Stepped care mental health service in Australian primary care: codesign and feasibility study

Josephine Anderson[1,3] MMED, FRANZCP, Conjoint Associate Professor

Kathleen O'Moore[1] DCP, MSc, Senior Project Officer

Mariam Faraj[2] BSocSc, General Manager, Clinical Services

Judith Proudfoot [ID][1] PhD, Associate Professor

[1]Black Dog Institute, Hospital Road, Randwick, NSW 2031, Australia. Email: k.omoore@unsw.edu.au,
 judyproudfoot@ozemail.com.au,
[2]Central and Eastern Sydney Primary Health Network, Coward Street, Mascot, NSW, Australia.
  Email: m.faraj@cesphn.com.au,
[3]Corresponding author. Email: j.anderson@blackdog.org.au

Abstract

Objective.   In 2015, the Australian Government introduced several mental health reforms, including the requirement that Primary Health Networks (PHNs) provide stepped care services for Australians with mental health needs such as anxiety and depression. This paper reports on the development and feasibility study of *StepCare*, an online stepped mental healthcare service in general practice that screens patients, provides immediate feedback to patients and general practitioners (GPs), transmits stepped treatment recommendations to GPs and monitors patients' progress, including notification of deterioration.

Methods.   The present codesign and feasibility study in one PHN examined: (1) the acceptability and feasibility of *StepCare* to GPs, practice staff and patients; (2) the impact of *StepCare* on clinical practice; and (3) the barriers to and facilitators of implementation.

Results.   Thirty-two GPs, 22 practice staff and 418 patients participated in the study. Overall, patients, practice staff and GPs found *StepCare* acceptable and feasible, commending its privacy, the mental health screening, monitoring and feedback. They also made suggestions for service improvements. GPs reported that *StepCare* helped with their identification and management of patients with common mental health issues.

Conclusions.   Preliminary data suggest that *StepCare* may be acceptable and feasible in Australian general practice, helping GPs identify and manage common mental health problems in their patients. The study provides implications for policy and practice, and points the way to future translational research into stepped mental health care.

What is known about the topic?   Depression and anxiety are common illnesses in primary care and GPs are ideally placed to implement stepped care approaches enabling early detection and accessible, effective care.

What does this paper add?   Developed in and for general practice, *StepCare* is the first fully integrated stepped approach to primary mental health care in Australia. As a first step in a translational research program evaluating the effectiveness of *StepCare*, this paper reports data regarding the feasibility and acceptability of the service.

What are the implications for practitioners?   Integrated into the workflow of general practice, *StepCare* is an online service that helps GPs detect new cases of depression and anxiety, provide evidence-based stepped care treatments and monitor patients' progress.

Introduction

In Australia, 12.4% of all general practice encounters are mental health related, with depression, anxiety and sleep disturbance accounting for 60.8% of mental health problems managed.[1]

Primary Health Networks (PHNs) support general practices and work with other parts of the primary healthcare system, as well as secondary and tertiary healthcare services, to increase the efficiency and effectiveness of medical services and improve

coordination of care. In 2015, the Australian Government Department of Health introduced several mental health reforms, including the requirement that PHNs provide stepped care services for Australians with mental health needs. Stepped care is a model of health care delivery that provides the least intensive intervention appropriate to patient need and, with regular monitoring, more or less intensive treatments according to treatment response.[2] International evidence supports the effectiveness of stepped mental health care models.[3–5] However, at the time of the Australian Government policy initiative, stepped mental health care had yet to be implemented in primary care.

The most common form of management for mental health-related problems used in general practice at that time was the prescription, supply or recommendation of medications: 61.6 per 100 mental health-related problems managed.[1] An additional government policy priority was to increase the breadth of evidence-based mental health treatments available in primary care and, in particular, to increase the appropriate referral to low-intensity services, including eMental Health programs, for patients with mild to moderate depression and anxiety.

In response to these government reforms, we developed an online stepped mental healthcare service for general practice, *StepCare*, designed to be accessed through and with the support of PHNs. Integrated into the day-to-day workflow of general practice, *StepCare* focuses on the early detection of and evidence-based intervention for patients with depression and/or anxiety.

Here we report on the codesign, development and implementation of *StepCare*, as well as the results of a pragmatic study examining its acceptability and feasibility within a sample of Australian general practices.

Methods

Development and implementation of StepCare

In collaboration with a large PHN, we set up a codesign process and conducted iterative workshops and consultations with PHN management, clinical and information technology (IT) staff. Input was also gained from an organisation providing a secure messaging service to general practices, a lived experience consultation group and a general practitioner (GP) consultation group. A *StepCare* Advisory Group was established to provide ongoing clinical governance and technical oversight. Our aim was to create an evidence-based service that integrated smoothly into general practice workflow. Along with real-world experience, we used implementation theory, specifically normalisation process theory (NPT), which identifies factors that promote and inhibit the integration of complex interventions into routine practice.[6,7] Subsequent to development completion in 2016, *StepCare* was implemented in general practices supported by a single PHN (Central and Eastern Sydney PHN). One of the authors (KO'M) trained GPs and their practice staff in *StepCare*, contacting practices weekly to answer questions and facilitate implementation. All authors met at a monthly steering committee with key stakeholders.

Consisting of three main functions, *StepCare* is an online system integrated into the day-to-day work of general practice that: (1) identifies patients with anxiety and depression; (2) recommends appropriate interventions; and (3) monitors symptoms and treatment adherence, providing feedback to both patient and GP.

Patients attending a GP consultation for any reason are invited to complete a 5-min screening on a mobile tablet in the waiting room. Mild, moderate and severe anxiety or depression are identified using the Patient Health Questionnaire-9 (PHQ-9)[8] and Generalised Anxiety Disorder-7 (GAD-7).[9] Suicidal ideation and social factors commonly associated with distress are also measured. The tablet provides immediate feedback to patients. Screening results and *StepCare* treatment recommendations are sent in real time to the GP's software via a secure messaging service. All *StepCare*-recommended treatments are evidenced based and stepped according to symptom severity and need (see Fig. 1). The *StepCare* screening results also include sample
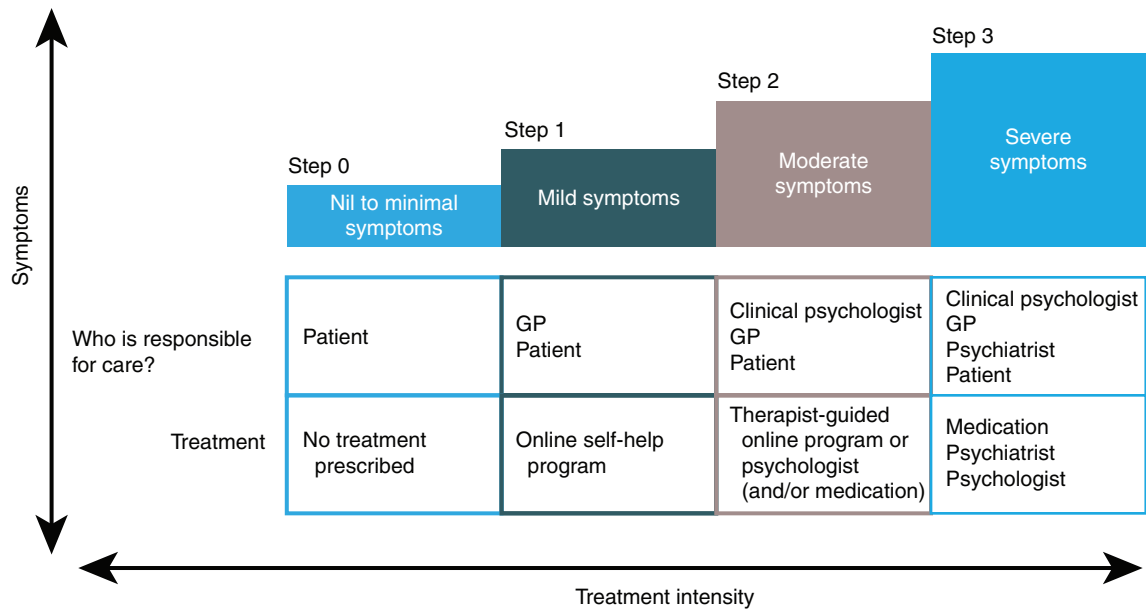

Fig. 1.   *StepCare* treatment recommendations. GP, general practitioner.

verbal scripts for GPs to help with the patient's further assessment and treatment planning.

Patients reporting mild, moderate or severe symptoms at screening are asked to complete fortnightly online monitoring for 8 weeks using the PHQ-9 and GAD-7. Immediate feedback is sent online to patients and GPs to inform review and stepping up in treatment intensity if required. In cases of emerging or increased suicidality or deterioration in mental state during this monitoring period, GPs and patients receive feedback suggesting review, with crisis contact details. GPs can also refer patients to Black Dog Institute clinics or telepsychiatry.

GPs maintain clinical responsibility for their patient throughout *StepCare*. At assessment, they add their knowledge of the patient to the information provided by *StepCare* to inform treatment recommendations and, at review, GPs use *StepCare* together with their clinical expertise to step up, step down or maintain treatment intensity, as indicated.

Feasibility study

This study addressed the following research questions:

(1) Is *StepCare* acceptable to, and feasible for, GPs, practice staff and patients?
(2) Does *StepCare* assist GPs with the identification and management of their patients, and is it associated with changes in clinical practice?
(3) Are there any barriers or facilitators to implementing *StepCare* in general practice?

This feasibility study was part of a larger translational research program evaluating the *StepCare* service.

A mixed-methods design was used incorporating both a quantitative survey questionnaire and qualitative open questions to conduct the pragmatic feasibility study.

The study was approved by the University of New South Wales Human Research Ethics Committee (HREC 15827).

Sample and recruitment

A large urban PHN invited expressions of interest from general practices. All GPs and practice staff (practice managers and receptionists) in participating practices were invited to take part. Five general practices across diverse socioeconomic settings within the participating PHN took part in the feasibility study. These practices ranged in size from a small, part-time solo-GP practice to a large busy medical practice with 15 participating GPs. Within the five practices, 32 GPs, 22 practice staff and 464 patients consented to participate. Those GPs and practice staff who consented were given a 30-min training workshop in their practice by a *StepCare* team member, followed by ongoing support after the service was launched.

Adult patients attending a GP consultation, regardless of presenting problem, were invited by the practice receptionist to complete the screening questions on a mobile tablet in the waiting room. Eligible patients (Table 1) who provided online consent could complete the screening while waiting for their appointment.

Table 1.   Study eligibility criteria
GPs, general practitioners

Participant group	Eligibility criteria
General practices	Current versions of HealthLink and Best Practice software
	Consent to provide staff resources needed for training and implementation of *StepCare*
GPs/practice staff	Agree to complete the *StepCare* service training and to implement *StepCare*
Patients	≥18 years of age or older
	Have a valid email address (to receive fortnightly monitoring emails)
	Attending the practice for a GP consultation (i.e. not visiting the general practice for other reasons, such as visiting practice nurse or psychologist, because results only sent to GPs)
	Had not previously completed *StepCare* screening
	Able to read English (with assistance if necessary)

Outcome measures

StepCare service evaluation

Three service evaluation questionnaires, one each for GPs, practice staff and patients participating in *StepCare*, were developed from NPT and previous service evaluations. Views about various aspects of *StepCare* were sought from participants, but the study did not intend individual components to create specific outcomes. Rather, the surveys investigated the overall perceived acceptability, helpfulness and effectiveness of *StepCare*.

GPs and practice staff were asked further questions regarding facilitators and barriers to implementing the service, including the practice's readiness to implement *StepCare*.

GPs and practice staff completed the survey at the end of the 3-month intervention period. Patients reporting symptoms in the mild to severe range at screening completed the survey at the end of the 8-week monitoring period.

Clinical practice

GPs were asked about the utility of *StepCare* for the identification and management of their patients' mental health. GPs were also asked to provide feedback about *StepCare* treatment recommendations, whether they adopted the recommendations for each patient and, if not, what treatment(s) they recommended and the reason. Referrals to low-intensity services (in *StepCare*, an online self-help program, namely myCompass;[10] www.mycompass.org.au, accessed 30 September 2019) was of particular interest, due to the Australian Government mental health priority of increasing appropriate referral to low-intensity services.

Data analysis

All quantitative analyses were conducted using SPSS version 22 (IBM Corp., Armonk, NY, USA). Descriptive statistics were used to explore participants' characteristics, *StepCare* evaluation feedback from GPs, practice staff and patients and GPs' clinical practice. A qualitative analysis of self-report free-text responses was undertaken to identify barriers and facilitators to service

implementation. Salient themes and principles were identified using thematic analysis, a method for identifying, analysing and reporting patterns of meaning within data.[11] Recommendations for next steps of service development were also identified.

Results

Demographic data were received from 22 GPs and 15 practice staff. Most GPs were aged between 26 and 40 years (54.4%), female (68.2%) and employed full-time (63.6%). Just over half the GPs reported a special interest in mental health (54.5%), and 77.3% reported having received education and training in mental health. Practice staff were predominantly female (93.3%), employed part-time (53.3%), with 40% aged between 41 and 64 years, 46.7% having no special interest in mental health and 60% with no training in mental health. In all, 418 patients met eligibility criteria and completed the screening questionnaires. Of these, 280 (67%) reported nil to minimal symptoms of

depression and/or anxiety on the PHQ-9 and GAD-7, 46 (11%) reported symptoms in the mild range, 51 (12%) reported moderate-level symptoms and 41 (10%) reported severe symptoms. Symptomatic patients were followed-up fortnightly. Patient flow through the study is shown in Fig. 2.

StepCare service evaluation

StepCare evaluation questionnaires were completed by 22 GPs (69%), 15 practice staff (83%) and 39 patients (28% of the 138 who reported symptoms).

GPs' ratings and feedback

Most GPs reported that *StepCare* fitted well with their beliefs and philosophies about general practice and was congruent with their practice's existing structure and processes. Regarding individual features of *StepCare*, most GPs liked the mental health screening and feedback, treatment recommendations,
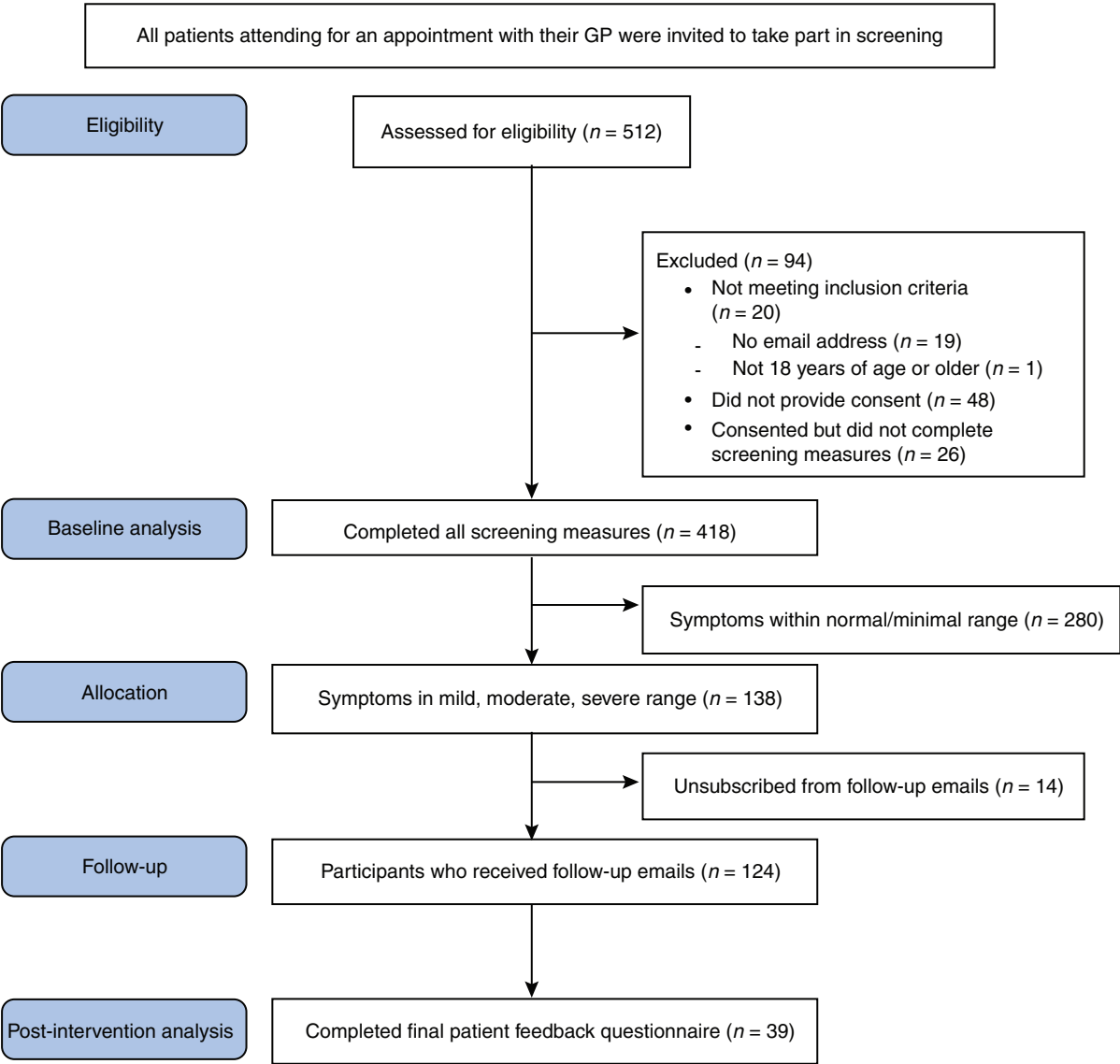

Fig. 2.   Patient flow diagram. GP, general practitioner.

hyperlinks to services, suicidality assessment information and frequency and duration of fortnightly monitoring with GP alerts. Conversely, only 45.5% liked the verbal scripts for GPs (the remainder being neutral) and 63.7% reported they did not login to check patients' fortnightly symptom scores. Similarly, only 31.8% of GPs found that *StepCare* integrated easily into practice flow, with 22.7% responding 'difficult' and 45.5% 'neutral' to this question. Despite this, 68% of GPs indicated they would support the future use of *StepCare* in their practice.

Practice staff ratings and feedback

Most practice staff agreed that *StepCare* worked well for people with worries or low mood, and 68.1% indicated a need for the service. Like GPs, most staff reported that *StepCare* was congruent with the practice's existing structure and processes, although only 53.4% (vs 72.7% of GPs) reported that *StepCare* fitted with their beliefs and philosophies. Despite this, 81% of

staff reported that they would support the future use of *StepCare* in their practice.

Patients' ratings and feedback

Most patients rated the individual components of *StepCare* 'acceptable', including the mental health screening (66.7%), screening feedback (69.2%), GP feedback (59.5%), fortnightly assessment (74.4%) and fortnightly feedback (68.4%). Although patients were less confident than GPs that the service worked well for people with worries or low mood, most still agreed with the statement and 64.8% indicated they would recommend *StepCare* to a friend.

Overall, GPs, practice staff and patients found *StepCare* to be acceptable in general practice, that it worked for people with worries or low mood (feasibility) and they would support and recommend its use (Fig. 3). Feedback from each group about the barriers and facilitators to implementing *StepCare*, as well as
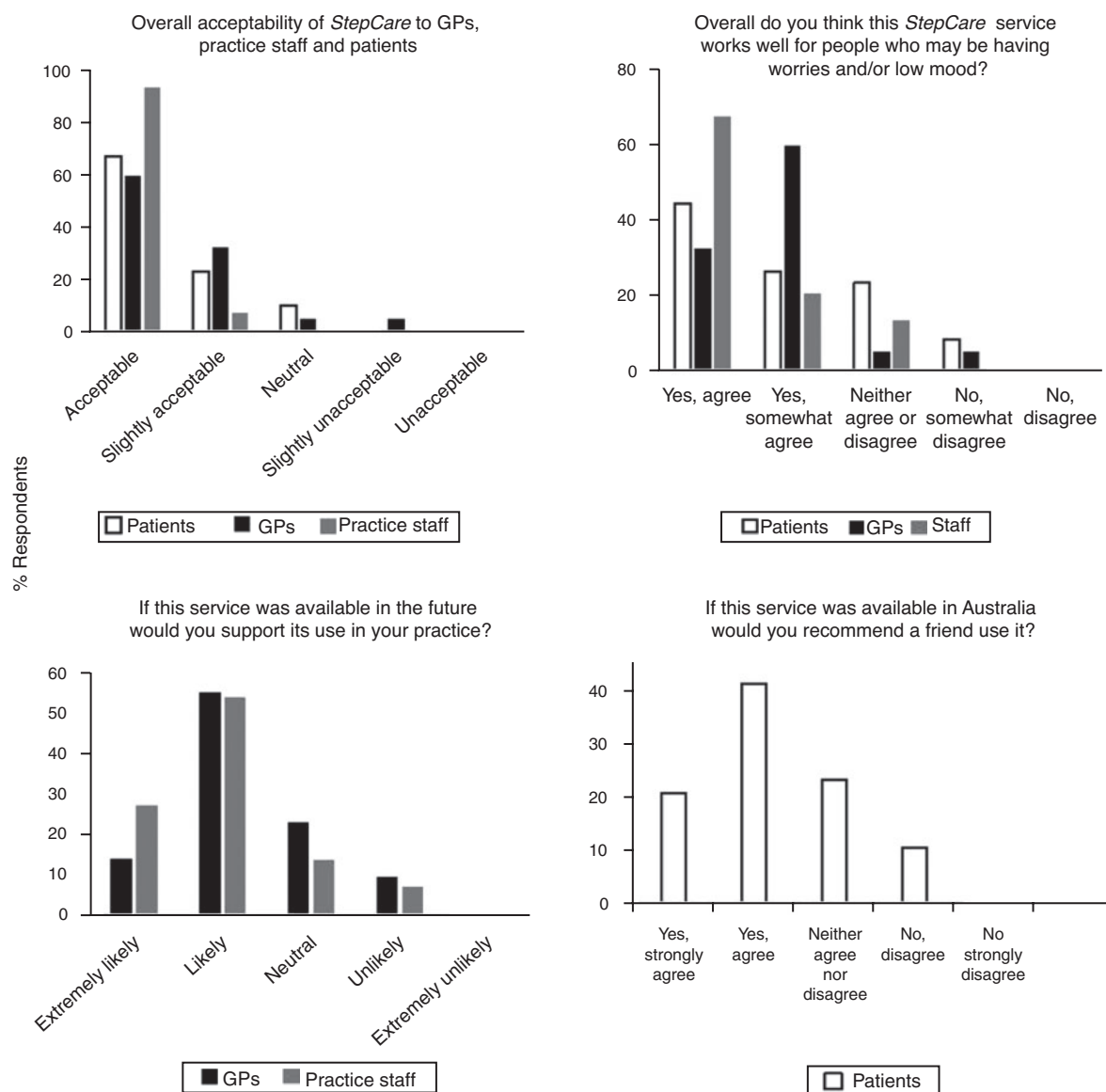

Fig. 3. Feasibility and acceptability of *StepCare* to general practitioner (GPs), practice staff and patients.

Table 2.   Feedback from general practitioners (GPs), practice staff, patients: barriers, facilitators and suggested improvements to *StepCare* service
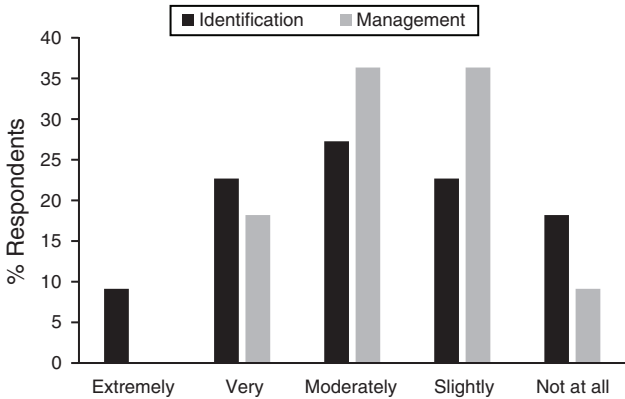
Barriers	Practices not ready for organisational change
	Patients were required to have an email address to complete screening and ongoing monitoring
	Restricted consultation time to undertake discussion of mental health screening scores with patients
	Lack of drug and alcohol screening in the *StepCare* service
	StepCare did not allow GPs to opt-out from receiving alerts
	Support is needed for patients who are not confident using an online platform
Facilitators:	*StepCare* was non-invasive, private and confidential
	It was quick, convenient and easy to use (due to technology)
	Most patients were open to being screened
	StepCare integrated with daily duties in general practices
	Access to Black Dog Institute Clinics was valued
	Benefits of increased detection and early intervention were recognised by patients, GPs and practice staff
Suggested improvements to *StepCare*	Build in mobile phone compatibility
	Provide more information to GPs, practice staff, patients about *StepCare*
	Add GP counselling as a treatment option
	Integrate a referral pathway to online therapy into the platform
	At screening, ask patients if they are seeing the GP for mental health reasons
	Consider access to treatment services, waiting time and cost

Fig. 4.   Responses to the question, 'Does *StepCare* assist general practitioners (GPs) with the identification and management of people with anxiety and depression?'

Table 3.   Alignment of treatments prescribed by general practitioners (GPs) with *StepCare* recommendations for individual patients

Alignment of GP-prescribed treatments with *StepCare* recommendations	No. patients (%)
Completely	29 (21.0)
A great deal	11 (8.0)
Somewhat	18 (13.0)
A little	10 (7.2)
Not at all	26 (18.8)
Missing	44 (32.0)
Total	138 (100)

suggested improvements to the service, are summarised in Table 2.

Clinical practice

Predominantly, GPs indicated that *StepCare* assisted with their identification and management of people with anxiety and depression (Fig. 4). However, in answer to whether *StepCare* changed their usual practice, 22.7% responded 'moderately', 50% 'slightly' and 27.3% 'not at all'. GPs provided information about the treatment(s) they prescribed for 69% ($n = 95$) of their patients who screened with anxiety and/or depressive symptoms. They also rated the degree of alignment of their prescribed treatment(s) for individual patients with the *StepCare* recommendation (see Table 3). The main reason given by GPs who selected 'not at all' to the question 'Did you adopt the StepCare recommendation?' was 'Patient already undergoing mental health treatment'. Other reasons included patient preferences, comorbidity, a patient's motivation to engage with any or specific treatment options and patient former experiences. Only two GPs felt the *StepCare* recommendation was inappropriate for a particular patient.

GPs referred nine patients (19.5%) who screened with mild anxiety and/or depression symptoms ($n = 46$) to the online self-help program myCompass, either alone or in conjunction with another treatment. Of patients who scored in the moderate symptom range at screening ($n = 51$), most (56.9%; $n = 29$)

were referred to a psychologist and/or were prescribed an antidepressant medication. For patients in the severe range ($n = 41$), GPs prescribed antidepressant medication for 61% ($n = 25$) and referred these patients to a psychologist and/or a psychiatrist as recommended by *StepCare*. Three patients with moderate or severe symptoms were referred to the myCompass program.

Discussion

The results of this translational 'real-world' study suggest that *StepCare* is potentially acceptable and feasible within the day-to-day work of general practices, helping GPs identify and manage their patients' anxiety and depression. Screening results were in line with national population-wide mental health,[12] indicating that the service was appropriately implemented as a practice-wide screener, rather than selectively targeting certain patients. Ratings by GPs, practice staff and patients about the acceptability, feasibility and 'fit' of *StepCare* were generally positive. Free-text feedback about service facilitators, such as ease of use, low cost and GPs, practice staff and patients feeling supported, endorsed many of the design features of *StepCare*. Diverse feedback from the three groups about barriers provided clear points for future enhancements, and, indeed, several enhancements, such as integrated referral to online therapy, alcohol use screening and localised referral pathways, have been made to *StepCare* based on these study findings.

Most responding GPs provided treatments in line with *Step-Care* recommendations for patients in the moderate to severe range. However, their referral of only 19.5% of mildly symptomatic patients to the self-help online treatment program was low. Increasing access to low-intensity services such as the one used in *StepCare* is an Australian Government reform priority. Government-funded GP training initiatives have made positive inroads in enhancing GPs' awareness of and confidence in using online programs, but our data suggest this is yet to fully transfer into treatment prescription.

Limitations

This study has several limitations, including some of the common weaknesses of translational research. The pragmatic recruitment process, small sample size, variety and complexity of general practices and low survey completion rates restrict generalisations that can be drawn from the data. In addition, GPs in the sample had higher-than-average interest and training in mental health, which introduces bias into the findings.

However, the results may provide some interesting considerations in terms of NPT, a sociological model applicable to the implementation of change in complex, real-world health settings.[6,13] The theory proposes four main factors that enable an intervention to become 'normalised' into routine practice: coherence, cognitive participation, collective action and reflexive monitoring.[7] The results of this pragmatic study suggest that, in general, *StepCare* made sense to the participating GPs, practice staff and patients (coherence), they engaged with it, as demonstrated by the fact that they willingly undertook the training, they followed *StepCare* procedures (cognitive participation) and they found ways to enable *StepCare* to be part of their workflow (collective action). However, only some of the GPs, practice staff and patients completed the surveys appraising the benefits and limitations of the *StepCare* (reflexive monitoring). This is an area requiring further attention. The model of service training and support may also require adjustment. Although effective, it is resource intensive in its current form, limiting potential scaling up of *StepCare*. This requires further research. Additional research is also underway to evaluate the outcomes and cost-effectiveness of the *StepCare* service.

Conclusion

To the best of our knowledge, this is the first implementation and feasibility evaluation of an integrated stepped care service for anxiety and depression in general practice. Preliminary data suggest that *StepCare* is acceptable, feasible and helps GPs identify and manage common mental health problems.

Competing interests

The authors declare no conflicts of interest.

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