Research

Evaluation of an Australian primary care telephone cognitive behavioural therapy pilot

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Abstract.   A telephone-based cognitive behavioural therapy pilot project was trialled from July 2008 to June 2010, via an Australian Government-funded primary mental health care program. A web-based minimum dataset was used to examine level of uptake, sociodemographic and clinical profile of consumers, precise nature of services delivered, and consumer outcomes. Key informant interviews with 22 project officers and 10 mental health professionals elicited lessons learnt from the implementation of the pilot. Overall, 548 general practitioners referred 908 consumers, who received 6607 sessions (33% via telephone). The sessions were delivered by 180 mental health professionals. Consumers were mainly females with an average age of 37 years and had a diagnosis of depressive and/or anxiety disorders. A combination of telephone and face-to-face sessions of 1 h in duration were conducted, delivering behavioural and cognitive interventions, usually with no cost to consumers. Several implementation issues were identified by project officers and mental health professionals. Although face-to-face treatment is preferred by providers and consumers, the option of the telephone modality is valued, particularly for consumers who would not otherwise access psychological services. Evidence in the form of positive consumer outcomes supports the practice of multimodal service delivery.

Additional keywords: access to allied psychological services, better outcomes, primary mental health care, psychological intervention, telephone therapy.

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Introduction

The Better Outcomes in Mental Health Care program was introduced in July 2001 by the Australian Government Department of Health and Ageing in response to low treatment rates for common mental disorders, and has been operating since then. The Access to Allied Psychological Services (ATAPS) component of this program supports general practitioners (GPs) and mental health professionals (psychologists, mental health nurses, occupational therapists, social workers and Aboriginal and Torres Strait Islander health workers) to collaborate to provide optimal primary mental health care. Specifically, the ATAPS component enables GPs to refer consumers with high-prevalence disorders (e.g. depression and anxiety) to mental health professionals for 6−12 (or up to 18 in exceptional circumstances) individual and/or group sessions of evidence-based mental health care (predominantly cognitive behavioural therapy, or CBT). Review of the consumer's treatment progress by the referring GP is essential, particularly if more than six sessions are required. The ATAPS program is implemented nationwide by all 110 Divisions of General Practice (Divisions), which are primary health care organisations.

Since 2008 several subprograms, now known as Tier 2 services, have been introduced that focus on particular at-risk populations (e.g. women with perinatal depression, people at risk of suicide, people affected by specific disasters). The original ATAPS services are now known as Tier 1.

One such Tier 2 subprogram was the telephone-based CBT (T-CBT) pilot, which was funded by the Australian Government in mid-2008. The trial involved substituting or combining T-CBT with face-to-face services in 22 Divisions under the existing ATAPS model. This was the first time that the Australian Government Department of Health and Ageing had approved the telephone as a treatment modality for Divisions to use. It can be assumed that before this the sessions of care delivered through the ATAPS projects were primarily face-to-face. With one exception, the T-CBT pilot was implemented in rural and remote Divisions across Australia. For unknown reasons, Divisions not funded to do so also commenced delivering sessions by telephone. For the

purpose of this paper, which evaluates T-CBT, patient and session data for treatment delivered via telephone from these Divisions is included in order to present an accurate picture of the real-world effects of the telephone modality.

The Australian Psychological Society was contracted to develop and deliver training, which took the form of a single 3-h remote facilitator-led webinar delivered on multiple occasions to different providers, to ensure that all participating mental health professionals were adequately equipped to deliver CBT by telephone.

The rationale for the introduction of the T-CBT program was to improve accessibility for selected consumers in rural and remote settings or those who for various reasons experienced barriers to seeing a clinician face-to-face. Other advantages of remote psychological treatment include: anonymity, reduced stigma, more options of therapists and affordability (Centore and Milacci 2008). The decision to implement the T-CBT program was influenced by existing evidence reporting on the efficacy of the telephone modality in the psychological treatment of high-prevalence mental disorders (Lovell *et al.* 2006; Bee *et al.* 2008; Richards *et al.* 2008). A UK study found a moderate to large effect on depression symptoms of a collaborative-care approach to supporting depressed patients in a primary care setting, which involved telephone support (Richards *et al.* 2008). A meta-analysis of psychotherapy mediated by remote communication technologies examined, amongst others, 10 studies of telephone psychotherapy and concluded that this modality may confer specific benefits but that more rigorous trials are required (Bee *et al.* 2008). A randomised controlled trial of T-CBT for the treatment of obsessive compulsive disorder reported equivalent outcomes and levels of satisfaction to face-to-face treatment (Lovell *et al.* 2006).

The University of Melbourne's Centre for Health Policy, Programs and Economics has been evaluating the Tier 1 and Tier 2 ATAPS subprograms since their respective introductions. This paper describes the findings of the evaluation of the T-CBT pilot in a real-world primary care program. Specifically, it describes: the level of uptake by GPs, mental health professionals and consumers; the sociodemographic and clinical profile of these consumers; and the precise nature of services delivered. In addition, the outcomes achieved and lessons from implementation issues are reported.

Method

A web-based minimum dataset was developed early in the life of the broader evaluation of ATAPS. The dataset captures the number of participating providers, de-identified consumer- and session-level information, and pre- and post-treatment scores on standardised outcome measures. Two new T-CBT fields were added to the minimum dataset: a field that flags a given consumer as having been referred for T-CBT and a session modality field that identifies whether a session was delivered face-to-face, by telephone or via videoconference. Data from the minimum dataset for consumers in receipt of at least one session delivered by telephone were extracted on 4 July 2011. The analysis period was from 1 July 2008 (when the T-CBT pilot was first 'rolled out') to 30 June 2010 (when the pilot ended).

On receipt of verbal consent, telephone interviews were conducted with one ATAPS project officer from each of the 22 Divisions involved in the T-CBT pilot in June and July 2009. The interviews elicited qualitative data about issues related to implementation, such as: facilitating and hindering factors, impact, benefits and challenges, and suggestions for improvement.

Telephone interviews were also conducted with one mental health professional from 10 of the 22 Divisions involved in the T-CBT pilot in late 2009 and early 2010. The interviews gathered qualitative data about the perceived benefits and challenges of the T-CBT pilot. Mental health professionals were (and GPs were unsuccessfully) recruited on behalf of the evaluators via project officers from the Divisions participating in the T-CBT pilot. A random selection of project officers from 11 Divisions was sent an email providing information about the evaluation and a recruitment pack consisting of a plain-language statement and consent form, with instructions to invite two mental health professionals each. This was followed up by telephone calls to project officers from each of the Divisions for whom at least one mental health professional had not returned a consent form directly to the evaluators.

All interviews were brief (~30 min) and structured open-ended questions were asked (refer to Appendix 1 for the interview protocols). Interviews were conducted by one of two researchers. Responses were recorded manually by the relevant interviewer during the interviews.

Data analyses

Consumers' data were included in minimum dataset analyses if they were identified in the minimum dataset as either having been referred for T-CBT or received at least one session by telephone. This was considered the most appropriate strategy in order to present an accurate picture of the overall achievements of T-CBT, and the use of the telephone as a session modality in general. Descriptive analyses of the uptake of telephone sessions and consumer and session profiles were conducted, with the results presented as simple frequencies and percentages. Trends in the consumer and session profiles were observed but significance tests were not performed because of the exploratory nature of these findings. Paired *t*-tests were used to examine the difference between mean pre- and post-treatment scores on selected outcome measures. Consumers who did not have a 'matched pair' of pre- and post-treatment scores were excluded from pairwise analyses.

Qualitative data from the interviews with project officers and mental health professionals were examined using template analysis to organise the data into themes (King 2004). This involved developing a coding 'template' to summarise and categorise salient themes as they transpired from the data. As recommended by King (2004), the process began with the identification of some broad, *a priori* themes aligned with the questions asked in the interview. Transcripts were read and re-read with these themes in mind, and sections of text were coded as belonging to these themes. During this process, additional broad themes were identified and portions of text were coded as being pertinent to these new themes. Once the final set of broad themes was determined, the text relating to each theme was re-examined,

and narrower themes were identified and coded. The complete set of broad and narrow themes then formed a template that was applied across all transcripts. This process was repeated, and each transcript was read several times. Cross-coding of the transcripts would have been desirable, but this was beyond the scope of the current study. The frequency of respondents generating each theme is presented in order to gauge the extent to which certain issues affected the Divisions and providers conducting the T-CBT pilot.

Results

Uptake of T-CBT

Uptake data were available for 59 Divisions. In the period between 1 July 2008 and 30 June 2010, 548 GPs (63% rural; 37% urban) referred consumers and 180 mental health professionals (65% rural; 35% urban) conducted sessions.

In total, 908 (67% rural; 33% urban) consumers had received at least one telephone session. The total number of sessions delivered to the 908 consumers was 6607 (67% rural; 33% urban) making the average number of sessions provided to consumers 7.3 (s.d. = 6.3). The majority of these sessions (76%) were delivered via Tier 1 and 24% via the different Tier 2 ATAPS subprograms including the T-CBT pilot.

Figure 1 presents the number of referrals made and total number of sessions delivered to consumers in receipt of at least one telephone session, by month from 1 July 2008 to 30 June 2010 in rural and urban areas, respectively. The figure shows a steady increase in the uptake of services by these consumers, with this trend being more pronounced in rural areas.

Sociodemographic and clinical characteristics of consumers

Table 1 summarises the key characteristics of consumers in receipt of one or more telephone sessions, as well as a comparison of rural and urban consumers. The majority of consumers in both rural and urban areas were females (66%); however, males were somewhat more represented in urban areas (31% *v.* 26%). The average age of consumers was 37 years, with a somewhat younger average age in urban compared with rural areas (34 *v.* 38 years). Over half were on low incomes as identified by their GPs. Approximately one-third of all consumers had not received any previous mental health services. More rural consumers were Aboriginal than their urban counterparts (12% *v.* 4%). The majority of consumers were diagnosed with depressive (52%) and/or anxiety (34%) disorders; however, depression was more common in urban than rural consumers (65% *v.* 45%). A slightly higher proportion of rural than urban consumers was diagnosed with psychotic and unexplained somatic disorders.
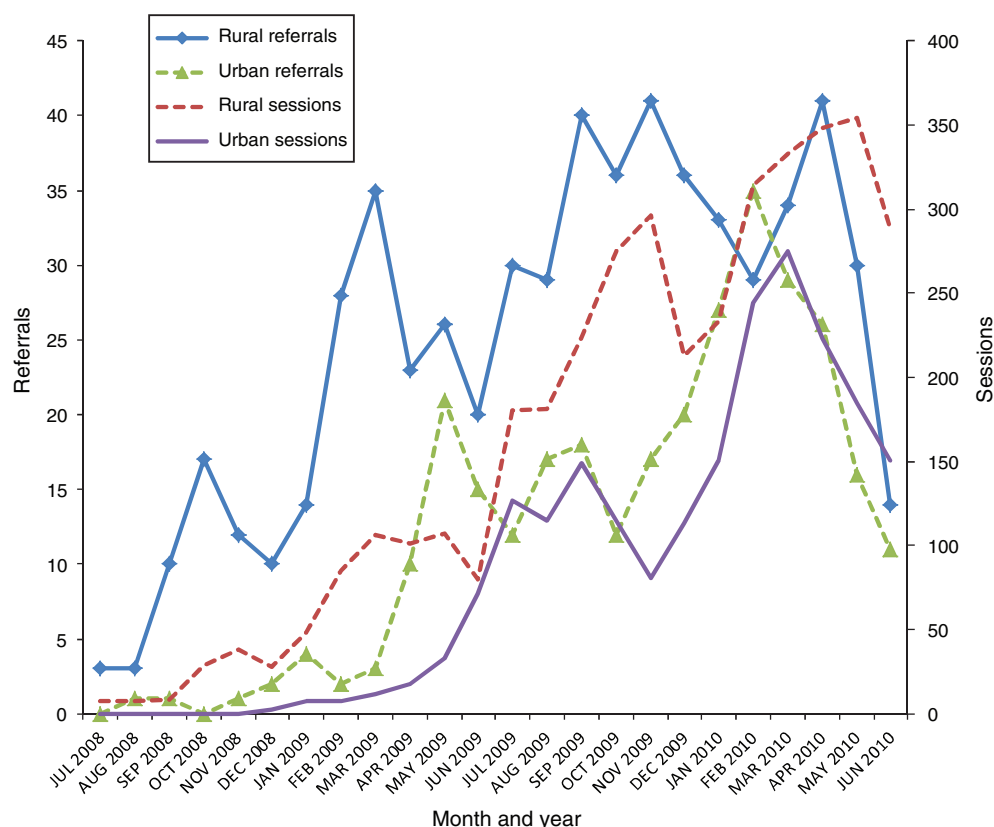

Fig. 1. Number of rural and urban consumers in receipt of one or more telephone sessions and number of sessions delivered over time. Note that an additional 14 consumers and 56 sessions are not shown in the figure as their referral and session dates were (erroneously) recorded as pre-dating July 2008, the date which telephone sessions were introduced and session modality was added to the minimum dataset. A further 453 sessions are not shown in this figure as they took place post-June 2010 for referrals made during the analysis period.

Table 1.   Characteristics of consumers in receipt of at least one telephone session (n = 908)

Characteristic	Rural (n = 608)	Urban (n = 300)	Overall (n = 908)
Sex (%)			
Female	68.1	63.0	66.4
Male	26.0	31.3	27.8
Missing	5.9	5.7	5.8
Mean age (years)	38.0	34.2	36.7
	(s.d. 16.0)	(s.d. 15.3)	(s.d. 15.9)
Low income (%)			
Yes	54.6	52.7	54.0
No	23.2	20.7	22.4
Unknown	13.5	20.7	15.9
Missing	8.7	6.0	7.8
Previous psychiatric service use (%)			
Yes	35.2	41.3	37.2
No	31.9	33.3	32.4
Unknown	17.6	18.0	17.7
Missing	15.3	7.3	12.7
Aboriginal (%)			
Yes	11.5	3.7	8.9
No	64.3	73.0	67.2
Unknown	5.6	15.0	8.7
Missing	18.6	8.3	15.2
Torres Strait Islander (%)			
Yes	0.2	0.3	0.2
No	65.0	75.0	68.3
Unknown	9.7	16.0	11.8
Missing	25.2	8.7	19.7
Language spoken at home (%)			
English	77.8	90.7	82.0
Cantonese	0.2	0.3	0.2
Italian	0.2	0.3	0.2
Unknown	0.8	0.7	0.8
Missing	21.1	8.0	16.8
Diagnosis[A] (%)			
Alcohol and drug-use disorders	6.1	5.7	5.9
Psychotic disorders	3.0	1.7	2.5
Depression	45.1	65.3	51.8
Anxiety disorders	34.2	33.7	34.0
Unexplained somatic disorders	1.6	0.3	1.2
Unknown	1.2	2.7	1.7
Other	28.6	31.3	29.5
Missing	16.1	11.0	15.6

[A]Total percentages are greater than 100% as multiple responses were permitted.

Session characteristics

Table 2 describes the characteristics of the overall care received by consumers in receipt of telephone sessions; the session data are separated by both modality (telephone and face-to-face) and rurality. Overall, the majority of sessions (51%) were 46–60 min in length; sessions of this duration were least likely when delivered via telephone in urban areas (14%). Telephone sessions were more likely to be less than 30 min, particularly if delivered in urban areas (74%). Most of the sessions were delivered to individuals (95%); however, group sessions were somewhat more likely if delivered face-to-face than if delivered by telephone (2% *v.* 1%).

Overall, cognitive and behavioural interventions were most frequently used (30% and 25%, respectively), particularly if delivered face-to-face and in urban areas (38% and 31%, respectively). Psycho-education and interpersonal therapy were more commonly delivered in rural areas irrespective of modality (24% *v.* 15% and 27% *v.* 16%, respectively). Skills training and relaxation were least likely if sessions were delivered by telephone and in urban areas (5% and 3%, respectively). Although it appears that there is a high proportion of missing data in terms of copayment, it is likely that data were not entered if there were no copayments. The majority (54%) of sessions did not incur a copayment, particularly sessions delivered by telephone in urban areas (81%).

Consumer outcomes

One hundred and sixty (18%) consumers had pre- and post-treatment scores on at least one outcome measure. Of these, 18 consumers had been assessed with the Behaviour and Symptom Identification Scale 32 (Eisen *et al.* 1986), 56 with either the Depression Anxiety and Stress Scales (DASS) 21- or 42-item version (Lovibond and Lovibond 1995), 46 with the Health of the Nation Outcome Scales (Wing *et al.* 1998), 45 with the Kessler-10 (Kessler *et al.* 2002) and 40 with the Modified Scale for Suicidal Ideation (Miller *et al.* 1986). Because there were insufficient consumers with pre- and post-treatment scores on each of the outcome measures, it was not considered to be statistically meaningful to compare consumer outcomes according to rurality or the number of sessions received by telephone. However, the majority of consumers included in the outcomes analysis had received between 3 and 12 sessions overall (mean = 9.0, s.d. = 5.1), of which between 1 and 10 sessions had been delivered by telephone (mean = 3.0, s.d. = 2.9). Consumers excluded from the outcomes analyses on the basis of absence of matched pre- and post-treatment outcomes data had received between 1 and 12 sessions overall (mean 7.6, s.d. = 5.9), of which between 1 and 10 had been delivered by telephone (mean = 2.7, s.d. = 3.3).

Table 3 shows the mean pre-treatment, mean post-treatment, and mean difference in pre- and post-treatment scores on the Behaviour and Symptom Identification Scale 32, three DASS subscales, Health of the Nation Outcome Scales, Kessler-10 and Modified Scale for Suicidal Ideation. With the exception of the DASS, the mean differences were based on total scores; in the case of the DASS, the mean differences were based on scores for each of the three subscales. A positive difference between pre- and post-treatment is indicative of improvements in symptoms on all of the scales. Across all measures, the mean difference was statistically significant and indicative of clinical improvement.

Implementation issues identified by project officers in pilot Divisions (n = 22)

Service delivery commencement

Fifteen project officers reported that they commenced T-CBT service delivery in late 2008. Nine project officers reported that there was a delay in the commencement of service delivery, which was most commonly attributed to the corresponding delay in the availability of the Australian Psychological Society webinar training for mental health professionals. Another explanation provided was the slow uptake by GPs, which was problematic in

Table 2. Characteristics of care delivered to consumers in receipt of telephone cognitive behavioural therapy (CBT)

	Telephone sessions ($n=2175$)			Face-to-face sessions ($n=4354$)			All sessions ($n=6607$)[A]		
	Rural ($n=1448$)	Urban ($n=727$)	All phone ($n=2175$)	Rural ($n=2876$)	Urban ($n=1478$)	All face-to-face ($n=4354$)	Rural ($n=4394$)	Urban ($n=2213$)	Overall ($n=6607$)
Duration (%)									
0–30 min	34.6	73.9	47.7	8.7	4.9	7.4	17.3	27.5	20.8
31–45 min	7.0	6.2	6.8	9.7	1.4	6.9	8.6	3.0	6.8
46–60 min	45.7	14.4	35.3	54.92	66.4	58.8	51.6	49.3	50.8
Over 60 min	9.0	1.2	6.4	15.8	17.7	16.4	13.3	12.2	12.9
Missing	3.6	4.3	3.8	7.3	9.5	10.5	9.1	8.0	8.7
Type (%)									
Group	1.2	0.1	0.9	3.1	2.1	2.1	2.5	1.4	2.1
Individual	96.4	98.5	97.1	94.3	95.1	94.6	94.6	96.1	95.1
Missing	1.6	0.5	2.0	2.6	2.8	2.7	2.9	2.5	2.8
Modality (%)									
Telephone	100	100	100	–	–	–	33.0	32.9	32.9
Face-to-face	–	–	–	100	100	100	65.5	66.8	65.9
Videoconference	–	–	–	–	–	–	0.4	0	0.2
Missing	–	–	–	–	–	–	1.2	0.4	0.9
Copayment (%)									
Yes	13.2	0.4	8.9	1.2	8.5	3.7	5.2	5.8	5.4
No	49.9	81.2	60.4	45.1	64.3	51.7	46.7	69.8	54.4
Missing	36.9	18.4	30.7	53.7	27.2	44.7	48.1	24.4	40.2
No show (%)									
Yes	3.4	5.0	4.2	13.5	8.4	11.8	10.8	7.5	9.7
No	5.2	2.3	3.9	8.4	4.5	7.1	7.6	3.9	6.4
Missing	91.4	92.7	91.9	78.1	87.1	81.1	81.6	88.6	83.9
Interventions[B] (%)									
Diagnostic assessment	10.2	12.2	10.9	18.2	16.1	17.5	15.4	14.8	15.2
Psycho-education	20.0	7.2	15.7	25.9	19.4	23.7	23.6	15.4	20.8
CBT behavioural interventions	22.7	7.8	17.7	27.4	30.6	28.5	25.4	23.0	24.6
CBT cognitive interventions	22.9	8.4	18.0	33.9	38.3	35.4	30.0	28.3	29.5
CBT relaxations strategies	13.5	3.2	10.1	18.6	13.6	16.9	16.7	10.1	14.5
CBT skills training	12.6	5.0	10.1	14.0	13.5	13.8	13.4	10.6	12.5
Interpersonal therapy	23.4	7.7	18.2	28.8	20.0	25.8	26.6	16.0	23.1
Narrative	0.3	0	0.2	0.2	0	0.1	0.2	0	0.1
Other CBT strategy	5.7	13.1	8.2	6.1	14.0	8.8	5.8	13.6	8.5
Other strategy	19.2	45.9	28.1	19.7	19.1	19.5	19.5	27.8	22.3
Missing	24.2	16.2	21.5	15.8	12.7	14.7	19.0	14.1	17.4

[A]This figure includes data for 16 sessions delivered via videoconference and 62 sessions for which modality was not specified.
[B]Total percentages are greater than 100% as multiple responses were permitted.

the context of the original guidelines having been perceived to be specifically reliant on GPs suggesting T-CBT to consumers.

Promotion of the T-CBT service

Project officers indicated that they used a wide range of strategies to promote the T-CBT service. These strategies made use of all communication modalities – from hardcopy, electronic and telephone, to face-to-face. It was common for multiple strategies to be used, with provider newsletters and practice visits being the most commonly reported promotion strategies ($n=12$ and 8, respectively). Interestingly, none of the project officers specifically mentioned promoting the service to other community and health organisations not directly involved in ATAPS.

Factors that facilitated and potentially enhanced the T-CBT pilot

Of the 14 project officers who reported on facilitating factors, four indicated that positive provider responses facilitated the

T-CBT pilot as demonstrated by this quote: 'excellent clinicians who are enthusiastic and GPs who are open minded'. In addition, the flexibility of the guidelines around the referral mechanism and multimodal service delivery (i.e. the ability to combine telephone and face-to-face) was considered to facilitate the T-CBT pilot. In particular, allowing mental health professionals and project officers to make decisions about the (T-CBT) mode of service delivery, rather than relying on GPs to suggest T-CBT to consumers, was regarded as beneficial. Furthermore, the need for counselling services to be provided remotely and the fact that the service was embedded within ATAPS were reported to facilitate the pilot.

Barriers to the effective operation of the T-CBT pilot

The most commonly mentioned barrier ($n=9$) was the low rate of GP referrals, which was attributed to difficulty convincing GPs to use the service, which in turn was probably attributable to their (and consumers') preference for face-to-face treatment. This was

Table 3.   Pre- and post-treatment outcome scores for consumers in receipt of telephone sessions on available outcome measures, July 2008 to June 2010 (*n* = 160)

Each of the DASS subscales is completed as one measure and therefore these represent the same consumers on all three subscales. *$P \leq 0.001$. DASS, Depression Anxiety and Stress Scale

Scale	Description	*n*	Pretreatment mean (s.d.)	Post-treatment mean (s.d.)	Mean difference (s.d.)
Behaviour and Symptom Identification Scale-32	Patient-rated measure comprising 32 items that collectively measure symptoms and behavioural distress in people with a mental illness over the previous week. Each item is rated from 0 (No difficulty) to 4 (Extreme difficulty). The total score is an average of the item scores, and therefore also ranges from 0 to 4	18	1.4 (0.6)	0.3 (0.5)	1.1 (0.6)*
DASS_Anxiety	Patient-rated subscale of the DASS designed to measure anxiety. Consists of seven items, each of which consists of a statement relating to a symptom of anxiety. The patient is asked to consider how much each statement applied to him or her in the past week. Each item is scored from 0 (Did not apply to me at all) to 3 (Applied to me very much, or most of the time). The raw subscale score on the DASS-21 ranges from 0 to 21 but is then doubled so that it can be clinically interpreted	56	17.4 (10.3)	8.8 (7.6)	8.6 (9.50)*
DASS_Depression	Patient-rated subscale of the DASS designed to measure depression. Consists of seven items, each of which consists of a statement relating to a symptom of depression. The patient is asked to consider how much each statement applied to him or her in the past week. Each item is scored from 0 (Did not apply to me at all) to 3 (Applied to me very much, or most of the time). The raw subscale score on the DASS-21 ranges from 0 to 21 but is then doubled so that it can be clinically interpreted	57	23.5 (11.3)	11.0 (10.2)	12.5 (11.2)*
DASS_Stress	Patient-rated subscale of the DASS designed to measure stress. Consists of seven items, each of which consists of a statement relating to a symptom of stress. The patient is asked to consider how much each statement applied to him or her in the past week. Each item is scored from 0 (Did not apply to me at all) to 3 (Applied to me very much, or most of the time). The raw subscale score on the DASS-21 ranges from 0 to 21 but is then doubled so that it can be clinically interpreted	56	22.2 (9.5)	13.3 (8.3)	8.9 (10.4)*
Health of the Nation Outcome Scales	Clinician-rated measure of severity of symptoms in people with a mental illness that covers the previous 2 weeks. Comprises 12 items that collectively cover the sorts of problems that may be experienced by people with a mental illness. Each item is rated from 0 (No problem) to 4 (Very severe problem), resulting in a total score that can range from 0 to 48	46	12.6 (3.2)	6.7 (3.9)	6.0 (4.34)*
Kessler-10	Patient-rated measure developed to assess non-specific psychological distress. Comprises 10 items that ask the patient about symptoms of depression and anxiety in the past 4 weeks. Each item is rated from 1 (None of the time) to 5 (All of the time), resulting in a total score that ranges from 10 to 50	45	33.8 (7.7)	25.8 (10.9)	8 (10.4)*
Modified Scale for Suicidal Ideation	Clinician-rated measure of suicidal ideation representing a modified version of the Scale for Suicidal Ideation developed by Beck *et al.* (1979). Comprises 18 items, 13 from the original Scale for Suicidal Ideation and five that are new, the first four of which serve as screening items. Each of the 18 items is rated on a four-point Likert scale ranging from 0 to 3, which are summed to yield a total score ranging from 0 to 54, with negative items reverse scored so that higher scores indicate higher suicidal ideation	37	14.9 (9.5)	5.1 (6.5)	9.7 (7.2)*

exemplified by one project officer stating that 'patients prefer to wait for face-to-face sessions'. It was expressed that over time patients might increasingly accept the T-CBT service option. Telephone equipment and coverage issues and the additional paperwork were the next most, and equally, frequently cited barriers ($n = 5$). Funding issues were reported as barriers by three project officers, particularly in terms of the cost of telephone calls and travel costs associated with mixing T-CBT with some face-to-face sessions.

Impact of the T-CBT pilot on Divisions

Thirteen project officers indicated that the T-CBT pilot had had positive impacts for the Division. The flexibility and option of the mode of service delivery and, in turn, its benevolent effect of increasing accessibility for consumers that may otherwise experience difficulties accessing psychological services, was the most frequently mentioned positive impact of the T-CBT pilot for Divisions ($n = 11$). Three project officers expressed that the T-CBT pilot had had negative impacts for their Divisions in terms of additional workload. Nonetheless, the value of the T-CBT pilot was acknowledged as the majority of project officers expressed a desire for the service to continue.

Benefits and challenges of the pilot reported by mental health professionals in pilot Divisions (n = 10)

Of the 10 mental health professionals (representing 10 Divisions) who took part in the purpose-designed interviews, six were psychologists, two were social workers, one was a psychiatric nurse and one reported being a psychotherapist, sociologist and counsellor. Four mental health professionals reported that they had not delivered T-CBT services to any consumers via the pilot, although one of these reported providing telephone services to many consumers external to the T-CBT pilot.

Benefits of T-CBT

Seven mental health professionals reported benefits associated with T-CBT. Overall, mental health professionals reported that the referrals received for T-CBT were suitable for this type of service. Three mental health professionals reported as beneficial the ability to service rural or remote areas and provide a greater continuity of service to consumers in these areas who 'wouldn't be seen otherwise' due to access issues. The ability to offer high-need consumers telephone contact was also perceived positively by two mental health professionals, with one professional stating: 'it's certainly beneficial for those who can't or don't want to attend face-to-face'. Three mental health professionals commented that consumer outcomes had been good within the pilot and that consumers were reporting the services to be helpful. Other perceived positive impacts included that the project provided: a convenience for the consumer who could access the services from home; a quick response for consumers; and more frequent contact for consumers. Eight of the 10 interviewed mental health professionals said that the mandatory Australian Psychological Society webinar training had been helpful.

Managing challenges associated with T-CBT

Of the seven professionals who provided responses related to the referral process, two reported that the referral process was satisfactory. The other five professionals reported experiencing difficulties with the referral process that were associated with GP lack of response to the T-CBT pilot. It was also noted that the telephone modality was associated with difficulties building rapport, which was attributable to the loss of non-verbal and visual cues. In an effort to overcome this obstacle, five mental health professionals indicated that the initial sessions were conducted face-to-face, or that they adapted by learning 'to listen differently…it's more intense and you compensate with the listening'. Another mental health professional conceded that 'telephone is better than nothing and is very helpful'.

Two mental health professionals commented on the inability to control the environments of their consumers, which led to distractions and frustration. Five mental health professionals reported discussing various strategies with their clients at the initial session to maximise privacy and minimise the risk of interruption of the T-CBT sessions. Risk issues in one instance were managed by developing connections with local emergency departments and/or after hours services or were adequately managed solely via the telephone when the client had been seen for an initial face-to-face consultation. Others managed issues of risk by ensuring that they worked with specific clients that they deemed suitable for T-CBT.

Another challenge cited by three mental health professionals was that they did not know what happened to consumers who did not answer their telephones, making it easier for consumers to drop out of the service. Six mental health professionals perceived negative impacts for consumers such as: the need to book appointments a fortnight in advance; poor mobile phone reception in some areas; the paperwork required; and the consumer did not always feel as connected and preferred 'face-to-face attention'.

Project officers from Divisions where a provider was not interviewed indicated that there was low, if any, uptake of the T-CBT pilot. Low uptake was reported to be associated with the types of challenges mentioned above and others including: most clients opting to have face-to-face sessions even if required to travel long distances, staff turnover (of project officers and T-CBT-trained mental health professionals), Division management issues, the need for increased marketing, and the lack of availability of further training for new mental health professionals.

Improving the T-CBT pilot (project officers at Divisions, n = 22, and mental health professionals delivering T-CBT, n = 10)

Project officers reported that enhanced flexibility of service delivery guidelines, education of stakeholders and less paperwork would improve the T-CBT pilot. They also noted other potential improvements such as increasing funding to 'improve capacity with more clinicians and therefore shorten wait list', 'targeting a GP practice where distance issues (barriers to access) are more relevant', and T-CBT services 'not being a temporary pilot'.

The most common suggestion for improvement of the pilot, made by five mental health professionals, was the need for increased education and liaison with GPs regarding the services. Professionals commented that GPs were not aware of the program and that it 'can be difficult to get GPs used to a new idea'. Mental health professionals also suggested that 'less paperwork' for

consumers and charging consumers a copayment might improve the services. Four mental health professionals made suggestions for further support and training, including: putting forms for mental health professionals and consumers online, offering a review training session to professionals after they have conducted some sessions, and providing an opportunity to 'link up with other [mental health professionals] across Australia to discuss patients'.

Discussion

Evaluation of this pilot program found that T-CBT was usually combined with face-to-face sessions. This mixed-modality approach shows promise for the treatment of high-prevalence mental disorders and some of our findings offer explanatory insights.

Overall, 908 consumers received 6607 sessions of mixed modality (33% via telephone). The average number of sessions per consumer was higher than the average number of sessions delivered via Tier 1 ATAPS (7.3 compared with 5.2; Bassilios *et al.* 2011). This may indicate that sessions of mixed modality are reaching a different group of consumers to those serviced via Tier 1 ATAPS. Another explanation for the higher average number of sessions delivered to consumers in receipt of sessions by telephone may be that some telephone sessions may take place on an *ad hoc* basis if mental health professionals contact 'at-risk' consumers in between face-to-face sessions. Alternatively, it may reflect compensation for a loss of non-verbal cues during telephone sessions and perceived risk to rapport experienced by mental health professionals (Centore and Milacci 2008), although others including the mental health professionals in the present study have suggested that the telephone modality results in more 'intent listening' (Scharff 2012). The uptake of telephone sessions in urban areas was initially slower than in rural areas and this is probably attributable to the fact that the T-CBT pilot itself targeted rural Divisions.

In the main, the profile of consumers in receipt of telephone sessions was similar to that of the Tier 1 ATAPS projects (Bassilios *et al.* 2011) and to callers to a large Australian telephone counselling centre (Lifeline; Burgess *et al.* 2008). The exceptions to the former are that T-CBT consumers were three times more likely to be Aboriginal and somewhat more likely to have previously utilised mental health services and to have a diagnosis of a psychotic disorder than their national counterparts (Bassilios *et al.* 2011), which supports the proposition that mixed-modality sessions allow a more flexible treatment approach that is suited to a more unique, and potentially harder to reach, consumer group. The exception to the latter is that T-CBT consumers were somewhat younger in age (Burgess *et al.* 2008). Flexible service modality may also reduce the stigma associated with attending face-to-face psychological treatment (Centore and Milacci 2008), which may be more salient in some cultural groups than in others.

Mixed-modality CBT sessions achieved positive outcomes for consumers as evidenced by statistically and clinically significant levels of improvement across all outcome measures examined. This supports previous findings demonstrating the promise that the telephone modality confers for the delivery of psychological services in general (Leach and Christensen 2006; Bee *et al.* 2008; Richards *et al.* 2008) and CBT in particular as a result of its structured format (Leach and Christensen 2006; Lovell *et al.*

2006). In comparison to the larger group of consumers of Tier 1 ATAPS (Bassilios *et al.* 2011), consumers of mixed-modality sessions seemed to have similar pre- and post-treatment outcome scores.

Several factors were viewed as barriers to the initial uptake of telephone sessions, such as the delay in the availability of the mandatory webinar training, difficulty engaging GPs and an overall preference for face-to-face sessions by providers and consumers alike. However, others have suggested that it is not consumers but clinicians who are opposed to the use of technology more broadly in therapy despite lack of empirical evidence of adverse effects on client−therapist relationships (Anderson *et al.* 2004). Although several challenges associated with delivering sessions by telephone were identified by providers, effective strategies were adopted to manage these; for example, having an initial face-to-face session assisted with the development of rapport. Positive provider response to the introduction of telephone sessions via ATAPS and associated T-CBT guidelines, which permitted multimodal sessions, were considered to optimise service uptake and outcomes. Strategies to improve the engagement of GPs were recommended in order to improve uptake of telephone sessions.

Caveats

It is possible that there were sessions being delivered by telephone via ATAPS before the introduction of the T-CBT pilot but that these were not being captured as the modality field was added to the minimum dataset in response to the introduction of the pilot in mid-2008. It was beyond the scope of our evaluation to include a non-treatment comparison group. This limits the certainty that treatment was responsible for the improvements in consumer outcomes, although improvements in the absence of treatment are unlikely to match the magnitude of improvements shown here. Although the proportion (18%) of consumers for whom pre- and post-treatment outcome data were available was not optimal, this is not uncommon for studies of this kind (Pirkis *et al.* 2011). Due to the real-world nature of the evaluation, it was beyond our scope to ensure treatment fidelity, in other words, that consumers received pure T-CBT.

Conclusions

The evaluation indicated that the uptake of telephone sessions delivered via ATAPS subprograms has been slowly increasing. However, uptake of the T-CBT pilot itself was slow and this was attributable to a combination of engaging GPs, procedural challenges and a fairly unanimous preference for face-to-face sessions where possible. However, the latter may indicate that the low uptake simply corresponds with the level of consumer need. The fact that mixed-modality sessions are reaching consumers with slightly different profiles to Tier 1 ATAPS suggests that the flexibility of the telephone modality is complementing Tier 1 ATAPS.

Despite the preference for face-to-face treatment, providers and consumers value the option of the telephone modality, particularly for consumers, both rural and urban, who are unable or prefer not to attend face-to-face sessions for various reasons, or who perhaps require greater support. Use of the telephone, which has long been seen as an accepted form of counselling (Rosenfield

1997, 2003; Payne *et al.* 2006), presents a valuable opportunity to reach consumers who prefer not to attend face-to-face psychological services (Goss and Anthony 2009). Evidence is also emerging to suggest that other forms of technology, such as computers, software programs, virtual reality, the internet and text messaging, also have the potential to improve accessibility to mental health care (Anderson *et al.* 2004; Goss and Anthony 2009; Williams *et al.* 2009; Callahan and Inckle 2012), and in some instances the lack of non-verbal cues may result in a greater variety of topics discussed (Callahan and Inckle 2012). This emphasises the importance of mental health professionals being open to the panoply of communication modality options in the modern world (Goss and Anthony 2009), with consideration to modality-specific advantages and disadvantages and competent and ethical use (Anderson *et al.* 2004; Williams *et al.* 2009). Inclusion of multimodal CBT treatment in graduate training programs may improve the competence and receptiveness of clinicians to delivering CBT in alternative modes and in turn increase clinician potential for reaching consumers in accessible and meaningful ways.

Wider promotion of the availability of the telephone modality to health and welfare organisations and the community may attract more hard-to-reach consumers, particularly if inability or unwillingness to travel (associated with cost or disability) prevents some consumers even from attending a GP. Importantly, there is evidence that the addition of the telephone modality has achieved positive outcomes for consumers in terms of alleviating symptoms and improving levels of functioning. This, combined with the prevalence of telephone sessions in Divisions not participating in the T-CBT pilot, supports the value of multimodal service delivery in general via ATAPS and has been reflected in consequential ATAPS policy changes that now encourage multimodal service delivery as appropriate in all Divisions.

Conflicts of interest

None declared.

Acknowledgements

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Appendix 1.   Interview protocols

Questions for ATAPS project officers involved in the T-CBT project

We are interested in the views of ATAPS project officers from Divisions of General Practice that are involved in the T-CBT project. We are interested in your views and experience regarding the implementation of this pilot.

1. Name of Division(s) conducting T-CBT project:

2. Is your Division a fund holder for another Division that is also conducting the T-CBT project?

Yes.
No.
If yes, please specify.

3. How many T-CBT referrals have been received by the Division?

3a. If none, are you aware why there have been none?

4. When was the Division able to start delivering T-CBT services?

4a. If there was a delay starting, what was the reason for the delay?

5. Who has been suggesting T-CBT as a mode of service delivery?

   GPs.
   Mental health professionals.
   Both GPs and mental health professionals.
   Division project officer.

6. Which of the following means of retaining mental health professionals is being used for your T-CBT project? *Please tick appropriate response(s)*

Contractual arrangements: Mental health professionals are retained under some sort of contract or memorandum of understanding. In most cases, contracts are with individual providers, but some Divisions have elected to enter into contracts with agencies. In some cases, a formal contract may not exist but the mental health professional is paid a 'fee for service'.

Direct employment: Mental health professionals are directly employed by the Division.
Other: Please specify.

7. From which of the following locations are mental health professionals providing services in your T-CBT project? *Please tick appropriate response(s)*

GP rooms: Mental health professionals provide services to the projects in rooms at the GP practices.
Own rooms: Mental health professionals provide services at their own premises.
Division's rooms: Mental health professionals provide services to the projects in rooms at Division office.
Community organisation: Mental health professionals provide services at Community Centre or organisation.
Educational setting: Mental health professionals provide services to the projects at a school, TAFE or university.
Other location: Please specify.

8. Which of the following referral mechanisms is being used in your T-CBT project? *Please tick appropriate response(s)*

Voucher system: This involves a system whereby the Division distributes vouchers to participating GP who, in turn, give them to consumers. Consumers then use the vouchers to visit nominated mental health professionals, and the mental health professional redeems the vouchers for payment from the Division.

Brokerage system: This involves an agency (either the Division or a contracted third party) acting as a broker. GP refer to this agency, which then allocates the referral to a specific mental health professional, sometimes using prioritisation or matching criteria.

Register system: This involves a system whereby a register that profiles eligible mental health professionals is provided to participating GP, who can then make their own decisions about referral.

Direct referral: This involves a system whereby the GP refers the consumer directly to the mental health professional. Often this takes place in the context to the mental health professional being co-located with the GP. However, there are exceptions, where the mental health professional is located elsewhere.

Other: Please specify.

9. Are any aspects of the model of service delivery (i.e. means of retaining mental health professional, location of mental health professional, referral mechanism) different from those for general ATAPS?

Yes.
No.
9a. If yes, how do they differ?

10. How did the Division promote the T-CBT services to GPs and mental health professionals?

11. How did GPs respond to the introduction of the T-CBT project?

12. How did ATAPS mental health professionals respond to the introduction of the T-CBT project?

13. What factors have facilitated the effective operation of the T-CBT project?

14. What factors have posed a barrier to the effective operation of the T-CBT project?

14a. Were there any difficulties that the evaluation team could support with?

15. Have you found that being able to refer patients via the T-CBT project has had positive impacts for the Division? If so, what have these impacts been?

16. Have you found that being able to refer patients via the T-CBT project has had negative impacts for the Division? If so, what have these impacts been?

17. What would make the T-CBT services work better?

18. Are there any other comments you would like to make about the T-CBT project?

Interview questions for Mental Health Professionals participating in the T-CBT component of the ATAPS projects

Thank you for agreeing to participate in this interview about the new T-CBT project. The interview will take ~20 min. Your responses are confidential, and you are free to withdraw from the interview at any stage.

For which Division do you provide most of your T-CBT services?

This will be confidential and not identified in the report.

What is your mental health profession?

I'd like to ask you some questions about your experience with seeing clients under the T-CBT project

1. Approximately how many clients have you had sessions with who have been referred under the T-CBT project?
1a. Are there clients who were referred and not provided with T-CBT?
How many?
Why?
1b. Approximately how many sessions have you delivered (both telephone and face-to-face) under the T-CBT pilot?
1c. Have you had experience delivering telephone CBT before your participation in the ATAPS T-CBT pilot?
[ ] Yes.
[ ] No.

2. Do you also deliver general ATAPS services?

[ ] Yes;
(a) How long have you been providing general ATAPS services?
(b) How often (if ever) do you deliver general ATAPS services by phone?
[ ] No;
Were you recruited specifically for the T-CBT pliot?

3. How have you found the referral process?

[PROMPTS: How **appropriate** have you found the **referrals**? In your opinion, how **suitable** have the clients been for the receipt of the T-CBT service?]

4. How does T-CBT compare with face-to-face treatment?

[PROMPTS: How does the use of telephone modality affect the assessment process?]
[PROMPTS: How do you manage issues of privacy and interruption? E.g. if client lives at home with family.]
[PROMPTS: What types of risk issues have you encountered?]
[PROMPTS: How have the loss of body language and other non-verbal cues affected your therapy?]
[PROMPTS: How do you manage 'failure to attend' T-CBT sessions?]
[PROMPTS: Has a client ever hung up on you? If so, how have you managed this?]

[PROMPTS: Do you think that T-CBT was more or less effective than face-to-face treatment modality? How?]

[PROMPTS: Are there any types of CBT interventions that you believe can only be delivered face-to-face? If so, what are these and why?]

[PROMPTS: Were there differences in the ways the clients responded to the T-CBT sessions compared with face-to-face sessions?]

5. Overall have you found that being able to provide services under the T-CBT project has had positive or negative impacts for you?

[PROMPTS: What were the positive impacts for you?]

[PROMPTS: What were the negative impacts for you?]

6. Overall have you found that being able to provide services under the T-CBT project has had positive or negative impacts for your clients?

[PROMPTS: What were the positive impacts for your clients?]

[PROMPTS: What were the negative impacts for your clients?]

7a. Do you combine T-CBT sessions with other session modalities (i.e. face-to-face or videoconference)?

[ ] Yes.

[ ] No.

7b. If so, why? If not, why not?

8. What would make the T-CBT service work better?

9. Did the Australian Psychological Society training for the T-CBT project help you in delivering services?

10. What, if any, further support or training would you like regarding T-CBT?

11. Are there any comments you'd like to make about the T-CBT project?

Thank you for participating in the interview.