Low Intensity Mental Health Services
A Rapid Review – January 2017

Commissioned by a multi-state collective of Primary Health Networks
Prepared by
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Commissioned by a collective of Primary Health Networks (PHNs) – Central and Eastern Sydney PHN, Eastern Melbourne PHN, Murrumbidgee PHN, North Coast PHN, Perth South PHN and Tasmania PHN.

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About the CRRMH
The Centre for Rural and Remote Mental Health (CRRMH) is based in Orange NSW and is a major rural initiative of the University of Newcastle and the NSW Ministry of Health. Our staff are located across rural and remote NSW.

The Centre is committed to improving mental health and wellbeing in rural and remote communities. We focus on the following key areas:

- the promotion of good mental health and the prevention of mental illness;
- developing the mental health system to better meet the needs of people living in rural and remote regions; and
- understanding and responding to rural suicide.

As the Australian Collaborating Centre for the Integrated Foundation for integrated Care, we promote patient-centred rather than provider-focused care that integrates mental and physical health concerns.

As part of the University of Newcastle, all of our activities are underpinned by research evidence and evaluated to ensure appropriateness and effectiveness.
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Summary

Introduction: This document provides a rapid overview of the literature on the implementation of low intensity (LI) mental health interventions, assesses the quality of the evidence, effectiveness of interventions and moderating factors influencing successful implementation.

This review has been produced to assist PHNs to prepare for commissioning low intensity mental health services within a stepped care framework. LI services minimise (or eliminate altogether) specialist therapist contact time with service clients; focus on early intervention, self-help and skill development; may be delivered to individuals, groups, face-to-face, by telephone or online (or in any combination); are low cost; and can be accessed via referral or self-referral.

Methods: A rapid literature review was conducted to enable a pragmatic and systematic evidence synthesis appropriate within the short timeframe available.

Results: We found a wide range of LI approaches from brief interventions, group, online and computer programs with and without support, print and book modalities with and without support. There was evidence supporting LI interventions for adults, particularly women, and youth. The bulk of evidence refers to treatment of high prevalence conditions such as anxiety and depression, then alcohol and substance misuse, including dual diagnosis. There was very little evidence for low prevalence conditions such as schizophrenia and psychosis. For alcohol and substance misuse, there is some evidence supporting brief interventions, group, computer-based and online approaches.

Examples of effective, low intensity interventions included:

- *Improving Access to Psychological Therapies (IAPT)* in the UK (a system approach that provides low intensity through to higher intensity interventions),
- *NewAccess* in Australia (individual treatment delivered by non-mental health professionals),
- *MindSpot* (Australian online clinic approach),
- *MoodGYM* (Australian online program for adolescents and adults), and
- *The BRAVE Program* (Australian online program for children and adolescents).

Discussion: Encouraging evidence was found for LI interventions being effective and deliverable by non-mental health professionals in some cases and as such providing a cost-effective alternative to higher intensity therapies. There is, however, little evidence of efficacy for some population groups, particularly Aboriginal and Torres Strait Islanders and Culturally and Linguistically Diverse peoples.

The context in which interventions have been delivered may limit their applicability within the Australian context. For example, programs such as *IAPT* may not translate easily from the “unitary” UK National Health System to the fragmented policy and provider systems in Australia. Important operational information such as costs, referral systems and the operation of LI interventions within a stepped-care model tends to be missing from the literature.

LI interventions may prove to be an important part of the solution to psychological ill-health but they are only one component of a responsive and effective regional service model. Not all LI interventions will work for all consumers, a stepped-care framework is needed, with non-response requiring prompt identification and escalation to increased treatment intensity or type.

Finally, this report describes a rapid review of a fast moving and extensive field. Many recent developments may prove useful or ineffective when appropriate and high quality research becomes available.
Executive Summary

Purpose
The purpose of this document is to provide a rapid overview of the literature on the implementation of low intensity (LI) mental health interventions, to assess the quality of the evidence, the effectiveness of interventions and moderating factors which influence successful implementation.

This review has been produced to assist PHNs to prepare for commissioning low intensity mental health services within a stepped care framework. LI services minimise (or eliminate altogether) specialist therapist contact time with service clients; focus on early intervention, self-help and skill development; may be delivered to individuals, groups, face-to-face (FTF), by telephone or online (or in any combination); are low cost; and can be accessed via referral or self-referral.

Limitations
This rapid review is based on published research about LI mental health interventions and is, of necessity, dependent on the availability and quality of published research. Hence, it is a review of the state and findings of research on LI interventions. It cannot assess interventions which have not been evaluated or where the only evidence comes from poor quality studies. Such interventions must be classified as unproven, not ineffective.

Whilst the objective of the review was to assess evidence of LI interventions that were established, not pilot studies, the search revealed a nascent field of research, with much of the evidence focused on LI trials and their efficacy, with far less focus on implementation, training, policy or key success factors. Whilst many interventions employ evidence-based therapies such as Cognitive Behavioural Therapy (CBT), the interventions themselves have not been fully evaluated for implementation fidelity, cost or therapeutic efficacy and thus their evidence must be rated as low. This does not question the therapeutic approach per se, rather that there is not enough evidence to conclude that an intervention is proven.

Findings
Evidence was found for a wide range of LI approaches from brief interventions, group, online and computer programs with and without support, and print and book modalities with and without support. There was evidence supporting its use for adults, particularly women, and youth populations. The bulk of evidence concerns treatment of high prevalence conditions such as anxiety and depression, then alcohol and substance misuse, including dual diagnosis. There was very little evidence for low-prevalence conditions such as schizophrenia and psychosis.

A few interventions have been more fully tested. These include IAPT from the UK, where trained paraprofessionals deliver LI CBT to people within a stepped-care framework. IAPT has well-structured training, supervision, assessments, and mechanisms for stepping up the intensity of treatment and evaluation. At present IAPT represents a clear evidence-based approach to delivering LI mental health services to more people and results in indirect cost savings. The implementation of a similar program would require investment in the recruitment, training and supervision of a new workforce of paraprofessionals. NewAccess is an Australian pilot of the LI CBT portion of the IAPT scheme, that is, it operates without the stepped care framework that encompasses IAPT. NewAccess shows promise for the Australian context with a 67.5% recovery rate and impressive rates of male participation, which was attributed to improving accessibility – no-costs paid by clients and services were embedded within
existing health and social services. The evidence for the NewAccess program comes from an external evaluation which did not provide details on methodology or controls, thus the evidence can only be described as poor at present.

In **online/computer program** LI interventions, the e-mental health CBT-based program MoodGYM is supported by the most evidence, however, the amount of evidence is in large part due to the relative maturity of the program. It has been shown to be effective for anxiety and depression (evidence ratings of five and four respectively), for adult men and women and youth, and is available in five languages. *The Brave Program* for child and adolescent anxiety also has strong evidence to support its efficacy.

The (passive) provision of **psychoeducational material** holds promise too, with a small but significant benefit. It addresses the need to reach many people, to increase mental health literacy and to encourage help-seeking. Good mental health literacy is positively associated with the use of LI interventions.

The **e-clinic approach** of MindSpot and *This Way Up* also has a good evidence base. MindSpot is an established e-clinic service which provides telephone and online supported CBT for the treatment of anxiety and depression. It has achieved large clinical effects and significant reach, with 82% of participants not currently in contact with mental health services, and both rural and remote and Aboriginal and Torres Strait Islander (ATSI) populations access MindSpot at a level that reflects their representation in the Australian population. *This Way Up* is an established clinic which reports a completion rate of 75%, which is an important determinant of effectiveness. *This Way Up* sends reminders, offers choice of course and timing, and imposes a modest financial cost, contributing to improved adherence.

**Mobile phone/tablet apps** are another avenue for delivering LI mental health services. This review found that whilst there is a very large number of mental health apps available, the number that are based on evidence and evaluated apps is quite small. This burgeoning space has many possibilities, but needs to be navigated with care. The CBT-based app myCompass has been shown to be an effective tool for treating mild to moderate depression and anxiety.

**For alcohol and substance misuse**, there is some evidence for brief interventions, group, computer-based and online approaches. CBT in combination with motivational interviewing (MI) has been shown to be effective for reducing risky drinking both in brief intervention and with online/computer based interventions such as SHADE. Of the 23 online interventions listed on the *Beacon* website, there is good evidence for two interventions for alcohol: *Check Your Drinking* (education based) and *Unit Check* which provides personalised feedback. Notably, community (real world), as opposed to, research populations have complex problems, dual diagnoses and comorbid mental, physical and sometimes social problems. While complex needs are outside the scope of this review, consumers with **dual diagnoses** such as depression and alcohol abuse may benefit from brief interventions combining CBT and MI, amongst adult, student and female consumers. The main value of LI in this context may be in providing an initial entry point into services.

The **populations** that responded most to LI interventions included women, adults and youth. There is a shortage of literature concerning ATSI and Culturally and Linguistically Diverse (CALD) peoples. A number of studies showed promise for LI mental health interventions for people living with chronic diseases such as heart conditions, with improvement of symptoms of depression. There is some evidence related to rural and remote populations, where great promise is held for online LI
interventions. Notably, MindSpot has a rural and remote and ATSI participation rate similar to their representation in the Australian population. However, this needs to be balanced against the fact that internet and mobile phone coverage in rural and remote areas remains patchy, with high dropout rates and slow download speeds. The Stay Strong app is one culturally adapted motivational care planning tool for use with ATSI people, and good evidence of efficacy and a user-friendly format.

Moderating factors
Adherence is a moderator of clinical efficacy, and this is often a weakness of online-only therapeutic approaches. It has been suggested that supported self-help (online, computer program or print/book modalities) will assist adherence and thus efficacy. The evidence for therapist support is mixed, with different meta-analyses and reviews finding either improvement or no change in efficacy.

The context wherein interventions have been undertaken may limit their applicability within the Australian context. For example, programs such as IAPT may not translate as easily from the unitary National Health System of the UK to the fragmented provider and policy systems of Australia.

Workforce implications
Whilst some studies highlighted the need to train therapists and/or support people properly to deliver LI interventions, and evidence showed clinical outcome variability due to varying clinician competence, most studies lacked detail about training. Studies did report that LI interventions have been delivered by a range of people from clinicians to paraprofessionals, teachers and parents. Further research is needed to examine the evidence on the training needs for the LI mental health workforce. The evidence from the well-established IAPT service is that an extensive training, supervision and monitoring framework underpins service fidelity and good patient outcomes.

Economic implications
Both IAPT and NewAccess reported good cost-benefits. Group interventions were reported to decrease clinician to client ratios and thus costs, with one study indicating that individual therapy was 1.5 times the cost of group, though other studies found similar costs between group and individual. Online LI interventions show much cost-effective promise as they can be delivered unsupported or with support (although some evidence suggests supported self-help is likely to be more effective) – the mode of which can be FTF or by phone, email, or online conversation. Book-based CBT (bibliotherapy) was found to be cost-effective.

Gaps in the evidence
Evidence gaps with respect to LI interventions include research regarding minority populations, low prevalence conditions, fit within stepped care models, weak evidence only to support most LI interventions, and use of LI interventions in rural and remote areas.
### Key points for LI interventions

<table>
<thead>
<tr>
<th>LI interventions:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Access</strong></td>
<td>• may increase access to populations that are unable or unwilling to access normal intensity mental health services. The ability to self‐refer likely to be necessary.</td>
</tr>
<tr>
<td><strong>Fidelity</strong></td>
<td>• when structured and evidence‐based, may improve intervention fidelity.</td>
</tr>
<tr>
<td><strong>Modality</strong></td>
<td>• across a number of modalities (FTF, phone, online) may reduce stigma and increase consumer agency and choice.</td>
</tr>
<tr>
<td><strong>Workforce</strong></td>
<td>• programs such as IAPT or NewAcess will require development of a new workforce, including training, supervision and governance structures.</td>
</tr>
<tr>
<td></td>
<td>• new skills and work practices will be needed from the primary care and community workforce.</td>
</tr>
<tr>
<td><strong>Stepped care</strong></td>
<td>• will not work for all consumers, thus monitoring and referral to increased intensity or alternate treatments is needed, such as a stepped care framework provides.</td>
</tr>
<tr>
<td><strong>Regional service model</strong></td>
<td>• may prove to be an important part of the solution to mental ill‐health, but are only one component of a responsive and effective regional service model.</td>
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<tr>
<td><strong>e‐mental health</strong></td>
<td>• the forthcoming Australian Government Digital Mental Health Gateway should assist health professionals. This may support better care and increase access, but will require local adoption within regional primary (mental) health care systems.</td>
</tr>
<tr>
<td></td>
<td>• The eMHPrac portal may support training of primary care workforce.</td>
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</tbody>
</table>
## List of Abbreviations

ATAPS – Access to Allied Psychological Services  
ATSI – Aboriginal and Torres Strait Islander  
BA – Behavioural Activation  
CALD – Culturally and Linguistically Diverse  
CBT – Cognitive Behaviour Therapy  
DBT – Dialectical Behaviour Therapy  
FTF – Face-to-Face  
GAD – Generalised Anxiety Disorder  
GP – General Practitioner  
IAPT – Improving Access to Psychological Therapies  
IPT – Interpersonal Therapy  
LI – low intensity  
LGBTIQ – Lesbian, gay, bisexual, transgender, intersex, queer  
MBS – Medicare Benefits Scheme  
MI – Motivational Interviewing  
NCCMH – National Collaborating Centre for Mental Health  
NICE – National Institute for Health Care and Excellence  
OCD – Obsessive Compulsive Disorder  
PHN – Primary Health Network  
PTSD – Post Traumatic Stress Syndrome  
RCT – Randomised Control Trial  
UK – United Kingdom
1 Introduction

This rapid review of published evidence was commissioned by a collective comprising Central and Eastern Sydney Primary Health Network (PHN), Eastern Melbourne PHN, Murrumbidgee PHN, North Coast PHN, Perth South PHN and Tasmania PHN hereafter referred to as “the collective”. The review was requested in order to assess the evidence underpinning low intensity (LI) mental health services to meet the Australian Government’s requirement that PHNs improve the targeting of psychological interventions to support people with, or at risk of, mild mental illness.

Importantly the Australian Government’s response to the National Mental Health Commission’s Review of Mental Health Programmes and Services (2014) specifically outlined that future planning would take into consideration patients’ needs over administrative convenience; would have a stepped care approach with patients moving to more or less intensive services according to their needs; that early intervention would be a key feature; and better use would be made of online/computer-based therapies (see also Appendix A).

<table>
<thead>
<tr>
<th>Low Intensity Mental Health Interventions: definition</th>
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<tr>
<td>LI mental health services are intended to increase access to evidence-based psychological therapies in order to enhance mental health and wellbeing on a community-wide basis using the minimum intervention required for maximum benefit.</td>
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<tr>
<td>Compared with high intensity, low intensity interventions:</td>
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<td>• reduce the amount of time the practitioner is in contact with the patient via: fewer/shorter sessions (brief – FTF, by telephone or online (or in any combination)); or seeing more individuals at one time (group); supporting individuals to use self-help materials (self-help books, computer or online programs and apps); facilitating engagement with community or voluntary resources; and/or</td>
</tr>
<tr>
<td>• use practitioners specifically trained to deliver LI interventions (paraprofessionals, peer supporters, voluntary sector); and/or</td>
</tr>
<tr>
<td>• use less intensive resources (self-paced, own time, bite sized psychoeducational material); and/or</td>
</tr>
<tr>
<td>• provide rapid access to preventative and early intervention LI treatments (including referral and self-referral options).</td>
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<tr>
<td>LI interventions typically focus on early intervention, self-help and skill development (valuing between session homework) in simple, brief and accessible ways (modalities: FTF, telephone, group, computer, online, app).</td>
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<tr>
<td>Compared with traditional services, LI interventions increase:</td>
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<tr>
<td>• access and/or speed of access to treatment;</td>
</tr>
<tr>
<td>• the total number of people who can access treatment;</td>
</tr>
<tr>
<td>• service flexibility, responsiveness and capacity;</td>
</tr>
<tr>
<td>• patient choice; and</td>
</tr>
<tr>
<td>• cost-effectiveness of services.</td>
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</table>
The LI definition has been adapted from Bennett-Levy et al. (2010) and incorporates feedback from the collective and the Australian Government guidance document for PHNs.

The Australian Government noted that essential features of the new LI mental health services commissioned by PHNs would: target low intensity needs within a stepped care approach; provide an efficient and less costly alternative to existing higher-cost psychological services such as Medicare based Better Access; and that services would supplement the Digital Mental Health Gateway when it is established.

When considering low intensity interventions, it is worth considering what is “normal intensity” within the Australian context. Normal intensity psychological support services currently on offer within the Australian system, include the Medicare Benefits Scheme (MBS)-supported Better Access Initiative. Better Access requires a GP mental health plan and six FTF treatments with a psychologist or accredited social worker which may be extended by a further four sessions. Furthermore, through Access to Allied Psychological Services (ATAPS), a more intensive scheme, patients are eligible for a maximum of 12 sessions per calendar year - six time-limited sessions with an option for a further six sessions following a mental health review by the referring GP. Sessions can be individual and/or group therapy sessions. ATAPS provides patients with assistance for short-term intervention. In addition, ATAPS patients are also eligible for up to 12 separate group therapy services, within a calendar year, involving 6-10 patients (separate from the individual services and do not count towards the 12 individual services per calendar year).

This review uses a rapid review methodology to address the following research questions:

1. What is currently known about LI psychological interventions for people with, or at risk of, mental health problems but who are functional (i.e. there is nothing to suggest that they are not coping with most everyday activities)?
   a. What empirical evidence is there that LI interventions are effective?
   b. What is the strength of the evidence?
   c. What are the operational details (including cost) of effective services?
   d. What are the reported outcomes of effective services?
   e. What mediating factors impact on effectiveness?
   f. For whom are services effective?

2. How do effective LI services fit into stepped care models of mental health service provision?

3. What evidence is there that these services are being delivered appropriately to the right people at the right time?

4. Are these services able to refer consumers on to a more appropriate service when necessary?

LI interventions and services that have been prioritised in this review are those available to the community (i.e. not pilot studies) including digital interventions. Evidence of the effectiveness of these services is considered for populations and sub-groups such as children and young people, ATSI and CALD, paying particular attention to factors such as age, location, and alignment with the ‘stepped care’ and ‘person-centred’ approach.

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This report summarises evidence about:

- the effectiveness of LI treatments;
- high prevalence, low prevalence, alcohol/substance misuse, dual diagnosis conditions;
- types of interventions;
- modes of delivery;
- populations such as children and young people, ATSI and CALD peoples;
- the moderators/contextual factors that may affect the success of interventions such as age, socioeconomic status and location (rural, regional, metropolitan);
- the workforce requirements for LI interventions including peer workers and peer groups, training and skills, supervision and support;
- costs and cost effectiveness;
- the fit of treatment within a stepped care model;
- any evidence gaps; and
- the implications of National and State or Territory policies and infrastructure.

2 Methods

A rapid review was conducted based on the methodology described by Khangura et al. (2012). This method enables a pragmatic and systematic evidence synthesis appropriate for the short timeframe (approximately five weeks) and for informing decisions in a health care context\(^2\). The detailed search strategy and method of selection of publications is provided in Appendix B – Detailed Methods.

3 Results

Firstly, we note that a key goal of this literature review was to identify which LI non-pharmacological interventions for common mental health conditions have a solid evidence base. We note that the National Institute for Health Care and Excellence (NICE) has clear guidelines on this (NCCMH, 2011a, NCCMH, 2010) which are outlined in Box 1. We have structured the results to reflect interventions for conditions of high prevalence, low prevalence and alcohol/substance abuse or dual diagnosis, ordered by decreasing intensity, that is, from the most to least intensive, from the perspective of time spent with a clinician and cost. Each decrease in intensity represents opportunities to reduce costs, decrease demand on the expert psychological workforce (a limited resource) and increase access for underserved populations.

Another note is that whilst all the LI interventions discussed are evidence-informed (based on effective treatments such as CBT), the review focusses on the proof that the intervention works. That of efficacy of implementation, looking at modality and dose/titration, fidelity, workforce requirements, clinical and functioning outcomes, cost-effectiveness, conditions treated, population, contextual factors and moderators of impact. Evidence gaps were also identified in the process.

\(^2\) The gold-standard, a systematic review, while offering a more comprehensive and accurate representation of healthcare evidence demands a much more time, around a year, to conduct. A narrative review is another comprehensive approach utilising structured searching and quality assessment, demanding more time than is practical for the time-frame of a rapid review. Hence some pragmatic streamlining in regard to search strategies, quality assessment of studies and handling of analysis to fit the timeframe is needed.
Box 1 – NICE guidelines for LI mental health interventions

<table>
<thead>
<tr>
<th>Disorders</th>
<th>Recommendations</th>
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| Presentation of any suspected or diagnosed common mental health disorder | Identification  
Assessment  
Psychoeducation  
Active monitoring  
Referral for further assessment and interventions |
| Mild to moderate depression or sub-threshold persistent symptoms | Individual guided self-help with reading-age appropriate written or other media support information*  
Computer-based or web-based CBT**  
Group-based CBT based on a structured model (e.g. ‘Coping with Depression’)**  
Structured group physical activity***  
Group-based peer support self-help programmes (where client has a chronic physical health problem)  
Non-directive counselling delivered at home (for pregnant or postnatal women)  
Antidepressants  
Self-help groups. |
| GAD and mild to moderate panic disorder | Individual non-guided and guided self-help  
Psychoeducational groups  
Self-help groups |
| Mild to moderate OCD | Individual or group CBT (including exposure and response prevention)  
Self-help groups |
| PTSD (including mild to moderate) | Trauma-focused CBT or eye movement desensitisation and reprocessing |
| All disorders | Support groups  
Educational and employment support services Referral for further assessment and interventions |

*generally 6 to 8 FTF or telephone delivered sessions, 9 to 12 weeks in duration including follow-up  
**generally 9 to 12 weeks including follow-up  
***on average 3 x 45-60 min sessions per week for 12 weeks  
****10 to 12 meetings over 12 to 16 weeks, group-size of 8 to 10 people (NCCMH 2011a and NCCMH 2010)

3.1 The evidence for the effectiveness of LI mental health treatments

The search found a large literature on the evaluation of LI mental health services. After selection of publications, as detailed above, 11 reviews and 31 studies were included in the review (see Figure B1, Appendix B – Detailed Methods). Among the included literature computerised and web-based interventions received the most attention. According to the systematic and narrative reviews the quality of evidence is highly variable, however, there have been a large number of RCTs. Many reviews and constituent studies conclude that the evidence looks promising but that more research is needed for verification. However, as interventions are very varied in their mode of delivery and the treatment approaches they combine, the conditions they address, who delivers them and who the users are, it
is difficult to make a simple statement about the effectiveness of LI services as a whole. Appendix C summarises details of the studies included in this rapid review and the evidence of their effectiveness.

### 3.2 High prevalence (depression and anxiety conditions)

For high prevalence conditions such as anxiety and depression, there is strong evidence for the efficacy of LI CBT approaches (Cuijpers et al., 2010, Cuijpers et al., 2011, Ernst and Young, 2015, Haug et al., 2012, Mukuria et al., 2013, Zhou et al., 2016). LI CBT approaches have been trialled using a broad range of modalities including FTF or phone with a trained facilitator, online, mobile and print/book modes with and without support (via phone or FTF).

Several interventions employed *psycho-educational approaches* as either a preventative measure or as a form of self-help treatment. Occasionally, *Interpersonal Psychotherapy (IPT)*, *Behavioural Activation (BA)*, or *Motivational Interviewing (MI)* LI interventions were employed; hence there is less evidence to support these approaches. Frequently, studies do not explicitly state the treatment theory underpinning the intervention. From other studies excluded from the review, it appears that *Dialectical Behaviour Therapy (DBT)* has been tested in higher intensity situations.

#### LI brief intervention CBT – FTF, phone

Brief intervention LI-CBT services use trained facilitators to deliver CBT-based therapies over the phone or FTF; these include aspects of the UK’s *Improving Access to Psychological Therapies (IAPT)* and Beyondblue’s *NewAccess* program in Australia (which mirrors a component of *IAPT*). Both have assessment components that are key to stepping up or down therapeutic intensity.

*Improving Access to Psychological Therapies*

*IAPT* is the strongest evidence-based service model for LI-CBT services. Notably *IAPT* constitutes a broader stepped care approach, inclusive of assessments, from watchful waiting, through guided self-help (CBT bibliotherapy or computerised CBT with FTF or over-the-phone support), phone support, and then higher intensity CBT with or without medication (see Box 2). A non-significant increase in quality-adjusted life years at the *IAPT* test site compared to control sites, reaching a primarily female (73%) and white population (98%) has been reported (Mukuria et al., 2013). Notably an increased drop-out rate was reported for youth and those with poorer baseline mental health (Mukuria et al., 2013). The *IAPT* program introduced a self-referral element in 2009, initial reports suggested that this improved access, in particular for black and ethnic minority groups (Clark et al., 2009). The intention of the *IAPT* program was to improve access to psychological services rather than reduce costs. Indeed, test sites had higher delivery costs (average costs £4.33 per minute higher than similar services), but the program was considered to be cost effective within the NICE threshold range of acceptable costs (Parry et al., 2011). IAPT was able to demonstrate great therapeutic outcomes after one year; of the 19,395 patients treated, 40.3% showed reliable recovery and 63.7% showed reliable improvement (Gyani et al., 2013). Greater rates of recovery were found to be associated with greater adherence to the *IAPT* model and greater rates of step-up referrals when necessary. The cost benefits associated with increased recovery are likely to be gained through savings in physical healthcare, greater workforce productivity and improved quality of life (Layard and Clark, 2015).

*NewAccess*

*NewAccess* delivers six free CBT sessions FTF or by phone, tailored to the consumer’s needs (Ernst and Young, 2015). *NewAccess* was designed to be part of a stepped model of care, targeting people with
low to moderate needs but the “program relies on a regionally integrated stepped system of mental health care for full utilisation of its potential, and this system is not yet fully functioning in Australia” (p.14).

Box 2 – Improving Access to Psychological Therapies

The Improving Access to Psychological Therapies (IAPT) system delivers a team approach to address a range of mental health problems based on a hub-and-spoke model (central-base for administration, training, supervision, base for guided self-help therapists etc. with treatment delivered local to clients). IAPT services fits between, and to some extent alongside, of, primary care and secondary mental health care.

- All treatment evidence-based NICE recommended (includes CBT, psychodynamic therapies, couple's therapy and counselling for depression);
- Therapists are trained to deliver intervention, have weekly supervision and are assigned a well-qualified supervisor as a trainer;
- People are treated as close to home as possible in an acceptable venue (e.g. GP practice, voluntary organisation, community mental health sites);
- Anonymised data is collected on all clients in order to continually evaluate what is being provided and the reach and effectiveness of services;
- Commissioned IAPT services are regularly undergo appraisal and the results published online.

(Layard and Clark, 2015)

The Ernst and Young (2015) independent evaluation of NewAccess lacked any information on study participants and methodology, thus the quality of evidence must be rated as low. However, the evaluation found NewAccess to be appropriate and effective for the Australian service delivery environment (with test sites in the Australian Capital Territory, New South Wales and South Australia), which is more fragmented than the unitary NHS environment in the UK, and the evaluation demonstrated that “evidence-based guided self-help for anxiety and depression could be delivered by trained and supervised community members, who were not necessarily mental health professionals (p. 7).” The study reports a recovery rate of 64.1-71.9%, with male participants reaching 35-47% across
different test sites. This high level of male participation was attributed to the moderating factors that the intervention was free of charge and was embedded in both health and social care systems which captured more potential consumers, with venues that were easy for men to access. Moreover, it was found to be economically viable with a benefit-cost ratio of 1.5 ($1 cost results in $1.50 of estimated benefits, as measured from the viewpoint of Australian society as a whole).

**Group-based treatment**

The evidence on LI group-based approaches was limited and diverse. Promising results in terms of efficacy and cost-reduction came from trials rather than established services. Group-based treatment may work better with certain population sub-groups such as youth (schools) and those with co-morbid chronic disease such as cancer or cardiac problems.

For group-based CBT, a small trial found it to be as equally effective as individual CBT (which costs 1.5 times more per patient), and patients attained similar clinical improvement in depressive symptoms and reported satisfaction of the treatment (Brown et al., 2011). For older adults with co-morbid depression and anxiety, a small study found group-based CBT using a manual (print material support as a memory aid) was effective, with 26.47% meeting the recovery criteria at six-week follow-up (Bains et al., 2014). Notably, Bains and co-authors (2014) classified six group CBT sessions with the support of three clinicians as low intensity. In addition, group CBT combined with MI was found to decrease depression, increase confidence and improve (positive) health perceptions when treating people with chronic conditions co-morbid with depression (Turner et al., 2014).

For youth, schools are seen as a convenient and familiar setting for group-based treatments. A study of adherence to the *MoodGYM* program found higher adherence in the monitored setting of the school context (Calear et al., 2013).

Online forums represent a virtual group-based LI intervention, a search of the *Beacon* website revealed none with a strong evidence base. The peer moderated *Mood Garden* (moodgarden.org) had most supporting evidence but still only one RCT. For more on online forums, see Appendix D.

**CBT-based self-help and supported self-help (multiple modalities)**

Online, mobile and print-based delivered CBT-based self-help are often evaluated comparing with and without support and will be discussed together. Firstly, it is clear that CBT-based self-help has a strong evidence base as noted above. Three meta-analyses (covering 84 studies) concluded that there were no significant differences between self-help and FTF delivery of CBT-mediated therapies in clinical outcomes (Cuijpers et al., 2010, Cuijpers et al., 2011, Haug et al., 2012) and in functional outcomes including quality of life measures (Haug et al., 2012, 56 studies). These studies employed the following modalities – books/workbooks, computer programs, online and audio materials. Notably, self-guided CBT for depressive symptoms yielded an effect size of 0.28 post-treatment and 0.23 at 12 months (Cuijpers et al., 2011). For reduction of anxiety symptoms, a meta-analysis of 56 studies reported a substantial effect size of 0.78 compared with placebo or waitlisted controls, but no significant difference compared to FTF treatments (Haug et al., 2012).

Where support was provided it varied from brief personal contact, support via phone, to email and FTF. Some caution was raised about the “real world” applicability of these carefully controlled trials. A key moderator observed by Haug et al. (2012), was that given the high drop-out rate in many studies, the results indicated these low-intensity approaches were somewhat less effective than specialized
CBT such as Better Access, highlighting the need to fit them within a stepped care model, with regular assessment and guidelines for stepping up treatment intensity.

**Computer and online programs**

There is good evidence for reduction of symptoms using online CBT approaches for specific groups such as women with post-natal depression (Ashford et al., 2016, Milgrom et al., 2016) and children/youth (Clearar and Christensen, 2010, Clearar et al., 2013). Also, there was good evidence (albeit small trials) for brief supported CBT-based treatment of Obsessive Compulsive Disorder (OCD), panic disorder and agoraphobia (Kobak et al., 2015, Marchand et al., 2007).

A review and meta-analysis by Zhou et al. (2016) reports clear evidence supporting brief online CBT leading to short-term reduction of depressive symptoms, whilst highlighting a need for further research around longer-term benefits. Moreover, positive moderators included therapist support, being female and “lower dysfunctional attitude.” Another review and meta-analysis found positive moderators for mental health literacy and awareness of online interventions, however mixed results for stigma, rural residence and privacy concerns (Meurk et al., 2016). In a study of a youth intervention using MoodGYM in schools, rural residence was positively associated with adherence, along with higher levels of depression/poorer self-esteem pre-treatment (Clearar et al., 2013). Moreover, for MoodGYM, adherence was improved in monitored settings such as schools (Neil et al., 2009). A meta-analysis of MoodGYM for depression found a small effect size, confounding moderators, and overall poor adherence rates, leading the authors to suggest its best use is as a population-level intervention (Twomey and O’Reilly, 2016). For an overview of MoodGYM, see Figure 1.

**Figure 1 – Overview of the MoodGYM program**

One of the fundamental characteristics and methodological challenges in the evaluation of treatments delivered online or through apps is related to participant attrition. Although there is strong evidence suggesting that MoodGYM reduces symptoms of depression and anxiety among those who complete the program, other studies have showed that less than 1% of people who access the public site of their own initiative go on to complete all five modules, while 22.5% completed the program in a trial setting (Christensen et al., 2004). This is not uncommon among trials of e-health programs, and has been referred to as the “law of attrition” (Eysenbach, 2005). It has suggested that the best response to this phenomenon is to identify the factors associated with attrition, and to define the sub-groups of people who persist with online treatments and for whom it eventually “works.” Gilbody et al. (2015) found in a large scale trial that computer-based CBT did not greatly improve depressive symptoms over GP care alone, due to limited uptake and use (attrition), despite phone support.
Another issue related to online treatments is the necessity of access to an internet connection. Although approximately 83% of households in Australia have internet access (ABS, 2014), the quality of internet connections often varies by geographical location. As online treatments continue to develop and integrate interactive elements such as videos, the quality of the internet connection required is increasing, which may pose challenges for people residing in rural and remote regions (who are often a target audience for these programs).

*Beacon* is a website (beacon.anu.edu.au, see Table 1 and Appendix D) wherein a panel of health experts categorise, review and rate websites and mobile applications, that takes into account evidence for the e-health initiatives and provides links and references. *Beacon* is not currently being updated and thus it’s possible that some other programs may have increased their evidence base in the past year. Generally speaking, according to *Beacon*, there is a lack of evidence to support most of the online CBT (and other psychological approaches). This is largely due to the fact that technological advances are occurring more quickly than research trials can be conducted, hence new online resources are often created and made available before an evidence base is established, with evaluations of these programs occurring progressively. The only interventions with strong or very strong evidence are *This Way Up – Generalised Anxiety Disorder Course* (supported) for adults, *MoodGYM* (moodgym.anu.edu.au) for the treatment of depression or anxiety in adults and adolescents and *The BRAVE Program* for the treatment of anxiety disorders in children and adolescents (see Figure 2, brave4you.psy.uq.edu.au). There is, however, good evidence to support e-couch (ecouch.anu.edu.au), *This Way Up – Depression Course* (supported), and a Dutch language program, Kleur je leven. It should be noted, however, that the amount of evidence available in support of *MoodGYM* is largely due to the maturity of the program. Notably the modules of *MoodGYM* must be completed in sequence, which may present a barrier to adherence and/or completion. Other programs may be equally effective and may be better suited to some users but they may have not been around as long to have built up such an extensive evidence base.

**Figure 2 – Overview of The BRAVE Program**

The e-clinic approach of *MindSpot* and *This Way Up* also has a good evidence base and are active clinical services (not trials). *Mindspot* provides telephone and online supported CBT for the treatment of anxiety and depression (see Table 1). It has achieved large clinical effects (d: 0.7-2.4) and significant reach, with 82% of participants not currently in contact with mental health services, and both rural and remote and ATSI populations accessing *MindSpot* at a level that reflects the national statistics (Titov et al., 2016). According to the *MindSpot* website most of their programs are supported by evidence from RCTs (see Table 1). *This Way Up*, an established clinic which has a reported completion
rate of 75%, notes that adherence to course completion is an important determinant of effectiveness and that adding reminders, choice of course and timing, and financial cost can significantly improve adherence (Hilvert-Bruce et al., 2012).

Figure 3 – Overview of the MindSpot e-clinic

Mobile apps – Phone/Tablet
A systematic review of eight studies found that whilst firm conclusions could not be drawn, mental health apps had the potential to be effective in reducing depression, anxiety, stress and possibly substance use (Donker et al., 2013). With widespread access and usage of devices, treatment accessibility may be greatly increased via apps. The authors noted that of 3000+ mental health apps available at the time of review, only eight had an evidence base, and only two were publically available. They proposed investing in public education, further research and development, and consideration of industry regulation.

The CBT-based app myCompass (also available as an online or computer program) was found to be an effective tool for reduction of mild to moderate depression and anxiety (Proudfoot et al., 2013). Additionally, myCompass was found to improve self-efficacy and this was associated with reductions in symptoms of depression, anxiety and stress (Clarke et al., 2014). Another study found that the CBT-based MEMO app was an acceptable format for delivering mental wellbeing messages to adolescents and that young people found these messages helpful (Whittaker et al., 2012).

Figure 4 – Overview of the MyCompass app
Table 1 – Summary of online resources

<table>
<thead>
<tr>
<th>Name and URL</th>
<th>Service provided</th>
<th>Evidence rating</th>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Further information</th>
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<tr>
<td><strong>Online and computer-based programs</strong></td>
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<tr>
<td><strong>MoodGYM</strong> moodgym.anu.edu.au</td>
<td>CBT online self-help treatment for depression and anxiety in adolescents and adults (has been used as a computer-based program in schools).</td>
<td>4* (for anxiety) 5* (for depression)</td>
<td>Shown to be effective for anxiety and depression. <em>MoodGYM</em> has been used in schools with teachers facilitating which appears to have encouraged adolescents, particularly in rural areas, to use the program. No referral needed.</td>
<td>Website: Home page not very easy to navigate in order to find more information for the potential user to judge if <em>MoodGYM</em> is right for them. There doesn’t appear to be any information specifically for health providers. Claims of effectiveness based on 1 RCT.</td>
<td>Free. Available in Chinese, Dutch, English, Finnish and Norwegian languages.</td>
</tr>
<tr>
<td><strong>myCompass</strong> mycompass.org.au/</td>
<td>CBT, IPT, problem solving and positive psychology self-help treatment for mild to moderate anxiety, depression and stress in adults (available as a mobile app or online program).</td>
<td>2*</td>
<td>Website: Easy for users and health providers to find information about the program. Comes under the Black Dog Institute banner – a recognised player in the mental health field. No referral needed.</td>
<td></td>
<td>Free. Available in English.</td>
</tr>
<tr>
<td><strong>Self Help for Alcohol/other drug use and Depression resource (SHADE)</strong>, newcastleinnovationhealth.com.au/capabilities/</td>
<td>CBT and MI computer-based program for comorbid depression and alcohol or cannabis misuse for people 16 yrs and over.</td>
<td>3</td>
<td>SHADE has been shown to be more clinically effective than FTF treatment long-term.</td>
<td>Referral needed – used on therapist’s premises. Therapists have shown some reluctance to</td>
<td>Available via DVD-ROM in English. Currently undergoing commercial</td>
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<td>Name and URL</td>
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<td>depression-and-drug-use-treatment-shade#.WGxvyn2F3u</td>
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<td><strong>The BRAVE Program</strong> brave4you.psy.uq.edu.au/</td>
<td>CBT online prevention and treatment program for anxiety in children and teenagers.</td>
<td>5*</td>
<td>Website: Easy for users and health providers to find information about the program – with 20-minute trial and short demos of programs available. Children and teenagers are directed to different pages designed to appeal to the age group. Program for parents available to help them support their children. No referral needed.</td>
<td>Teenagers and children are directed to get the permission to use the program. This may be a barrier to use.</td>
<td>Free. Separate programs for children (8 to 12 yrs) and teenagers (12 to 17 yrs). English language.</td>
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**Sites supplying multiple treatment options**

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<tr>
<th>Name</th>
<th>Service provided</th>
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<tr>
<td><strong>e-couch</strong> ecouch.anu.edu.au</td>
<td>Online self-help treatment using CBT, IPT, relaxation and physical activity. Programs for depression, social anxiety, GAD and worry, relationship breakdown, and loss and grief for adolescents and adults.</td>
<td>3* (for depression, relationship breakdown and loss and grief) 2* (for social anxiety) 1* (for GAD)</td>
<td>Programs use a variety of approaches.</td>
<td>Website: Information mainly presented as dense text with relatively small writing – may be hard to negotiate when experiencing a mental health problem.</td>
<td>Free. English language.</td>
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<tr>
<td>Name and URL</td>
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<td></td>
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<td></td>
<td>Option of phone, email or online support.</td>
<td>More evidence required in regard to efficacy in treating anxiety.</td>
<td>Website: There doesn’t appear to be any information specifically for health providers.</td>
</tr>
<tr>
<td><strong>e-headspace</strong></td>
<td>Online and telephone support and advice for adolescents (12 to 25 yrs) and source of information. Group chat sessions (including records of past sessions which provide information on a wide variety of areas of interest to young people).</td>
<td>0</td>
<td>Website: There doesn’t appear to be any information specifically for health providers.</td>
<td></td>
<td>Free (if user calling from a mobile phone, which will incur a charge, e-headspace offers to return the call). English language.</td>
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| **Mental Health Online**         | Information on mental health disorders and how to get help. Online assessment. Online CBT programs aimed at adults with the option of support for:  

*GAD online*  
*OCD Stop!*  
*Panic Stop!*  
*PTSD Online*  
*SAD Online* | 2* (for OCD Stop!)  
1* (for all others) | Website: several ways to get to the same information. Health professionals can access programs free of charge. Option of email therapist support. No referral needed. Assessment report (e-PASS summary) can be printed out to enable users to show it to their GP. | More evidence required in regard to efficacy of programs. | Free for self-help (recommended for mild problems). $120 for 12 weeks with clinical support (recommended for moderate to severe problems). English language. |
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<tr>
<td><strong>MindSpot</strong> mindspot.org.au/</td>
<td>Assessment online or via telephone, information/education and/or referral to other services. Online CBT treatment courses: <em>Wellbeing</em> - for adults, 26 yrs and over (depression and anxiety) <em>Wellbeing Plus</em> - for people 60 yrs and over (depression and anxiety) <em>Mood Mechanic</em> - for young adults, 18 to 25 yrs (depression and anxiety) <em>OCD</em> - for adults with mild to moderate symptoms <em>PTSD</em> - for adults with mild to moderate symptoms <em>Indigenous Wellbeing</em> - for ATSI adults (depression and anxiety).</td>
<td>5** (for <em>Wellbeing</em> and <em>Wellbeing Plus</em>) 2** (for <em>OCD</em> and <em>PTSD</em>) 1** (for <em>Mood Mechanic</em> and <em>Indigenous Wellbeing</em>)</td>
<td>Online referral service available to health professionals but self-referral also appears permissible.</td>
<td></td>
<td>Free. CBT, education, practical exercises, with weekly contact with a therapist (online or via phone), 3-month follow-up. English language.</td>
</tr>
<tr>
<td><strong>OnTrack</strong> ontrack.org.au</td>
<td>Provides information, advice, (assessment) quizzes) and programs mostly for adults: <em>OnTrack Alcohol</em> <em>OnTrack Alcohol and Depression</em> <em>OnTrack Depression</em> <em>OnTrack Families and Friends</em> (for adult carers of people with a mental illness) <em>OnTrack Flood and Storm Recovery</em></td>
<td>0 (for all)</td>
<td>Self-assessment ‘quizzes’ for levels of drinking, mood, relationship health and potential psychotic symptoms.</td>
<td></td>
<td>Free. English language.</td>
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<td>Name and URL</td>
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<td><strong>ReachOut</strong>&lt;br&gt;au.reachout.com</td>
<td><em>OnTrack Get Real</em> (for young people (14 yrs and over) who may be in the early stages of psychosis).&lt;br&gt;Aimed at young people. Provides information and links to resources.&lt;br&gt;The Toolbox – categorised lists of links to a variety of mobile apps aimed at young people.&lt;br&gt;Online forums&lt;br&gt;<strong>ReachOut NextStep</strong> to suggest possible users to possible lines of help&lt;br&gt;Mobile Apps:&lt;br&gt;<strong>ReachOut Breathe</strong>&lt;br&gt;<strong>ReachOut WorryTime</strong></td>
<td>N/A</td>
<td>Some information provided in video form.&lt;br&gt;Page specifically for parents to help them provide support.&lt;br&gt;Pages specifically aimed at health professionals with resources for support workers.</td>
<td>Lots of information on all kinds of physical, mental and social issues – may be overwhelming.</td>
<td>Free. English language.</td>
</tr>
<tr>
<td><strong>This Way UP</strong>&lt;br&gt;thiswayup.org.au/</td>
<td>Online CBT, IPT treatment courses:&lt;br&gt;GAD, OCD, panic disorder, agoraphobia, social phobia, depression, comorbid anxiety and depression.&lt;br&gt;Mobile Apps: <strong>Managing depression</strong>, <strong>Overcoming Anxiety and Depression</strong>, <strong>Mastering Generalised Anxiety</strong>, <strong>Mastering OCD, Panic, Social Phobia, Obsessive Compulsive Disorder</strong>.&lt;br&gt;Programs for schools. Supported courses:&lt;br&gt;5* (for GAD)&lt;br&gt;3* (for depression)&lt;br&gt;2* (for comorbid depression and anxiety, panic disorder)</td>
<td>Supported online courses cost no more than unsupported. Supported online courses are available. If the course proves unsuccessful such people may not have anyone following their progress.</td>
<td>Phone apps and self-help courses have no support provided. When self-referring only unsupported courses are available. If the course proves unsuccessful such people may not have anyone following their progress.</td>
<td>$59 per course with 3 months’ online access; $59.99 for mobile apps. Referral from GP needed for guided/supported courses. Self-help unguided courses do not need a prescription.</td>
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<tr>
<td><strong>Beacon</strong></td>
<td>Provides links to a wide variety of online programs and mobile apps.</td>
<td>N/A</td>
<td>Has a clear and easy to understand evidence rating system to show which programs and apps have the most research support.</td>
<td>Some information may be out-of-date.</td>
<td>Does not offer treatment or support.</td>
</tr>
<tr>
<td><strong>Mind Health Connect</strong></td>
<td>Links to wide variety of online programs and mobile apps to address mental health problems. Provides information. Mood monitor and guide to link users to help.</td>
<td>N/A</td>
<td>‘Mood Monitor’ which suggest links to possible lines of help depending on responses (however, response headings do not seem particularly relevant to questions)</td>
<td>Difficult to navigate with overly busy pages which may be overwhelming to users with mental health problems.</td>
<td>Does not offer treatment or support.</td>
</tr>
<tr>
<td><strong>eMHPrac</strong></td>
<td>Links to a wide variety of online services and provides training. Focus is for primary health care workers.</td>
<td>N/A</td>
<td>Resource guide for health professionals. Other parts of eMHPrac website provide education and training in e-mental health.</td>
<td></td>
<td>Does not offer treatment.</td>
</tr>
</tbody>
</table>

*According to ratings of beacon.com.au, **According to the number of RCTs reported to have been conducted and to have shown good efficacy by the MindSpot website.
A small study for youth with OCD found that therapist guided CBT workbooks were an effective brief LI intervention, which achieved significant reduction in symptoms, similar to a longer group treatment (Bolton et al., 2011). A small trial found support for brief intervention therapist-guided CBT workbooks for panic disorder and agoraphobia (Marchand 2007), with similar results as for 14 standard FTF CBT sessions.

CBT-based books or bibliotherapy has a strong but older evidence base and thus lies beyond the scope of this rapid review, however longstanding books on prescription schemes have been running in the UK (Farrand and Woodford, 2010)—the largest is the Reading Well program (reading-well.org.uk) run by the Reading Agency. A pilot scheme with a CBT-based book list for Australian audiences is running in western NSW in conjunction with public libraries and the CRRMH (booksonprescription.com.au).

Passive psycho-educational information (online, print)

In a meta-analysis, brief passive psycho-educational interventions were found to reduce symptoms of depression significantly, though no significant differences were observed for distress and a shortage of anxiety disorders precluded judgement (Donker et al., 2009). Moreover, the effect size for reduction of symptoms across depression and distress was 0.2. Whilst this is a small beneficial effect, the intervention can be delivered by non-professionals and may easily form part of existing primary care and general practices, as an initial step in the stepped care model and a tool for patient engagement in the care of their own mental health. Nevertheless, Beacon finds that only one online program, BluePages (Australia, bluepages.anu.edu.au), has good supporting evidence and none have strong or very strong evidence (See Appendix D).

Provision of psycho-education to cancer sufferers was found to help reduce distress and increase self-management, however the authors noted that participants with lower education levels may need more support (Chambers et al., 2014).

Indeed, psycho-educational material and mental health promotion activities related to its use may be key LI engagement tools for health and support professionals, for whom clinical work is outside their scope of practice. For ATSI health and support workers, their preference for using e-mental health tools was in the health educational space over therapy-based approaches since they felt this type of work was beyond their scope of practice, confidence and comfort zone (Bennett-Levy et al., 2017). Also these workers noted that video (e.g. YouTube) was a particularly favoured medium to engage them in learning opportunities. Bennett-Levy et al (2017) highlighted a need for more research and development of health promotional e-mental health resources, for health professionals whose roles are non-clinical or not in mental health.

3.3 Low prevalence conditions

A Cochrane review of brief versus standard CBT for schizophrenia found no studies that compared brief CBT to standard CBT for people with schizophrenia and the literature on brief CBT for psychosis was "practically non-existent" (Naeem et al., 2015). Further, the Beacon website lists only one online intervention (and no mobile apps) for psychosis: OnTrack Get Real. OnTrack Get Real is a CBT-based intervention for adolescents and young adults who are experiencing early psychosis or feeling they are losing touch with reality but Beacon finds no supporting evidence. The UK NICE guidelines suggest a more intensive 16 sessions of CBT (NCCMH, 2014), also some studies question the benefit of CBT over other therapies such as supportive therapy (Buckley et al., 2015, Jones et al., 2012), thus
recommendation of LI services for low prevalence conditions lacks an evidence base at the present time.

DBT – supported

DBT Coach is a smart-phone app, utilising dialectical behavioural therapy (DBT) as a support for FTF therapy to address substance use in people with border-line personality disorder (Donker et al., 2009). It is questionable whether the FTF plus the DBT Coach app could be classified as low intensity (the FTF element was not included as part of the review), however it may be viewed as a low intensity supplemental treatment for people with more complex clinical and therapeutic needs.

3.4 Alcohol/substance misuse and/or dual diagnosis

LI interventions for people with a substance use problem and a mental health issue, that include support and have established referral processes may have a place within a stepped-care model. LI interventions may provide an alternative entry into services for people resistant to finding help through more traditional channels. However, due to the complex nature of the dual diagnosis more intensive services are likely to be needed.

LI brief intervention CBT – FTF, phone

A brief intervention combining CBT with MI was trialled in Australia, with the observation that both brief and longer term treatment produced reduction in depressive symptoms and alcohol consumption, with longer term treatment producing better but not statistically significant outcomes (Baker et al., 2014). The authors concluded that the best initial approach should be an integrated (depression and alcohol) focus, followed by integrated or alcohol-only focused sessions. They considered brief intervention a useful, though often not sufficient, first-step to help people contextualise alcohol misuse and depressive symptomology.

A brief intervention combining CBT with motivational enhancement therapy (MET) was found to produce positive benefits (self-reported reduced risky drinking) for student participants and their peers (Conrod et al., 2013), and the authors noted that the intervention was delivered by specially trained teachers. A similarly conceived trial to reduce substance misuse found reduced conduct problems, depressive (significant) and anxiety (non-significant) symptoms over two years’ follow-up (O’Leary-Barrett et al., 2013).

A study comparing a women’s only group compared to mixed gender had equal success in reducing substance misuse, however women valued the single gender environment and the discussion of women’s issues (Greenfield et al., 2014).

Computer-based and online

For addressing alcohol misuse, computer-based interventions have the potential to provide interventions at a population level, with initial findings supporting their effectiveness in reducing problematic alcohol use in tertiary students and young people. The treatments assessed in a review of 16 studies included interactive website, assessment and feedback, video clips, and information (including printed), and were found to be as effective as brief in-person interventions, with the added advantage of potential greater population reach (Tait and Christensen, 2010).

A study into co-morbid depression and alcohol misuse revealed that an integrated CBT and MI program (SHADE, http://newcastleinnovationhealth.com.au/capabilities/depression-and-drug-use-
was more effective when delivered as a computer program versus by a therapist, with particular benefits for reduction of alcohol use (Kay-Lambkin et al., 2011). This was equally acceptable to rural and urban participants (Kay-Lambkin et al., 2012), and sustained results to 12 months (Kay-Lambkin et al., 2009). However, clinician uptake was less than consumer receptivity (Kay-Lambkin et al., 2014).

A study of Reduce Your Use, a CBT-based program to reduce cannabis use, found a reduction in use (non-significant), but acknowledged an average completion rate of just over half of the six modules of the online educational intervention (Rooke et al., 2013). Beacon found that more conclusive studies are needed to support the use of this intervention (see Appendix D).

The Beacon website lists 23 online interventions aimed at reducing alcohol consumption, cannabis use or substance misuse more generally. Beacon finds that there is good evidence for only two interventions for alcohol: Check Your Drinking (education based, www.checkyourdrinking.net) and Unit Check which provides personalised feedback (www.unitcheck.co.uk). The interventions listed are aimed at various age groups and variously use education, CBT, MI, personalised feedback, peer support and gaming approaches. One, however, is an online counselling service (with no evidence) that may be an intervention for remote delivery rather than being low intensity. In addition, Beacon lists one mobile App and ReachOut lists a further two as available to assist with reducing alcohol consumption. The ReachOut listed apps receive good ratings from users and health professionals, however, no research evidence has been found to support the use of any of the apps (see Appendix D for details).

Apps phone/tablet
A small trial found that an app which promoted self-monitoring techniques (including mood, stress, alcohol and cannabis use) led to increased emotional self-awareness and decreased mild depressive symptoms in youth, with authors suggesting it is a good first step in the stepped care model over watchful waiting and would enable users to share this data with general practitioners (Kauer et al., 2012).

3.5 Which consumers or population groups?
Groups most often targeted by low-intensity interventions are adults and children.

Gender
Women tend to be greater users than men of these services. While the NewAccess program had a relatively high reported male participation rate (35% to 47%), this was attributed to the moderating factor that the intervention was embedded in both health and social care systems which captured more potential consumers with venues easy for men to access (Ernst and Young, 2015).

Children and youth
Beacon indicates there is strong evidence for the online CBT-based BRAVE program for the reduction of anxiety symptoms (Calear and Christensen, 2010), however all trials involved at least some clinician support and this program is now available as a self-help only site, with no published evidence to support self-help alone efficacy (to date, results may be published in due course). A small trial of a parent-delivered CBT and clinician-supported program (book-based) was found to be effective for treatment of anxiety (Thirlwall et al., 2013).
ATSI
There is generally a lack of literature relevant to ATSI peoples. MindSpot offer an online Indigenous Wellbeing course (https://mindspot.org.au/indigenous-wellbeing-course) for ATSI adults which they report was well accepted by users and resulted in a 40 to 50% reduction in anxiety and depression symptoms on average. An RCT does not appear to have been done. A study of website traffic also found that the proportions of Indigenous users in rural and remote areas reflected proportions of indigenous people in the Australian community (Titov et al., 2016).

The Stay Strong App (Dingwall et al., 2015) is a culturally adapted e-mental health application based on the Stay Strong motivational care planning (MCP) tool developed by the Aboriginal and Islander Mental Health Initiative (AlMhi). Based on CBT principles, this LI treatment combines motivational interviewing with problem solving, differing from other approaches by using a holistic, strengths-based approach with pictorial tools. The tool involves four steps, discussion about family, exploration of strengths and stressors followed by goal setting. The brief intervention is designed to be delivered opportunistically in primary care settings by non-mental health professionals. An RCT showed that MCP resulted in significant improvements in wellbeing, decreased substance misuse and better self-management in Indigenous consumers with chronic mental illness, with benefits sustained over 18 months (Nagel et al., 2009). The Stay Strong app uses plain English with audio support and excellent use of pictorial tools to increase accessibility of the tool.

Figure 5 – Overview of the Stay Strong app

Training for use of the Stay Strong App is provided free of charge by eMHPrac. Dingwall et al. (2015) highlighted the value of the training in increasing the perceived knowledge of eMH and confidence of use in service providers in the Northern Territory. Follow-up support is also provided by eMHPrac and is considered highly important for translating knowledge into practice.

CALD
There is a lack of evidence in the literature with respect to CALD peoples. The literature search yielded a small UK study found that a culturally adapted Positive Health Programme for post-natal depression was an acceptable intervention to British South Asian women (Masood et al., 2015).

Leibowitz (2010) provides an overview of the issues which still hold true to date. Barriers to accessing the biggest issue to a population which is diverse. It is recommended that a social marketing approach (see www.thenmsc.com) be taken to reach these groups, that is a structured approach that seeks to understand this population well and effect perception and behaviour change, with the aim of
improving health and decreasing inequality. Effort needs to be directed at reducing barriers to access and increasing incentives.

Some **common barriers to access** highlighted were:

- Poor prior experience of health services, culturally inadequate with poor care leading to a loss of confidence in mental health services.
- Lack of knowledge of services and how to access them, compounded by language and literacy barriers.
- Stigma associated with help seeking.
- Different cultural concepts and attitudes to mental health.
- Different preferences for treatment context – GP, community or other trusted place.
- Peer influence is high, with much value given to word of mouth.

Leibowitz et al. also note some **possible solutions**:

- Choice of venue for treatment (GP, library, community or employment settings)
- Referral, including self-referral. Notably the introduction of a self-referral component to IAPT led to increased participation by men, black and other ethnic minority groups (Clark et al., 2009).
- Use of targeted services, including people who speak the language of target groups (health professionals or interpreters).
- Training of health professionals (including non-mental health professionals) in cultural competence and mental health (such as Mental Health First Aid).
- Use of targeted materials, with attention paid to literacy levels per se – plain English versions and availability of other languages and audio versions.
- Marketing of services to increase awareness of services and decrease stigma within communities, in particular use of local media (radio, TV, print) and online.
- Mental health promotion work to provision of psychological interventions as 1st step in stepped care model.
- Peer supporters, offer training to enable this group to signpost others to local services.

Further, LI services may be advantageous to attracting participation from CALD peoples since it may be more acceptable and provide a soft entry approach into mental health services with stepping up in intensity from there as appropriate (provided the assessment and stepping up frameworks are in place).

**LGBTIQ**

The initial literature review did not yield any reference to LGBTIQ peoples. We do note two online resources – *Out & online* (outandonline.org.au/) and *Q-life* (qlife.org.au/) which provides early intervention peer support online and via the phone.

**Co-morbid chronic disease**

In the UK, in particular a number of interventions appear to be aimed at people with physical health problems. For patients with chronic heart conditions, co-morbid with depression, group CBT and MI was found to decrease depression, increase confidence and improve health perceptions (Turner et al., 2014).
3.6 Contextual/Moderating Factors

Where possible, moderating or contextual factors that affected results, have been drawn from the studies.

Age

Age of participant was generally found not to affect clinical outcomes of digital interventions (Kay-Lambkin et al., 2011, Kay-Lambkin et al., 2012, Haug et al., 2012), acceptability (Kay-Lambkin et al., 2011, Kay-Lambkin et al., 2012) or adherence (Proudfoot et al., 2013). Although Kay-Lambkin et al. (2012) found older people were more likely to complete more modules of the SHADE program for comorbid depression and substance misuse.

Gender

Whilst female participation in trials was high, gender did not appear to be a moderating factor in most cases (Kay-Lambkin et al., 2011, Kay-Lambkin et al., 2012, Proudfoot et al., 2013). However, in schools, being female was associated with greater adherence to the MoodGYM program (Neil et al., 2009). Similarly in a meta-analysis, Zhou et al. (2016) found females with sub-threshold depression responded better to online CBT.

Socioeconomic status

Adherence to the myCompass program was not associated with education levels (Haug et al., 2012, Proudfoot et al., 2013) nor employment (Proudfoot et al., 2013). On the other hand, Chambers et al. (2014) found cancer sufferers with a low level of education responded better to a psychologist delivered brief intervention compared to self-help with minimal support provided by a nurse.

Rural and Remote

There was little evidence about the application of interventions in rural and remote settings and indeed whether the effectiveness of interventions was affected by being in an urban or rural environment. Moreover, in a review of online interventions for anxiety and depression Meurk et al. (2016) found living in a rural area variously acted as a facilitator, a barrier or was non-significant in regard to using online services. However, Meurk et al. (2016) reported only four out of the 29 studies they included provided any information on rurality of location and only three compared locations. Similarly, of the studies included in the current review only five of 31 studies commented on the effect of living in a rural setting. Neil et al. (2009) and in a separate study Calear et al. (2013) found a greater adherence by adolescents living in rural areas to MoodGYM than their urban counterparts, while others found rurality was not associated with non-adherence to online CBT (Newby et al., 2013), response to computerised or therapist delivered CBT (Kay-Lambkin et al., 2011) or acceptability of computerised treatment (Kay-Lambkin et al., 2012).

Access

Despite the evidence that computer-based, online and mobile therapies may provide an effective and acceptable way of delivering treatment to people in rural and remote areas, access may still be difficult. It is well known that internet service and mobile phone coverage are often very poor, with frequent drop-out of service and very slow download and upload speeds. Donker et al. (2013) considered that the problems of battery failure, poor connectivity and app freezing were common and reduced the usefulness of mobile apps. Computer program interventions may provide a more practical
option where internet and phone coverage is insufficient. It may be a more viable option to make programs available off-line, such as post-download, or at the premises of a local service provider or to supply the program (e.g. on a memory stick) for upload and use at home.

For some groups, notably ATSI people, access to computers and computer literacy may be low. Nevertheless, the use of mobile phones has been found to be widespread among the Indigenous community (Zander et al., 2016). Moreover, young Indigenous Australians in particular have demonstrated enthusiasm for social media and digital technology (Rice et al., 2016). Therefore, mobile apps may be an appropriate delivery method for this group.

The ability to self-refer is likely to be an important success factor. For example, self-referral was identified as the crucial element in the engagement of black and ethnic minority people in the UK’s IAPT program (Clark et al., 2009). A more proactive role in engaging people in need of services is likely to be more successful. White (2010) refers to this as ‘more greeting, less bouncing’; in which people are encouraged to use services and made to feel there are services available for them rather than a more passive approach of referral and passing on of people to other services.

In order to be able to self-refer people need to be able to know that the services exist hence services need to be promoted. Of course health care professionals, particularly GPs, also need to be aware of LI options. In the UK, the IAPT branding was developed and promoted widely via advertisements on buses and TV, websites, pens in GPs surgeries, shopping bags and sports event promotions (Bennett-Levy and Battersby, 2010).

**Mental health literacy**

Mental health literacy was positively associated with use of online interventions but also stigma which encouraged people to seek online rather than FTF help (Meurk et al., 2016). Nevertheless, Proudfoot et al. (2013) found that users of the myCompass program with the lowest baseline mental health self-efficacy showed greatest improvement in mental health self-efficacy.

**Pre-existing disorder**

More severe levels of depression were associated with better responses to online treatments (Zhou et al., 2016) and completion of more MoodGYM modules by adolescents outside of schools (Neil et al., 2009). Alternatively, Neil et al. (2009) also found that a history of depression and the level of dysfunctional thinking pre-intervention did not affect adherence whether MoodGYM was undertaken in schools or in the community. The same authors found lower anxiety levels were associated with adherence but this only applied in schools. Proudfoot et al. (2013) found adherence to myCompass program was not associated with clinical history symptoms at baseline, whereas Haug et al. (2012) found no association between type of disorder and outcomes.

**Level of therapist support**

There is mixed evidence in regard to the level of support provided for those engaged in self-help interventions. Meta-analysis results indicated therapist supported self-help was more efficacious (Zhou et al., 2016). On the other hand, another meta-analysis found guided self-help better than non-guided but non-significantly with no relationship between treatment length, number of sessions, the amount and type of therapist contact (Haug et al., 2012). For the well-established and effective IAPT service, therapist support is embedded within its model of care.
3.7 Workforce training and supervision

Therapists/LI practitioners

Therapists need to be properly trained to deliver programs effectively (Layard and Clark, 2015). In research specifically designed to look at the effect of therapist competence on outcomes of CBT 48% of the variation in results were found to be attributable to the competence of the therapist (Ginzburg et al., 2012). In a systematic review, Montgomery et al. (2010) found no studies that compared the outcomes of CBT when delivered by professional CBT therapists and when delivered by a paraprofessional meaning that it is unclear as to what skills are needed to deliver LI-CBT appropriately.

Many studies included in this review do not include any detail about the expected qualifications, training or supervision of therapists who deliver programs or provide guidance and support. Non-health mental health professionals or partly trained psychologists have been used to provide self-help support (Bilich et al., 2008, Kobak et al., 2015, Milgrom et al., 2016, Thirlwall et al., 2013), deliver group sessions (Anderson and Rees, 2007, Miller et al., 2011), brief interventions (Chambers et al., 2014, Conrod et al., 2013, Marchand et al., 2007, O’Leary-Barrett et al., 2013), and NewAccess (Ernst and Young, 2015). For example, school teachers, counsellors or other associated staff were considered able to deliver group and brief group sessions (Conrod et al., 2013, Miller et al., 2011, O’Leary-Barrett et al., 2013) or facilitate the use of MoodGYM (Neil et al., 2009) to students in schools. Postgraduate clinical psychology students were employed to deliver a group intervention for OCD (Anderson and Rees, 2007) and Lifeline staff supplied minimal contact when a self-help manual was being used to treat depression (Bilich et al., 2008). The level of training and supervision, if any, these people received appeared to vary considerably and was not always apparent. Conrod et al. (2013) and O’Leary-Barrett et al. (2013) describe a two- to three-day training workshop and regular supervision for school teachers whereas in the study by Miller et al. (2011) also using school teachers, they were trained but do not appear to have received any supervision. Similarly, the postgraduate students in the Anderson and Rees (2007) study appeared to be trained but not supervised. The Lifeline staff in the Bilich et al. (2008) study appeared to receive no program-specific training or supervision, though were skilled and well trained per se. None of the studies described the required skills in any detail. A separate literature search and direct contact with authors would be required to find information pertinent to the required skills.

Two studies considered the qualifications and prior experience of the therapists. Thirlwall et al. (2013), investigated an intervention in which parents were fully guided to deliver CBT to their children using a self-help book. It was found in this case that prior experience did not significantly affect outcomes. It must be noted that all the therapists regardless of qualifications and experience had undertaken a specific training course and received the same level of regular supervision. On the other hand Kobak et al. (2015), investigated the effectiveness of BT Steps when people received support from a qualified CBT therapist compared to a lay-person or no support. No training was described for the lay-people involved but they were supervised by the CBT therapist who could be consulted “as needed”. The study found no significant difference in clinical outcomes amongst all the groups. Importantly, however, the support provided did not involve counselling.

It should be noted that IAPT requires 45 days of training of paraprofessionals (one day per week over one year) and also noted that other programs had shorter training times and requirements (Richards, 2010). Moreover, with IAPT as an established service that delivers LI-CBT within a stepped care model,
its training and supervision models are proven in practice. *IAPT* LI practitioners are also supported with on-the-job training putting knowledge into practice under the supervision of trained professionals (Clark, 2011). The four key sections of the *IAPT* LI curriculum are:

1. Engagement and assessment
2. Evidence-based LI treatments
3. Values, policy, culture and diversity
4. Working within employment, social and healthcare contexts.

*IAPT* LI practitioners have ongoing support with at least two-three hours of supervision per week (case management, group supervision, individual supervision).

NewAccess has developed a training curriculum based upon the *IAPT* model. Ernst and Young (2015) recommended that the existing infrastructure for training and supervision of NewAccess be maintained and expanded in any future roll out. They also noted that a mental health qualification need not be essential, rather that candidates be selected on a mixture of personal characteristics, life experience and education.

In the e-mental health clinic space training and supervision is also paramount, for example *Mindspot* employs qualified psychologists with a mental health background, training them intensively for four weeks, followed by two to three hours per week supervision over the next two to three months, and at least one hour per week thereafter (Titov, pers.comm). This underscores that LI practitioners will need to have safe, effective training in mental health, cultural competence, modes of referral (stepping up), and the LI interventions they will deliver.

**Other primary care health professionals**

Therapists/LI practitioners are not the only workforce to consider in the delivery of LI interventions, particularly when considering the crucial role in the provision of psycho-educational material, mental health promotion and awareness-raising of treatment options and intensities. The provision of good psycho-educational material in a variety of engaging formats will lead to increased mental health literacy, assist in the promotion of behaviours that promote good mental health, and highlight options for treatment should they be required. Reynolds et al. (2015) have developed a conceptual framework to highlight the use of e-mental health resources in primary health care, with five clinical practice models, of which several are clear LI interventions, including promotion and coaching.

Other primary health care professionals present an opportunity to provide **mental health promotion** and **signpost pathways to care including LI interventions**, to do this effectively they need to be aware of resources and LI treatments available. The Commonwealth supported initiative e-mental health in practice (*eMHPrac*, [www.emhprac.org.au](http://www.emhprac.org.au), see Box 3) provides such training and information. In a study into the barriers and enablers to uptake of e-mental health resources and tools by ATSI health workers, Bennett-Levy et al. (2017) found that non-clinical workers favoured the use of psycho-educational material for the promotion of good mental health and wellbeing, and acknowledged that therapeutic tools was outside their scope of practice. This represents an important LI activity that may improve mental health literacy, awareness of and access to services. Thus training and marketing of resources to primary health care professionals is very important, as is providing guidelines on critically appraising resources. Currently *eMHPrac* provides a resources guide\(^3\) for GPs to use which highlights

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key e-mental health resources and tips on how to appraise them for suitability in practice and to individual consumers.

The training of other primary care health professionals should also consider how LI interventions fit within the stepped care framework, with assessment and referral pathways included, in particular mechanisms for stepping up in intensity when treatment is not working for an individual.

### 3.8 Outcome and Evaluation Measures

Tools used to measure outcomes were quite diverse in the literature. It should be noted that there are consistent tools for assessing consumer progress in the IAPT and NewAccess schemes, that comply with the NICE Guidelines. They both employ routine monitoring of outcomes. **NewAccess** uses the Generalised Anxiety Disorder (7-item scale, GAD7) and the Kessler-10 (K10) Australian-developed test of psychological distress (10-item scale focussed on the signs and symptoms of depression and/or anxiety). **IAPT** employs the Patient Health Questionnaire-9 (PHQ-9) for depression and GAD7 for anxiety, as does **MindSpot**. Outcomes measures are fundamental to LI services, allowing monitoring of patient outcomes and evaluation of services with respect to this. In the UK there is a central system to monitor outcomes, so that they can be compared across practitioners and across services. The **NewAccess** has a high level of measurability with clear metrics and reporting systems to assess progress and effectiveness, with demonstrator sites similarly compared.

**Box 3 – e-Mental Health in Practice (eMHPrac)**

<table>
<thead>
<tr>
<th>Health Professional</th>
<th>Leading support organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>General practitioners</td>
<td>Black Dog Institute</td>
</tr>
<tr>
<td>Allied Health Practitioners*</td>
<td>Centre for Mental Health Research, Australian National University</td>
</tr>
<tr>
<td>Service Providers working with ATSI people</td>
<td>Northern Territory – led by Menzies School of Health Research \ Northern NSW – led by University Centre for Rural Health (North Coast, The University of Sydney) \ Far North Queensland – led by Queensland University of Technology</td>
</tr>
</tbody>
</table>

* Including psychologists, social workers, occupational therapists, mental health nurses and practice nurses.

**eMHPrac objectives**

- Increasing awareness, knowledge and positive attitudes
- Building confidence and self-efficacy
- Provision of training in use of e-mental health
- Provision of workforce support in the use of e-mental health
- Provision of advice to the government on the most effective ways to support e-mental health

[www.emphrac.org.au](http://www.emphrac.org.au)
IAPT demonstrated strong therapeutic outcomes after one year, however, Gyani and colleagues (2013) found variability in outcomes by services. Moreover, Green et al. (2014) found outcome variability by practitioner, and found that compliance with NICE treatment guidelines was associated with improved outcomes. IAPT was able to respond and remediate because they were monitoring this information; this has led to increased program fidelity and improvements in patient outcomes.

3.9 Costing and cost effectiveness

Other than for IAPT and NewAccess (as outlined above) very little information was found on the cost of implementing interventions or cost-effectiveness. In a systematic review, Meurk et al. (2016) note that slightly higher healthcare costs have been associated with online CBT but the authors do not state what treatment the intervention was being compared with. Of studies included in the current review, Brown et al. (2011) found the overall costs of group interventions to be similar to that for individual treatment. A systematic review considered the cost-effectiveness of computerised CBT using studies published 1966 to 2004 (hence was not included in this review). This systematic review found that while there was some evidence the programs included (Beating the Blues, Overcoming Depression: a five areas approach, FearFighter, Cope, BT Steps) were cost-effective there was a great deal of uncertainty of the reliability of the results in a real world setting (Kaltenhaler et al., 2006). Nevertheless, Beating the Blues was found to achieve the lowest cost per Quality Adjusted Life Year (QALY) of all the interventions considered. The age of this data means that the applicability to present day is questionable. Another systematic review of online CBT which included more recent studies but of conditions that fell outside the inclusion criteria (e.g. eating disorders, female sexual dysfunction and irritable bowel syndrome), found little evidence on cost-effectiveness but that online CBT has “more than 50% probability of being cost-effective compared with no treatment or conventional CBT when willingness to pay for an additional improvement is zero” (Hedman et al., 2012, p. 745).

3.10 Evidence gaps

For e-mental health services, much of the research focus has been on efficacy of programs, with less evidence on how to facilitate the safe, effective and sustainable translation into practice. A review found that of 1081 studies in this area, the research did not focus explicitly on policy development and implementation planning, rather most was from the e-service point of view (Meurk et al., 2016). Meurk and colleagues (2016) highlighted the evidence gaps and the need for research on community and policy maker perspectives on e-mental health services; greater demographic data and diverse population reach; and the treatment preferences (including modalities) of varying populations.

Within the literature there is very little discussion about how specific LI interventions fit into the stepped care model and, more concerning, what referral systems are in place should the intervention fail to be effective. Among the included literature, it seems that most people not helped by an intervention were not assisted to find further help. Just four studies mentioned either referral or additional help when the intervention was not successful (Baker et al., 2014, Bolton et al., 2011, Ernst and Young, 2015, Milgrom et al., 2016). Milgrom et al. (2016) provided most detail. When delivering the online MumMoodBooster program to women with postnatal depression they talked about monitoring throughout the study for the need for a crisis intervention and then followed up participants post-intervention. It is not clear whether this level of care would be provided outside of a study context. It may be, however, that a different search strategy that specifically looked for
publications concerning stepped care and referral pathways may have produced more information in this area.

How effective many of the interventions would routinely be is questionable; as Haug et al. (2012) argued for the MumMoodBooster program. We noted in the methods section (see Appendix B) that it was difficult to discern whether studies were investigating effectiveness in a real world setting or proof of concept. It may be that the ‘idealised’ practises used for studies are not necessarily routinely implemented. For example, Coote and MacLeod (2012) found that the level of effectiveness achieved with their self-help manual was lower than that achieved in a previous study. The authors believed this was due to fewer therapist phone contacts. Even in the case of NewAccess (Ernst and Young, 2015) it is not known what effect a broader role of the service may have on implementation practices and what effect these changes, may in turn, have on outcomes. Furthermore, the practicalities of scalability and operationalisation of interventions are not discussed within the evidence of intervention effectiveness literature. What information may be attainable in this area is likely to fall outside the scope of a literature review.

Table 2 summarises the evidence from the literature review, with an evidence rating, strengths and weaknesses to the treatment approaches, full details of the literature reviewed can be found in Appendix C. The evidence rating for modalities cited should be used with caution as they combine evidence for different populations, specific disorders and versions of the type of therapy. The table indicates only what evidence has been found for the modality in general not that all versions of the therapy have evidence for their effectiveness.

3.11 Limitations
This rapid review has been prepared in a very short period of time, with pragmatic steps taken to cover the breadth of a large body of evidence, with more than two and half thousand articles identified in the initial search, then filtered for suitability. Thus some articles and reviews may have been missed.

Despite the large body of evidence, gaps in evidence emerged throughout the course of the review and the authors have sought to fill these where possible and acknowledge the limitations otherwise.

The field of LI interventions is a dynamic field, with much knowledge growth and change that the literature has yet to catch up with. Stakeholder interviews with key leaders in this field may yield further insight and practical advice for the commissioning of LI services.

In order to cover some of the scope of this review, there is analysis and discussion from proof of concept studies as well as established services. Early studies and clinical trials are based on idealised cohorts and conditions; thus caution must be exercised when considering how these findings translate in real world services.

Should LI interventions reach beyond provision of psycho-educational resources, LI services start to become the domain of a mental health service, with appropriate training, supervision, governance and support mechanisms. The workforce and training needs are extremely important and whilst touched on in this review, represent another field of investigation and thus beyond the scope of this rapid review.

As highlighted above, there is also a lack of: specific evidence for ATSI and CALD populations; information on the skills required for delivering interventions and the cost-effectiveness of interventions.
### Table 2 – Summary of evidence included in current review

<table>
<thead>
<tr>
<th>Type of intervention</th>
<th>Conditions treated</th>
<th>Population groups treated</th>
<th>Evidence rating*</th>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Key messages and other comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brief CBT</strong></td>
<td>Anxiety disorders</td>
<td>Adults, children and adolescents, cancer patients and caregivers,</td>
<td>2</td>
<td>May be delivered by non-mental health professional</td>
<td>Response to treatment may not be as good as longer treatment in the short-term</td>
<td>Significant improvement in clinical symptoms and functioning in longer term, comparable to longer treatment obtained in some studies. The use of printed materials may enhance treatment.</td>
</tr>
<tr>
<td></td>
<td>Substance misuse*</td>
<td>adults, adolescents</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Group CBT</strong></td>
<td>Anxiety disorders</td>
<td>Adults, children</td>
<td>3</td>
<td>May be delivered by non-mental health professional. Found to have good acceptability even with people who said they would prefer individual therapy at start.</td>
<td>More effective for anxiety than depression when treating mixed conditions.</td>
<td>Significant improvement in clinical symptoms and non-significant improvement in functioning, comparable to individual treatment obtained in some studies. Women appreciated single gender group.</td>
</tr>
<tr>
<td></td>
<td>Mood disorders</td>
<td>Adults, cardiac patients</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mixed anxiety and depression</td>
<td>Older adults (65+ yrs)</td>
<td>1</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Substance misuse</td>
<td>women</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Individual delivered by non-mental health professional (NewAccess)</strong></td>
<td>Anxiety and mood disorders</td>
<td>Not specified</td>
<td>1</td>
<td>Intervention embedded in both health and social care systems which captured more potential clients. May self-refer Delivered by non-mental health professional.</td>
<td>Program relies on a stepped care system which is aspirational.</td>
<td>Was able to attract relatively more male clients.</td>
</tr>
<tr>
<td><strong>Mobile Apps</strong></td>
<td>Anxiety disorders</td>
<td>adults</td>
<td>5</td>
<td>Appear to have good acceptability, particularly to adolescents.</td>
<td>Problems with battery-life, connectivity and</td>
<td>Although overall evidence is good, the evidence does not apply to individual apps.</td>
</tr>
<tr>
<td></td>
<td>Mood disorders</td>
<td>Adults, adolescents</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of intervention</td>
<td>Conditions treated</td>
<td>Population groups treated</td>
<td>Evidence rating*</td>
<td>Strengths</td>
<td>Weaknesses</td>
<td>Key messages and other comments</td>
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</tr>
<tr>
<td>Online and computerised self-help programs</td>
<td>Anxiety disorders</td>
<td>Adults, children and adolescents</td>
<td>5</td>
<td>High levels of user acceptability have been demonstrated. Can be accessed without referral.</td>
<td>High severity of symptoms may be a barrier to adherence (although evidence is inconsistent. Clinicians may be reluctant to refer clients to computer-based treatments. Poor internet connections may be a barrier to accessing online programs.</td>
<td>Significant improvement in clinical symptoms and functioning obtained in some studies. Although overall evidence is good, the evidence does not necessarily apply to individual programs. Most evidence for MoodGYM (anxiety and mood disorders), The Brave Program (anxiety disorders), and SHADE (substance misuse).</td>
</tr>
<tr>
<td>Mood disorders</td>
<td>Adults, children and adolescents</td>
<td>5</td>
<td>Can be accessed without referral.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substance misuse**</td>
<td>Adults, adolescents</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Print based</td>
<td>Anxiety disorders</td>
<td>Parents of children with an anxiety disorder</td>
<td>2</td>
<td>May be a viable alternative to internet-based interventions.</td>
<td>May not be as effective as a brief intervention for people with a low level of education</td>
<td>Some evidence suggests supported self-help is more efficacious.</td>
</tr>
<tr>
<td>Mood disorders</td>
<td>adults</td>
<td>3</td>
<td>May also provide a supplementary treatment to enhance other modalities.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*See Appendix D for explanation of evidence rating system (5 indicates most evidence) – also see comment at end of section 3.10 about use of this table **Including comorbid alcohol misuse and depression
4 Discussion

This rapid review is based on published research about LI mental health interventions and is, of necessity, dependent on the availability and quality of published research. Hence, it is a review of the state and findings of research on LI interventions. It cannot assess interventions which have not been evaluated or where the only evidence comes from poor quality studies. Such interventions must be classified as unproven, not ineffective.

The context in which interventions have been undertaken and the health system and service arrangements may also limit their applicability in the Australian community. Some studies undertaken by world class research teams with highly selected clients may not translate easily into settings where clinicians are pressed for time and expected to respond to a wide range of demands from patients with complex needs and co-morbid conditions. For these reasons we have made it clear when research is conducted by normal practitioners with normal populations. Programs such as IAPT conducted in a National Health System may not translate easily to the Australian context of fragmented policy and provider systems. Importantly, IAPT was not undertaken as a low-cost option but as a vehicle for increasing access to psychological services. Improving access to psychological services are considered to lead to indirect physical healthcare costs savings, improved quality of life and workforce productivity.

Key evidence gaps are described above but include the lack of research on LI interventions in minority populations (including ATSI and CALD), the role of LI interventions within community or stepped care mental health systems, the absence of solid research on all but a minority of online interventions and apps, and the lack of research on the use of these programs in rural and remote communities. If such programs are to be used more widely, health and social care professionals will need to be confident and willing to “prescribe” LI interventions and to advise consumers about their availability and value.

One further evidence gap concerns the use of LI CBT based treatments for consumers with schizophrenia either as an adjunct to pharmaceutical treatments or as an alternative to more intensive CBT. We found no evidence for the effectiveness of LI CBT for this group.

The Australian Government has proposed that LI interventions should be part of stepped care approaches that are increasingly common in the literature but largely absent in practice. The essence of such models is that they focus on a defined population and recognise that a high proportion of people with common mental health conditions do not access professional care in any year. They are characterised by features including a strong focus on increasing access; the priority they give to interventions such a bibliotherapy or online CBT with minimal support that require little or no therapist time; the insistence on regular assessment of consumer progress; and, the mechanisms for increasing or decreasing the intensity of care as needed. These systems are rare but there is evidence about the IAPT system in the UK and there is a trial of a similar model adapted for Australian circumstances entitled NewAccess. We were unable to access a peer reviewed research report of the NewAccess trial and so cannot come to a firm conclusion about its effectiveness.

The strongest evidence for LI interventions was found in a wide range of LI CBT based treatments delivered by a trained facilitator using phone, FTF, etc. for adult patients with anxiety and depression. There is evidence that it is effective to deliver such interventions to groups, particularly to young people in school settings where the therapist cost per consumer may be relatively low without compromising outcomes.
A still lower level of intensity is exemplified by online CBT based treatments with little or no therapist support, hence supported or unsupported. There is good evidence that supported self-help CBT-based programs may achieve clinical and functional outcomes as effective as FTF CBT by some consumers with common mental health problems. The therapeutic element is contained in a paper or electronic “manual” and can be accessed at the convenience of the consumer avoiding both direct and opportunity costs of attending an appointment, whether individual or group. Such treatments may be limited by Internet access problems but do not depend on the availability or capability of therapists.

The least expensive options supported by research evidence available to a purchaser include mobile apps and passive psycho-education, sometimes referred to as bibliotherapy. Available evidence suggests that the vast majority of apps have not been evaluated. Online and print psycho-educational have been shown to contribute to a reduction in depressive symptoms, although the results for anxiety are not as clear.

Real, in contrast with, research populations have complex problems, dual diagnoses and comorbid mental, physical and sometimes social problems. While complex needs are outside the scope of this review, consumers with dual diagnoses such as depression and alcohol abuse may benefit from brief interventions combining CBT and MI, amongst adult, student and female consumers. Online interventions may prove more effective that FTF treatments in reduction of risky alcohol use. There is also evidence that LI interventions may reduce depressive symptoms amongst patients with a variety of chronic diseases.

A number of key points need to be made about the potential of LI interventions and treatments in Australia are:

1. These LI approaches may help increase access to care for those unable or unwilling to access normal intensity services. This may be the majority of potential consumers in a defined population. The ability to self-refer likely to be necessary.

2. Evidence-based LI interventions, however delivered, may help overcome the problem of provider variability, poor fidelity or consistency in the intervention.

3. LI services may help tip the balance from provider to consumer since the consumer can use the service when they wish, at their own pace and they may do with less fear or risk of stigma. It may also provide them with new choices and agency in their care.

4. The IAPT program, if copied in Australia, will require the development of a new workforce of training facilitators and a supervision and support arrangement that is not currently available, though NewAccess provides such a framework. The existing primary care and community workforce will also need to develop new skills and working practices.

5. Some LI interventions have well demonstrated effectiveness but they do not work for every consumer. Within a stepped care framework non-response to the LI treatment is identified promptly and a more intensive or appropriate treatment is instigated.

6. The Australian Government has promised a Digital Mental Health Gateway to help health professionals navigate the plethora of tested and unproven online therapies. This may support better care and increase availability but will need to be adopted within regional primary (mental) health care systems.

7. LI interventions may prove to be an important part of the solution to psychological ill health but they are only one component of a responsive and effective regional service model.
5 References:


Appendix A – Stepped Care

Stepped care involves the provision of care at differing levels of intensity as required by the consumer. The intensity of service provided is based upon the consumer’s needs, the severity of illness and their preferences. Hence it is a person-centred model. Monitoring of outcomes and appropriate referral on to other services with decisions made in consultation with the consumer and their carers are key features of the model (Bower and Gilbody, 2005, Department of Health, no date).

Figure A1 – Example of a simple stepped-care model for a person with a common mental illness (adapted from Bower and Gilbody (2005))
Appendix B – Detailed Methods

Search strategy
A stepped systematic search of databases was performed, in which progression to the next search step was instigated if insufficient evidence was found to answer the research question/s. The Cochrane Library, PsycInfo, PsycEXTRA, EMBASE, and Medline databases were searched using the terms listed below. It is recognised that limiting the search to a few databases may mean that some relevant publications are missed and may introduce publication bias (Ganann et al., 2010). However, when conducting rapid reviews, it is considered better to spend the limited time on quality assessment and synthesising evidence rather than exhaustive searching (Oxman et al., 2006). However, some publications that potentially fitted the inclusion criteria cited within included publications were also incorporated into the review. The combination of database searching and following citations is considered a more time effective method of covering the breadth of the literature (Hopewell et al., 2007).

The search terms employed were:

1. low intensity OR cognitive behave* therapy OR dialectical behave* therapy OR Self-help OR e-mental health OR m-health OR NewAccess
2. mental OR psychological
3. brief OR online OR group OR web-based OR phone OR telephone
4. evaluat* OR therapy OR intervention OR treatment OR program*
5. controlled
6. #1 AND #2 AND #3 AND #4 AND #5 (AND review (when searching specifically for reviews))

For the second round of searches, focussing on original studies, the search was restricted to publications from 2011 and the following terms were added:

7. alcohol OR drug OR substance
8. misuse OR abuse
9. #7 AND #8
10. Anxiety OR depression
11. #6 AND #9 AND #10

Note these last searches, which restricted the searches to the last few years and most common conditions, were not applied to the Cochrane Library search which allowed the inclusion studies earlier than 2011 and for a broader range of conditions to still be included. Reviews identified in the search necessarily included papers published in earlier years.

It was noted during the analysis of the data that there was a dearth of studies related to ATSI and CALD peoples. Hence a third search was conducted in the PsycInfo, PsycEXTRA, EMBASE, and Medline databases:

12. Aboriginal OR Indigenous OR ATSI OR culturally and linguistically diverse OR CALD
13. #6 AND #12

This search failed to identify any additional relevant papers.

Selection of publications
The database searches yielded 2540 publications comprising 1048 reviews and 1492 studies. A summary of the selection process is provided in Figure 1.
Inclusion criteria:

- LI interventions (group, self-help, FTF, telephone, or online)
- Interventions aimed at people at risk from or with mild mental health disorders (i.e. people who are able to function well in everyday activities)
- Interventions addressing drug and alcohol use problems
- Psychological interventions
- Psycho-educational interventions
- Real world implemented interventions
- Peer-reviewed and grey literature

Exclusion criteria:

- Interventions for people with significant disability who need help with everyday activities of daily living (including inpatients)
- Interventions falling outside the usual mental health remit (e.g. accommodation and employment support, acupuncture, mindfulness, relaxation, physical activity and music or art therapy)
- Interventions addressing suicide and self-harm, behavioural problems, eating disorders, smoking cessation and gambling
- Non-English language papers
- Publications prior to 2006
- Poor quality studies
- Unpublished studies
- Pilot studies
- Studies from countries other than Australia, New Zealand, United Kingdom, Canada and the USA

Unfortunately, many systematic reviews included a mixture of studies included and excluded by the criteria. Most problematic were reviews that conflated the type of condition being treated (often non-mental health issues) and reviews that conflated people with high and low levels of function which were omitted in both cases. Some flexibility with the inclusion/exclusion criteria was necessary to allow reviews capturing mainly relevant studies to be included. Reviews were included if they:

- contained studies prior to 2006 in addition to studies post 2006
- contained some studies conducted in European countries other than the UK
- included relaxation or mindfulness interventions in addition to psychological interventions (providing that psychological interventions were the focus of treatment)

All reviews that contained studies that combined treatment of conditions that did not satisfy criteria with treatment of conditions that did were excluded.

Included studies were classified according to methodology (i.e. randomised-controlled trials (RCTs), quasi-experimental and observational studies) as a proxy for quality assessment of studies and prioritised for analysis in the following order:

i. Systematic reviews
ii. High-quality RCTs and recent primary studies (studies covered in the systematic reviews identified were excluded to avoid duplication)
iii. Good quality quasi-experimental and observational studies (studies covered in the systematic reviews identified were excluded to avoid duplication)

iv. Editorials or other commentaries if highly relevant and other sources of information exhausted.

v. Grey literature and guidelines (identified by PsychExtra and EMBASE, relevant websites or citations in included publications).

Figure B1 – Flowchart of publication selection
Due to the limited time allowed for the review it has not been possible to include all the studies identified in the database searches. A further 27 publications had not been examined in enough detail to make a final decision on inclusion or exclusion. An attempt was made to include a variety of studies in regard to format of the intervention, types of disorder addressed and the target treatment group. Additional references were sought to extend analyses and to respond to queries and suggestions from the collective.

Data synthesis and analysis

Studies were mapped according to location, population served, conditions treated and study type using a matrix. Evidence for the effectiveness of the interventions and how well they fitted into a stepped care model of service provision was then analysed. As the body of evidence was built earlier stages of the search and selection of publications were reanalysed in order to fill gaps in evidence.

In addition to meet the requirements of the collective, information about the workforce and the skills needed to effectively deliver services was collected and summarised.

Drafts were reviewed by subject experts and the team which commissioned the review and further evidence was incorporated into the final version.

Appendix C – Summary of Included Reviews and Studies

See separate file: Appendix C_Low Intensity Literature Review_Jan2017

Appendix D – Open Access Available Mobile Apps, Online Programs and Forums

See separate file: Appendix D_Low Intensity Literature Review_Jan2017