

REVIEW

COVID-19 and beyond: A systematic review of adaptations to psychosocial support in oncology

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Abstract

Aims: To understand the strategies used to continue providing psychosocial support to cancer patients during the pandemic, including outcomes and implications beyond the pandemic.

Design: A systematic review of original research.

Data Sources: ProQuest Health & Medicine, CINAHL Complete (via EBSCOhost), Scopus, and PubMed were searched for original work published between January 2020 and December 2022.

Methods: Abstract and title screening identified eligible articles for full-text review. Following a full-text review, data were extracted from eligible articles, and a risk of bias assessment was conducted. A synthesis without meta-analysis was performed.

Results: Thirty-four articles met the selection criteria. These articles provide evidence that systematic adaptations during the pandemic improved the assessment and screening of psychological needs and/or increased the number of clients accessing services. Additionally, while the pandemic was associated with decreased psychosocial well-being for cancer patients, five intervention studies reported improvements in psychosocial well-being. Barriers, strategies, and recommendations were described.

Conclusion: Adapting psychosocial support during a pandemic can be successful, achieved relatively quickly, and can increase the uptake of support for people experiencing cancer.

Implications for Patient Care: It is imperative that these adaptations continue beyond the pandemic to maximize adaptive psychosocial outcomes for a group vulnerable to ongoing mental health concerns.

Impact: While the COVID-19 pandemic was associated with increased psychosocial need for cancer patients, evidence in the review suggested that adaptations made to service delivery facilitated increased access for patients who may not previously have been able to access support. Additionally, improvements in psychosocial well-being were achieved. These findings are relevant for clinicians and decision-makers who fund and design psychosocial support services for cancer patients.

Reporting Method: The review was guided by PRISMA Guidelines and the SWiM Reporting Guideline.

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KEYWORDS

barriers, cancer, COVID-19, oncology, psychosocial support

1 | INTRODUCTION

It is well-established that cancer patients have an elevated risk of psychosocial distress associated with their illness (Carlson et al., 2019; Mehnert et al., 2018). Unfortunately, this was exacerbated during the worldwide COVID-19 pandemic by delayed treatment, uncertainty about treatment access, increased risk of serious illness related to COVID-19, finite public health resources to manage the pandemic alongside usual cancer care, and social isolation (Tsamakis et al., 2020; Young et al., 2020). For cancer patients, these stressors were in addition to general pandemic impacts such as social distancing, disrupted employment, working from home, home-schooling, and disconnection from usual support networks. It is, therefore, unsurprising that the mental health needs of oncology patients increased during the pandemic (Hyland & Jim, 2020). Despite this increased need, supportive care services were disrupted, including service closures and the shift to telehealth (Archer et al., 2020).

While technology was identified pre-COVID-19 as having broad applicability to psycho-oncological care, and likely to become a necessary component of care, there were barriers that had not yet been resolved, including data protection issues and incorrect or biased information disseminated online (Lang-Rollin & Berberich, 2018). Despite finding that telehealth can be convenient and reduce treatment burden and disruption for survivors, a thematic qualitative synthesis of cancer survivor experiences, reported several inhibiting factors (Cox et al., 2017). These included perceptions of telehealth as an additional burden, as lacking a personalized approach, and as difficult for those with technology-related barriers such as poor computer literacy or technical issues (Cox et al., 2017). In another review, Escriva Boulley et al. (2018) reported a high level of cancer patient and survivor engagement in digital health interventions. Finally, results have been inconsistent regarding the effect of digital interventions on psychosocial well-being variables (Escriva Boulley et al., 2018; Goliță & BĂBan, 2019).

The World Health Organization (2024) collated worldwide COVID-19 case data from January 2020. From this point through to the end of 2022, cases increased and declined in a series of waves before a more consistent decline from January 2023 (World Health Organization, 2024). As the pandemic took hold in 2020, the oncology literature was characterized by calls to action, with expert opinion highlighting the likely increase in psychosocial support needs (Tsamakis et al., 2020) and recommending strategies for improving access to psychosocial care during this period (Irwin & Loscalzo, 2020). Recommendations focused on affordability,

availability and accessibility of services and suggested the evaluation of patient perspectives and outcomes. Literature emerged throughout 2020, highlighting progress in adapting and responding to increased psychosocial needs (Liu et al., 2020; Ratnasekera et al., 2020).

1.1 | The review and aims

This systematic review aimed to understand the strategies used to adapt psychosocial support services to enable continuity of support to cancer patients during the pandemic and their effectiveness. In doing so, we endeavoured to highlight learnings from this unprecedented and challenging period of healthcare provision and demonstrate opportunities to improve service delivery into the future. The review examines the outcomes of these adaptations to service delivery, focusing on patient engagement and perspectives, psycho-social well-being, barriers faced and recommendations for the future.

2 | METHODS

2.1 | Design

A systematic review was conducted, guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) updated guideline (Page et al., 2021) and the JBI Manual for Evidence Synthesis (Aromataris & Munn, 2020). A PRISMA 2020 checklist is provided in Supplementary File S1 (PRISMA Checklist). The systematic review was registered with the International Prospective Register of Systematic Reviews (Prospero, CRD42023375442). Amendments to the registration information are available on the register and include a change in risk of bias assessment tools (given the inclusion of mixed-methods studies in the review), the strategy for data synthesis (given the number of included studies) and author changes. A complete protocol was not developed, given that an unpublished version of the systematic review had previously been drafted as a rapid review.

2.2 | Search methods

The search strategy was developed in consultation with a librarian. The first author (MM) conducted searches in ProQuest Health & Medicine, CINAHL Complete (via EBSCOhost), Scopus and PubMed

TABLE 1 Search strategy.

Database	Search string	Expanders and limiters	Last date accessed	Number of results
CINAHL Complete (via EBSCOhost)	TITLE: ("COVID-19" OR "COVID 19" OR coronavirus OR coronaviruses OR "SARS-COV-2") AND (oncology OR cancer) AND ("psycho-oncology" OR psychosocial OR "mental health" OR wellbeing) OR ABSTRACT: ("COVID-19" OR "COVID 19" OR coronavirus OR coronaviruses OR "SARS-COV-2") AND (oncology OR cancer) AND ("psycho-oncology" OR "psychosocial" OR "mental health" OR wellbeing)	Search modes and expanders: • Apply equivalent subjects • Boolean/Phrase Limiters: • English Language • Peer Reviewed • Published Date: Jan 2020 – Dec 2022	22 May 2023	153
Scopus	TITLE: ("COVID-19" OR "COVID 19" OR coronavirus OR coronaviruses OR "SARS-COV-2") AND (oncology OR cancer) AND ("psycho-oncology" OR psychosocial OR "mental health" OR wellbeing) OR ABSTRACT: ("COVID-19" OR "COVID 19" OR coronavirus OR coronaviruses OR "SARS-COV-2") AND (oncology OR cancer) AND ("psycho-oncology" OR psychosocial OR "mental health" OR wellbeing)	Limiters: • English Language • Published Date: Jan 2020 – Dec 2022 (Peer review assumed for Scopus)	22 May 2023	430
ProQuest Health & Medicine	TITLE: ("COVID-19" OR "COVID 19" OR coronavirus OR coronaviruses OR "SARS-COV-2") AND (oncology OR cancer) AND ("psycho-oncology" OR psychosocial OR "mental health" OR wellbeing) OR ABSTRACT: ("COVID-19" OR "COVID 19" OR coronavirus OR coronaviruses OR "SARS-COV-2") AND (oncology OR cancer) AND ("psycho-oncology" OR psychosocial OR "mental health" OR wellbeing)	Limiters: • English Language • Peer Reviewed • Published Date: 1 Jan 2020–31 Dec 2022	22 May 2023	209
PubMed	("COVID-19"[Title/Abstract] OR "COVID 19"[Title/Abstract] OR coronavirus[Title/Abstract] OR coronaviruses[Title/Abstract] OR "SARS-COV-2"[Title/Abstract]) AND (oncology[Title/Abstract] OR cancer[Title/Abstract]) AND ("psycho-oncology"[Title/Abstract] OR psychosocial[Title/Abstract] OR "mental health"[Title/Abstract] OR wellbeing[Title/Abstract])	Filters: • English Language • Published Date: 01/01/20–31/12/22 (Peer review assumed for PubMed)	22 May 2023	679

during May 2023. The full search strategy, including search terms, filters and limiters, is outlined in [Table 1](#).

2.3 | Inclusion and exclusion criteria

We included articles that reported on service changes in response to COVID-19. This could include adaptation of existing psychosocial support services so that they could continue during the pandemic or newly developed programmes or modes of service delivery which were responsive to the challenges of COVID-19. Psychosocial support services were defined as those providing psychological and/or social support services for patients with the intention of improving

their psychosocial well-being. This is broadly consistent with cancer care guidelines for psychosocial care (Riba et al., 2019).

Eligible articles needed to include one or more of the following outcomes: patient engagement and perspectives, patient psychosocial well-being, barriers faced by clinicians and patients, and strategies and recommendations for practice. Patient engagement refers to the demand for and participation rates in support services and programmes and how patients engage with support services and programmes. Patient perspectives refer to perceived or reported perspectives of patients. Patient psychosocial well-being included any aspect of emotional, psychological or social well-being.

Eligible articles were peer-reviewed, original studies published in English between January 2020 and December 2022,

before COVID-19 cases declined worldwide (World Health Organization, 2024). Included study types were quantitative, qualitative and case studies, clinical letters, letters to the editor and expert reflections, but not study protocols or reviews.

Studies were excluded if they did not discuss psychosocial care or include adult cancer patients. Articles were also excluded if they focused exclusively on medical care, inpatient care, palliative care, exercise-based interventions, assessment tools, well-being of oncology staff, human resource issues or data from before the pandemic.

2.4 | Search outcome

Figure 1 provides an overview of the search results.

2.5 | Study selection

The records returned from these searches were imported into Endnote and then uploaded into Covidence online systematic review software (Veritas Health Innovation Ltd, <https://www.covidence.org>). After the removal of duplicates, there were 800 articles for review. Two reviewers (MM and a research assistant) independently reviewed the abstract and titles of each record against the inclusion criteria. The Covidence software tracked any conflicts, and a consensus approach was used to resolve these through discussion and evaluation against the review

criteria. A third review team member (KR) was available to adjudicate any conflicts that could not be resolved; however, this was not required. This process resulted in 61 articles being assessed as eligible for full-text review. The same two reviewers evaluated the full text of these articles against the inclusion criteria outlined in the Prospero record, using the same process described above to manage disagreements.

2.6 | Quality assessment

Risk of bias assessments were conducted by MM and reviewed by a research assistant using either the Mixed Methods Appraisal Tool (Hong et al., 2018) or the Checklist for Text and Opinion (McArthur et al., 2015), depending on the study type. Hong et al. (2018) discouraged the use of calculating overall scores from the ratings of each criterion. As such, Supplementary File S2 – Risk of Bias Assessments provides a detailed presentation of the ratings for each study. A tick was used to indicate that a criterion was met, while no tick meant that the criteria were not met or not addressed in the article. Some included articles did not report full details of methodology but reported important outcomes from early in the pandemic in brief formats. For this reason, they were considered essential to answering the research question for the present review. As such, the checklist for Text and Opinion (McArthur et al., 2015) was used to facilitate a quality assessment for those articles. KR was available to adjudicate any conflicts that could not be resolved; however, this option was not required.

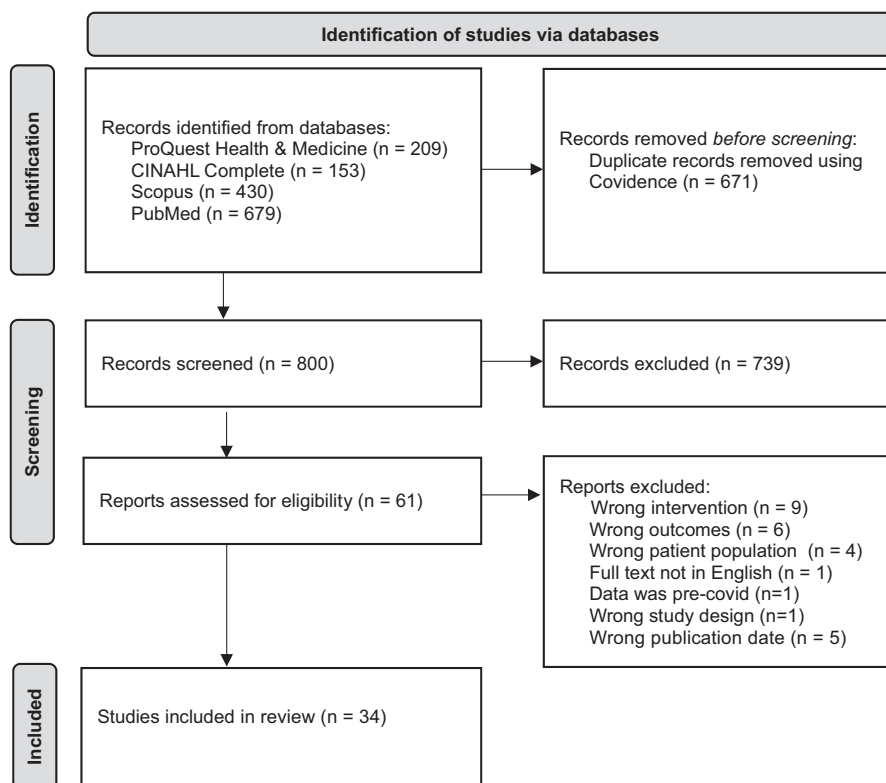


FIGURE 1 PRISMA flow diagram. Consistent with the PRISMA Statement¹², a record refers to a title and abstract of a report indexed in a database, while a report refers to the full-text document which supplies information about a particular study.

2.7 | Data extraction

The first author extracted data from thirty-four eligible full-text articles using the following headings: author, year, country, type of study, service modality (i.e., video, telephone, face-to-face), participants, method and relevant key findings. The key characteristics of each study are provided in [Table 2](#).

2.8 | Synthesis

Given that the studies meeting eligibility for inclusion were heterogeneous in study design, intervention type and outcomes, conducting a meta-analysis was not possible. The Synthesis without Meta-Analysis (SWiM) in Systematic Reviews: Reporting Guideline (Campbell et al., 2020) was used to guide a synthesis without meta-analysis. In the synthesis, studies were grouped by review outcomes, with each outcome incorporating several themes.

3 | RESULTS

Following the full-text review, thirty-four articles were selected for inclusion in the systematic review (see [Figure 1](#)). [Table 3](#) provides a breakdown of which countries the studies were published in, the study types and the number of participants across the different study types.

Supplementary File [S2](#) (Risk of Bias Assessments) details the outcomes of the risk of bias assessments. All studies presented findings that were considered relevant to the research question for this review. Consistent with the advice of Hong et al. (2018), no articles were excluded based on methodological quality. Results of the synthesis are presented below, grouped by review outcomes and including several themes within each outcome.

3.1 | Patient engagement

3.1.1 | Shifting to virtual care

The pandemic resulted in an initial disruption of existing psychosocial support services, including a reduction or suspension of services (Dinkel et al., 2021; Estapé et al., 2022), a decrease in referrals (Archer et al., 2020; Myers Virtue et al., 2021; Oppong et al., 2022) and longer waiting times (Archer et al., 2020). However, shifting to telehealth supported the continuity of services as the pandemic progressed (Archer et al., 2020; Butt et al., 2022; Dinkel et al., 2021; Edge et al., 2021; Estapé et al., 2022; Millar et al., 2020; Myers Virtue et al., 2021; Patt et al., 2021; Rivest et al., 2021; Sansom-Daly & Bradford, 2020; Zebrack et al., 2021). A combination of telephone and video was used to provide services (Myers Virtue et al., 2021) across a range of platforms and devices (Arthur et al., 2022).

3.1.2 | Increased service demand

Many studies reported increases in demand for psychosocial support. A population-based cohort study in Ontario, Canada, reported the use of telehealth increased by 300%, while follow-up visits increased by 9.8% and new visits by 1.2% (Walker et al., 2022). Additionally, a text/opinion study in the United Kingdom reported maintaining high engagement rates (Millar et al., 2020), while a quantitative non-randomized cohort study in the United States reported increased participation in some programmes and a 12% increase in overall referrals (Oppong et al., 2022). There was also unprecedented demand for information and support lines (telephone and/or email), with text/opinion studies based in Australia and the United Kingdom reporting 15% and 70% respective increases in call volumes (Quinn et al., 2020; Spence, 2020), a 300% increase in email support clients (Quinn et al., 2020) and increases in call complexity and length (Spence, 2020).

With respect to 'no-show' rates, a quantitative, non-randomized study based in the United States reported these to be similar to pre-COVID (Oppong et al., 2022). However, reduced 'no-show' rates were observed for several North American quantitative non-randomized and text/opinion studies (Kotsen et al., 2021; Myers Virtue et al., 2021; Patt et al., 2021; Rivest et al., 2021). While many studies reported increased demand, there were exceptions. Notably, a quantitative descriptive study of 91 mental health care providers in low- to middle-income countries reported that they generally saw fewer patients per week than pre-COVID-19 (Estapé et al., 2022). Additionally, a decrease in participation rates was observed for some specific programmes within services (Oppong et al., 2022).

3.1.3 | Screening for distress and identifying psychological needs

Identification of increased levels of distress, psychological symptoms and unmet needs were reported in numerous articles (Albano et al., 2021; Espinel & Shultz, 2020; Liu et al., 2020; Osterman et al., 2021; Ratnasekera et al., 2020; Spence, 2020). This included expanding services that screen for distress and psychological symptoms, implementing proactive outreach, providing assistance navigating the health system and triaging by risk status, all of which were reportedly effective at identifying and triggering responses to previously unidentified needs (Albano et al., 2021; Liu et al., 2020; Osterman et al., 2021; Ratnasekera et al., 2020). Bultz and Watson (2021) advocated for the implementation of digital strategies to facilitate patient distress screening following an observed reduction in distress screening (and referrals to support) for virtual compared to in-person care.

3.1.4 | Group programme participation

Several quantitative studies reported positive outcomes for patient participation in group programmes delivered via telehealth.

TABLE 2 Description of studies included in systematic review.

Author (year); country	Design	Aim	Service modality ^a	Participants	Method	Key findings relevant to review outcomes
Albano et al. (2021); United States	Quantitative descriptive	Report on a quality improvement programme which identified and responded to the mental health needs of distressed cancer patients.	Telephone initially, with telephone, video or in-person follow-ups where required.	N=441 cancer patients.	The programme improved distress screening and triage protocols to focus on COVID-19-related distress and screening all cancer patients. A Distress Thermometer score of 3 to 5 led to counselling with the nurse practitioner, while a score greater than 6 prompted a social worker referral. Data collection was completed between April and July 2020.	Psychosocial well-being: A higher rate of patients requiring mental health services during the pandemic. 47% scored 3–5 on the distress thermometer, while 32% scored 6–9. Patient distress related to fears of delayed testing and/or treatment, social isolation, or self or family contracting COVID-19.
Archer et al. (2020); United Kingdom	Qualitative	Describe how services across the UK are adapting to the COVID-19 pandemic.	Video, telephone.	N=94 professionals working in the psychosocial oncology field.	A survey including demographic questions and nine free-text response questions focused on COVID-19 was distributed via professional networks during May and June 2020. Codes were extracted into themes and sub-themes using the strengths, weaknesses, opportunities and threats framework.	<p>Patient Engagement and Perspectives: A reduction in referrals to psycho-oncology. Longer wait times due to the move to telehealth. Remote service delivery improved accessibility for some patients. Concern about future demand due to current needs not being adequately met.</p> <p>Psychosocial well-being: Heightened anxiety and distress due to social isolation, decreased face-to-face monitoring and reduced treatment options.</p> <p>Barriers: Technology challenges. Reduced focus on psychological care. Concerns are limited evidence for remote care, telehealth not being as effective as usual care and difficulties forming a therapeutic alliance. Staff were disconnected from clinical teams, had an increased role supporting colleagues and were managing increased emotional content.</p>
Arthur et al. (2022); United States	Qualitative	Investigate older cancer survivors' opinions about telehealth use for cancer survivorship care. Gain insight into the utility of technology and telehealth for supportive cancer care.	Video, in-person, mobile health apps, patient portals, social media.	N=21 older cancer survivors.	Participants were recruited between December 2020 and January 2021 and completed online semi-structured interviews. Interview data were analysed using thematic analysis, and descriptive statistics were used to analyse demographic and clinical characteristics.	<p>Patient engagement and perspectives: Older cancer survivors used a variety of platforms (i.e., personal devices, patient portals, mobile health apps). Telehealth was generally well-accepted, with video use favoured. Some preferred in-person visits for 'sensitive issues' (e.g., mental health). Video conferencing and social media were useful for formal and informal social support.</p> <p>Barriers: For telehealth, missing face-to-face connection, lack of familiarity with technology, limited clinical utility (medical). For healthcare portal use, there is a perceived lack of input into updates and technology changes and a lack of direct interaction with providers. Mobile health app use included a perceived lack of utility, lack of personalization and sensitivity to older adults' needs.</p>

TABLE 2 (Continued)

Author (year); country	Design	Aim	Service modality ^a	Participants	Method	Key findings relevant to review outcomes
Breman et al. (2022); Ireland	Mixed methods	Assess the feasibility of telehealth delivery of a multi-disciplinary, multi-component rehabilitation programme for upper gastrointestinal cancer patients.	Video (and independent walking and resistance training sessions)	N=12 oesophago-gastric cancer survivors.	The study used a single-arm, pre-test and post-test design alongside semi-structured qualitative interviews. Dates of data collection were not reported. Participants completed a 12-week telehealth exercise and nutrition programme, including individual walking, resistance training, dietetic counselling and physiotherapy sessions, as well as group-based resistance training and education. Primary outcomes: recruitment, attendance, retention, incidents and acceptability. Secondary outcome: physical impacts. Acceptability was assessed via semi-structured interviews and the Telehealth User Questionnaire.	<p>Patient Engagement and Perspectives: Recruitment rate = 32.4%; Retention rate = 75%; Mean attendance = 78% to 90%; Adverse incidents = 0. Patient reports indicated the programme was beneficial and user-friendly. Additionally, online delivery was convenient, i.e., reduced travel, reduced dependence on family for transport, ability to join from anywhere and reduced risk of COVID-19 contamination.</p> <p>Barriers: A low level of technology skills. Recommendations and Strategies: Patients recommended simplifying the technology set-up process. Some suggested combinations of online and in-person delivery would be useful.</p>
Bultz and Watson (2021); Canada	Quantitative non-randomized (analytical cross-sectional)	Report on the frequency of distress screening in virtual versus in-person visits and the impact on psychosocial care.	Telephone compared to in-person.	N=400+ cancer patients	Compared referral rates to supportive care for virtual vs. in-person visits during the first three months of the pandemic, i.e., April to June 2020. Participants were surveyed about their experiences of virtual care.	<p>Patient Engagement and Perspectives: Virtual care was associated with lower levels of satisfaction with discussion of emotional worries and concerns, friend and family involvement in care and resource/referral connection.</p>
Butt et al. (2022); Australia	Qualitative	Explore barriers and enablers of telehealth delivery of psycho-oncology services.	Video	N=22 psycho-oncology health professionals	Participants completed semi-structured interviews between May and December 2020. Questions focused on psycho-oncology service delivery, individual experiences of telehealth and perceived barriers and enablers to wider integration of telehealth into psycho-oncology. Framework Analysis was used to analyse the data.	<p>Patient Engagement and Perspectives: Clinicians perceived telehealth was helpful for patients who were geographically isolated or too unwell to travel. They also perceived that increased patient engagement was facilitated by a sense of anonymity, a pre-existing relationship and younger age.</p> <p>Barriers: For patients, illness, severe mental health concerns, risk of self-harm, low digital literacy, previous poor telehealth experiences, being older age, limited technology access, distractions and lack of privacy. For clinicians, difficulty incorporating interactive/ experiential exercises, limited visual information affecting therapeutic alliance, problem formulation and risk assessment, decreased access to onsite emergency mental health care, technological difficulties and poor internet connectivity.</p> <p>Recommendations and Strategies: For sustainability, telehealth is a 'better than nothing' option. Flexibility in modes of delivery based on patient suitability. Using a blended therapy approach as a compromise. Providing specific guidelines and training, including how to adapt therapy, select patients and assess risk.</p>

(Continues)

TABLE 2 (Continued)

Author (year); country	Design	Aim	Service modality ^a	Participants	Method	Key findings relevant to review outcomes
Chang et al. (2022); Taiwan	Quantitative non-randomized (non-randomized trial)	Evaluate a mindfulness-based stress reduction programme delivered online during the pandemic.	Video	N=67 women with breast cancer.	The study included intervention (n=41) and waitlisted control groups (n=26). The recruitment period was from 1 February 2022 to 1 March 2022, and the study coincided with a declaration on 9 March 2022 prohibiting close contact with others. Participants in the intervention group attended six 2-h, weekly group coaching sessions and completed informal home-based practice. The waitlist control group had manuals on managing symptoms and verbal instructions on health and hygiene education. Outcome measures were completed pre- and post-test and included depression, anxiety and stress, body image and self-efficacy.	<p>Patient engagement and perspectives: Online delivery prevented exhaustion from travel. 95% of participants enrolled in the intervention group at baseline completed the post-assessment.</p> <p>Psychosocial well-being: Participants had significantly improved anxiety (medium effect size), body image (large effect size) and self-efficacy (large effect size) within 1 week of programme completion.</p> <p>Barriers: Technological difficulties for some older patients.</p> <p>Recommendations and strategies: Provide additional support to individuals with technological difficulties.</p>
Dinkel et al. (2021); Germany	Text/opinion	Share the experiences of psycho-oncology professionals across Germany, including challenges, obstacles and accomplishments.	Video, telephone	N=13 senior psycho-oncologists	Participants attended a monthly video conference for 12 months from March 2020 to discuss problems and solutions in delivering psycho-oncological care during the pandemic. The report provides a narrative synthesis of these discussions.	<p>Patient Engagement and Perspectives: Early in the pandemic, psycho-oncological services were disrupted and/or suspended, and telehealth was introduced. Patients were generally grateful for psycho-oncological support, with some ambivalence about telehealth. Therapeutic groups were maintained.</p> <p>Barriers: For staff, there was some tension with other disciplines.</p>
Edge et al. (2021); Australia	Mixed methods	Describe how cancer care was disrupted and reorganized during the COVID-19 pandemic and understand the impact of this.	Video, telephone	N=852 people affected by cancer (i.e., cancer patients, survivors, carers, family members, or friends) and N=150 healthcare workers.	People affected by cancer and healthcare workers completed concurrent cross-sectional surveys completed between 22 June and 30 September 2020. Data were analysed using descriptive statistics and thematic qualitative content analysis.	<p>Patient engagement and perspectives: The number of people affected by cancer who accessed telehealth increased from 17% to 73% during the pandemic. 61% felt fully informed about changes to treatment plans. A majority indicated no difficulty obtaining appointments with regular healthcare providers. 80% reported high satisfaction with telehealth in general; however, 20% were unlikely to use telehealth for psychological support again. The benefits of telehealth included reduced COVID-19 exposure, reduced costs and timely access.</p> <p>Psychosocial well-being: Patients and survivors reported stress and anxiety following disruption to care. Their distress related to COVID-19 being prioritized over cancer-related symptoms and fear of COVID-19 exposure.</p> <p>Barriers: For patients, concerns about the quality of telehealth care, lack of personalized care, difficulties interpreting information received, and that it was not suitable for some appointment types (including psychological support). For healthcare workers, there are challenges with non-verbal communication on telehealth and with making accurate diagnoses.</p>

TABLE 2 (Continued)

Author (year); country	Design	Aim	Service modality ^a	Participants	Method	Key findings relevant to review outcomes
Emard et al. (2021); United States	Qualitative	Report on patient response to a series of virtual mind-body classes (guided meditation, breathing and physical exercise).	Video	N=30 cancer patients.	Participants started the programme on 1 April 2020 and completed semi-structured telephone interviews between April and August 2020 about the programme's benefits and its impact on stress and anxiety. 40% participated in guided meditation and 30% in breathing classes. Grounded theory was used to code data, and a coping model was developed.	Psychosocial well-being: Sessions helped patients maintain a structured routine and provided motivation to adhere to healthy behaviours. Sessions supported patients in coping with COVID-19-related stressors. They also allowed patients to refocus and re-energize.
Espinel and Shultz (2020); United States	Text/opinion	Describe a framework of mental health intervention used to help cancer survivors cope with COVID-19.	Primarily video (also promoted using telephone, text messaging, web-chat)	N=unknown cancer patients.	Described a clinical approach and framework used for providing psychiatric support to cancer patients via telehealth early in the pandemic.	Recommendations and Strategies: The approach was promising, flexible and adaptable for use during the pandemic. Patient concerns were identified, listed and triaged using a problem-solving approach. Five principles were utilized to frame sessions: promote a sense of safety, promote a sense of calm, promote a sense of connectedness, promote a sense of self-efficacy and promote a sense of hope.
Estapé et al. (2022); Bolivia, Chile, China, Colombia, Croatia, Dominican Republic, Ecuador, Ghana, Jamaica, Jordan, Kenya, Lithuania, Nepal, Nigeria, North Macedonia, Serbia, Taiwan, Turkey, Uganda	Quantitative descriptive	Report on a cross-sectional study describing the use of new technologies in low to middle-income countries.	Video, telephone, text message	N=91 mental health cancer care providers.	Mental health cancer care providers in low- and middle-income countries (78.8% female; 60% aged 31–50 years), working in a variety of settings, participated in an online survey about their use of new technologies. Data were collected during November and December 2020.	<p>Patient Engagement and Perspectives: Staff were seeing fewer patients per week compared to before COVID-19. They reported using a variety of modalities and platforms to provide interventions.</p> <p>Barriers: Almost half of the participants reported a lack of knowledge of virtual interventions. Almost half reported limited technological resources in their country, leading to difficulties in delivering virtual care.</p> <p>Recommendations and Strategies: Most participants indicated they would like training. Evidence-based training programmes in eHealth and telehealth for healthcare providers from LMIC were recommended. Ensuring institutions have sufficient resources to provide such care was also recommended.</p>
Gothe and Erlenbach (2022); United States	Quantitative – Randomized controlled trial	Report the feasibility and acceptability of a 12-week exercise and yoga intervention.	Video	N=78 adult cancer survivors.	Participants were randomized to Hatha yoga (including physical poses, breathing and meditation), aerobic exercise, or stretching/toning control groups. Group classes ran for 150 minutes weekly for 12 weeks. Data about enjoyment, attendance, attrition and safety was collected weekly. Participants completed a post-programme evaluation to assess feasibility and acceptability, including for the transition to online video-based instruction, which started in March 2020 during the third cohort in response to the pandemic.	<p>Patient engagement and perspectives: Attrition: Three participants dropped out pre-intervention, 13 during the intervention, and four following the move to online delivery. Those four cited increased work demands as a frontline worker (n=1), increased caregiving duties (n=1) and lack of sufficient exercise space at home (n=2) as reasons. Of those whose participation was disrupted by the pandemic, 60% reported preferring in-person sessions and 40% preferred both an in-person and online format. However, 66.67% reported enjoying the online sessions. Self-reported engagement was the same as in-person sessions for 46.7% of participants, less for 46.7% of participants and higher for one individual.</p>

(Continues)

TABLE 2 (Continued)

Author (year); country	Design	Aim	Service modality ^a	Participants	Method	Key findings relevant to review outcomes
Jhaveri et al. (2020); United States	Quantitative non-randomized (cohort)	Report on the conversion of an interdisciplinary wellness group to telehealth, with the inclusion of relevant COVID-19 content.	Video	N = unknown cancer survivors.	Programme adaptation included new content relevant to the pandemic and adaptations for telehealth. The programme transitioned within 14 days from local shelter-in-place advice on 16 March 2020. Programme adherence was measured and compared to historical data. Participants provided feedback about satisfaction.	Patient Engagement and Perspectives: Overall participation increased almost two-fold, with orientation attendance increasing three-fold. Survivors reported improved accessibility with telehealth (although some preferred in-person services) and an increased need for support during the pandemic. High satisfaction ratings were maintained. Recommendations and Strategies: Providing procedures for maintaining confidentiality, ensuring patient safety, standardizing programme delivery over telehealth, addressing patient comfort with technology and optimizing patient engagement and the interactive environment.
Kotsen et al. (2021); United States	Quantitative non-randomized (analytical cross-sectional)	Examine the effect of upscaling telehealth services in response to the pandemic on patient engagement and describe the associated challenges.	Video, telephone.	N = 418 tobacco-dependent cancer patients.	Data were extracted from intake forms and appointment disposition data for patients who had appointments between January 1, 2020, and April 30, 2020, with the transition to telehealth occurring in mid-March 2020. Participants were 62.2% female, with a mean age of 58.5 years. Demographic and clinical information were extracted along with attendance status by mode of delivery.	Patient engagement and perspectives: Improved engagement for outpatient telehealth. No-shows were significantly lower for telehealth compared to in-person visits; a clinically relevant finding given a high dose of counselling (with medication) is associated with increased success in quitting smoking long term. Barriers: Patient barriers included difficulty navigating technology (especially for older patients). This was overcome with technical support. There is an observable digital divide, with some minority groups and those of lower socioeconomic status having less access to technology and bandwidth. Recommendations and strategies: Navigating challenges as a team. Team meetings to troubleshoot online workflow processes and overcome barriers. Using alternative platforms if telehealth fails. Accelerating staff comfort levels with technology.
Leung et al. (2022); Canada	Quantitative descriptive	Evaluate and outline the development protocol for an artificial intelligence-based co-facilitator (AICF) which aimed to identify patients at risk of increased distress, monitor session engagement and group cohesion, generate profiles that visualize emotional trajectories and psychosocial concerns and suggest tailored on-line resources to patients.	Artificial intelligence	N = 48 cancer patients who were recommended resources.	The AICF system design was informed by human input. Three iterative rounds of evaluation and algorithm improvement were performed. Participants were sent an email including recommendations. They evaluated these by answering a single question, 'Our system has recommended some resources for you based on the last chat session. Please let us know if the links are helpful or not by clicking on the <i>Useful</i> or <i>Not Useful</i> button below'. The number of clicks on recommended resources was also recorded. Data were collected in February, April and June 2020.	Patient Engagement and Perspectives: Resources were recommended to 48 patients. Of those, 25 (52%) accessed at least one resource, accessing an average of 4.4 (39.1%) resources. Nineteen patients (76%) who accessed resources reported finding the resources useful.

TABLE 2 (Continued)

Author (year); country	Design	Aim	Service modality ^a	Participants	Method	Key findings relevant to review outcomes
Lichiello et al. (2022); United States	Mixed methods	Evaluate a pilot telehealth support group for young adult cancer survivors.	Video	N=8 young adults with a cancer diagnosis.	Researchers contacted individuals who met inclusion criteria during a 4-week window in February and March 2021. The intervention comprised eight 60-minute sessions, including psychoeducation, acceptance and commitment therapy, meaning-centred group psychotherapy concepts and skills, experiential activities and reflection. Participants completed pre-, mid- and post-intervention questionnaires, including the Cancer Acceptance and Action Questionnaire, Mini-Mental Adjustment to Cancer, Impact of Events Scale – Revised, Coronavirus Anxiety Scale, Cancer Behaviour Inventory – Brief Version, UCLA Loneliness Scale and Purpose in Life Test. Free response and Likert questions elicited qualitative feedback and assessed satisfaction. Repeated measures ANOVA and thematic analysis were used to analyse data.	Participant Engagement and Perspectives: The main themes included support and connection, mindfulness skills and homework (i.e., dislike of homework). Psychosocial well-being: self-reported reductions in participants' anxious preoccupation and helplessness/hopelessness and an increase in psychological flexibility.
Liu et al. (2020); China	Text/opinion	Share experiences and strategies used to provide psychosocial support for cancer patients during the pandemic.	Video	N=unknown cancer patients.	Cancer patients were screened for anxiety and depression in an online psychological survey conducted in March 2020. Follow-up online interviews were held for those with moderate or severe symptoms. Interventions included psychiatric referral (where indicated), meditation, relaxation, mindfulness, music therapy and tea culture delivered face-to-face or via telehealth.	Psychosocial well-being: A high incidence of patient distress during the pandemic was attributed to several factors, including lack of social support, misunderstandings about COVID-19-related information, concerns about treatment delay, COVID-19 infection and the economic impact of the pandemic. Additionally, three case studies demonstrated that intervention (via telehealth) alleviated depression and anxiety symptoms.

(Continues)

TABLE 2 (Continued)

Author (year); country	Design	Aim	Service modality ^a	Participants	Method	Key findings relevant to review outcomes
Mallaiah et al. (2022); United States	Quantitative non-randomized (pre-test, post-test)	Examine the clinical application of a one-on-one outpatient yoga therapy consultation delivered via telehealth.	Video	N=95 cancer patients.	The intervention included one session of individualized yoga therapy (i.e., yoga postures, breathing exercises, meditation). Patients were provided written instructions and recordings for home practice. Participants completed the modified Edmonton symptom assessment scale before and after the session. Data for the period from 1 March 2020 to 30 October 2021 was analysed retrospectively.	Psychosocial well-being: Participants experienced statistically and clinically significant improvements across multiple physical (e.g., fatigue, pain) and mental health (i.e., anxiety and depression) symptoms and global distress. Greater benefits were seen for those with worse symptom distress prior to the intervention. For those participants, greater benefits were observed for pain, fatigue and anxiety.
Millar et al. (2020); United Kingdom	Text/opinion	Report themes from patients and psychologists about transitioning to remote service delivery.	Unspecified remote working	N=unknown psychologists in a psychology service for cancer patients and N=unknown cancer patients.	The article describes experiences in the first few months of the pandemic. Psychologists completed a questionnaire while cancer patients, including those who had declined therapy, were invited to participate in an interview.	<p>Patient Engagement and Perspectives: Not all patients accepted remote therapy. High rates of engagement continued despite challenges. Patients reported relief at not having to attend in-person appointments and a smooth transition to remote services.</p> <p>Barriers: For psychologists, these include the dynamics of working from home, lack of privacy, electronic sharing of formulations, decreased non-verbal communication and difficulties with behavioural work. For patients, less time to reflect on and prepare for therapy on the drive to appointments, not feeling they could be as honest in remote sessions and not wanting to 'use up' sessions for COVID-related reasons.</p> <p>Recommendations and Strategies: Offer check-ins with individuals who declined telehealth to maintain engagement. Flexibility and provision of choice helped to minimize disadvantages.</p>
Myers Virtue et al. (2021); United States	Quantitative non-randomized (cohort)	Describe engagement following a shift to telepsychology at an outpatient community cancer centre during the pandemic.	Video, telephone	N=354 cancer patients (91 established, 263 newly referred)	Practice data from March to October 2020 was retrospectively analysed, including a comparison to data from the same time period in 2019.	<p>Patient Engagement and Perspectives: 93% of existing patients continued appointments with telepsychology, and 69% of these used video. The service received 263 new referrals in the study period, with a 50.6% uptake. 82% of these used telepsychology, with the remainder being in person. Of the telepsychology appointments, 72% of these used video. After an initial decrease, referrals increased by the end of the study period. There was a significantly lower occurrence of 'no shows' for new referrals compared to the previous year.</p> <p>Barriers: Barriers to video-based psychology included personal preference, lack of access and technology barriers. Older age and being male predicted the increased likelihood of using phone rather than video-based services.</p> <p>Recommendations and Strategies: Provide phone-based services where required because a portion of patients need or prefer this.</p>

TABLE 2 (Continued)

Author (year); country	Design	Aim	Service modality ^a	Participants	Method	Key findings relevant to review outcomes
Oppong et al. (2022); United States	Quantitative non-randomized (cohort)	Identify the impact of the pandemic on participation in supportive care programmes for breast cancer patients.	In-person and unspecified telehealth	N=unknown breast cancer survivors.	Patterns of referrals and service utilization were reported for supportive care programmes for breast cancer survivors from January 2019 to June 2021.	<p>Patient engagement and perspectives: Overall referrals to psychosocial oncology services increased by 12%, while during the lockdown period, they decreased by 10%. The number of completed psychosocial oncology referrals remained steady from 2019 to 2021. Cancellations and 'no show' rates were similar to pre-COVID. Participation in adolescent and young adult services increased by 300% from 2019 to 2020. Participation in exercise-based survivorship programmes increased 2.2-fold, and participation in nutrition-based survivorship programmes decreased from 42.5% to 29.9%. Breast cancer support group attendance declined from pre- to post-lockdown.</p>
Osterman et al. (2021); United States	Quantitative descriptive	Describe a pilot risk stratification programme and outreach programme during the pandemic.	Telephone	N=1697 haematology/oncology patients	Risk stratification was undertaken using two methods, which were then correlated. High-risk patients (n=286) were called for a focused needs assessment using a script developed by a multidisciplinary team. A nurse navigator identified unmet needs and responded with information and/or referrals. Data are reported for the first month of the pilot.	<p>Patient Engagement and Perspectives: 86% of the high-risk patients were successfully contacted. Psychosocial well-being: The programme identified a high burden of unmet needs not met through routine oncology care interactions, including financial, medical, care information and distress needs, with 33% referred for additional supportive services.</p>
Patt et al. (2021); United States	Text/opinion	Describe the implementation of a multidisciplinary move to telemedicine in response to the pandemic, including utilization, feedback, learnings, limitations and opportunities.	Video, telephone	N=34 administrative leaders; N=unknown participants in cancer patient support groups	<p>Multidisciplinary oncology care (including virtual support groups run by social workers) was delivered via telehealth across a 221-site organization with 640 multi-disciplinary clinicians. Data from April 2020 to October 2020 are reported. This included the implementation of a HIPAA-compliant platform and education and training for staff and patients. Administrative leaders provided qualitative feedback in May 2020, and participants in virtual patient support groups starting in June 2020 participated in a pre-/post-survey.</p>	<p>Patient Engagement and Perspectives: More than 50,000 telemedicine visits in the first eight months. Telehealth was used by 15%–20% of new patients and 20%–25% of pre-existing patients. In one region, established patients had a 50% reduction in 'no shows' for telehealth compared to usual office visits. 65% of group participants were first-time engagers with social work. Additional strategies were needed to engage rural participants and engagement improved over time. Reported benefits for patients included convenience and avoiding risk. For virtual support groups, patients with an increased desire for connection and community provided positive feedback.</p> <p>Psychosocial well-being: Patients in virtual support groups reported a 10.5% reduction in distress.</p> <p>Barriers: Technology (including onboarding and quality), particularly for older patients. Access to broadband for those in rural areas.</p> <p>Recommendations and Strategies: Provide patients with educational tools for accessing telehealth.</p>

(Continues)

TABLE 2 (Continued)

Author (year); country	Design	Aim	Service modality ^a	Participants	Method	Key findings relevant to review outcomes
Price and Brunet (2022); United States	Qualitative	Explore the experiences of cancer survivors who participated in a group walking programme with behavioural support in order to highlight factors contributing to the success and sustainability of the programme.	In-person	N=11 cancer survivors who took part before (n=7) or during (n=4) the COVID-19 pandemic.	The intervention was an 8-week programme, including weekly indoor behavioural support sessions and guided group walks outdoors. Behavioural support included psychoeducation, goal setting, problem-solving and self-monitoring. The programme initially ran twice in January and February 2020. During the pandemic, the programme was initially suspended, but it was resumed with a third programme in August 2020. The behavioural support component moved outdoors for the third programme. The study was informed by a social constructivist paradigm. Participants completed semi-structured interviews, as well as sociodemographic and medical questionnaires. Recruitment, enrolment, attrition and adherence rates were also tracked. Thematic analysis was used to analyse interview transcripts using a hybrid deductive-inductive approach.	<p>Patient engagement and perspectives: The overall recruitment rate was 60.4%, enrolment rate was 53.8%, attrition rate was 21.4%, and adherence rate was 53.4%. Themes included physical activity behaviour and motivation were enhanced, seeking accountability to take steps for better health, mutual support encourages in-group bonding and placing value on building physical activity confidence.</p> <p>Barriers: Wearing face masks and holding sessions outdoors (per public health recommendations) hindered social interaction and bonding.</p> <p>Recommendations and strategies: Providing instrumental support to help with learning technical skills, strategies and how to do exercises. Creating an online community to facilitate connections and social support, ensuring participants are afforded comfortable opportunities to socialize (i.e., during COVID-19). It is important to have a programme leader who creates a warm and welcoming atmosphere.</p>
Quinn et al. (2020); United Kingdom	Text/opinion	Describe service changes and the role of The Myeloma Infoline and Ask the Nurse services to support service users in understanding and applying the COVID-19 health guidelines.	Telephone and Email	N=430 callers to the Myeloma Infoline; N=213 service users of the Ask the Nurse email service.	Service adaptations were described, including work undertaken to interpret and tailor generic details of government advice for service users, as well as increases in service capacity. Descriptive statistics of service demand in March 2020 were reported and compared to March 2019 data.	<p>Patient Engagement and Perspectives: Both services saw an unprecedented increase in service demand in March 2020 compared to March 2019. The Myeloma Infoline helpline had 430 callers in March 2020, compared to 252 in 2019. Ask the Nurse email service had 213 service users in March 2020 compared to 61 in March 2019. Service users were able to self-manage and felt empowered.</p>

TABLE 2 (Continued)

Author (year); country	Design	Aim	Service modality ^a	Participants	Method	Key findings relevant to review outcomes
Ratnasakera et al. (2020); Sri Lanka	Text/opinion	Evaluate the adaptation of an intervention providing supportive psychosocial care for oral cancer patients during the pandemic.	Telephone	N=25 oral cancer patients.	The intervention addressed information needs (about surgery and life after surgery) and empowered patients to face society. Guidance on mindfulness therapy addressed psychosocial well-being. Financial assistance was provided. The intervention started in January 2020 and was to be delivered in person by nursing staff but was adapted to phone-based by a member of the research team in response to the pandemic. A rapid situational analysis was undertaken on an unknown date with randomly selected participants, and the intervention was modified accordingly.	<p>Psychosocial well-being: For some participants, psychosocial well-being had been affected by limited accessibility of treatment.</p> <p>Patient engagement and perspectives: The situational analysis revealed the primary concern for patients about routine medical treatment for acute symptoms (e.g., pain and swallowing). Thus, assistance with navigating the health system was the most essential part of the intervention.</p>
Rivest et al. (2021); Canada	Text/opinion	Reflect on experiences setting up virtual inter-disciplinary psychiatric services in response to the COVID-19 outbreak.	Video, telephone	N = >100 new cancer patients.	The article described the implementation of virtual services (including psychiatric assessment, individual and group therapy, social services and occupational therapy) from March 2020, including the number of new cancer patients who accessed the service in the first 6 months of the pandemic.	<p>Patient Engagement and Perspectives: Benefits included a decreased 'no-show' rate, reduced travel for patients and patients being more open.</p> <p>Barriers: confidentiality at home for patients, difficulties in relational communication and access to technology.</p> <p>Recommendations and Strategies: Offering a trial of telehealth to patients who were initially reluctant. Using the fact that sessions may be interrupted, or patients may find it difficult to self-isolate from their partner or family, to include family in sessions (if the patient consents). Supporting privacy and confidentiality by obtaining and documenting consent and using encrypted and secured platforms. Providing self-help and/or online resources via email.</p>

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TABLE 2 (Continued)

Author (year); country	Design	Aim	Service modality ^a	Participants	Method	Key findings relevant to review outcomes
Sansom-Daly and Bradford (2020); Australia	Text/opinion	Share experiences using telehealth during the pandemic and provide recommendations.	Video, telephone.	N=8 young adult cancer patients.	The authors provided telehealth to young adult cancer patients aged 18–25 years during the first three months of the COVID-19 pandemic (March to June 2020). They sought patient feedback about telehealth experiences and provided their own reflections on factors that enabled successful engagement.	<p>Patient Engagement and Perspectives: All participants used videoconferencing (75%) or telephone (25%) psycho-oncology services. Of these, 63% were pre-existing clients, and 63% had not used telehealth before the pandemic. Patients appreciated staying connected and some, but not all, preferred telehealth. Benefits for patients included having support during COVID-19, improved access if living outside the city, not having to travel if feeling unwell and limiting possible exposure to COVID-19.</p> <p>Barriers: For patients, the impersonal feel of remote sessions and not having private space for sessions.</p> <p>Recommendations and Strategies: Factors contributing to engagement included technology (i.e., providing connection instructions, having a 'test' session, providing phone assistance), relational processes (i.e., consent processes, clarifying security of platform, planning for technical difficulties), ensuring adequate risk management (i.e., screening for risk before the first session and at each session, ensuring contact details are available) and therapeutic strategies (i.e., discussing the online connection, ensuring familiarity with online collaborative tools, ensuring a presentable desktop).</p>
Spence (2020); Australia	Text/opinion	Share learnings and insights of service delivery changes during the COVID-19 pandemic.	Video, telephone	N=unknown staff and callers to the cancer council support line.	Describes changes implemented by a non-profit organization (Cancer Council Victoria) during the first few months of the COVID-19 pandemic. Changes included diverting calls to nurses operating from home, setting up a postal wig service and transitioning support groups to web-based video conferencing. The article also described sector-wide collaboration. Feedback was sought from staff and callers to the cancer council support line. Caller distress levels were measured using the distress thermometer.	<p>Patient engagement and perspectives: There was a 15% increase in support line calls, with half of all callers identifying COVID-19 as the reason for their call; calls were longer and more complex; patients found support line assistance to be very helpful, and this allowed them to focus on healing. The service experienced a slow but steady uptake (20% for support groups, which transitioned to online delivery. Psychosocial well-being: Callers experienced higher distress levels compared to the same period the year prior. They also experienced vulnerability, anxiety and fear associated with COVID-19, overwhelm, loneliness and isolation, removal of usual supports and financial strain due to loss of income.</p> <p>Barriers: Technology was difficult to navigate for some, especially older adults.</p> <p>Recommendations and strategies: The authors identified an opportunity to integrate supportive care into new care models (i.e., telehealth and chemotherapy at home). Publishing information about telehealth assisted patients in navigating technology.</p>

TABLE 2 (Continued)

Author (year); country	Design	Aim	Service modality ^a	Participants	Method	Key findings relevant to review outcomes
Turkdogan et al. (2021); Canada	Quantitative descriptive	Describe the development and implementation of an online platform providing oncology patient education and support resources during the pandemic.	Asynchronous video	N = 1244 cancer patients.	The article described a process of topic selection, content development, production, implementation and evaluation. Animated videos were created on physical health topics, as well as psychoeducation about distress and techniques for improving mental health. Cancer patients provided feedback after using the platform. The study was conducted from April to August 2020.	<p>Patient Engagement and Perspectives: Content about COVID-19 and oncology, treatment orientations and chemotherapy were most watched. Younger (25–34 years, 27.5%) and female (59.9%) patients engaged more with the videos.</p>
van der Lee and Schellekens (2020); The Netherlands	Qualitative	Report on patient and therapist experiences in transitioning face-to-face mental health care services to telehealth.	Video	N = 209 cancer patients and N = 30 therapists (psychologists and psychiatrists)	When face-to-face service delivery shifted to telehealth from 12 March 2020, patients received written explanations and instructions. Therapists had access to webinars to support their transition. Cancer patients and therapists completed anonymous surveys with open-ended questions after 7 weeks.	<p>Patient Engagement and Perspectives: Benefits included feeling more at ease at home and conserving energy due to no travel time.</p> <p>Barriers: For patients, sessions felt more distant and less personal due to missing nonverbal communication. Less reflection and preparation before and after sessions due to reduced travel time. For therapists, missing non-verbal communication makes it difficult to let clients express their feelings.</p> <p>Recommendations and Strategies: For patients, incorporating routines that make time and space for the session and paying attention to the camera position (i.e., to show nonverbal communication) can be helpful. For therapists, starting with relaxation or focusing exercises, allowing space for silence and allowing time for informal chat before finishing. Balancing video consults with other forms of sessions (e.g., internet-based treatment modules).</p>
Walker et al. (2022); Canada	Quantitative non-randomized (population-based cohort study)	Describe changes in the delivery of cancer care services during the pandemic.	Unspecified	N = 14.7 million (population of Ontario)	The study measured the population-level volume of medical and psychosocial oncological services. Data were extracted from databases and hospital records. For psychosocial oncological care, new and follow-up care visit volumes were tracked from January 2019 to March 2021. Descriptive data analysis included absolute volume and percentage change in new and follow-up visits before and during the pandemic, as well as changes in the use of virtual care.	<p>Patient Engagement and Perspectives: New visits to psychosocial oncological care increased by 1.2%, and follow-up visits increased by 9.8% in the first year of the pandemic. The use of virtual service delivery in psychosocial oncological care increased from 15% to 20% in the year prior to the pandemic to 65.0%–77.8% in the first year of the pandemic.</p>

(Continues)

TABLE 2 (Continued)

Author (year); country	Design	Aim	Service modality ^a	Participants	Method	Key findings relevant to review outcomes
Zembrack et al. (2021); United States	Mixed methods	Report on the impact of COVID-19 nationally on oncology social work practice.	Video, telephone	N=939 social workers who provide direct services to patients in a cancer programme.	Participants completed an online questionnaire between August and September 2020. This included five Likert-scale items and one open-ended question about work-based changes since the pandemic started. Descriptive statistics and cross-tabulations were used to analyse data. Quotations that were illustrative responses to a single open-ended question were also provided.	<p>Patient Engagement and Perspectives: Two-thirds of participants reported using only telephone or video-conferencing for at least some time during the pandemic. In some cases, the shift to telehealth was associated with improved access and service delivery. Increased privacy, increased time with patients, and higher levels of client disclosure were observed compared to clinic-based appointments.</p> <p>Psychosocial well-being: Increased stress for patients and families associated with isolation, work and income loss, substance use and the inability of caregivers to provide support at appointments or hospital visits.</p> <p>Barriers: Barriers included patients having limited data/call access and hearing difficulties. Assuring confidentiality and building rapport were also difficult. Personal protective equipment (i.e., masks) was a barrier to face-to-face contact.</p>

^aVideo refers to synchronous video unless otherwise specified. Service modality has been classed as video if the article referred to telehealth platforms, online consultations or video calls.

For multi-disciplinary programmes in the United States and Ireland, this included increased patient participation, including a mean of 5.5–9.8 patients per session (Jhaveri et al., 2020) and a mean of 78% to 90% of patients (Brennan et al., 2022) respectively. Further, for a 12-week yoga intervention (with walking and stretching-toning control groups), which shifted to virtual delivery due to the pandemic, the average attendance for the yoga group was 77.77% (Gothe & Erlenbach, 2022). Finally, an online mindfulness-based stress reduction programme in Taiwan reported that 95% of participants enrolled at baseline completed the post-assessment (Chang et al., 2022).

3.1.5 | Asynchronous support resources

Some services provided asynchronous psychosocial support resources. Leung et al. (2022) reported that 52% of patients who were recommended resources by artificial intelligence (based on their interactions in an online support group) accessed at least one resource. Turkdogan et al. (2021) reported that asynchronous content about COVID-19 and oncology, treatment orientation, and chemotherapy was most utilized and that females and younger patients were most likely to engage.

3.2 | Patient perspectives

3.2.1 | Shifting to virtual care

Telehealth was generally acceptable and sometimes preferable to patients (Arthur et al., 2022; Dinkel et al., 2021; Edge et al., 2021; Gothe & Erlenbach, 2022; Jhaveri et al., 2020; Sansom-Daly & Bradford, 2020). A text/opinion study reported that interest from rural patients in virtual support groups improved with additional engagement strategies (Patt et al., 2021). However, some patients preferred in-person or blended delivery of services (Arthur et al., 2022; Dinkel et al., 2021; Edge et al., 2021; Gothe & Erlenbach, 2022; Jhaveri et al., 2020; Sansom-Daly & Bradford, 2020). Additionally, a quantitative non-randomized study of patients ($N > 400$) found that virtual care was associated with lower levels of satisfaction, which the authors attributed to a lack of virtual distress screening processes (Bultz & Watson, 2021). Finally, Leung et al. (2022) reported that 76% of patients who accessed asynchronous resources found them helpful.

A range of benefits were reported for patients associated with the shift to virtual care. These included practical benefits such as a smooth transition to telehealth (Millar et al., 2020), convenience (Patt et al., 2021), improved accessibility (Archer et al., 2020; Brennan et al., 2022; Jhaveri et al., 2020), reduced travel requirements (Butt et al., 2022; Chang et al., 2022; Edge et al., 2021; Millar et al., 2020; Rivest et al., 2021; Sansom-Daly & Bradford, 2020) and reduced exposure to COVID-19 (Edge et al., 2021; Patt et al., 2021; Sansom-Daly & Bradford, 2020). There were also therapeutic

TABLE 3 Summary of study characteristics.

Country of publication	Number of studies	
United States	15	
Canada	5	
Australia	4	
United Kingdom	3	
Germany	1	
Ireland	1	
Taiwan	1	
China	1	
Sri Lanka	1	
Netherlands	1	
Low- and middle-income countries ^a	1	
Type of study	Number of studies	Number of participants (range)
Quantitative Non-Randomized ^b	8	67–14.7 million
Text/Opinion ^b	10	8–643
Qualitative	6	11–239
Quantitative Descriptive	5	91–1697
Mixed Methods	4	8–1002
Randomized Controlled Trial	1	78–78

^aLow- and middle-income countries included Bolivia, Chile, China Colombia, Croatia, Dominican Republic, Ecuador, Ghana, Jamaica, Jordan, Kenya, Lithuania, Nepal, Nigeria, North Macedonia, Serbia, Taiwan, Turkey, Uganda.

^bThere were 2 quantitative non-randomized studies and 4 text/opinion studies that did not report participant numbers.

benefits for patients, including staying connected to support (Dinkel et al., 2021; Sansom-Daly & Bradford, 2020), increased privacy and time in sessions (Zebrack et al., 2021) and being observed as more open in therapy (Butt et al., 2022; Rivest et al., 2021; Zebrack et al., 2021). A mixed-methods study of 22 psycho-oncology professionals suggested that this may be due to increased anonymity (Butt et al., 2022).

3.2.2 | Group programmes

Patients provided positive feedback for group programmes. Patients in a multi-disciplinary programme in Ireland found it beneficial and user-friendly (Brennan et al., 2022). Qualitative themes for patients in a telehealth support group included support and connection, development of mindfulness skills and dislike of homework (Lichiello et al., 2022). For an in-person group programme, themes included physical activity behaviour and motivation being enhanced, seeking accountability to take steps for better health, mutual support encourages in-group bonding and placing value on building physical activity confidence (Price & Brunet, 2022). Gothe and Erlenbach (2022) reported overall high average enjoyment ratings for a 12-week yoga and/or exercise intervention, with the yoga group reporting the highest rating in any 1 week. Additionally, for those in the hybrid online cohort, while 60% preferred in-person sessions compared to 40% preferring the combined in-person and online format, 66.7%

reported enjoying online the same as the in-person sessions (Gothe & Erlenbach, 2022). Self-reported engagement and intensity were variable (Gothe & Erlenbach, 2022).

3.3 | Psychosocial well-being

3.3.1 | Changes in psychosocial well-being attributed to the pandemic

A high incidence of distress was reported widely during the pandemic (Albano et al., 2021; Archer et al., 2020; Edge et al., 2021; Liu et al., 2020; Osterman et al., 2021; Ratnasekera et al., 2020; Spence, 2020; Zebrack et al., 2021) and was attributed to a range of pandemic-related factors. These included disrupted and delayed medical and psychosocial care and supports (Albano et al., 2021; Archer et al., 2020; Edge et al., 2021; Liu et al., 2020; Osterman et al., 2021; Ratnasekera et al., 2020; Spence, 2020), social isolation (Albano et al., 2021; Archer et al., 2020; Liu et al., 2020; Spence, 2020; Zebrack et al., 2021), fear of the patient or their family contracting COVID-19 (Albano et al., 2021; Edge et al., 2021; Liu et al., 2020; Spence, 2020), employment and income loss causing financial strain (Liu et al., 2020; Osterman et al., 2021; Spence, 2020; Zebrack et al., 2021), misunderstanding of COVID-19 related information (Liu et al., 2020), substance use (Zebrack et al., 2021) and care giver's being unable to attend in-person appointments or hospital visits (Zebrack et al., 2021).

3.3.2 | Changes in psychosocial well-being attributed to interventions

The heterogeneity of studies prevented the statistical synthesis of measures of effect; however, five studies did report positive well-being outcomes for patients following interventions. For group-based programmes delivered via telehealth, this included reduced anxiety and improved body image and self-efficacy for female breast cancer patients following a six-week, mindfulness-based stress reduction programme (Chang et al., 2022). Additionally, participants in a 6-week support group using a structured curriculum reported a 10.5% reduction in distress levels (Patt et al., 2021). Adolescents and young adults who participated in 8 support group sessions using psychoeducation, acceptance and commitment therapy, and meaning-centred group psychotherapy reported reduced anxious preoccupation and helplessness/hopelessness and increased psychological flexibility (Lichiello et al., 2022). For interventions delivered individually, Mallaiah et al. (2022) reported significant improvements in physical and mental health for participants in a single-session yoga therapy intervention, while a text/opinion study described case study evidence that relaxation, mindfulness and/or music therapy, positively impacted anxiety and/or depression symptoms (Liu et al., 2020). Finally, patients in a virtual mind-body programme reported qualitative themes such as motivation for adherence to healthy behaviours, supporting patients to cope with stressors related to COVID-19, and allowing patients to refocus and re-energize (Emard et al., 2021).

3.4 | Barriers

3.4.1 | Technological barriers

A lack of technical skills (Brennan et al., 2022; Butt et al., 2022) and familiarity with using video conferencing for telehealth (Arthur et al., 2022; Myers Virtue et al., 2021) were cited as barriers. Older patients (Butt et al., 2022; Chang et al., 2022; Kotsen et al., 2021; Myers Virtue et al., 2021; Patt et al., 2021; Spence, 2020), males (Myers Virtue et al., 2021) and those with hearing difficulties (Zebrack et al., 2021) were noted to have difficulty navigating technology. Some studies reported that this was overcome by providing technical support (Kotsen et al., 2021) and written instructions (Spence, 2020).

The lack of adequate technology was also a challenge. This was reported for some services in the United Kingdom (Archer et al., 2020) and due to poor internet services in low-to-middle-income countries (Etapé et al., 2022) and remote areas of the United States (Patt et al., 2021). Limited individual access to technology was also a barrier, for example, for those of lower socioeconomic status (Archer et al., 2020; Butt et al., 2022; Kotsen et al., 2021; Zebrack et al., 2021).

3.4.2 | Patient barriers

For patients using telehealth, barriers to a positive therapeutic relationship included reduced non-verbal communication, less

personal connection and interaction (Arthur et al., 2022; Sansom-Daly & Bradford, 2020; van der Lee & Schellekens, 2020; Zebrack et al., 2021), distractions and lack of privacy at home (Butt et al., 2022; Sansom-Daly & Bradford, 2020; Zebrack et al., 2021) and feeling less able to be honest (Millar et al., 2020). Clinical barriers included severe mental illness, complex presentations, being too unwell and negative prior experiences with telehealth (Butt et al., 2022). Practical barriers included having to use personal protective equipment during face-to-face services (Price & Brunet, 2022; Zebrack et al., 2021), not wanting to 'use up' sessions for COVID-related reasons (Millar et al., 2020), less preparation and reflection time when not travelling to appointments (Millar et al., 2020; van der Lee & Schellekens, 2020), lack of sufficient exercise space at home, work demands as a frontline worker, and increased caregiving duties (Gothe & Erlenbach, 2022). Older patients ($N=21$) provided qualitative feedback about the lack of input to the development of a healthcare portal and the lack of utility, personalization, and sensitivity to unique health needs for a mobile health application (Arthur et al., 2022).

3.4.3 | Staff barriers

Staff reported barriers to developing a relationship with clients, including difficulty reading non-verbal communication (Edge et al., 2021; Millar et al., 2020; van der Lee & Schellekens, 2020) and building a therapeutic alliance (Archer et al., 2020; Butt et al., 2022). The work was noted to have higher emotional content (Archer et al., 2020), and concerns were reported about insufficient knowledge of virtual interventions (Etapé et al., 2022) and that telehealth is not as effective as usual care (Archer et al., 2020). Difficulties with specific clinical tasks were also reported, including making accurate diagnoses (Edge et al., 2021), problem formulation, risk assessment, accessing onsite emergency mental health care, incorporating interactive and experiential exercises (Butt et al., 2022), undertaking behavioural work and sharing formulations electronically (Millar et al., 2020). Barriers relating to the work environment included feeling disconnected from clinical teams, a reduced focus on psychological care, an increased role in supporting colleagues (Archer et al., 2020), tension with other disciplines, increased collaboration with colleagues (Dinkel et al., 2021) and a lack of privacy working from home (Millar et al., 2020).

3.5 | Strategies and recommendations

3.5.1 | Adapting interventions for pandemic needs

Changes in the psychosocial needs of patients saw a shift in the types of interventions. Espinel and Shultz (2020) adapted a disaster management framework initially developed by Hobfoll et al. (2007). They put five principles (safety, calming, connectedness, self-efficacy and hope) into practice by identifying and triaging issues using a problem-solving approach and then using subsequent sessions to promote the principles (Espinel &

Shultz, 2020). Stress reduction and relaxation strategies were also commonly used, for example, mindfulness, meditation, relaxation, stress management, breathing, grounding techniques, music and art therapy, and tea culture (Albano et al., 2021; Chang et al., 2022; Emard et al., 2021; Espinel & Shultz, 2020; Gothe & Erlenbach, 2022; Liu et al., 2020; Mallaiah et al., 2022; Rivest et al., 2021). COVID-19-specific psychoeducation measures were also required. This included content explaining COVID-19 risks and precautions, promotion of community resources (Albano et al., 2021), encouraging connections with social supports (Albano et al., 2021; Jhaveri et al., 2020), COVID anxiety, health-related vigilance (Archer et al., 2020; Jhaveri et al., 2020), and risks associated with delayed screening or treatment (Archer et al., 2020). One service produced asynchronous resources about mental health and other cancer care topics (Turkdogan et al., 2021).

3.5.2 | Addressing clinical issues specific to telehealth

Various strategies were offered for clinicians to ameliorate some of the barriers to telehealth. This included allowing time to ease in and out of the session, using relaxation or focusing strategies to start, allowing for silence, and ending the session with an informal chat (van der Lee & Schellekens, 2020). For patients who were reluctant to engage in virtual appointments, suggesting a trial (Rivest et al., 2021) or offering check-ins (Millar et al., 2020) helped to maintain engagement. Finally, several studies advocated for flexible, blended modes of delivery, including in-person or alternative online options such as internet-based treatment modules alongside telehealth (Brennan et al., 2022; Butt et al., 2022; Millar et al., 2020; van der Lee & Schellekens, 2020). Adapting intervention content and processes for telehealth was deemed essential (Jhaveri et al., 2020), including processes for distress screening (Bultz & Watson, 2021). Training on adapting therapy for telehealth (Butt et al., 2022) and the need for good self-care were highlighted, including ensuring good ergonomics, adequate physical movement and fresh air (van der Lee & Schellekens, 2020).

While privacy can be an issue for clients accessing telehealth at home, the therapeutic benefit of including family in sessions was noted (Rivest et al., 2021). Strategies to support confidentiality and privacy included obtaining consent, using encrypted and secure platforms (Rivest et al., 2021), having a waiting room and password protection, and using headphones (Jhaveri et al., 2020). Explaining security, discussing the management of technical difficulties, and being aware of organizational and location-specific consent processes for telehealth were also recommended (Sansom-Daly & Bradford, 2020).

Finally, while some clinicians were reluctant to use telehealth with more complex presentations (Butt et al., 2022), Sansom-Daly and Bradford (2020) proposed that telehealth is suitable for individuals with a range of vulnerabilities, with adequate risk screening processes. Specific advice included providing initial and ongoing risk screening, selecting suitable clients, obtaining the patient's physical

address and contact details (including for next of kin and/or health providers), visually monitoring distress, tracking attendance, and following up with those who do not attend (Butt et al., 2022; Jhaveri et al., 2020; Sansom-Daly & Bradford, 2020).

3.5.3 | Adapting to technology platforms

Strategies to help clients transition to telehealth included simplifying the process (Brennan et al., 2022) and providing technical support, test sessions, training, and/or instructional materials (Chang et al., 2022; Jhaveri et al., 2020; Patt et al., 2021; Sansom-Daly & Bradford, 2020; Spence, 2020). Strategies to support staff to transition included training and practice with the platform, online tools and telehealth procedures, informal peer support, and regular problem-solving meetings with technology staff (Kotsen et al., 2021; Sansom-Daly & Bradford, 2020; van der Lee & Schellekens, 2020). Tips for service delivery included ensuring the computer desktop is presentable (Sansom-Daly & Bradford, 2020), having a co-facilitator for group programmes, and using functions such as break-out rooms, gallery view, polling, and animated slides (Jhaveri et al., 2020). Clinical content was shared via email (Rivest et al., 2021) or screen-sharing functions (Sansom-Daly & Bradford, 2020). In choosing a platform, the importance of security, versatility, and functionality across devices was highlighted (Sansom-Daly & Bradford, 2020), although flexibility to use different platforms (Kotsen et al., 2021) and maintaining the availability of phone-based appointments helped provide continuity and maximize engagement (Kotsen et al., 2021; Myers Virtue et al., 2021; Sansom-Daly & Bradford, 2020).

4 | DISCUSSION

Our review aimed to understand the adaptation of psychosocial support services for cancer patients during the COVID-19 pandemic. We have addressed these aims by identifying and discussing outcomes, including patient engagement and perspectives, psychosocial well-being, barriers faced, and recommendations for practice. Notably, most studies identified that they could adapt to remote service delivery by using a variety of telehealth modalities. There were challenges; however, these were mostly overcome.

The adaptations discussed in the reviewed articles appear to mostly have facilitated a greater capacity of services to screen and identify clients who need support (Albano et al., 2021; Liu et al., 2020; Osterman et al., 2021). Specific COVID-19-related psychosocial needs were also identified, and interventions were adapted to support this (Albano et al., 2021; Espinel & Shultz, 2020; Liu et al., 2020; Osterman et al., 2021; Spence, 2020). The practice of routine distress screening at various points in the cancer trajectory, along with the coordination of care, referrals and interventions associated with the source of distress, is consistent with oncology practice guidelines recommendations (Riba et al., 2019). The outcomes described in this review reinforce the importance of these

guidelines, and it is imperative that gains made during the COVID-19 pandemic are continued (or expanded) in a post-COVID environment. However, inadequate resourcing and training were cited as barriers to implementing such programmes prior to the pandemic (Fradgley et al., 2020). Additionally, healthcare workers worldwide experienced significantly decreased quality of life during the COVID-19 pandemic, with increases observed in burnout levels and compassion fatigue (Lluch et al., 2022). While the current review highlights that it is possible to respond to emergent situations such as a pandemic, sustainable implementation of these initiatives will require adequate resourcing.

While most of the reviewed articles reported on experiences during the pandemic as opposed to providing a formal evaluation of effectiveness, the evidence for the effectiveness of telehealth interventions for common psychological disorders is building, with a strong case for client satisfaction and symptom reduction (Barnett et al., 2021; Varker et al., 2019). Access to technology remains a barrier in some situations, and face-to-face work may be warranted for some specific situations (e.g., palliative care). Some clients will always prefer face-to-face services. However, overall, it seems that telehealth is a promising modality, and the present review adds to research undertaken before the COVID-19 pandemic (Escriva Bouley et al., 2018; GoliŤĂ & BĂBan, 2019).

Notably, the shift to telehealth during the pandemic was associated with increased engagement, including reductions in no-show appointments (Jhaveri et al., 2020; Kotsen et al., 2021; Millar et al., 2020; Myers Virtue et al., 2021; Patt et al., 2021; Rivest et al., 2021). Importantly, Kotsen et al. (2021) highlighted that improvements in 'no-show' rates mean a higher dose of counselling and an increased likelihood of successful behaviour change. While an increase in identified psychosocial support needs due to the pandemic may partially explain the increase in demand and use of telehealth services, qualitative evidence was provided across several articles which explained that telehealth helped to provide services to patients who may not previously have been able to access them, including for those in rural areas (Archer et al., 2020; Jhaveri et al., 2020; Patt et al., 2021; Sansom-Daly & Bradford, 2020). This finding is of particular importance given previous research, which indicates that most distressed cancer patients choose not to access support services (Clover et al., 2015; Cohen et al., 2018). However, it was also highlighted that individual circumstantial and structural barriers (for example, geographic location and socioeconomic status) influenced the ability of individuals to accept virtual support, thus leading to the perpetuation of inequitable outcomes during the pandemic (Archer et al., 2020; Butt et al., 2022; Estapé et al., 2022; Kotsen et al., 2021; Patt et al., 2021; Zebrack et al., 2021). Sector-wide innovation and problem-solving are needed to overcome this issue. Gustavson et al. (2023) highlighted that the gap between the health system and socioeconomic and cultural contexts in the provision of telehealth can be bridged by building adequate digital infrastructure, fostering community partnerships, and communicating shared mental models.

4.1 | Clinical implications

It was well understood before the COVID-19 pandemic that cancer patients experience a high level of psychosocial distress (Carlson et al., 2019; Mehnert et al., 2018) and that survivors can experience pain, fatigue, depression and anxiety, which can all affect their quality of life (Riba et al., 2019). There is also increasing evidence that mental health disorders are associated with poorer cancer survival outcomes (Berchuck et al., 2020). Additionally, while most studies comparing the psycho-social well-being of rural and metropolitan cancer patients have found no difference between the two, rural cancer patients do face unique unmet support needs, including financial and travel issues and access to services (van der Kruk et al., 2022). There may also be differences between specific rural populations. Yet intervention is often associated with improved psychosocial well-being (Mathew et al., 2021; Paley et al., 2023).

The pandemic provided an opportunity for a global case study about what can be achieved in a relatively short timeframe to manage increased demand in the context of a rapid shift to telehealth delivery. In addition to providing a road map for future pandemics, this review has implications for psychosocial care beyond the pandemic. It has exemplified that removing or lowering barriers to psychosocial care can enable access for those who are ambivalent and/or experience barriers to accessing support. This has particular applicability to those who live in rural areas. It is, therefore, our contention that adaptations that were successful in reaching a greater number of patients (e.g., individual and group telehealth-delivered interventions) during the COVID-19 pandemic should be extended and further expanded to maximize psychosocial well-being for all cancer patients.

Services that provide psychosocial oncological care should take all steps to remove barriers to accessing this care, with the primary recommendation being to implement and/or continue flexible service delivery options such as telehealth. This should include planned and coordinated strategies for ensuring success, such as inclusion and/or expansion of distress screening programmes, adaptation of distress screening processes for telehealth, and providing training and support for staff and patients on technical and clinical matters. Where feasible, the flexibility of blended delivery should be maintained to provide choice for patients. Additionally, consideration should be given to providing (and/or expanding) access to interventions, such as structured, group-based programmes and mindfulness-based approaches, which have been shown to improve psychosocial well-being.

4.2 | Limitations

The papers reviewed had mostly positive results. However, papers that evaluated services that were unsuccessful in adapting in response to the pandemic might not have been published due to non-significant findings, thus resulting in potential publication bias. Issues such as costs and resourcing of alternative service delivery models were also not assessed.

While the review has reported a range of positive outcomes, only one of the reviewed studies was a randomized controlled trial, and many papers underreported their methodology. Future research using more rigorous methodologies and focusing on psychological outcomes for telehealth and blended delivery models, compared to face-to-face, will provide certainty about the ongoing management of psychosocial support services in oncology. Furthermore, there is a need to thoroughly explore enablers and barriers to psychosocial support for patients who live in rural, regional, and remote areas or experience socioeconomic disadvantage, particularly barriers and enablers to accessing telehealth (Emard et al., 2021; Myers Virtue et al., 2021). Improving the knowledge base in these areas will help to build more responsive and efficient psycho-oncology services during and after the pandemic.

5 | CONCLUSIONS

Most studies reviewed here have reported that providing psychosocial support in oncology during a pandemic can be successful. It appears that adapting to online delivery can be achieved relatively quickly, and technical barriers and clinical issues can be overcome. Furthermore, the inclusion of flexible delivery modes may be one way to increase the uptake of psychosocial support for those experiencing cancer, including the ability to reach previously underserved groups.

While there is some way to go in ensuring equitable access for all groups and providing adequate broadband infrastructure across geographic and socioeconomic groups is imperative, support services do not need to wait for this to happen to be creative in their engagement strategies. The crisis of the COVID-19 pandemic has highlighted the capability of psychosocial support services in oncology to drive innovation. In many cases, this has resulted in positive outcomes, including increased flexibility in service delivery via telehealth, improved screening for psychological needs and increased participation in services. These innovations should be continued post-pandemic to ensure equitable access to psychosocial support services for cancer patients. These can significantly improve functional outcomes for patients during their medical treatment and long-term survivorship.

AUTHOR CONTRIBUTIONS

MM conceptualized the article, with supervision from KR, CM, EB, and KM. MM performed the literature search, data analysis, and drafting the article. KR, CM, EB, and KM critically revised the work.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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