	3.9
Lay therapist qualification (NVQ/SVQ level 4, HND or irrelevant degree vs relevant degree or professional qualification)	1.2	0.815	-8.8	11.2
Gender of lay therapist (males vs females)	0.2	0.929	-4.3	4.7
Region (Scotland vs Wales)	2.1	0.570	-5.3	9.5
Region (England vs Wales)	3.3	0.503	-6.5	13.1
Group size (fewer than four service users in a group vs more than six in a group)	0.7	0.878	-8.0	9.3
Group size (between four and six service users in a group vs more than six in a group)	-2.7	0.359	-8.5	3.1
Group fidelity rating	0.1	0.477	-0.1	0.3
No. of sessions attended	0.0	0.953	-0.6	0.6

Note: β is the regression coefficient and refers to the change in outcome per one unit change in covariate.

Profile of Anger Coping Skills: imaginal provocation test pre-post ranked analysis of covariance analysis

Dependent variable is residuals from the regression of the ranked post PACS-IPT medians on the pre-PACS-IPT medians.

Variable	β	p-value	95% CI	
			Lower bound	Upper bound
Intercept	0.9	0.045	0.0	1.7
Age of service user	2284.0	0.717	-0.0	0.0
Gender of service user (males vs females)	-0.3	0.080	-0.5	0.0
BPVS	-1031.0	0.629	-5254.0	3193.0
Lay therapist qualification (NVQ/SVQ level 2 or GCSEs or less vs relevant degree or professional qualification)	-0.1	0.642	-0.8	0.5
Lay therapist qualification (NVQ/SVQ level 3, Highers/A-levels or HNC vs relevant degree or professional qualification)	-0.4	0.017	-0.8	-0.1
Lay therapist qualification (NVQ/SVQ level 4, HND or irrelevant degree vs relevant degree or professional qualification)	-0.4	0.196	-0.9	0.2
Region (Scotland vs Wales)	-0.7	< 0.001	-1.1	-0.3
Region (England vs Wales)	-0.5	0.048	-0.9	-3616.0

Note: β is the regression coefficient and refers to the change in outcome per one unit change in covariate.