Treatment Outcome Data for Better Access Scheme

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The above current and former psychologists at Chris Mackey and Associates have all contributed to the compilation of the following outcome evaluation data which reports on treatment outcomes of clients seen through the Better Access (Medicare rebate) scheme funded by the Australian Federal Government

The following slides report on research findings presented in the symposium,

Outcome Evaluation in a Private Practice Setting

at the 2016 World Congress for Behavioural and Cognitive Therapies

In Melbourne, Australia on Thursday 23rd June, 2016.

The outcome data presented may be used as a reference point by other mental health practitioners to compare the before and after scores on relevant questionnaires of the clients they have treated. Those who obtain similar results are likely offering effective and efficient treatments. The data also provide substantial objective evidence of the effectiveness of the Better Access (Medicare) scheme, an Australian federal government scheme to assist those suffering from mental health problems.

Calls for evidence of effectiveness of the Better Access scheme

- Effectiveness relates to how well treatments work in "real-world" settings such as everyday private practice settings. Little such research exists as it is time-consuming, difficult and generally not funded. But academic research on "efficacy" of treatments based on highly selected participants in highly controlled settings may not be representative and generalizable.

- There have long been calls by psychologists for more effectiveness research, including in relation to the Better Access scheme.

Previous Objective Evidence

- An official report on the Better Access scheme conducted by Professor Jane Pirkis and colleagues, which was commissioned by the Federal Government, was released in March 2011. That report documented clear evidence for the effectiveness of psychological services offered through the scheme. The evidence from that report is summarized in an article in the September issue of the Australian and New Zealand Journal of Psychiatry.

- Some questioned the official report findings on such grounds as potential non-representativeness of clients, limited range of measures used, absence of comparison conditions, no follow-up data, questionable reliability of diagnoses and difficulty establishing what interventions were used. The research presented here augments the official study by addressing a number of these limitations.

Features of this Research

- The research data presented here was based on psychological therapy interventions by every single psychologist at Chris Mackey and Associates.

- An attempt was made to collect data on every client over a ten year period.

- A wide range of objective measures was used including measures of symptoms, positive wellbeing and client satisfaction with therapy.

- All psychologists had postgraduate qualifications in clinical psychology, counselling psychology or health psychology and were closely supervised in individual and group supervision by the Principal Psychologist with over 25 years' experience in applying CBT interventions. Our therapy approach is exemplified in the many handouts we give to our clients (posted as blogs in the education section of this website).

- Clients were diagnosed according to DSM-IV criteria, the reliability of which was supported by individual and group supervision sessions and the use of relevant measures (at times including structured interviews).

- Objective outcome data has been collected on approximately two thirds of clients seen which strongly supports its representativeness.

Further Evidence for Effectiveness of Psychological Treatments

- The following slides report on outcome evaluation data collected at this practice using a rigorous evaluation process. They provide direct evidence of the effectiveness of psychological treatments offered through the Better Access (Medicare rebate) scheme to 2014 adult clients from 2007 to 2016. Presentations on earlier research data have been offered at several national and international scientific conferences, commonly after a scientific peer review process. The research presented here supplements and supports findings from the official Better Access report.

Principles of Outcome Measurement

– Lyons, Howard, O' Mahoney & Lish (1997)

These principles were used as guidelines for the current research)

- Define goals & objectives   (i.e. spell out what you hope will change)

- What is important to consumers?   (it needs to be relevant to clients)

- What is possible and practical?   (needs to be realistic in real-world situation)

- Choose existing relevant measures   (not just symptoms, also wellbeing)

- Use reliable, valid, brief measures

- Decide who should conduct Assessment   (the treating psychologist)

- Measure on a fixed schedule   (in this case sessions 1, 5, 10 and final)

    - See notes in final slide (Appendix) for further detail about research strategies

Measures
(of symptoms as well as of positive wellbeing)

- Beck Anxiety Inventory (BAI; Beck, 1990)

- Beck Depression Inventory (BDI; Beck, 1978)

- Positive and Negative Affect Scale (PANAS; Watson et al., 1988)
  - Positive Affect Subscale (PA)
  - Negative Affect Subscale (NA)

- Satisfaction with Life Scale (SWLS; Diener et al., 1985)

- Outcome Rating Scale (ORS; Miller & Duncan, 2000) (measures wellbeing)

- Session Rating Scale   (SRS; Miller et al., 2000) (measures client satisfaction)

- Global Assessment of Functioning Scale (GAF; DSM-IV)

Evaluation Process

→ Give BAI, BDI, PANAS & SWLS at session 1

- For each course of therapy. Approx 10% of clients had more than one course.

→ ORS and SRS every session

→ BAI, BDI, PANAS, SWLS at session 5 (or 6) & 10

→ Repeat measures at final session

- Can use recent data as final session data if 70% into therapy and representative

- Use GAF and ORS scores if no other final data

→ Can then check course of change and generalizability of results

Systemic Strategies
to Enhance Reliability of Data

- ➡ Sophisticated computer program incorporates diary and outcome data

- ➡ Archive sheet in file documents questionnaire results throughout therapy

- ➡ Admin staff collect data, recall clients, post letters, request files for archiving

- ➡ Clinicians review and refine decision rules (e.g. limited exclusion criteria)

- ➡ Practice principal conducts occasional validity checks on data

- ➡ Missing data systematically identified and requested from clinician

Better Access Client Base

(Client age & gender)

- ➡ **Under 18 yrs**   **not included in this analysis (24%)**

- ➡ **18 - 29 yrs**   **33%**

- ➡ **30 - 39 yrs**   **27%**   **Male 36%**

- ➡ **40-49 yrs**   **20%**   **Female 64%**

- ➡ **50-69 yrs**   **19%**

- ➡ **>70 years**   **1.2%**

Approximately 50% of all clients seen have been aged under 30 years and over one third are male, in contrast to past claims that the scheme mainly supports middle aged women

Better Access Client Base

(Client severity & no. of sessions seen)

➡ **Slight**	**9%**	➡ **1-2 Sess's**	**18%**
➡ **Mild**	**32%**	➡ **3-6 Sess's**	**35%**
➡ **Moderate**	**34%**	➡ **7-10 Sess's**	**22%**
➡ **Severe**	**26%**	➡ **>10 Sess's**	**25%**

Severity ratings based on BAI and BDI
(slight < 10, mild ≥ 10, moderate ≥ 20,
severe ≥ 30)

Clients Included in Evaluation

3452 rebatable treatments for adult clients first seen from Jan 2007 to June 2015

Excluded 390 treatments, e.g., where clients also seen as a couple (n=230), or in a group (n=21), or seen as a parent or family member (n=33), or with language/cognitive problems (n=15), who were unwilling to attend (n=15), were seen for non-clinical issues (n=15), or for brief assessment purposes only (n=9), presented in a medicolegal context (n=15), refused to complete questionnaires (n=17) or whose responses seemed invalid (n=11).

n = 3062 adult treatments; 2014 included in this analysis. Approx 10% of clients were seen for more than one course of therapy. Approx 100 clients yet to complete treatment.

➡ **Have currently collected 2014 pre-post BAI & BDI scores (66%)**

- Clients seen on average for 8.4 sessions (median of 6 sessions)
- 1473 pre and post PANAS and SWLS scores (62%)
- 2884 pre and post GAF scores (94%)
- 2178 ORS scores (92% from Jan 2009)

Outcome Data

- The following slides report our combined outcome evaluation data in a number of ways including clients' average scores on each measure before and after treatment (for BAI and BDI, scores ≥10 reflect mild symptoms, ≥ 20 reflect moderate symptoms, and ≥ 30 reflect severe symptoms). T-tests indicate the likelihood of results being obtained by chance. Effect size statistics indicate how the average client at end of treatment has fared compared with those at start. Statistics reporting change for individuals indicate the proportion of clients who obtained statistically significant (which generally meant clinically significant) reductions in symptoms or improvement in wellbeing.

Average Scores Pre- & Post-Treatment & T-Test Results

	Pre	Post	
	M (*SD*)	*M* (*SD*)	
BAI (*n* = 2014)	18.0 (11.3)	10.4 (9.9)****	(i.e., mean scores for anxiety and depression dropped from mild-moderate level to threshold of mild range – a change well beyond chance.)
BDI (*n* = 2014)	19.8 (9.9)	10.8 (9.7)****	
PA (*n* = 1496)	22.7 (8.0) 14%ile	29.7 (9.4)**** 39%ile	(i.e., average client at end of treatment was better off than 39% of normal population on positive affect).
NA (*n* = 1496)	26.6 (8.3) 93%ile	18.7 (8.0)**** 77%ile	
SWLS (*n* = 1504)	17.6 (7.0)	21.6 (7.5)****	SWLS score range for normal population is 20 to 25
GAF (*n* = 2884, in 7.5 S's)	56.6 (6.6)	66.8 (9.6)****	Functioning improved to level where treatment not generally required.

**** p<.0001 (Less than 1 in 10,000 likelihood of result being obtained by chance)

Paired T-Tests
(93% of adults included)

	Pre		Post	
	Mean	SD	Mean	SD
ORS (n=2178)	17.5	(8.3)	28.5	(9.4)****
SRS (n=2178)	35.2	(4.5)	37.1	(3.8)****

**** significant at p < .0001

Mean = 7.5 Sessions (sd = 6.8)

Effect Size Statistics

	ES	%
BAI	0.77	78%
BDI	0.98	83%
PA	-0.74	77%
NA	0.92	81%
SWLS	-0.64	74%
GAF	-1.19	88%
ORS	-1.09	86%

(n = 2178)

(i.e., average client at end of treatment was better off than 78% off than those at start of treatment on this measure)

Change For Individuals

(% of clients whose scores significantly improved v. worsened on measures)

|	Improved	Worsened	
BAI	38.7%	2.2%	(reported at least a 9-point difference)
BDI	50.5%	1.3%	(reported at least an 8-point difference)
PA	45.9%	4.0%	(reported at least an 8-point difference)
NA	42.8%	1.1%	(reported at least a 9-point difference)
SWLS	31.7%	2.4%	(reported at least a 7-point difference)
GAF	54.3%	0.2%	(reported at least an 9-point difference)
ORS	66.0%	2.7%	(reported at least a 6-point difference)

Course of Recovery
(*n* = 1370)
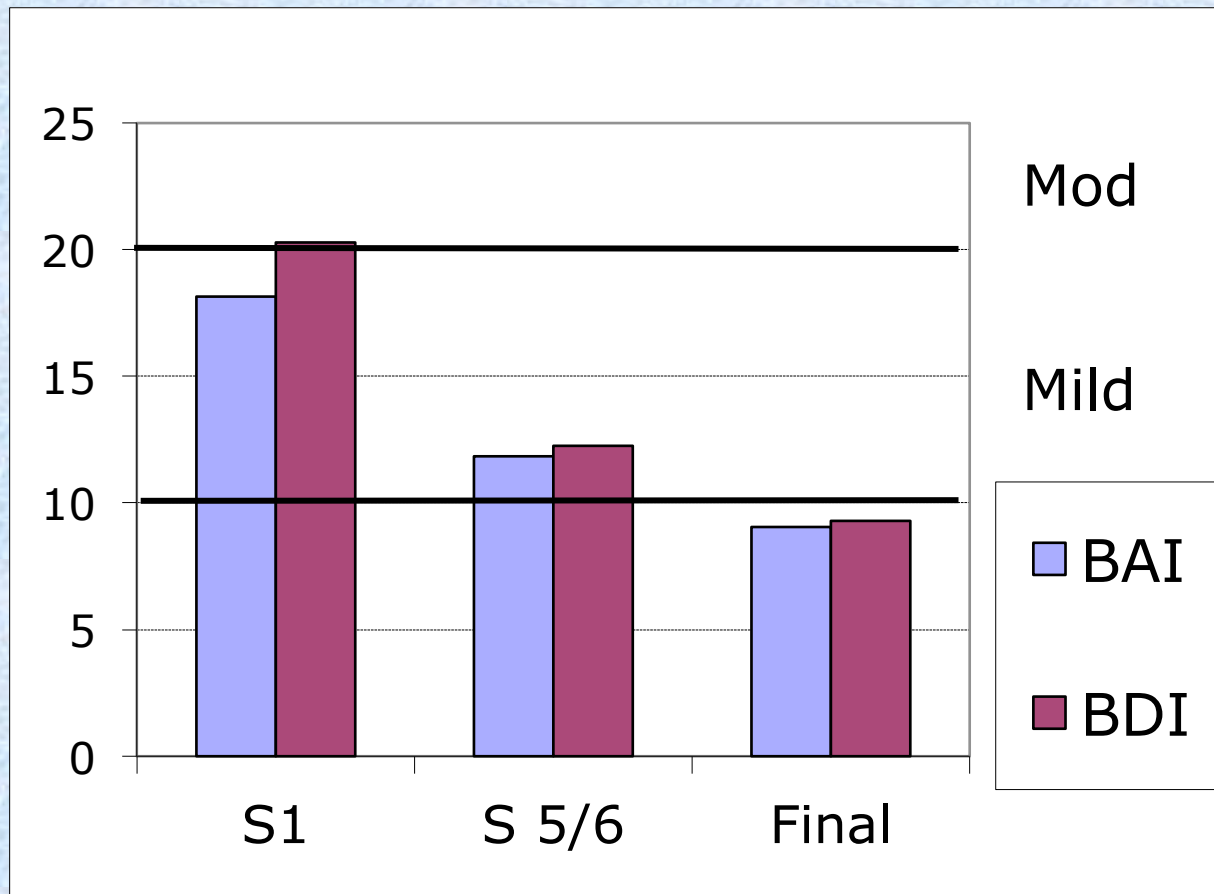
By session 5 (or 6) average level of anxiety and depression had reduced from the mild-moderate range to just within the mild clinical range. By end of treatment average levels of distress for those seen for at least 5 sessions had dropped to non-clinical (normal) range. Therefore change happens quickly and efficiently.

Average 10.5 sessions
(at average cost to taxpayer of approx $1000)

# Course of Improvement

(*n* = 1302)
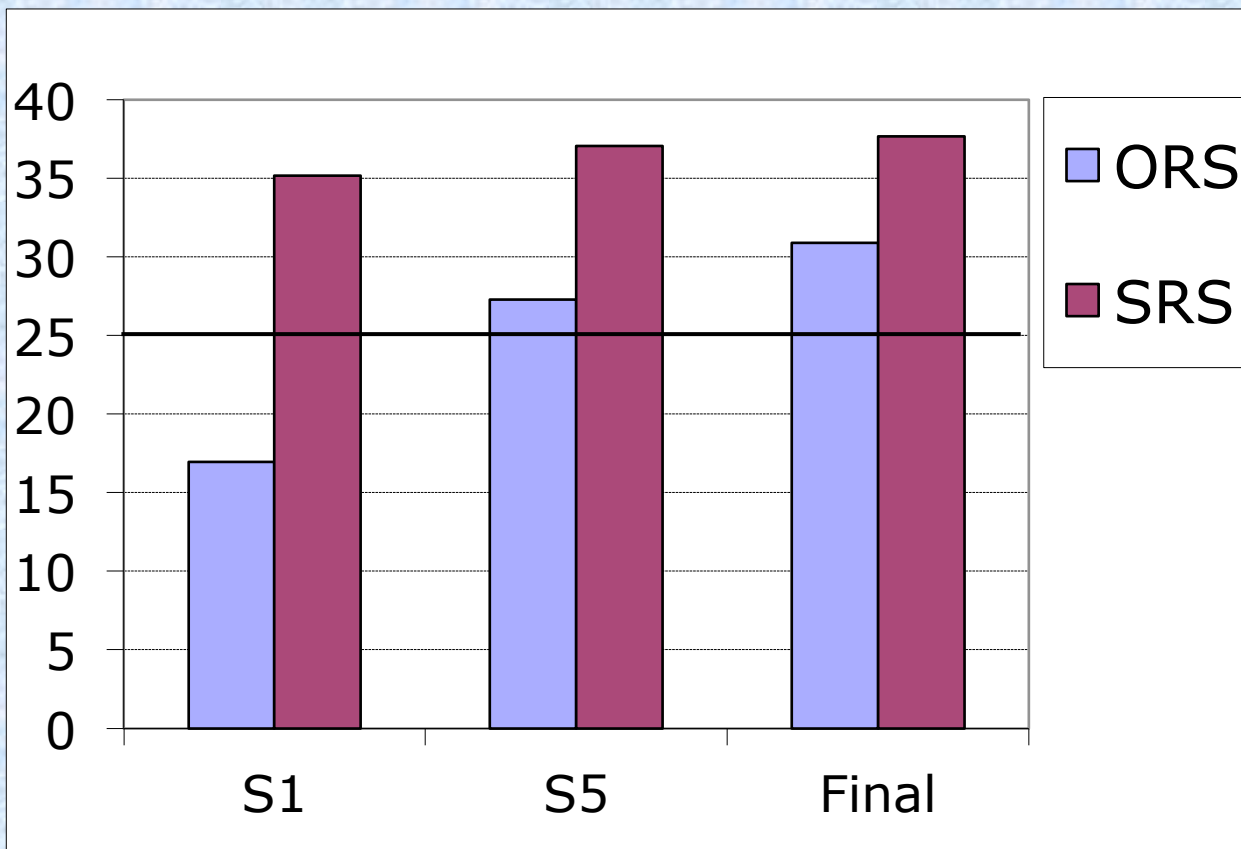
92% of ORS outcome data has been recorded for clients seen for ≥ 5 sessions.
ORS scores below line represent low wellbeing - within clinical range. Within 5 sessions average client was just entering normal range of wellbeing (above line). This supports other findings showing improvement to normal levels of wellbeing. High SRS scores (generally above 36) reflect good therapeutic alliance. Average SRS scores here showed improvement characteristic of positive therapy process and high client satisfaction at completion.

Average 10.6 sessions

Course of Recovery (≥10 sessions)
(*n* = 483)
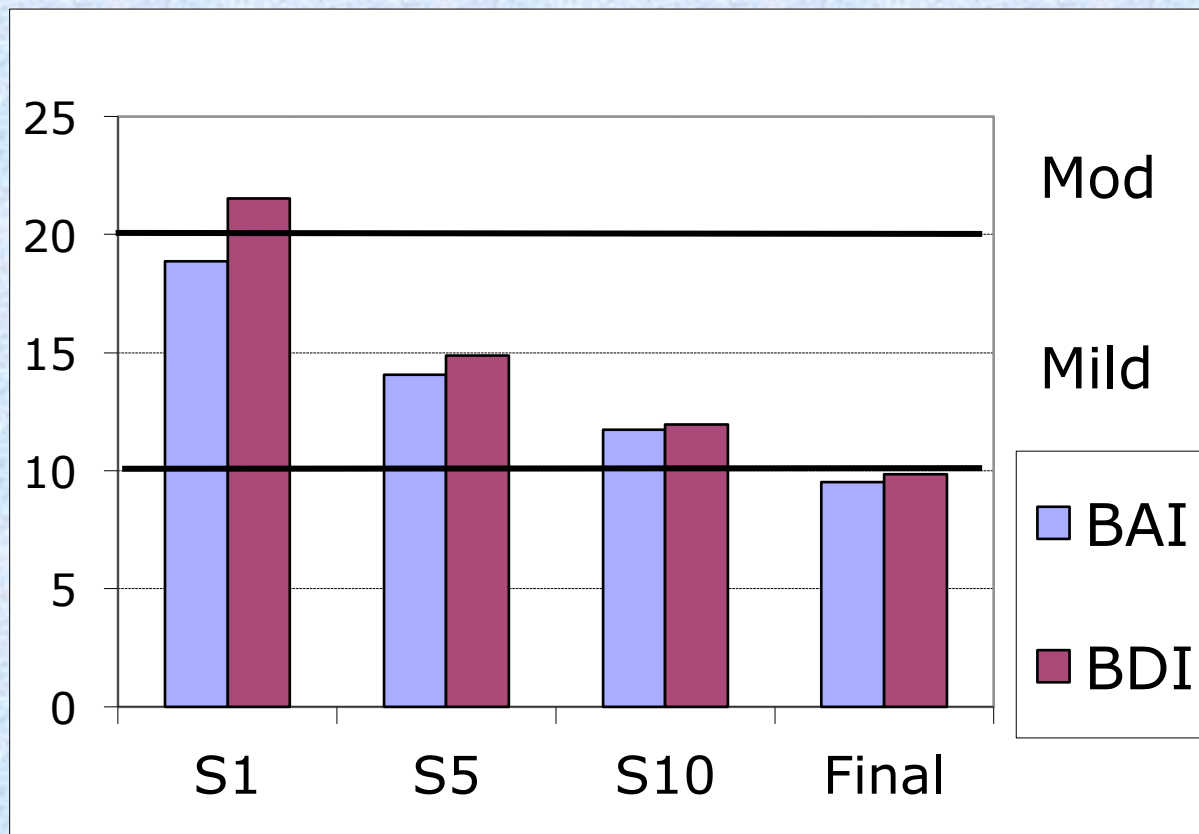
Session 1, 5, 10 and final data was available for 483 of 623 (78%) of clients seen for ten sessions or more. Those clients seen for ≥ 10 sessions showed increased benefit from the extra sessions. It was only after more than ten sessions that their symptoms had reduced to the non-clinical (normal) range. This finding indicates that some clients require more than ten sessions for a fuller recovery.

Average 16.0 sessions for clients seen for 10 sessions or more

Treatment Outcome for Major Depressive Disorder

◆ The following slides document outcomes for clients with Major Depressive Disorder (MDD) offered psychological interventions for depression through the Better Access (Medicare rebate) scheme. Data was collected on 605 of 1025 clients (59%). 49 clients on medication and 37 without dropped out of therapy after only 1 or 2 sessions (8.8%) and were excluded from the analysis.

- 351 clients were on medication & seen for an average of 11.5 sessions

- 254 clients were not on medication & seen for an average of 10.5 sessions

(for these clients average cost to taxpayer was approximately $100 per session with an average client co-payment of approximately $100).

Treatment Outcome
Major Depressive Disorder

(59% of clients with MDD seen ≥ 3 sessions)

351 with medication

(11.5 sessions)

254 without medication
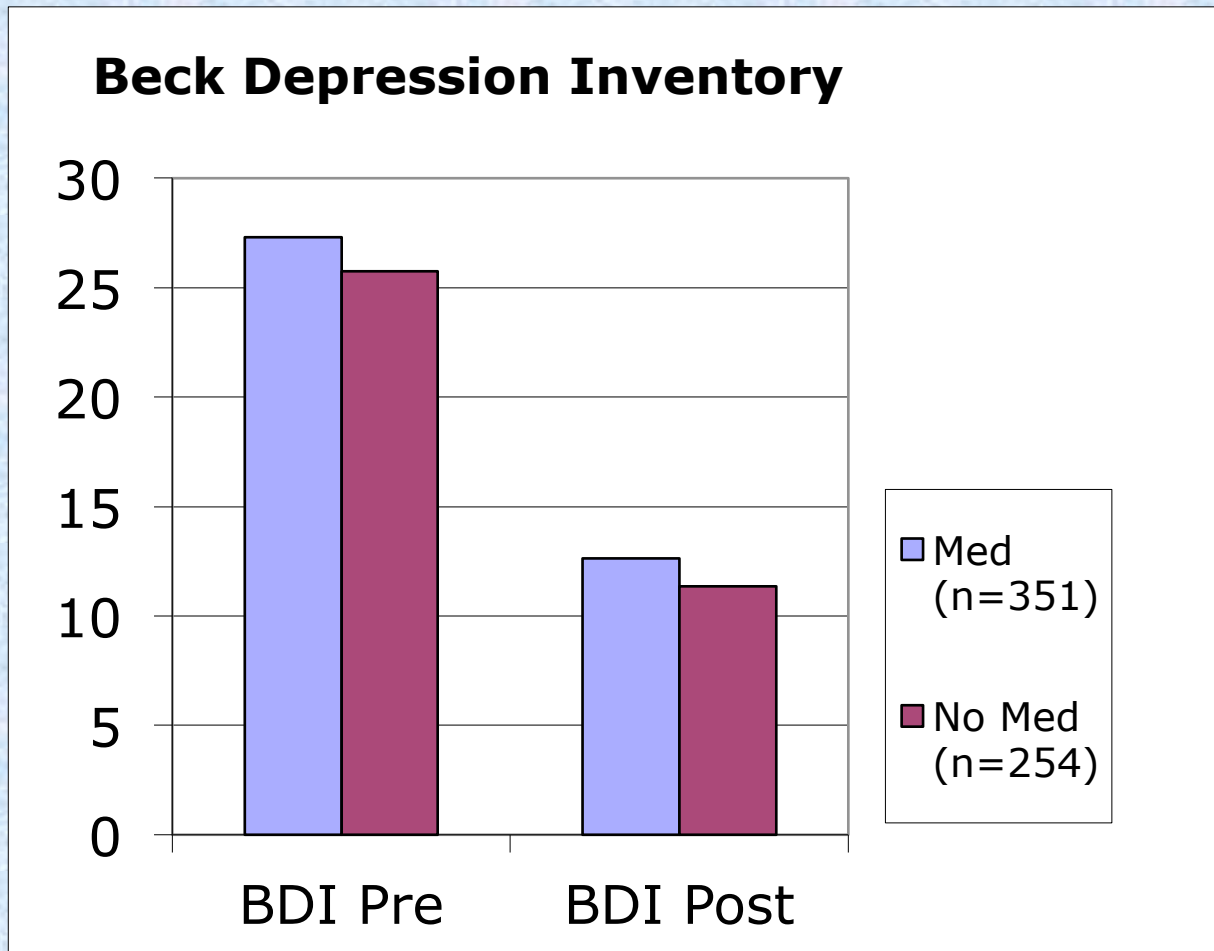
(10.5 sessions)

MDD Clients (Med v No Med)

Severity

- Slight   1 v. 1%
- Mild   16 v. 21%
- Moderate   44 v. 47%
- Severe   38 v. 30%

No. Sessions

- 1-2 Sess's   13 v. 13%
- 3-6 Sess's   30 v. 33%
- 7-10 Sess's   23 v. 24%
- >10 Sess's   35 v. 30%

Course of Recovery on BDI (Med v. No Med)
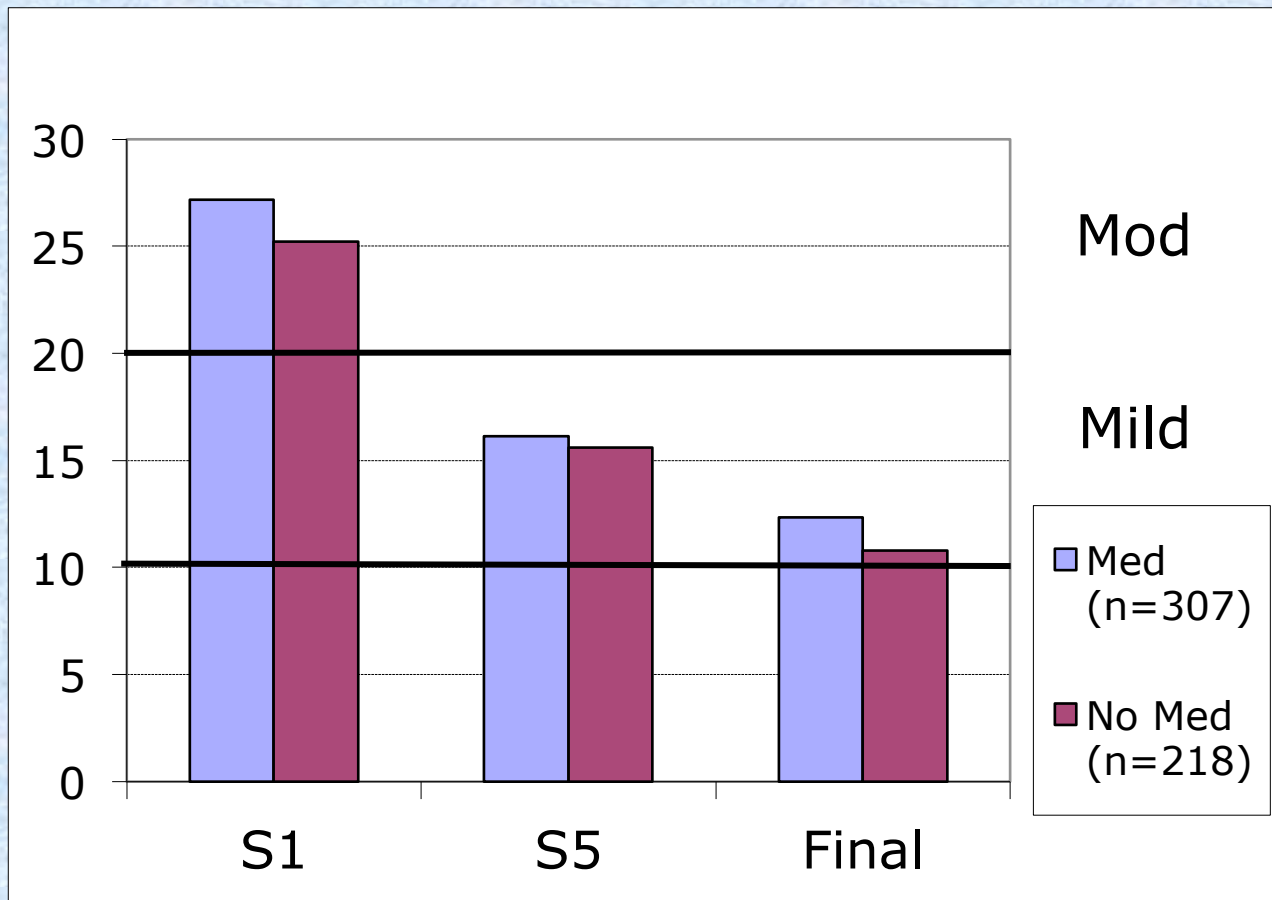
Beck Depression Inventory

Clients treated without medication (10.6 sessions) have shown equivalent rates of recovery to those treated with therapy and medication combined (11.6 sessions).

Clients who recover without medication generally have lower relapse rates. Other benefits of no medication, include reduced costs and side effects.
We still believe that clients might often benefit from medication if depression is chronic, severe, and not responding quickly to therapy. Given that many depressed clients recover well with therapy alone, medication is probably frequently overused (1 in 10 Australian adults take antidepressants daily).

Course of Recovery on BDI (Med v. No Med)

These data illustrate outcomes for clients seen for at least five sessions, which may be a better representation of outcomes of those who engage with treatment. Clients treated without medication (11.1 sessions) have shown an equivalent extent and rate of recovery to those treated with therapy and medication combined (11.8 sessions).

It is clear that clinically depressed clients will often benefit from psychological help without medication. It may be best to prescribe medication for those who do not wish to access such help, or who have more chronic and severe conditions that have not responded to therapy.

Recovery on BDI (>10 S's)
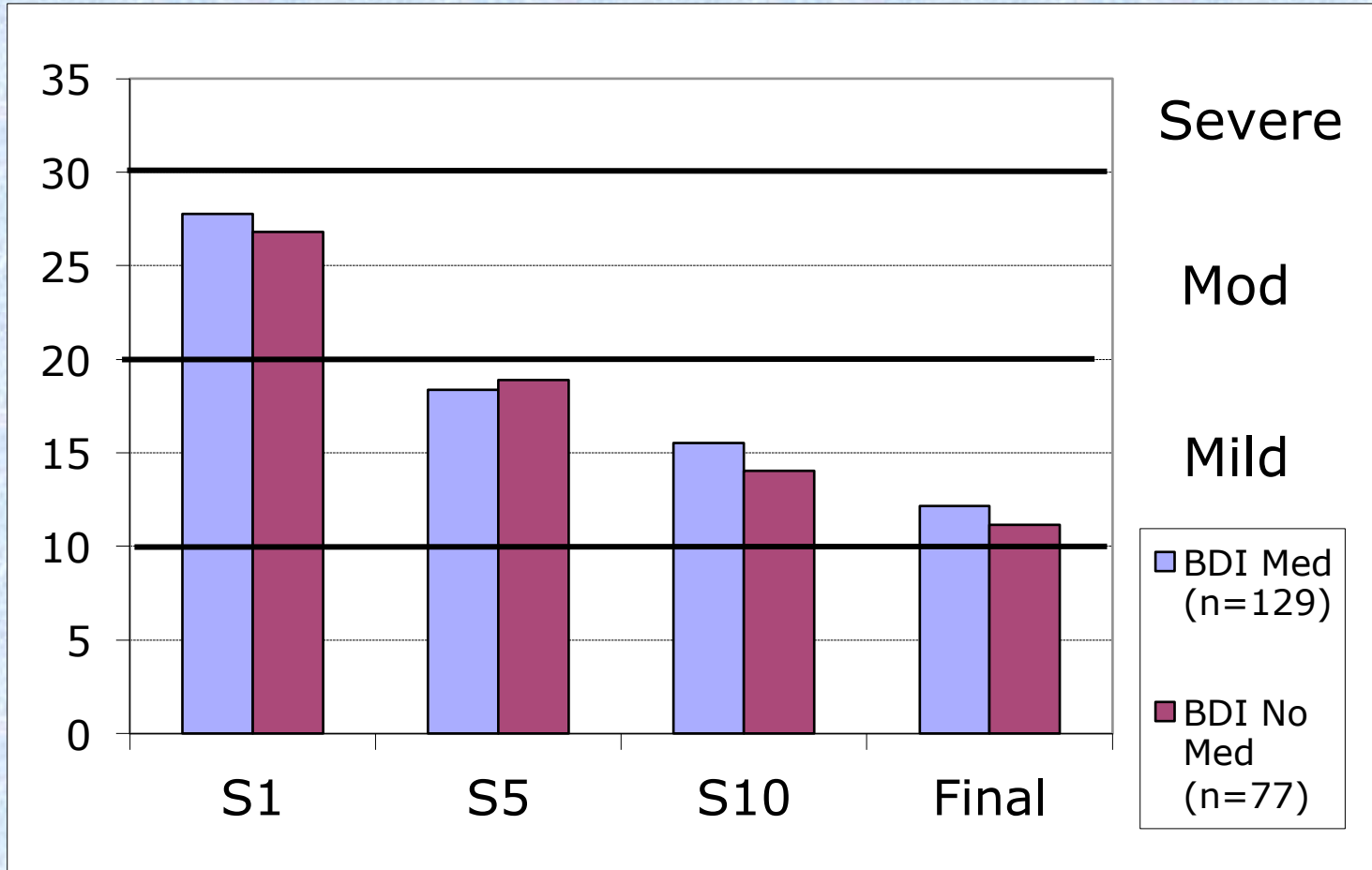
Average 17.2 v. 17.1 sessions

BAI & BDI (Med v No Med)
(including dropouts)

	Med ES (n=396)	%	No Med ES (n=290)	%
BAI	0.88	80%	0.92	81%
BDI	1.21	88%	1.25	89%

Average 10.3 v. 9.4 sessions

PANAS (Med v No Med)

	Med ES (n=287)	%	No Med ES (n=233)	%
PA	0.86	80%	0.92	81%
NA	1.02	84%	1.07	85%
SWLS	0.72	75%	0.75	76%

Average 10.6 v. 9.5 sessions

GAF Scores (Med v No Med)

(93% of clients with MDD)

|	Pre	Post		
	M (SD)	*M (SD)*	*ES*	*%*
GAF Med (n=545)	52.8 (5.7)	64.8 (10.2)****	1.22	88%
GAF No Med (n=409)	54.1 (5.5)	66.1 (9.8)****	1.31	90%

**** *p*<.0001.

Treatment Outcome for
Major Depressive Disorder (cont.)

- The previous slides therefore demonstrates that many clients with Major Depressive Disorder benefit from psychological interventions which are not only efficient, but also commonly just as effective whether or not the client was using prescribed medication. The average BDI score at post-treatment for clients treated both with and without medication was just within the mild range, reflecting a relatively good recovery. The treatment also appears cost-effective (average cost to taxpayer of around $1000 with a lesser co-payment from client). Treatment without medication includes many benefits including cost-savings, no side effects, lower relapse rates and less pessimistic treatment models (many clients with depression are unnecessarily told they will need medication for the rest of their lives).

- **Clients were seen on average for under ten sessions. However, a number of clients required more than ten sessions (see next slides)…**

How many sessions for depression?

- The next slide shows the course of recovery of 206 clients with Major Depressive Disorder (MDD) in response to psychological treatment of ten sessions or more in order to indicate the impact of those extra sessions. This issue is important given the current limit of Medicare rebate funding to no more than ten sessions per year through the Better Access scheme.

- The graph indicates that of those depressed clients who were treated for more than ten sessions (approx. 25% of those with MDD), their symptoms reduced to near-normal levels only after the extra sessions beyond the initial ten. These clients typically had more chronic or severe depressive conditions. The psychological treatments for these clients were clearly effective overall, regardless of whether they had also used prescribed medication. However, the extent of recovery was partly attributable to the extended number of sessions.

Course of recovery for MDD (on BDI)
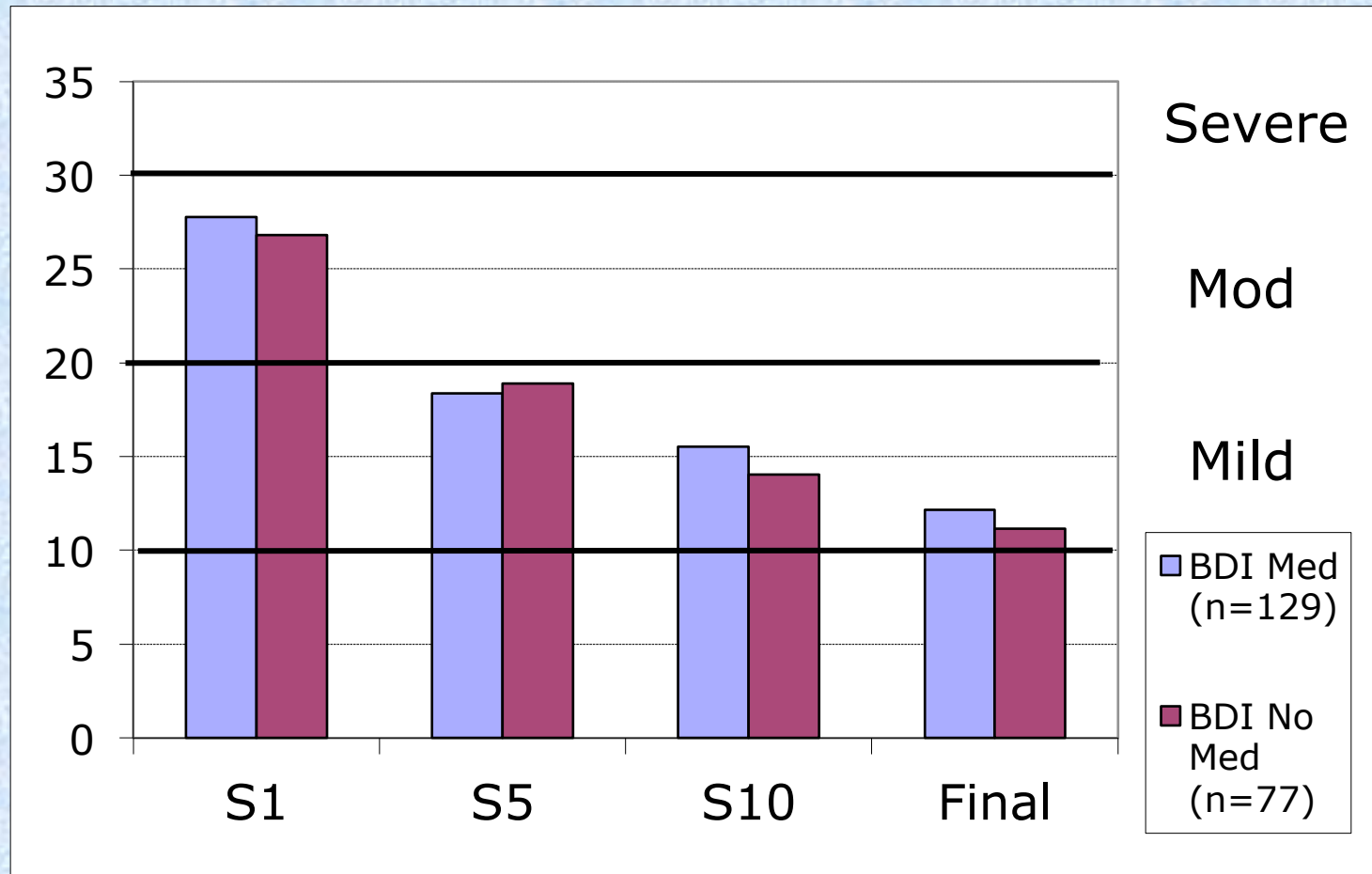
Average 17.2 v. 17.1 sessions

Conclusions (1)

- CBT-based interventions work effectively and efficiently

- The data support findings of Better Access report

  - CBT-based interventions work effectively and efficiently

    - For a large number of diverse people

    - With significant mental health problems

    - In reducing Sx *and* enhancing wellbeing

    - In accessible, everyday clinical settings

    - With typical reduction from mild-moderate to normal threshold

- Objective evidence some need more than 10 sessions

Conclusions (2)

- Antidepressant medication is often not necessary for MDD

- We have demonstrated that

  - CBT-based interventions are effective and efficient with MDD

  - Average recovery to near normal levels when seen ≥ 5 sessions

  - Very similar outcomes whether also on medication or not

  - Similar course of recovery for those on medication or not

  - Therapy enhances wellbeing as well as reducing symptoms

- Objective evidence that many clinically depressed clients need more than 10 sessions to recover to near normal levels

Conclusions (3)

The evidence is now in. It contrasts with the seeming lack of evidence on the treatment effectiveness of much more costly private psychiatry services. It seems a failure of public policy that those clients requiring more than ten sessions may be directed to seek (commonly non-accessible) sessions with private psychiatrists for up to fifty higher-cost sessions per year despite less evidence of treatment effectiveness than now exists for psychological therapies.

Conclusions (4)

These data serve as benchmarks for other practices and services to demonstrate the efficiency and effectiveness of their interventions.

This research has been conducted in the course of everyday practice over a period of approximately ten years. No separate funding or external resources have been required to conduct this work as part of routine clinical practice. Hopefully this research shows that collecting such outcome data is meaningful and achievable in everyday clinical settings.

Website

➡ www.chrismackey.com.au

➡ See research page

➡ Send email to Chris Mackey at cm@chrismackey.com.au to discuss these findings or any related issue of interest. We are especially interested to hear from others about findings from research related to outcome evaluation.

Appendix
Notes about research strategies

- Our general policies are to maximise outcome data collected and to use conservative guidelines in data collection, that are more likely to artificially reduce rather than inflate effect sizes obtained.

- In order to maximise the data collected, we pro-rated outcome data for those seen for a single session, using their pre-treatment scores as their post-treatment scores. We did the same for those seen for only two sessions, unless we had evidence from other data that they had improved (e.g. if their ORS score improved by 5 points or more, or GAF improved by 6 points).

- When a client terminated therapy and we had no final outcome data, we used data collected at intermediate points as final data using a "70% rule". That is, if the most recent data was collected at least 70% of the way into the course of therapy, we could use that intermediate data as final outcome data (i.e., session 5 data was used as final data if the client attended 7 sessions or fewer; session 10 data was used as final data if the client attended 14 sessions or fewer, etc.)

- When session 5 data was not collected for any reason, the therapist was encouraged to collect intermediate data at session 6. Therefore "Session 5 data" in this research means data that was collected in either session 5 or session 6. For data collected every session (i.e. ORS data) session 5 data was always collected in session 5.

- For clients who had not yet completed therapy by June 2016, therapists were encouraged to collect "interim" data and post it as final outcome data. This could be updated at a later time when clients left therapy.

- These strategies are conservative, and arguably lead to an underestimation of therapy effectiveness. For example, many clients seen for one or two sessions will have gained something from therapy. This might be part of the reason why therapy outcome effect sizes on ORS scores and GAF scores showed greater improvement that other scores (e.g. BAI and BDI) which were conservatively pro-rated.