Uptake of an online psychological therapy program (iCanADAPT-Early) when implemented within a Clinical Pathway in cancer care centres.

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Key Points

1. Providing access to an online psychological therapy program in cancer care did not result in significant uptake and engagement by patients, or referrals by cancer care professionals.
2. Despite many opportunities for referral by cancer care professionals, only 2% resulted in a referral to the program. None of these referrals were taken up.
3. 25 patients self-referred, however only 7 (28%) matched the recommended criteria for the program of mild to moderate psychological distress.
4. Patient engagement in the program was low, with 11/25 (44%) patients completing at least one lesson.
5. Cancer care professionals reported numerous barriers to use including patient barriers such as fatigue, and personal barriers such as forgetting to refer.

Introduction

Within cancer care, there has been increasing importance placed on the psychosocial well-being of patients. Meta-analysis indicates rates of depression of 5.4% to 49.0% (pooled prevalence: 21.0%) and for anxiety 3.4% to 43.0% (pooled prevalence: 21.0%) in cancer patients, which is higher than in the general population (1). Whilst some cancer services have established psycho-oncology services, workforce limitations, access issues, a focus on physical health as well as stigma associated with

mental health, limit appropriate available support and uptake. Online cognitive behavioural therapy (CBT) for psychological symptoms can address many of these barriers. However, a recent review of online therapies for cancer patients reported mixed results and concluded that while there is significant promise, there is currently inadequate evidence of their efficacy (2). Evidence of post-trial implementation success, including patient uptake and engagement within usual cancer care settings, is even more limited.

An online transdiagnostic CBT program (iCanADAPT-Early) was developed to support implementation of a Clinical Pathway (ADAPT CP) for identification, assessment, referral and management of anxiety and depression in cancer patients (3). The ADAPT CP uses a stepped-care model, incorporating routine screening and referral and recommended treatment options. Patients complete brief screening tools via the web-based ADAPT Portal, to identify and quantify symptoms consistent with anxiety/depression. The clinical team are alerted and responsible for appropriate referral based on symptom severity. Online therapy is included within the ADAPT CP as a recommended option for patients with mild to moderate levels of anxiety and/or depression, to reduce the burden of care on the psycho-oncology service. The ADAPT CP implementation study was guided by the PARiHS implementation framework, which highlights the roles of context, facilitation and evidence in promoting sustainability (4).

iCanADAPT-Early comprised an 8-lesson/16-week, clinician-monitored online cognitive-behavioural program, for patients with early-stage cancer being treated or in survivorship, to treat clinically significant anxiety/depression. Based on a previously evaluated, effective online therapy for the general population, it was tailored for the cancer setting by an expert panel. Prior to each lesson, patients were screened for psychological distress with the K10 (5), with those scoring above specified risk criteria followed up by the central clinician. Randomised controlled trial data demonstrated a significant decrease in symptoms in those receiving iCanADAPT-Early (6). iCanADAPT-Early was made available to 12 cancer services utilising the ADAPT CP as part of an implementation study (7). Staff could refer patients with mild to moderate anxiety/depression to iCanADAPT-Early, with patients also able to self-refer. All iCanADAPT-Early materials and details of the program structure were available to staff on the ADAPT Portal. Each psychosocial team was also contacted by the central iCanADAPT-Early clinician to provide information, answer any questions, and set up a contact protocol. Staff were informed of eligibility criteria (step 3-4 anxiety/depression and stage 0-2/3 cancer) for iCanADAPT-Early but were not required to confirm staging. No reminders were provided, although these may have occurred informally. Here we report uptake of iCanADAPT-Early and staff reported barriers.

Methods

Quantitative Data

To describe referral, engagement, and iCanADAPT-Early uptake outcomes, ADAPT Portal screening events, patient ADAPT CP step allocation and referrals made by staff to iCanADAPT-Early were collected, as well as information about who registered and enrolled in iCanADAPT-Early, K10 scores and lesson completion. These data enabled reporting on:

1. **Opportunities for referral** –number of screening events at Step 2 or 3 of the ADAPT CP.
2. **Referrals made** to iCanADAPT-Early – documented discussions with patients about iCanADAPT.
3. **Referral Uptake** – number of referred patients who enrolled in iCanADAPT-Early.
4. **Patient Engagement** and **Program Uptake** – number who completed at least one lesson of iCanADAPT-Early, and total number of lessons completed.
5. **Psychological distress** – ADAPT CP step level and K10 scores completed prior to each iCanADAPT-Early lesson.

Qualitative

Staff perceptions of iCanADAPT-Early were captured during semi-structured audio-recorded interviews with staff familiar with the program (7). Interviews were transcribed verbatim and coded using NVivo12 Software. Transcripts were thematically analysed (8) to identify barriers and facilitators to iCanADAPT-Early referral, uptake and engagement.

Results

Study sample

Over the 12-month ADAPT CP implementation, there were 324 screening events which indicated Step 2 (mild) or Step 3 (moderate) levels of anxiety or depression; 188 at Step 2 and 136 at Step 3. Cancer staging reported showed 1 (0.3%), 37 (11%), 111 (34%) and 87 (27%) of screening events were by patients with a diagnosis of Stage 0, 1, 2/3, 4 cancer respectively. Staging was not reported for 88 screening events due to missing data or a haematological cancer diagnosis.

Thirteen staff participants consented and were interviewed. Ten (77%) were psychosocial staff, three (23%) were nursing staff. Participants had worked in cancer care an average of 5 years.

Referrals to iCanADAPT

Only seven referrals (2%) from 324 screening events where iCanADAPT-Early was considered an appropriate referral option based on screening score and clinician recommendation were made. Clinician interviews highlighted barriers occurring at various stages including referral, uptake, and engagement. Barriers to referral included lack of program familiarity; forgetting to mention iCanADAPT-Early as it was not part of routine care; perceived non-suitability of program for the patient due to their lack of technological expertise, illness or personality; a preference for more therapist involvement; or dislike of some format or content aspects of iCanADAPT-Early.

Twenty-five patients self-referred to iCanADAPT-Early, of whom seven (28%) were within the recommended anxiety/depression range based on their screening score (ADAPT CP Step 2 or 3, see Table 1). Thirteen (52%) screened at Step 1, which indicated no clinical need for additional psychological support.

Referral Uptake of iCanADAPT-Early

None of the seven referrals made within the ADAPT Portal to iCanADAPT-Early were taken up. Staff participants reported perceived and actual barriers to referral uptake included patients prioritising the physical aspects of treatment, preference for face-to-face support, or patients feeling too unwell.

Engagement with and uptake of the iCanADAPT-Early Program lessons

Eleven (44%) of the 25 self-referred patients completed at least one lesson (Range 1-8, mean 3). Four (36%) screened within the recommended clinical range for iCanADAPT-Early. See Table 1. Initial K10 scores prior to lesson 1 reflected low distress too, with the majority (n=6, 55%) showing a K10 score <20 (likely to be well), four (36%) scoring between 20-24 (mild distress), and one (9%) scoring over 30 (severe distress).

Table 1 about here.

Discussion

Despite a successful efficacy study (6) and initial enthusiasm for the program, iCanADAPT-Early was infrequently used across the 12 participating cancer services. We assessed success using several criteria: clinician referrals as a proportion of referral opportunities; referral uptake by patients;

appropriateness based on patients' levels of psychological distress; and patient engagement as indicated by lesson completion.

iCanADAPT-Early was not successful on any of these criteria. Referrals made by health professionals were low (less than 2.5% of referral opportunities), with no uptake of referrals by eligible patients. Most self-referred patients (52%) did not meet the recommended selection criteria, and most did not complete any lessons (56%).

Some identified barriers were specific to cancer care, but many aligned with a recent systematic review (9) examining uptake of online therapies in general. Both in this review, and our study, barriers included patient factors (such as the patient being too unwell), health professional factors (such as forgetting to mention it), and organisational factors (minimal education of health professionals regarding the program), as well as concerns about online versus face-to-face treatment.

Low referral numbers by clinicians are striking, particularly given the implementation of routine screening during the ADAPT RCT which facilitated identification of patients needing referral. Some staff may not have been comfortable with the model of care used in iCanADAPT-Early, where patients are monitored for safety concerns but do not receive any direct therapist support. It is unclear what the most acceptable model of care may be from the perspective of cancer care professionals, and we are currently conducting further research in this area to better understand their perspectives.

Clinical Implications:

While the acceptability and effectiveness of iCanADAPT-Early was tested with cancer patients and iteratively revised, the implementation model was not the result of a co-design process involving staff or patients, or with consideration of alternative models of care. Our results reinforce the importance of co-design, as per guidelines available (9,10). This includes considering with stakeholders, the ideal format and content of the program, the optimal model of care to meld with existing clinical practice, educating clinicians on the program content, goals and evidence-base, marketing the program to patients, and training staff to make effective referrals which promote patient uptake.

Limitations

The measure of clinician referrals relied on staff documenting referrals to iCanADAPT-Early in the ADAPT Portal. We do not know if this always occurred. However, feedback from interview participants was consistent with the low rate of referrals reported. Numbers offered iCanADAPT are too small to reliably assess uptake and a larger implementation study is required.

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Disclosure

The authors declare no conflicts of interest.

Clinical Trial Registration

The ADAPT Cluster RCT is registered with the ANZCTR Registration number: ACTRN12617000411347.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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Table 1. ADAPT CP Step allocation in the ADAPT Portal for patients who self-referred to iCanADAPT-Early and who completed ≥1 iCanADAPT-Early lesson.

	Patient CP Step Allocation in the ADAPT Portal						
	Step 1*	Step 2	Step 3	Step 4	Step 5	No step allocation	**Total**
Number of patients who self-referred to iCanADAPT-Early (n)	13 (52%)	3 (12%)	4 (16%)	1 (4%)	0 (0%)	4 (16%)	**25 (100%)**
Number of self-referred patients who completed ≥1 iCanADAPT-Early lesson (n)	6 (55%)	3 (27%)	1 (9%)	0 (0%)	0 (0%)	1 (9%)	**11 (100%)**

* Steps 1-5 are minimal, mild, moderate, severe, very severe anxiety/depression respectively