

Pre-post outcomes tool guide

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What's the tool for?

This tool is for anyone who wants to collect routine demographics and outcome measures from their clients at pre- and post-therapy, who isn't sure how - or who doesn't have time - to analyse the data themselves.

What can the tool do?

It will give you a brief overview of your clients in terms of age and the average number of sessions attended (apart from YP-CORE which also includes a field for gender). We've made the decision not to include any additional demographic fields in the tool as you/your service may use different and/or additional categories than those we might provide. If you do want bespoke demographic fields building into the tool then please contact us at research@bacp.co.uk and we will assist where possible.

It will also calculate the difference in pre-post changes on outcome measures and whether this is statistically significant (more change than we'd expect by chance) or clinically significant change (coming into therapy at or above a clinical threshold and leaving therapy below that threshold).

What measures can I collect using the tool?

The tool is currently set up to analyse data on the following measures:

- PHQ-9
- GAD-7
- CORE-10
- YP-CORE
- SDQ 11-17 (self-report)

If you use a different measure which you'd like incorporating into the tool, please contact research@bacp.co.uk

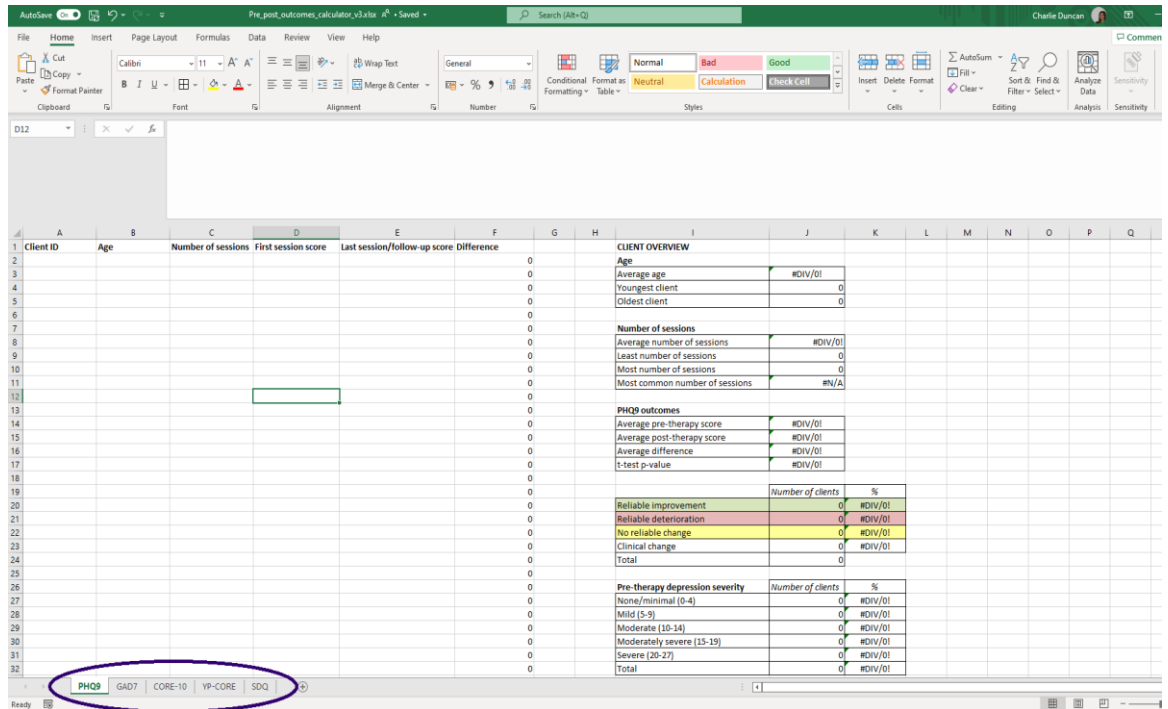
When should I collect measures?

Despite the tool only being able to calculate pre-post changes, we often advocate for the collection of measures on a session-by-session basis to ensure that a 'final' measure is collected if a client terminates therapy prematurely. If this doesn't feel clinically appropriate, or doesn't fit with your usual way of working, then do what you feel best.

Getting started

Choosing a measure

Each tab along the bottom of the file has been customised for each of the outcome measures - make sure you select the one you're using, or the calculations won't be correct.



Entering data

We've chosen a small number of variables that you might want to collect data on, such as age and number of sessions.

Client ID: This is a free text box for the unique ID that you assign to your client. You might choose to anonymise your client data at this point by assigning a number or random code to your client, rather than their name. Whatever you choose, it's important that each client has their own unique ID so that if you can easily find it.

Gender (YP-CORE ONLY): This is a drop-down list with the options: 'male', 'female' and 'prefer to self describe as:'. We've chosen these options based on the [Stonewall recommendations](#). This cell can be left blank if you do not collect this data or if your client would prefer not to provide this information. If you collect YP-CORE, it's important that you collect this data as reliable and clinical change indices are age and gender specific. However, the developers of the CORE measures acknowledge that only using the binary male/female gender classifications is problematic and you can [read their statement here](#).

Age: This is a free text box where age in whole numbers can be captured. This cell can be left blank if you do not collect this data or if your client would prefer not to provide this information. If you collect YP-CORE, it's important that you collect this data.

Number of sessions: This is a free text box where the number of sessions attended can be captured.

First session score: This is where the total score (or adjusted total score if you have some missing items) for the first outcome measure you collect for your client should be entered.

More information on scoring each of the measures can be found at the following:

- PHQ-9 & GAD-7: <https://digital.nhs.uk/binaries/content/assets/website-assets/data-and-information/data-sets/iapt/guide-to-iapt-data-and-publications.pdf>
- CORE-10: <https://www.bacp.co.uk/media/2355/bacp-cyp-prn-toolkit-for-collecting-routine-outcome-measures.pdf> (page 52)
- YP-CORE: <https://www.bacp.co.uk/media/2355/bacp-cyp-prn-toolkit-for-collecting-routine-outcome-measures.pdf> (page 52)
- SDQ 11-17: The scoring of individual items is handled within the calculator. More information can be found at [https://www.sdqinfo.org/py/sdqinfo/b3.py?language=Englishqz\(UK\)](https://www.sdqinfo.org/py/sdqinfo/b3.py?language=Englishqz(UK))

Note that you do not need to calculate the severity on the measures as the outcomes tool will do this for you.

Last session score: This is where the total score (or adjusted total score if you have some missing items) for the last outcome measure you collect for your client should be entered.

Difference: The difference between your pre- and post-outcome measure will automatically be calculated here so you don't need to enter anything in this column.

Analysing your data

Client overview and number of sessions

H	I	J	K
	CLIENT OVERVIEW		
	Age		
	Average age	#DIV/0!	
	Youngest client	0	
	Oldest client	0	
	Number of sessions		
	Average number of sessions	#DIV/0!	
	Least number of sessions	0	
	Most number of sessions	0	
	Most common number of sessions	#N/A	

If you have entered age and session data for your clients, an overview will be provided here. **You do not need to enter any data here yourself.**

Age: The tool will automatically calculate the average age of your clients here, if you've provided data on age. It will also show you the youngest and oldest client you have seen.

Number of sessions: The tool will automatically calculate the average number of sessions your clients have, the least and highest number of sessions a client has attended, and the most common number of sessions your clients attend.

The following sections will outline the analysis for each specific tool, so please skip to the section that is relevant to you.

PHQ-9

PHQ9 outcomes		
Average pre-therapy score	#DIV/0!	
Average post-therapy score	#DIV/0!	
Average difference	#DIV/0!	
t-test p-value	#DIV/0!	
	Number of clients	%
Reliable improvement	0	#DIV/0!
Reliable deterioration	0	#DIV/0!
No reliable change	0	#DIV/0!
Clinical change	0	#DIV/0!
Total	0	
	Number of clients	%
Pre-therapy depression severity		
None/minimal (0-4)	0	#DIV/0!
Mild (5-9)	0	#DIV/0!
Moderate (10-14)	0	#DIV/0!
Moderately severe (15-19)	0	#DIV/0!
Severe (20-27)	0	#DIV/0!
Total	0	#DIV/0!
	Number of clients	%
Post-therapy depression severity		
None/minimal (0-4)	0	#DIV/0!
Mild (5-9)	0	#DIV/0!
Moderate (10-14)	0	#DIV/0!
Moderately severe (15-19)	0	#DIV/0!
Severe (20-27)	0	#DIV/0!
Total	0	#DIV/0!

The top box shows you the average (or mean) **pre-therapy PHQ-9 score**, **post-therapy PHQ-9 score**, and **pre-post therapy PHQ-9 score difference** across all your clients. This can be very sensitive to individual variation (some will show lots of positive change, some might show very little change, and some might show lots of negative change) but allows you to say something about your clients very generally. **You do not need to enter any data here yourself.**

The **t-test p-value** shows you whether the pre-post change in PHQ-9 scores across your clients is considered statistically significant (i.e. a very high probability that the pre-post differences are due to a real difference and not just by chance). Generally, a number greater than 0.05 is considered to *not* show a statistically significant difference and a number lower than 0.05 is considered to show a statistically significant difference. We've made this easy for you to interpret by formatting this cell so that it will turn **red** if the number is great than 0.05 and **green** if it's lower than 0.05.

The green, yellow and red boxes labelled ‘reliable improvement’, ‘reliable deterioration’ and ‘no reliable change’ give you a more detailed overview of how your client’s change on PHQ-9 over the course of therapy.

‘Reliable improvement’ shows the number (and proportion) of clients who have improved on PHQ-9 by 6 or more points. A change of fewer than 6 points might just be due to measurement error so we cannot say that the change is reliable.

‘Reliable deterioration’ shows the number (and proportion) of clients who have deteriorated on PHQ-9 by 6 or more points. A change of fewer than 6 points might just be due to measurement error so we cannot say that the change is reliable.

‘No reliable change’ shows the number (and proportion) of clients who have moved by fewer than 6 points on the PHQ-9 in either direction. A change of fewer than 6 points might just be due to measurement error so we cannot say that the change is reliable.

‘Clinical change’ shows the number (and proportion) of clients who started therapy at “caseness” (i.e. at or above the threshold for depression that would be considered clinical - on the PHQ-9 this is a score of 10 or above) and finished therapy “not at caseness” (i.e. below the threshold for depression that would be considered clinical - on the PHQ-9 this is a score of lower than 10). This is sometimes also referred to as ‘recovery’.

Pre- and post-therapy depression severity levels show the number (and proportion) of clients showing the different levels of depression severity on the PHQ-9. This provides more nuanced information than the average pre- and post-therapy PHQ-9 scores alone.

GAD-7

GAD7 outcomes		
Average pre-therapy score		#DIV/0!
Average post-therapy score		#DIV/0!
Average difference		#DIV/0!
t-test p-value		#DIV/0!
	<i>Number of clients</i>	<i>%</i>
Reliable improvement	0	#DIV/0!
Reliable deterioration	0	#DIV/0!
No reliable change	0	#DIV/0!
Clinical change	0	#DIV/0!
Total	0	
	<i>Number of clients</i>	<i>%</i>
Pre-therapy anxiety severity		
None (0-4)	0	#DIV/0!
Mild (5-9)	0	#DIV/0!
Moderate (10-14)	0	#DIV/0!
Severe (≥15)	0	#DIV/0!
Total	0	#DIV/0!
	<i>Number of clients</i>	<i>%</i>
Post-therapy anxiety severity		
None (0-4)	0	#DIV/0!
Mild (5-9)	0	#DIV/0!
Moderate (10-14)	0	#DIV/0!
Severe (≥15)	0	#DIV/0!
Total	0	#DIV/0!

The top box shows you the average (or mean) **pre-therapy GAD-7 score**, **post-therapy GAD-7 score**, and **pre-post therapy GAD-7 score difference** across all your clients. This can be very sensitive to individual variation (some will show lots of positive change, some might show very little change, and some might show lots of negative change) but allows you to say something about your clients very generally. **You do not need to enter any data here yourself.**

The **t-test p-value** shows you whether the pre-post change in GAD-7 scores across your clients is considered statistically significant (i.e. a very high probability that the pre-post differences are due to a real difference and not just by chance). Generally, a number greater than 0.05 is considered to *not* show a statistically significant difference and a number lower than 0.05 is considered to show a statistically significant difference. We've made this easy for you to interpret by formatting this cell so that it will turn **red** if the number is great than 0.05 and **green** if it's lower than 0.05.

The green, yellow and red boxes labelled ‘reliable improvement’, ‘reliable deterioration’ and ‘no reliable change’ give you a more detailed overview of how your client’s change on GAD-7 over the course of therapy.

‘Reliable improvement’ shows the number (and proportion) of clients who have improved on GAD-7 by 4 or more points. A change of fewer than 4 points might just be due to measurement error so we cannot say that the change is reliable.

‘Reliable deterioration’ shows the number (and proportion) of clients who have deteriorated on GAD-7 by 4 or more points. A change of fewer than 4 points might just be due to measurement error so we cannot say that the change is reliable.

‘No reliable change’ shows the number (and proportion) of clients who have moved by fewer than 4 points on the GAD-7 in either direction. A change of fewer than 4 points might just be due to measurement error so we cannot say that the change is reliable.

‘Clinical change’ shows the number (and proportion) of clients who started therapy at “caseness” (i.e. at or above the threshold for anxiety that would be considered clinical - on the GAD-7 this is a score of 8 or above) and finished therapy “not at caseness” (i.e. below the threshold for anxiety that would be considered clinical - on the GAD-7 this is a score of lower than 8). This is sometimes also referred to as ‘recovery’.

Pre- and post-therapy anxiety severity levels show the number (and proportion) of clients showing the different levels of anxiety severity on the GAD-7. This provides more nuanced information than the average pre- and post-therapy GAD-7 scores alone.

CORE-10

H	I	J	K	L
	CORE-10 outcomes			
	Average pre-therapy score	#DIV/0!		
	Average post-therapy score	#DIV/0!		
	Average difference	#DIV/0!		
	t-test p-value	#DIV/0!		
		<i>Number of clients</i>	<i>%</i>	
	Reliable improvement	0	#DIV/0!	
	Reliable deterioration	0	#DIV/0!	
	No reliable change	0	#DIV/0!	
	Clinical change	0	#DIV/0!	
	Total	0		
	Pre-therapy levels of psychological distress	<i>Number of clients</i>		
	Healthy (0-4)	0	<i>%</i>	
	Low level (5-9)	0	#DIV/0!	
	Mild (10-14)	0	#DIV/0!	
	Moderate (15-19)	0	#DIV/0!	
	Moderate to severe (20-24)	0	#DIV/0!	
	Severe (25+)	0	#DIV/0!	
	Total	0	#DIV/0!	
			#DIV/0!	
	Post-therapy levels of psychological distress	<i>Number of clients</i>		
	Healthy (0-4)	0	<i>%</i>	
	Low level (5-9)	0	#DIV/0!	
	Mild (10-14)	0	#DIV/0!	
	Moderate (15-19)	0	#DIV/0!	
	Moderate to severe (20-24)	0	#DIV/0!	
	Severe (25+)	0	#DIV/0!	
	Total	0	#DIV/0!	
			#DIV/0!	

The top box shows you the average (or mean) **pre-therapy YP-CORE score**, **post-therapy YP-CORE score** and **pre-post therapy YP-CORE score difference** across all your clients. This can be very sensitive to individual variation (some will show lots of positive change, some might show very little change, and some might show lots of negative change) but allows you to say something about your clients very generally. **You do not need to enter any data here yourself.**

The **t-test p-value** shows you whether the pre-post change in CORE-10 scores across your clients is considered statistically significant (i.e. a very high probability that the pre-post differences are due to a real difference and not just by chance). Generally, a number greater than 0.05 is considered to *not* show a statistically significant difference and a number lower than 0.05 is considered to show a statistically significant difference. We've made this easy for you to interpret by formatting this cell so that it will turn **red** if the number is great than 0.05 and **green** if it's lower than 0.05.

The green, yellow and red boxes labelled ‘reliable improvement’, ‘reliable deterioration’ and ‘no reliable change’ give you a more detailed overview of how your client’s change on CORE-10 over the course of therapy.

‘Reliable improvement’ shows the number (and proportion) of clients who have improved on CORE-10 by 6 or more points. A change of fewer than 6 points might just be due to measurement error so we cannot say that the change is reliable.

‘Reliable deterioration’ shows the number (and proportion) of clients who have deteriorated on CORE-10 by 6 or more points. A change of fewer than 6 points might just be due to measurement error so we cannot say that the change is reliable.

‘No reliable change’ shows the number (and proportion) of clients who have moved by fewer than 6 points on the CORE-10 in either direction. A change of fewer than 6 points might just be due to measurement error so we cannot say that the change is reliable.

‘Clinical change’ shows the number (and proportion) of clients who started therapy at “caseness” (i.e. at or above the threshold for psychological distress that would be considered clinical - on the CORE-10 this is a score of 11 or above) and finished therapy “not at caseness” (i.e. below the threshold for psychological distress that would be considered clinical - on the CORE-10 this is a score of lower than 11). This is sometimes also referred to as ‘recovery’.

Pre- and post-therapy psychological distress levels show the number (and proportion) of clients showing the different levels of psychological distress on the CORE-10. This provides more nuanced information than the average pre- and post-therapy CORE-10 scores alone.

YP-CORE

I	J	K	L	M
	YP-CORE			
	Average pre-therapy score	#DIV/0!		
	Average post-therapy score	#DIV/0!		
	Average difference	#DIV/0!		
	t-test p-value	#DIV/0!		
		<i>Number of clients</i>	<i>%</i>	
	Reliable improvement	0	#DIV/0!	
	Reliable deterioration	0	#DIV/0!	
	No reliable change	0	#DIV/0!	
	Clinical change	0	#DIV/0!	
	Total	0		
	Pre-therapy levels of psychological distress	<i>Number of clients</i>	<i>%</i>	
	Healthy (0-4)	0	#DIV/0!	
	Low level (5-9)	0	#DIV/0!	
	Mild (10-14)	0	#DIV/0!	
	Moderate (15-19)	0	#DIV/0!	
	Moderate to severe (20-24)	0	#DIV/0!	
	Severe (25+)	0	#DIV/0!	
	Total	0	#DIV/0!	
	Post-therapy levels of psychological distress	<i>Number of clients</i>	<i>%</i>	
	Healthy (0-4)	0	#DIV/0!	
	Low level (5-9)	0	#DIV/0!	
	Mild (10-14)	0	#DIV/0!	
	Moderate (15-19)	0	#DIV/0!	
	Moderate to severe (20-24)	0	#DIV/0!	
	Severe (25+)	0	#DIV/0!	
	Total	0	#DIV/0!	

The top box shows you the average (or mean) **pre-therapy CORE-10 score**, **post-therapy CORE-10 score**, and **pre-post therapy CORE-10 score difference** across all your clients. This can be very sensitive to individual variation (some will show lots of positive change, some might show very little change, and some might show lots of negative change) but allows you to say something about your clients very generally. **You do not need to enter any data here yourself.**

The **t-test p-value** shows you whether the pre-post change in YP-CORE scores across your clients is considered statistically significant (i.e. a very high probability that the pre-post differences are due to a real difference and not just by chance). Generally, a number greater than 0.05 is considered to *not* show a statistically significant difference and a number lower than 0.05 is considered to show a statistically significant difference. We've made this easy for you to interpret by formatting this cell so that it will turn **red** if the number is great than 0.05 and **green** if it's lower than 0.05.

The green, yellow and red boxes labelled ‘reliable improvement’, ‘reliable deterioration’ and ‘no reliable change’ give you a more detailed overview of how your client’s change on YP-CORE over the course of therapy.

It is important to note that there are age and gender-specific differences in ‘reliable and clinical change scores’ which are summarised in the table below.

Gender/age	Reliable change indices	Clinical cut-off point
Male, 11-13 years	8.3	10.3
Male, 14-16 years	8.0	14.1
Female, 11-13 years	8.0	14.4
Female, 14-16 years	7.4	15.9

‘Reliable improvement’ shows the number (and proportion) of clients who have improved on YP-CORE by 7.4-8.3 or more points (depending on age and gender). A change of fewer than 7.4-8.3 points might just be due to measurement error so we cannot say that the change is reliable.

‘Reliable deterioration’ shows the number (and proportion) of clients who have deteriorated on YP-CORE by 7.4-8.3 or more points (depending on age and gender). A change of fewer than 7.4-8.3 points might just be due to measurement error so we cannot say that the change is reliable.

‘No reliable change’ shows the number (and proportion) of clients who have moved by fewer than 7.4-8.3 points on the YP-CORE in either direction (depending on age and gender). A change of fewer than 7.4-8.3 points might just be due to measurement error so we cannot say that the change is reliable.

‘Clinical change’ shows the number (and proportion) of clients who started therapy at “caseness” (i.e. at or above the threshold for psychological distress that would be considered clinical - on the YP-CORE this is a score of 10.3-15.9 or above depending on age and gender) and finished therapy “not at caseness” (i.e. below the threshold for psychological distress that would be considered clinical - on the YP-CORE this is a score of lower than 10.3-15.9 depending on age and gender). This is sometimes also referred to as ‘recovery’.

Pre- and post-therapy psychological distress levels show the number (and proportion) of clients showing the different levels of psychological distress on the YP-CORE. This provides more nuanced information than the average pre- and post-therapy YP-CORE scores alone.

SDQ 11-17 (self report)

Inputs

Unlike the other calculators in this document that create outputs based on the total score of the measure, the SDQ calculator uses individual inputs for each item, for each client e.g.:

SDQ Question	1= Not true 2= Somewhat true 3= Certainly true
1	1
2	3
3	2
4	1
5	1
6	2
7	3
8	1
9	3
10	1
11	3
12	3
13	2
14	1
15	3
16	1
17	2
18	2
19	2
20	1
21	3
22	1
23	2
24	1
25	3

For copyright reasons, we cannot include the questions in full in the calculator.

Once individual scores are input, the spreadsheet will automatically calculate the subscale scores, the total difficulties score and externalising and internalising scores for that client at that timepoint e.g.:

Subscales	
Emotional Problems (EP)	3
Conduct Problems (CP)	7
Hyperactivity (H)	5
Peer Problems (PP)	4
Prosocial (P)	3
Total difficulties score	19
Externalising score (Conduct + Hyperactivity)	12
Internalising score (Emotional + Peer)	7

The subscale scores then need to be manually input (or transposed) into the relevant section of the client's row on the spreadsheet (columns G-K for first session; columns O-S for follow-up). You do not need to copy externalising, internalising, or total scores - these will be recalculated automatically. Based on the input values, cells will conditionally highlight to indicate if that score is 'close to average' (no highlight), 'slightly raised/lowered' (green), 'high/low' (yellow), and 'very high/very low' (red), e.g.:

E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
		First session scores						Last/Follow-up session scores									
city	#. of sessions	EP	CP	H	PP	P	Ext	Int	Total	EP	CP	H	PP	P	Int	Ext	Total
		3	7	5	4	3	12	7	19								

Once you have entered the data for a client at a particular timepoint in the table in columns Y, Z and AA, and have transferred the data into the client row (columns G-K for first session; columns O-S for follow-up), you can then delete the raw data from columns Y, Z and AA to be used for your next client or timepoint.

Outputs

The following box shows you the average (or mean) **pre-therapy SDQ subscale and total score, post-therapy SDQ subscale and total score and pre-post therapy SDQ subscale and total score differences** across all your clients. This can be very sensitive to individual variation (some will show lots of positive change, some might show very little change, and some might show lots of negative change) but allows you to say something about your clients very generally. **You do not need to enter any data here yourself.**

	EP	CP	H	PP	P	Total
Average pre-therapy score	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Average post-therapy score	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Average difference	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
t-test p-value	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

The **t-test p-value** shows you whether the pre-post change in SDQ scores across your clients is considered statistically significant (i.e. a very high probability that the pre-post differences are due to a real difference and not just by chance). Generally, a number greater than 0.05 is considered to *not* show a statistically significant difference and a number lower than 0.05 is considered to show a statistically significant difference. We've made this easy for you to interpret by formatting this cell so that it will turn **red** if the number is great than 0.05 and **green** if it's lower than or equal to 0.05.

The following table displays **pre- and post-therapy SDQ severity categories** for each subscale and total score across your sample.

Pre-therapy levels of psychological distress	Emotional Problems		Conduct Problems		Hyperactivity		Peer Problems		Prosocial		Total Score	
	Number of	%	N	%	N	%	N	%	N	%	N	%
Close to Average	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
Slightly raised/(P) Slightly lowered	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
High/(P)Low	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
Very high/(P)Very low	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
Total N/%	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!

Pre-therapy levels of psychological distress	Emotional Problems		Conduct Problems		Hyperactivity		Peer Problems		Prosocial		Total Score	
	Number of	%	N	%	N	%	N	%	N	%	N	%
Close to Average	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
Slightly raised/(P) Slightly lowered	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
High/(P)Low	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
Very high/(P)Very low	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
Total N/%	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!