

Original Article

The Impact of COVID-19 Pandemic on Palliative Care Services as Perceived by Healthcare Professionals: A Systematic Review

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Abstract

Background: The Covid-19 pandemic stretched healthcare systems' capacity, imposed the reorganization and re-prioritization of services under the burden of scarce resources, and altered the traditional way that care was provided. Palliative care, though designed to address complex needs such as relief from severe suffering, difficult decision making and complicated grief was not an exception; its holistic approach of care was seriously challenged due to infection spread restrictions.

Objective: To review the impact on palliative care services from healthcare professionals' perspective.

Methodology: A systematic review according to the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) was conducted via PubMed in October 2022. Eligibility criteria included original studies that had used a qualitative, quantitative, or mixed design approach to evaluate the impact on services, delivery of care, and emotional status of palliative healthcare professionals.

Results: Out of 2040 initial records, 32 studies were included in the review coming from various countries and settings with representative participation of multidisciplinary palliative care teams' members. Reported impacts concerned organizational aspects and provision of services, altered delivery of care, and implications for the mental health of involved staff. Increased workload, visiting restrictions, use of Personal Protective Equipment, and remote contact were perceived as factors compromising the quality of care provided and impeding palliative healthcare professionals from fulfilling their holistic care role. Moral distress was the most exacerbated emotional impact.

Conclusions: Despite the important role that palliative care can play during a health crisis, this was not always adequately reflected on pandemic plans. In the era of the Covid-19, Palliative care entered a phase of change; whether this fact may compromise or accelerate its evolution depends on how lessons learned will be used in future planning.

Key words: COVID-19, palliative care, healthcare professionals, systematic review

Introduction

The COVID-19 pandemic has evolved into a global health crisis stretching the already stretched healthcare systems beyond their bounds. At that time, reorganization of health services - including differentiated delivery of care and prioritization of treatment for acutely ill population over people suffering from chronic illnesses- is expected as a response to limit the spread of the infection and face the increased demand of services under severely restricted resources. Palliative Care (PC) addressing complex needs of vulnerable patients' groups -for whom virus contamination entails even greater health risks-, was seriously challenged.

PC by definition expands beyond traditional clinical practices not only focusing on the comprehensive assessment and management of physical issues such as pain and other distressing symptoms; it copes with psychological and spiritual patients' needs as well and provides support to the family and the caregivers during the illness and bereavement (WPCA, 2020). This patient-centered and family-centered holistic approach of care is basically facilitated by effective communication. However, fundamental modalities of PC such as "high talk", "high touch" (Pastrana et al., 2008) and "actual presence" (Plessis 2016) had to be sacrificed during the pandemic for the sake of safety and protection of both healthcare professionals and patients. Although the importance of the role of PC within a pandemic environment has been recognized (Arya et al., 2020) supporting both Covid and non-Covid patients with palliative needs (Abbott et al., 2020, Fadul et al., 2021), gaps regarding the integration of PC and hospice services into pandemic plans have also been noted (Etkind et al., 2020). Reviewing the impact of the COVID-19 pandemic on PC services through quantitative or qualitative studies focusing on healthcare professionals' experiences and perspectives, who are the actual protagonists in that crisis, can provide an evidence based guide for future planning so that lessons learned not be futile.

Methodology

The aim of the present study was to review and describe the impact of the COVID-19 pandemic on PC services from the perspective of PC professionals and providers.

For the purposes of the present review, a search on possible effects of the COVID-19 pandemic on palliative care services was conducted via PubMed electronic database, in October 2022. The search was limited to English language papers without limitations regarding publishing dates.

It was decided to use a narrative synthesis method (Popay et al., 2006) since the findings from the included studies could be synthesized, especially the ones resulted from studies following a qualitative method approach. The narrative synthesis approach offers the possibility of identifying common themes or areas across the studies and it is commonly used to synthesize evidence from heterogeneous studies, not necessarily aiming to transform data beyond the original findings (Hong et al., 2017, Popay et al., 2006). The heterogeneity of the studies' design, methods and samples is expected to hinder a separate meta-analysis of outcomes. After initial screening of titles and abstracts, articles relevant for inclusion were subject to full text screening in order to be assessed against the inclusion criteria.

To include a study in our review, that should have: (a) used a quantitative or qualitative or mixed method to investigate or evaluate the impact of the Covid-19 pandemic on PC services, (b) involved PC professionals of any role or specialty, e.g. physicians, nurses, social workers, chaplains, etc. or (c) involved health care professionals from any settings providing PC, e.g. hospices, PC Units, home based PC teams, etc., regardless caring for adult or pediatric patients.

Therefore, we excluded studies which: (a) contained recommendations or reports without a qualitative or quantitative method applied, (b) described the impact on care of patients' groups, e.g. cancer patients, dementia patients, homebound old patients, traditionally described as in need of PC services but without focusing on this specific aspect of care, or (c) investigated exclusively the impact of one specific innovation or change e.g. telehealth applications.

Several studies were seriously considered whether to be included or not, since they did not strictly follow the inclusion criteria, as e.g. they described rather a response of PC services and not an impact (Luckett et al., 2021, Dunleavy et al., 2021), they investigated only burnout variations relevant to

the COVID-19 pandemic (Varani et al., 2021, Ercolani et al., 2022) or they negotiated more specific challenges (Garner et al., 2022, Galchutt et al., 2022). However, it was decided to be included since they contributed to the way the impact was perceived on behalf of PC healthcare professionals.

Another dilemma was the assessment of the studies related to End-of-Life (EoL) care since EoL care falls under the umbrella of PC services; therefore they should be separately examined if EoL care term was used in the context of a PC perspective or to declare the exact time the care took place.

The review is reported in accordance with the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA), (Page et al., 2021), as shown in Figure 1.

Data from included studies was extracted into Microsoft Excel sheets including the following features: i) author(s) and date of publication, ii) aim, iii) country, iv) time of data collection, v) participants, vi) method, vii) results/findings. The inclusion of the time collection of data was considered to be necessary so that the results could be related to different waves of the Covid-19 pandemic. Correspondingly, the description of the population participated -number and subcategories of healthcare professionals' specialties and roles- can provide additional information whether the findings resulted from a narrower or a wider perspective.

Results

Pubmed searching yielded 2040 unique records (no duplicates were detected), 1891 articles were excluded based on title and abstract screening. Full-text versions of the remaining 149 studies were screened for eligibility. Thirty two articles left which met the inclusion criteria and they are presented in Table 1.

Overview of included studies: Half of the included studies (16) were qualitative; four purely quantitative, while twelve used a mixed method design. Eleven studies were published in 2022, one in 2020, while the rest (20) in 2021. In the vast majority (21) of studies the data collection started in the first semester of 2020 when the first wave of the Covid-19 pandemic was still ongoing, the rest (9) during the second semester of 2020, while only two studies used data collected in 2021.

Four studies addressed PC services on pediatric population (Rosenberg et al., 2021, Wiener et al., 2021, Weaver et al., 2021, McNeil et al., 2021); all of them formed part of The Palliative Assessment of Needed Developments & Modifications In the Era of Coronavirus, Survey-Global study (PANDEMIC-Global Survey). It was quite common for a study to be part of a wider survey or a research plan e.g. CovPall (Bradshaw et al., 2022, Sleeman et al., 2022, Garner et al., 2022, Bradshaw et al., 2021), PallPan (Jansky et al., 2021). Two studies (Pastrana et al., 2021a, Pastrana et al., 2021b) were under the umbrella of the International Association for Hospice and Palliative Care (IAHPC).

All six continents are being represented, while the majority of included studies come from UK (9) and USA (10). The sample size varied significantly ranging from 7 to 458 participants. Fourteen studies –at least in them the relevant information was clearly defined- involved members of multidisciplinary PC teams with roles and specialties other than just doctors and nurses. A significant number, and variety of settings, e.g. hospices, hospitals, and different modes of PC services, e.g. home-based, community-based, inpatient units were represented; only four studies were conducted at one setting.

Due to the quite extended number of studies included in the present review, an appreciable amount of 'perceived' impacts, effects, and consequences emerged. For the needs of the narrative synthesis, resulted findings were grouped in three categories based on whether the described impact was related to: 1) organizational aspects and provision of PC services, 2) altered delivery of PC to patients, or 3) regarding the emotional footprint of the Covid-19 pandemic on involved healthcare staff. Such a division does not exclude the possibility of alterations impacting at the same time more than one dimensions. For example, the visiting restrictions though related to reorganization of services unavoidably impact on provision of patient care and are often described as a determinant of moral distress among PC healthcare professionals.

Impact on organization and provision of PC services: As more or less expected, the tremendously increased need for acute healthcare services imposed by the Covid-19 pandemic surge was prioritized over PC patients' needs (Holdsworth et al., 2022); this resulted in

reversing or stalling of previous development of PC policies, with few exceptions (Pastrana et al., 2021a). At the same time, a general increased need for specific services, which fall under the umbrella of PC e.g. advance care planning, spiritual counseling, psychological support, coping with grief and bereavement, occupational therapies was reported (Kates, 2020, Sleeman et al., 2022, Galchutt et al., 2022, Bradshaw et al., 2021). Under that pressure, settings temporarily suspended current programs, halted new ones, reconfigured and instigated additional services (Hasson et al., 2021, Okyere et al., 2022, Holdsworth et al., 2022, Dunleavy et al., 2021).

The relocation of human resources along with the decreased workforce availability due to sickness or absenteeism because of personal reasons altered the dynamic of PC teams and produced work overload (Tavares et al., 2021, Pastrana et al., 2021b, Rogers et al., 2021, Nestor et al., 2021, Chan et al., 2021, Luckett et al. 2021).

The attempt to constraint the spread of the infection differentiated and complicated the circuits for PC patients impacting on timely access to PC services (Tavares et al., 2021, Pastrana et al., 2021a.); this was a vice versa phenomenon since access of healthcare professionals to patients at home or at long term facilities was also hindered (Rogers et al., 2021, Bradshaw et al., 2021, Chan et al., 2021, Frey & Balmer, 2022). In case of patients' transmissions along different settings, e.g. hospitals and hospices, the interconnectivity –including the referral and discharge procedure- was also disrupted (Rogers et al., 2021, Jansky et al., 2021, Lalani et al., 2022, Dunleavy et al., 2021), while any pre-pandemic lack of integration became more persistent (Hasson et al., 2021, Franchini et al., 2021).

Economic and financial impacts especially for charitably funded programs and small independent teams, which created risks for sustainability and work loss, were also described (Pastrana et al., 2021a, Jansky et al., 2021, Weaver et al., 2021, McNeil et al. 2021, Garner et al., 2022). Reports regarding impacted availability and access to essential medicines for pain relief and palliative medicine were not absent, especially in other than high income countries (Pastrana et al., 2021b, Okyere et al., 2022, Rogers et al., 2021).

The impact on delivery of palliative care

Visiting restrictions unsettled the participation of family and loved ones, which is considered to be vital for ensuring PC principles' fulfillment, while the use of Personal Protective Equipment (PPE) replaced the 'human touch' by 'glove touch' altering both the verbal and non verbal communication. Face-to-face communication changed to a distanced one facilitated by telephone, video or other telehealth applications (Tavares et al., 2021, Kates, 2020, Rogers et al., 2021, Lalani et al., 2022, Okyere et al., 2022, Holdsworth et al., 2022, Dunleavy et al., 2021, Luckett et al., 2021), while a shift concerning workplace, e.g. from office to home occurred (Pastrana et al., 2021a, Rosenberg et al., 2021, McNeil et al., 2021).

Family members were not the only ones excluded from patients' bedside; the same restrictions curtailed or stopped the services of allied healthcare and volunteers (Frey & Balmer, 2022). Gaps in chaplaincy support and bereavement services were also present (Holdsworth et al., 2022, Wiener et al., 2021, Garner et al., 2022). Constraint measures influenced the communication and work pattern within the members of PC teams (Jansky et al., 2021, Frey & Balmer, 2022, Franchini et al., 2021).

The fluctuating protocols of care with information that should be adapted or interpreted to fit PC needs (Jansky et al., 2021, Frey & Balmer, 2022) produced new duties and responsibilities (Weaver et al., 2021), which along with the increased work load led many participants to report a sense of providing compromised or not effective care (Tavares et al., 2021, Nestor et al., 2021, Rogers et al., 2021).

The emotional impact on PC healthcare professionals:

PC professionals often reported being seriously challenged to preserve patients' dignity under the burden of isolation and uncertainty while coping with the restriction rules which opposed to their strong believes and core values about the way that PC should be delivered (Tavares et al., 2021, Mitchinson et al., 2021, McMillan et al., 2021, de Azeredo Siqueira et al., 2021). The more underlined emotional impact was that of moral distress as constraint measures forced the PC healthcare professionals to act in ways not always aligning with their professional moral values (Bradshaw et al., 2022, Wiener et al., 2021, Fish & Lloyd, 2022, Lalani et al., 2022).

Despite the significant self-reported level of competence on behalf of PC workers treating Covid or non-Covid patients, feelings such as increased anxiety, stress, burnout, and an exhausting feeling of helplessness were described (Rowe et al., 2021, Pastrana et al., 2021b, Rogers et al., 2021, Nestor et al., 2021, Chan et al., 2021,

Rosenberg et al., 2021). On the other hand, the self realization of the critical role they had to undertake was possible to counterbalance the aforementioned negative effects and empower staff (Franchini et al., 2021, Mitchinson et al., 2021, Varani et al., 2021, Ercolani et al., 2022).

Figure 1: PRISMA flow diagram of the study selection process

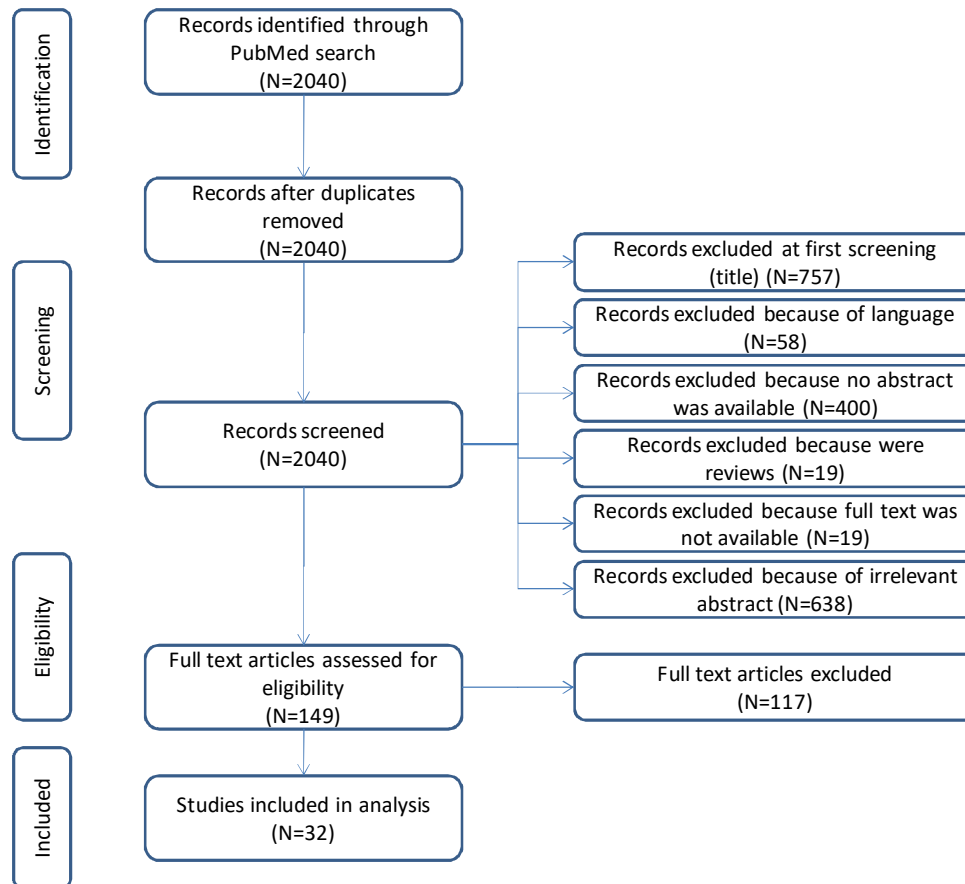


Table 1: Details from the included studies							
	Author(s)	Aim	Country	Time of Data Collection	Participants	Method	Result(s)
1	Tavares et al. 2021	To investigate the challenges in providing PC during the Covid-19 pandemic.	Portugal	25/6/2020-12/8/2020	14 healthcare professionals with basic training in PC from 1 Hospital PC Unit. (8 nurses, 3 doctors, 1 psychologist, 1 pharmacist, 1 physiotherapist).	<i>Qualitative.</i> Content analysis of 3 open answer questions.	Altered relationships between healthcare professionals and patients/family. Altered working dynamic. Altered use of healthcare resources.
2	Rowe et al. 2021	To investigate the challenges in PC practice during the Covid-19 pandemic.	USA	12/6/2020-31/7/2020	25 experienced PC clinicians from 16 different settings. (18 physicians, 3 nurse practitioners, 2 social workers, 1 chaplain, and 1 advanced practice registered nurse).	<i>Qualitative.</i> Thematic analysis of semi-structured interviews.	Need for expanding the reach of PC: Redefining attitudes and hardship. Moving towards an integrated concept. Building capacity through primary PC training
3	Mitchinson et al. 2021	To identify barriers to delivering EoL care during the Covid-19 pandemic and to understand the impact on staff. (Part of a wider rapid appraisal of healthcare delivery during the pandemic).	UK	19/3/2020-1/7/2020	28 professionals of various specialties from 4 UK hospitals (22 providing EoL care at the time of the study + 6 palliative specialists).	<i>Qualitative.</i> Framework analysis of selected transcripts of semi-structured phone interviews.	3 themes developed: Restrictions to traditional care. Striving for new forms of care. Establishing identity and resilience.
4	Pastrana* et al. 2021a	To explore how the Covid-19 pandemic impacted on PC workers and to describe coping strategies.	International study by the IAHP.	28/5/2020-30/6/2020	79 IAHP individual members from 41 countries (out of 979 invited).	<i>Qualitative.</i> Qualitative analysis of the written comments.	8 themes emerged: PC development/reconceptualization, /reorganization, workforce/economic/emotional impact, increased risk, and coping strategies.
5	Pastrana* et al. 2021b	To explore how the Covid-19 pandemic impacted on PC workers.	International study by the IAHP.	28/5/2020-30/6/2020	79 IAHP individual members from 41 countries (out of 979 invited).	<i>Qualitative and Quantitative.</i> 20-question self assessment survey with multiple choice and open-ended questions.	Over 80% reported being highly or somewhat affected in their ability to continue in their PC job. About 37% reported a highly or somewhat affected availability and access to essential PC medicines.

6	Kates et al. 2020 (2021)*	To understand the impact of the Covid-19 pandemic on the hospice and palliative workforce and service delivery.	USA	7/5/2020-28/5/2020	36 nurses from agencies covering various settings (home hospice patients, inpatient hospices, inpatient home-based and outpatient PC).	<i>Qualitative and Quantitative.</i> 35-item survey including open-ended questions.	70% reported an increase in SPC services. The social distancing measures have impacted the emotional well-being of patients, families and staff.
7	Rogers et al. 2021	To understand the effects of the Covid-19 pandemic on U.S. hospice agencies; impact on hospice agency, on staff and patients and families.	USA	April 2020 (available for 34 days) July 2020 (available for 33 days)	84 responses from 32 different US states. (8 home care nurses, 5 inpatient hospice nurses, 35 medical directors, 10 physicians, 6 nurse practitioners, 18 others and 1 untitled job role).	<i>Qualitative and Quantitative.</i> 8 questions survey and free text comments.	Inadequate supplies of PPE, changes in hospice services, decreased access to patients of long term care facilities. Changes in workforce availability and increased staff's emotional support needs. Increased bereavement needs for patients and families.
8	Nestor et al. 2021	To evaluate the magnitude and variety of ways in which the Covid-19 pandemic affected the personal, social and professional lives of healthcare workers in a fully integrated palliative and elderly care service.	UK	11 September 2020 (available for 6 weeks)	250 responses from all grades of staff (60% nurses) from an integrated SPC facility (44 bed in-patient unit, and outpatient/hospice community based services) and 63 bed elderly care service unit.	<i>Quantitative.</i> Standardized 5-point scale questionnaire.	92% agreed that workload had significantly changed, 72.8% reported increased responsibilities, and 78.4% reported greater work-related stress.
9	Hasson et al. 2022	To investigate the impact of the Covid-19 pandemic on the delivery of out-of-hours community based PC services. (Part of a larger national survey).	UK	5/10/2020-13/11/2020	81 responses out of 150 invited hospice managers.	<i>Qualitative and Quantitative.</i> Mixed multi-option tick box, open text box and sliding scale questionnaire. 15 out of 61 questions were related to the pandemic's impact.	Hospices reconfigured services, redeployed staff and introduced new policies and procedures. Lack of integration between charitably and state funded PC providers were also reported.
10	Bradshaw et al. 2022	To explore the experiences of, and impact on staff	UK	November 2020-	24 participants from 5 cases defined as organizations	<i>Qualitative.</i>	Infection control constraints prohibited and diluted healthcare

		working in PC during the Covid-19 pandemic. (Part of the CovPall study).		April 2021	providing SPC services across any setting. (12 nurses, 4 clinical managers, 4 doctors, 2 senior managers, 1 healthcare assistant, 1 allied healthcare professional).	Thematic framework analysis of data from semi-structured interviews.	professionals' ability to provide care according to their core values resulting in moral distress.
11	Jansky et al. 2021	To explore how German SPHC teams were affected by the Covid-19 pandemic during the first wave. (Part of the PallPan study).	Germany	15/9/2020-29/9/2020	20 staff members representing 18 teams. (9 physicians, 10 coordinating nurses, 1 social worker).	<i>Qualitative.</i> Content analysis from 5 guided interviews over 7 questions.	Challenges regarding information management and a shift in patient care were reported. Teams felt overlooked by local health authorities.
12	Chan et al. 2021	To examine the mental health of PC professionals in Hong Kong during the Covid-19 pandemic and the impact on PC services.	Hong Kong	3/4/2020-31/5/2020	142 PC professionals from public hospitals in Hong Kong. (24 physicians, 56 nurses, 24 social workers, 16 physiotherapists/speech therapists, occupational therapists, dietitians, 14 spiritual care providers, 8 clinical psychologists).	<i>Qualitative and Quantitative.</i> Self-reported questionnaire with 14 questions on a 4-point Likert scale and 1 one open-ended question.	Moderate to high stress, anxiety and depression were reported in various percentages. 3 themes affected the PC provision: visit restrictions, limited provision of services and staff deployment.
13	Rosenberg* et al. 2021	To describe the impact of the Covid-19 pandemic on pediatric PC clinicians' personal and professional well-being. (Part of the PANDEMIC-Global Survey)	USA	1/5/2020-26/6/2020	207 pediatric PC team members of medical settings from 80 cities within 39 states. (76 physicians, 40 nurses, 23 advance practice providers, 19 chaplains, 17 social workers, 16 child life specialists, 5 psychologists, 3 bereavement coordinators, 8 others).	<i>Qualitative</i> Questionnaire with 52 closed and 5 open-ended questions. Analysis of open-ended questions about the impact on personal, professional and existential well-being.	Responses were sorted into 4 major categories: personal burdens, professional burdens, personal benefits, professional benefits. Burdens were described more commonly than benefits.
14	Wiener et al.* 2021	To define the ways that the Covid-19 pandemic has impacted end-of-life care and approach to bereavement care in	USA	1/5/2020-26/6/2020	207 pediatric PC team members of medical settings from 80 cities within 39 states. (76 physicians, 40 nurses, 23 advance practice providers, 19	<i>Qualitative and Quantitative.</i> Questionnaire with 52 closed	High incidence of respondents' depicted moral distress focused on an inability to provide a desired level of care due to existing rules and policies.

		pediatric PC. (Part of the PANDEMIC-Global Survey).			chaplains, 17 social workers, 16 child life specialists, 5 psychologists, 3 bereavement coordinators, 8 others).	and 5 open-ended questions. Free- text narrative responses related to 3 dimensions of moral distress.	
15	Weaver* et al. 2021	To define the impact of the Covid-19 pandemic on pediatric PC team structures, communication and workflow. (Part of the PANDEMIC-Global Survey)	USA	1/5/2020-26/6/2020	207 pediatric PC team members of medical settings from 80 cities within 39 states. (76 physicians, 40 nurses, 23 advance practice providers, 19 chaplains, 17 social workers, 16 child life specialists, 5 psychologists, 3 bereavement coordinators, 8 others).	<i>Qualitative and Quantitative.</i> Survey questionnaire consisted of 52 closed and 5 open-ended questions.	The Covid-19 pandemic vastly impacted pediatric PC teams' structure, daily services and communication models.
16	McNeil et al. 2021	To assess the perceived changes in pediatric PC team functionality, care interventions, and daily challenges resulting from the Covid-19 pandemic. (Part of the PANDEMIC-Global Survey)	International	22/6/2020-21/8/2020	156 participants from 59 countries and 6 continents. (92 physicians, 22 nurse/nurse care managers, 15 nurse practitioners/physician assistants, advance practice providers, 6 social workers/counselors, 4 child life specialists, 5 psychologists, 3 pharmacists, 3 charity/program coordinators, 6 others).	<i>Qualitative and Quantitative.</i> Survey consisted of 41 multiple choice and free text questions.	40% reported programmatic economic insecurity or employment loss. Technology was perceived as both helpful and a hindrance to high quality communication. Respondents described distress around challenges in provision of comfort at the end of life. And witnessed patients' pain, fear and isolation.
17	Frey & Balmer 2022	To explore the impact of and response to the Covid-19 pandemic for hospice community services in Aotearoa/New Zealand.	New Zealand	10/2/2021-18/8/2021	18 healthcare professionals from 16 hospices. (6 nurses, 3 clinical service managers, 2 clinical nurse leads, 1 community nurse lead, 2 medical staff, 1 nurse practitioner, 1 nurse educator, 1 infection control nurse, 1 hospice leader).	<i>Qualitative.</i> Structured interviews with objective and subjective questions. Thematic deductive and	Reported challenges were related to service delivery in communication, allied health team collaboration and volunteer services. Remained challenges included increased workload pressures for staff and absence of the human touch for patients and families.

						inductive analysis.	
18	Fish & Lloyd 2022	To explore/ understand experiences of PC doctors working during the Covid-19 pandemic at a personal and professional level.	UK	October 2020-February 2021	8 PC doctors (who had worked on a hospice inpatient unit before and during the pandemic) from 2 hospices in Scotland.	<i>Qualitative.</i> Paradigmatic approach analysis of semi-structured narrative-focused interviews.	Restrictions impacted on PC doctors' ability to communicate with and comfort patient resulting in moral distress and decreased morale.
19	Franchini et al. 2021	To understand how home PC professionals were affected by the outbreak of the Covid-19 pandemic (description of changes and challenges in their daily work).	Italy	April 2020-May 2020	31 home care professionals (15 physicians and 15 nurses) working for an Italian non-profit organization providing home PC for cancer patients and their families.	<i>Qualitative.</i> Thematic analysis of semi-structured telephone interviews.	3 themes were identified: Patient related and practice-related challenges were reported. Perception of increased responsibility Perception of the critical role of a home care setting in this emergency situation.
20	Lalani et al. 2022	To describe the impact of the Covid-19 pandemic on PC services and examine various ethical, moral, and practice issues and challenges experienced by rural providers.	USA	January 2021-April 2021	15 healthcare professionals from hospitals, rural clinics, nursing homes or hospices in small towns and rural communities in Indiana. (7 registered nurses, 3 nurse practitioner/clinical nurse specialist, 2 PC physicians, 2 social workers, 1 chaplain).	<i>Qualitative.</i> Thematic analysis of on line interviews.	Concerns including restricted visitation, communication challenges, moral distress and preference for home hospice services were reported.
21	Okyere et al. 2022	To explore PC providers' perspectives on delivering PC services in the era of the Covid-19 pandemic.	Ghana	1/10/2021-31/12/2021	7 members of the PC team of KBTH hospital in Ghana.	<i>Qualitative.</i> Telephone and face-to-face semi-structured interviews.	2 main themes: Ramifications and adaptations were reported. Changes in care relationships, perceived increased responsibilities, physiological distress, shortage of medicines and treatment delays.
22	Sleeman et al. 2022	To identify factors associated with PC services being busier during the Covid-19 pandemic. (Part of the CovPall study)	UK	23/4/2020-31/7/2020	277 responses from clinical leads (medical director/lead medical clinician, nurse director/lead nurse clinician, other) of various settings	<i>Quantitative.</i> Questionnaire	Increased business was associated with home care services, nursing care at home, publicly managed services, covid-19 cases and staff shortages.

					providing inpatient hospice services, hospital advisory teams, home care services, hands-on care in the community).		
23	Holdsworth et al. 2022	To understand how the Covid-19 pandemic impacted the implementation of new and existing PC programs in diverse hospital systems	USA	April 2020-June 2020	12 participants from 7 hospitals with operational or administrative roles; 5 provided clinical or spiritual care directly to patients.	<i>Qualitative.</i> Semi-structured interviews using the Dynamic Sustainability Framework.	6 themes characterized the impact on PC programs: PC involvement in preparing for surge, increased emphasis on advanced care planning, advocating for visitors for dying persons, providing emotional support to clinicians, adopting virtual approaches to care, and gaps in chaplaincy support.
24	McMillan et al. 2021	To identify the ethical issues that PC nurses experienced as a result of the Covid-19 pandemic.	Canada	June 2020-August 2020	17 nurse participants from any healthcare setting in 3 Canadian provinces who self-identified as providing PC during the Covid-19 pandemic.	<i>Qualitative.</i> Interviews via video-conferencing. The research question was answered following the logic of Interpretative description using an inductive approach.	Nurses struggled to enact palliative philosophy in practice which fostered experiences of moral distress.
25	De Azeredo Siqueira et al. 2021	To identify the main stressors of the nursing team in assisting patients in oncology PC with suspicious and confirmed for Covid-19.	Brazil	April 2020-May 2020	20 members of the nursing team (10 nurses and 10 nursing technicians) from the emergency and hospitalization sector of a national reference center for cancer treatment.	<i>Qualitative.</i> Semi-structured interviews using the theoretical framework of the psychodynamics in work.	The adaptations concerning the management of care and the organization of work brought greater impact and psychological stress on the nursing team.

26	Varani* et al. 2021	To investigate the impact of the Covid-19 pandemic on burn out and psychological morbidity among home PC professionals in Italy.	Italy	11/5/2020-2/6/2020	145 (out of 198 invited) PC physicians and nurses working in home assistance in Italy.	<i>Quantitative.</i> Questionnaire. (22-item Maslach Burnout Inventory and 12-item General Health Questionnaire).	Home PC professionals presented a lower burnout frequency and a higher level of personal accomplishment compared to a previous survey in 2016.
27	Ercolani* et al. 2022	To update data about burnout and psychological morbidity among home PC clinicians after a year of the Covid-19 pandemic.	Italy	3/5/2021-1/6/2021	145 PC physicians and nurses working in home assistance in Italy who had participated in the same survey a year before.	<i>Quantitative.</i> Questionnaire. (22-item Maslach Burnout Inventory and 12-item General Health Questionnaire).	No differences were observed in the frequency of burn out compared to the previous year. Physicians reported higher levels of emotional exhaustion. The percentage of cases showing psychological morbidity significantly decreased.
28	Garner et al. 2022	To understand the challenges for charitably funded hospices during the Covid-19 pandemic. (Part of the CovPall study)	UK	23/4/2020-31/7/2020 (Quantitative) And 27/11/2020-23/3/2021 (Qualitative)	143 respondents representing SPC and hospice care organizations identified as predominately charitably funded.	<i>Qualitative and Quantitative.</i> Cross sectional online survey with free text responses, which were collated and used to develop the topic sheet for the case studies.	Key themes included vulnerabilities of funding, infection control during patient care and bereavement support provision.
29	Galchutt et al. 2022	To capture the patient-family experience during the Covid-19 pandemic through perspectives/ insights of inpatient PC chaplains	USA	22/4/2020-6/5/2020	10 dedicated inpatient PC chaplains.	<i>Qualitative.</i> Thematic analysis of semi-structured telephone interviews.	5 themes were identified: visitor restrictions-patients, visitor restrictions-families, religious struggle, spiritual distress and decision making.
30	Bradshaw et al. 2021	To describe the challenges that UK SPC services experienced regarding ACP during the Covid-19 pandemic. (Part of the CovPall study)	UK	April 2020- July 2020	277 service leads (medical or nurse directors/clinicians) from settings providing hospice and SPC across inpatient PC, hospital PC, home PC, and home nursing settings.	<i>Qualitative and Quantitative.</i> Survey comprised of 72 closed and 94 free text responses.	6 themes demonstrated: complex decision making, maintaining a personalized approach, Covid-19 specific communication difficulties, workload and pressure, sharing information, and

							national context of fear/uncertainty.
31	Dunleavy et al. 2021	To map /understand SPC services' innovations and practice changes in respond to the Covid-19 pandemic. (Part of the CovPall study)	International (UK)	23/4/2020-31/7/2020	458 respondents (277 UK, 85 Europe, 96 World) from Hospital PC teams, inpatient PC units, home PC teams.	<i>Qualitative and Quantitative.</i> On line survey with closed and free text responses.	Changes involved streamlining, extending and increasing outreach of services, technology facilitated communication, and implementing staff well-being innovations. Barriers included fear, anxiety, duplication of effort, information overload and funding.
32	Luckett et al. 2021	To learn about the response of Australian SPC services to the Covid-19 pandemic and its consequences.	Australia	May 2020-July 2020	28 respondents (nurses and doctors) on behalf of 100 services (20%) providing SPC .	<i>Qualitative and Quantitative.</i> On line survey with closed and open-ended questions. Open-ended responses were thematically coded under 'stuff', 'staff', 'space', 'systems', 'separation', 'sedation', 'communication', and 'equity'.	Concerns centered on: inadequate support for self management, psychological needs and bereavement for home clients, pressures on staff capacity and well-being and a perceived lack of health system preparedness for a potential future surge. Rapid implementation of telehealth was perceived to offer potential benefits.

Abbreviations

PC: Palliative Care, IAHPC: International Association for Hospice and Palliative Care, SPC: Specialist Palliative Care, SPHC: Specialist Palliative Home Care, PANDEMIC-Global: The Palliative Assessment of Needed Developments & Modifications In the Era of Coronavirus, Survey-Global study, UK: United Kingdom, USA: United States of America, ACP: Advanced Care Planning

Discussion

It is not the first time that the question of the challenges and opportunities faced by PC services in the context of lethal virus epidemics has attracted attention in the literature. Similar findings such as the disruption of connectedness between healthcare workers and patients, the disintegration of multidisciplinary PC teams and the continuity of care, and the healthcare professionals' experience of powerlessness, hopelessness and frustration were recorded during the Severe Acute Respiratory Syndrome (SARS-coV), in Singapore, in 2004 (Leong et al., 2004). However, the amplifying power of the Covid-19 pandemic compared to previous epidemics justifies the remarkable amount of related research over the past two years.

Another observation in our present review is that the investigation of the impact on PC has been included in wider studies' planning conducted at regional, national or global level, which implies that PC services should be considered as an integral part of healthcare services in general. Furthermore, the fact that studies' design and data collection occurred early in the course of the pandemic constitutes salient evidence of the intrinsic interest of the investigated impact and the importance of the findings. Studies' design involving other than just medical and nursing staff is in accordance with the multidisciplinary principles of PC.

The vast majority of studies used as in whole or in part –preparing the next stage of quantitative analysis- the primarily inductive qualitative methodology, which facilitates the exploration and understanding of phenomena and assumes the existence of a dynamic and multiple reality (Renjith et al., 2021) such in an ongoing pandemic. Semi-structured interviews encompassed in qualitative design seemed appropriate in order to collect related data, to explore participants' thoughts, feelings and beliefs, and to delve deeply into their personal experiences (DeJonckheere & Vaughn, 2019) of providing PC during a health crisis.

The COVID-19 pandemic affected all aspects of life, stressed healthcare systems' capacity including those working in it, and PC cannot be the exception. One could hypothesize that PC staff accustomed to working with patients with life-limiting illnesses should be more properly prepared to deal with increased death and grief.

However, infection control policies inevitably changing the way traditional care was previously delivered impacted relationships and communication among all involved “players”, healthcare professionals, patients and families, which are considered a cornerstone of PC.

The impact of the COVID-19 pandemic on PC professionals' mental health was widely highlighted through expression of feelings like fear, anxiety, stress, depression, which suggests that such an impact could be comparable to that of healthcare staff involved directly in the care of the Covid-19 patients. From a positive view, the pandemic offered opportunities for PC professionals to establish a more solid identity and strengthen resilience through the development of new skills, team cohesion –all members share the same difficulties and vision- the self realization and recognition of the importance of their role as already reported in the literature for the rest of healthcare workers (Liu et al., 2020).

Moral distress defined as being unable to act in the way that one believes to be morally right due to institutional restrictions (Jameton, 1993) has been described as a generalized consequence of the Covid-19 pandemic (Sheather & Fidler, 2021); however in case of PC the reason of moral distress did not result primarily from the actual fact of caring for dying patients but from the way healthcare professionals were able to care for them under the pandemic constraints (Bradshaw et al., 2022). Visiting restrictions isolating patients from families and the use of PPE impeding the direct physical contact were the most commonly reported barriers for providing ideal care. The services' overload due to increased needs and decreased staff availability along with the inclusion of supplementary procedures during the care pathway, which produced new additional responsibilities and duties, were perceived as factors compromising the quality of care.

In order to sustain relationships of care despite contact restrictions a broad use of telehealth applications varying from simple phone calls to specialist platforms supporting home based patients' surveillance and professional communication was embraced during the Covid-19 pandemic (Monaghesh & Hajizadeh, 2020). Apart from practical issues regarding software and hardware insufficiencies, previous unfamiliarity on behalf of PC professionals and possible patients' incompetence to use them

ethical dilemmas raised once more (Ho & Lin, 2020). Virtual health solutions cannot substitute for actual human contact while there is a risk for a perceived false dichotomy for healthcare professionals between high-tech and high-touch healthcare (Mills, 2019). It should be kept in mind that such solutions cannot improve access to palliative and end-of-life care during a pandemic if the pandemic plan of the health system does not include any provision for such a service. In order to better serve the holistic approach of PC a reflective attitude toward how high-tech could be seamlessly and effectively blended into high-care is necessary (Ho & Lin, 2020).

Apart from being a health issue, the pandemic had serious global economic consequences (Kolahchi et al., 2021); therefore it is not surprising that PC settings and structures were often forced to limit their activities or cut down the provision of subsidiary though essential services e.g., bereavement support as a result of insufficient human and financial resources. Taking into consideration the fact that PC funding is rarely linked to population need and is frequently based on a mixed system of charitable, public and private payers (Groeneveld et al., 2017), PC services' funding vulnerability is an unfortunate possibility at crisis' times. It is expected that the more fragmented services are from the mainstream healthcare system e.g., small autonomous teams or charitably funded hospices, the greater the risk for their financial sustainability.

Prior to the published studies included in this review, several remarks and recommendations had been recorded in the literature. The issue of over the time under-resourcing had been pointed out underlining that the provision of effective PC at the times of the pandemic is expected to become especially vital and especially difficult (The Lancet, 2020). Therefore, all actions to optimize collaboration and coordination, maintain continuity of care, enhance social support, and evaluate new data should be taken (Radbruch et al., 2020).

Etkind et al.'s review over the role and response of PC and hospice services in epidemics and pandemics observed that although the importance of PC is well documented this had not been reflected in the pandemic plans so far. Apart from flexible PC teams capable of redeploying resources and differentiated roles of volunteers,

the urgent need of designing and implementing a reliable data collection system providing information on the prevalence of unmet PC needs was emphasized (Etkind et al., 2020).

Proactive multipronged planning can make the pandemic's consequences preventable (Abbott et al., 2020). Such planning should focus on: communication (update advance care and patients' goals of care and preferences for treatment prior to and during the pandemic), alternative care processes and spaces (optimization of bed availability in hospices and PC units), triage systems for PC patients (supported by telemedicine) staff's availability at all PC settings (medicines, PPE, etc.), staff's mobilization (identification of PC clinicians and allied health providers), reassurance of equity (Arya et al., 2020, Abbott et al., 2020). Educating healthcare providers on PC principles -patients' triage under scarce resources and alternative ways of provision included- can enhance the healthcare system's preparedness for future pandemics (Fadul et al., 2020).

During the Covid-19 pandemic, needs such as relief from severe suffering, difficult decision making, and dealing with complicated grief – problems that PC is designed to address- have become ubiquitous across the healthcare system (WPCA, 2020). While PC was challenged to change (Chapman et al., 2020), its provision remains an ethical imperative even in adverse conditions; otherwise social core values are undermined.

Ascertaining the implications and assessing the impact of the pandemic on PC services is the half job; lessons learned during tough times should be used for the evolution of PC itself and its further comprehensive integration into health care system's preparedness for the next crisis.

The present review's strength lies on its intention to review the impact from PC professionals' perspective; limitations concern the use of only one database and the inability to achieve a more in depth evaluation of the findings taking into account the diversity of pre-pandemic status of PC across various settings and countries of studies' origin.

References

Abbott, J., Johnson, D., & Wynia, M. (2020). Ensuring adequate palliative and hospice care during

- COVID-19 surges. *JAMA*, 324(14), 1393. <https://doi.org/10.1001/jama.2020.16843>
- Arya, A., Buchman, S., Gagnon, B., & Downar, J. (2020). Pandemic palliative care: Beyond ventilators and saving lives. *Canadian Medical Association Journal*, 192(15). <https://doi.org/10.1503/cmaj.200465>
- Bradshaw, A., Dunleavy, L., Walshe, C., Preston, N., Cripps, R. L., Hocaoglu, M., Bajwah, S., Maddocks, M., Oluyase, A. O., Sleeman, K., Higginson, I. J., Fraser, L., & Murtagh, F. (2021). Understanding and addressing challenges for advance care planning in the COVID-19 pandemic: An analysis of the UK CovPall survey data from specialist palliative care services. *Palliative Medicine*, 35(7), 1225–1237. <https://doi.org/10.1177/02692163211017387>
- Bradshaw, A., Dunleavy, L., Garner, I., Preston, N., Bajwah, S., Cripps, R., Fraser, L. K., Maddocks, M., Hocaoglu, M., Murtagh, F. E. M., Oluyase, A. O., Sleeman, K. E., Higginson, I. J., & Walshe, C. (2022). Experiences of staff providing specialist palliative care during COVID-19: A multiple qualitative case study. *Journal of the Royal Society of Medicine*, 115(6), 220–230. <https://doi.org/10.1177/01410768221077366>
- Chan, W. C., Woo, R. K., Kwok, D. K.-S., Yu, C. T., & Chiu, L. M.-H. (2021). Impact of covid-19 on mental health of palliative care professionals and services: A mixed-methods survey study. *American Journal of Hospice and Palliative Medicine*, 39(10), 1227–1235. <https://doi.org/10.1177/10499091211057043>
- Chapman, M., Russell, B., & Philip, J. (2020). Systems of care in crisis: The changing nature of palliative care during COVID-19. *Journal of Bioethical Inquiry*, 17(4), 761–765. <https://doi.org/10.1007/s11673-020-10006-x>
- de Azeredo Siqueira, A. S., Teixeira, E. R., de Oliveira da Cunha, D. A., Barcellos Santiago, F., Ferraz Kirby, E. E., & Lima Neves, L. M. (2021). Covid-19 in oncology palliative care: Psychological stress from the perspective of psychodynamics at work. *Annals of Palliative Medicine*, 10(4), 63–63. <https://doi.org/10.21037/apm-21-56>
- DeJonckheere, M., & Vaughn, L. M. (2019). Semistructured interviewing in primary care research: A balance of relationship and rigour. *Family Medicine and Community Health*, 7(2). <https://doi.org/10.1136/fmch-2018-000057>
- Dunleavy, L., Preston, N., Bajwah, S., Bradshaw, A., Cripps, R., Fraser, L. K., Maddocks, M., Hocaoglu, M., Murtagh, F. E. M., Oluyase, A. O., Sleeman, K. E., Higginson, I. J., & Walshe, C. (2021). ‘necessity is the mother of invention’: Specialist palliative care service innovation and practice change in response to COVID-19. Results from a multinational survey (CovPall). *Palliative Medicine*, 35(5), 814–829. <https://doi.org/10.1177/02692163211000660>
- du Plessis, E. (2016). Presence as a personal project in Palliative Care: Transcending personality. *Nursing and Palliative Care*, 2(1). <https://doi.org/10.15761/npc.1000137>
- Ercolani, G., Varani, S., Ostan, R., Franchini, L., Yaaqovy, A. D., Pannuti, R., Biasco, G., & Bruera, E. (2022). Tackling the pandemic a year later: Burnout among home palliative care clinicians. *Journal of Pain and Symptom Management*, 63(4). <https://doi.org/10.1016/j.jpainsymman.2021.12.027>
- Etkind, S. N., Bone, A. E., Lovell, N., Cripps, R. L., Harding, R., Higginson, I. J., & Sleeman, K. E. (2020). The role and response of palliative care and hospice services in epidemics and pandemics: A Rapid Review to inform practice during the COVID-19 pandemic. *Journal of Pain and Symptom Management*, 60(1). <https://doi.org/10.1016/j.jpainsymman.2020.03.029>
- Fadul, N., Elsayem, A. F., & Bruera, E. (2020). Integration of palliative care into COVID-19 pandemic planning. *BMJ Supportive & Palliative Care*, 11(1), 40–44. <https://doi.org/10.1136/bmjspcare-2020-002364>
- Fish, E. C., & Lloyd, A. (2022). Moral distress amongst palliative care doctors working during the COVID-19 pandemic: A narrative-focussed interview study. *Palliative Medicine*, 36(6), 955–963. <https://doi.org/10.1177/02692163221088930>
- Franchini, L., Varani, S., Ostan, R., Bocchi, I., Pannuti, R., Biasco, G., & Bruera, E. (2021). Home palliative care professionals perception of challenges during the COVID-19 outbreak: A qualitative study. *Palliative Medicine*, 35(5), 862–874. <https://doi.org/10.1177/02692163211008732>
- Frey, R., & Balmer, D. (2022). Covid-19 and Hospice Community Palliative Care in New Zealand: A qualitative study. *Health & Social Care in the Community*. <https://doi.org/10.1111/hsc.13810>
- Galchutt, P., Labuschagne, D., & Usset, T. (2022). Patient–family experience at the onset of covid-19: Interviews with ten palliative chaplains. *Journal of Palliative Medicine*, 25(8), 1222–1227. <https://doi.org/10.1089/jpm.2021.0550>
- Garner, I. W., Walshe, C., Dunleavy, L., Bradshaw, A., Preston, N., Fraser, L. K., Murtagh, F. E. M., Oluyase, A. O., Sleeman, K. E., Hocaoglu, M., Bajwah, S., Chambers, R. L., Maddocks, M., & Higginson, I. J. (2022). Charitably funded hospices and the challenges associated with the COVID-19 pandemic: A mixed-methods study (covpall). *BMC Palliative Care*, 21(1). <https://doi.org/10.1186/s12904-022-01070-8>
- Groeneveld, E. I., Cassel, J. B., Bausewein, C., Csikós, Á., Krajnik, M., Ryan, K., Haugen, D. F., Eychmueller, S., Gudat Keller, H., Allan, S.,

- Hasselaar, J., García-Baquero Merino, T., Swetenham, K., Piper, K., Furst, C. J., & Murtagh, F. E. M. (2017). Funding models in Palliative Care: Lessons from international experience. *Palliative Medicine*, 31(4), 296–305. <https://doi.org/10.1177/0269216316689015>
- Hasson, F., Slater, P., Fee, A., McConnell, T., Payne, S., Finlay, D.-A., & McIlfatrick, S. (2022). The impact of covid-19 on out-of-hours adult hospice care: An online survey. *BMC Palliative Care*, 21(1). <https://doi.org/10.1186/s12904-022-00985-6>
- Ho, C. W.-L., & Lin, C.-C. (2020). How the COVID-19 pandemic could reshape palliative care into high-tech and high-touch care: An ethics of care perspective. *Cancer Nursing*, 43(6), 429–430. <https://doi.org/10.1097/ncc.0000000000000883>
- Holdsworth, L. M., Mui, H. Z., Winget, M., & Lorenz, K. A. (2022). “never waste a good crisis”: A qualitative study of the impact of covid-19 on palliative care in seven hospitals using the Dynamic Sustainability Framework. *Palliative Medicine*, 026921632211239. <https://doi.org/10.1177/02692163221123966>
- Hong, Q. N., Pluye, P., Bujold, M., & Wassef, M. (2017). Convergent and sequential synthesis designs: Implications for conducting and reporting systematic reviews of qualitative and quantitative evidence. *Systematic Reviews*, 6(1). <https://doi.org/10.1186/s13643-017-0454-2>
- Jameton, A. (1993). Dilemmas of moral distress: moral responsibility and nursing practice. *AWHONNS Clin Issues Perinat Womens Health Nurs*, (4), 542–51.
- Jansky, M., Schade, F., Rieder, N., Lohrmann, D., Gebel, C., Kloppenburg, L., Wedding, U., Simon, S. T., Bausewein, C., & Nauck, F. (2021). ‘it felt like a black hole, great uncertainty, but we have to take care for our patients’—qualitative findings on the effects of the COVID-19 pandemic on Specialist Palliative Home Care. *PLOS ONE*, 16(12). <https://doi.org/10.1371/journal.pone.0260767>
- Kates, J., Gerolamo, A., & Pogorzelska-Maziarz, M. (2020). The impact of Covid-19 on the hospice and Palliative Care Workforce. *Public Health Nursing*, 38(3), 459–463. <https://doi.org/10.1111/phn.12827>
- Kolahchi, Z., De Domenico, M., Uddin, L. Q., Cauda, V., Grossmann, I., Lacasa, L., Grancini, G., Mahmoudi, M., & Rezaei, N. (2021). Covid-19 and its Global Economic Impact. *Advances in Experimental Medicine and Biology*, 825–837. https://doi.org/10.1007/978-3-030-63761-3_46
- Lalani, N., Cai, Y., & Wang, Y. (2022). “hard to say goodbye over ipad.” *Journal of Hospice & Palliative Nursing*, 24(3). <https://doi.org/10.1097/njh.0000000000000856>
- The Lancet. (2020). Palliative care and the COVID-19 pandemic. *The Lancet*, 395(10231), 1168. [https://doi.org/10.1016/s0140-6736\(20\)30822-9](https://doi.org/10.1016/s0140-6736(20)30822-9)
- Leong, I. Y.-O., Lee, A. O.-K., Ng, T. W., Lee, L. B., Koh, N. Y., Yap, E., Guay, S., & Ng, L. M. (2004). The challenge of providing holistic care in a viral epidemic: Opportunities for Palliative Care. *Palliative Medicine*, 18(1), 12–18. <https://doi.org/10.1191/0269216304pm859oa>
- Liu, Q., Luo, D., Haase, J. E., Guo, Q., Wang, X. Q., Liu, S., Xia, L., Liu, Z., Yang, J., & Yang, B. X. (2020). The experiences of health-care providers during the COVID-19 crisis in China: A qualitative study. *The Lancet Global Health*, 8(6). [https://doi.org/10.1016/s2214-109x\(20\)30204-7](https://doi.org/10.1016/s2214-109x(20)30204-7)
- Luckett, T., Donkor, A., Phillips, J., Currow, D. C., Parker, D., Lobb, E., & Agar, M. R. (2021). Australian specialist palliative care’s response to COVID-19: An anonymous online survey of service providers. *Annals of Palliative Medicine*, 10(3), 2747–2757. <https://doi.org/10.21037/apm-20-1760>
- McMillan, K., Wright, D. K., McPherson, C. J., Ma, K., & Bitzas, V. (2021). Visitor restrictions, palliative care, and epistemic agency: A qualitative study of nurses’ relational practice during the coronavirus pandemic. *Global Qualitative Nursing Research*, 8, 233339362110517. <https://doi.org/10.1177/23333936211051702>
- McNeil, M. J., Kaye, E. C., Vedaraju, Y., Baker, J. N., Devidas, M., Downing, J., Graetz, D., Ranadive, R., Rosenberg, A. R., Wiener, L., & Weaver, M. S. (2021). Global experiences of pediatric palliative care teams during the first 6 months of the SARS-COV-2 pandemic. *Journal of Pain and Symptom Management*, 62(3). <https://doi.org/10.1016/j.jpainsymman.2021.03.016>
- Mills, J. (2019). Digital Health Technology in palliative care: Friend or foe? *Progress in Palliative Care*, 27(4), 145–146. <https://doi.org/10.1080/09699260.2019.1650420>
- Mitchinson, L., Dowrick, A., Buck, C., Hoernke, K., Martin, S., Vanderslott, S., Robinson, H., Rankl, F., Manby, L., Lewis-Jackson, S., & Vindrola-Padros, C. (2021). Missing the human connection: A rapid appraisal of healthcare workers’ perceptions and experiences of providing palliative care during the COVID-19 pandemic. *Palliative Medicine*, 35(5), 852–861. <https://doi.org/10.1177/02692163211004228>
- Monaghesh, E., & Hajizadeh, A. (2020). The role of telehealth during COVID-19 outbreak: A systematic review based on current evidence. <https://doi.org/10.21203/rs.3.rs-23906/v2>
- Nestor, S., O’ Tuathaigh, C., & O’ Brien, T. (2021). Assessing the impact of COVID-19 on healthcare

- staff at a combined elderly care and specialist palliative care facility: A cross-sectional study. *Palliative Medicine*, 35(8), 1492–1501. <https://doi.org/10.1177/026921632111028065>
- Okyere, J., Mensah, A. B., & Kissah-Korsah, K. (2022). Covid-19 front-liners: Experiences of palliative care providers in a tertiary hospital. *SAGE Open Nursing*, 8, 237796082211321. <https://doi.org/10.1177/23779608221132172>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., & Moher, D. (2021). Updating guidance for reporting systematic reviews: Development of the Prisma 2020 statement. *Journal of Clinical Epidemiology*, 134, 103–112. <https://doi.org/10.1016/j.jclinepi.2021.02.003>
- Pastrana, T., Junger, S., Ostgathe, C., Elsner, F., & Radbruch, L. (2008). A matter of definition – key elements identified in a discourse analysis of definitions of Palliative Care. *Palliative Medicine*, 22(3), 222–232. <https://doi.org/10.1177/0269216308089803>
- Pastrana, T., De Lima, L., Pettus, K., Ramsey, A., Napier, G., Wenk, R., & Radbruch, L. (2021). The impact of covid-19 on palliative care workers across the world: A qualitative analysis of responses to open-ended questions. *Palliative and Supportive Care*, 19(2), 187–192. <https://doi.org/10.1017/s1478951521000298>
- Pastranab, T., De Lima, L., Pettus, K., Ramsey, A., Napier, G., Wenk, R., & Radbruch, L. (2021). Impact of covid-19 pandemic on Palliative Care Workers: An international cross-sectional study. *Indian Journal of Palliative Care*, 27, 299–305. https://doi.org/10.25259/ijpc_6_21
- Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., Britten, N., Roen, K., & Duffy, S. (2006). Guidance on the Conduct of Narrative Synthesis in Systematic Reviews A product from the ESRC Methods Programme. Available at: https://www.researchgate.net/publication/233866356_Guidance_on_the_conduct_of_narrative_synthesis_in_systematic_reviews_A_product_from_the_ESRC_Methods_Programme
- Radbruch, L., Knaul, F. M., de Lima, L., de Joncheere, C., & Bhadelia, A. (2020). The key role of palliative care in response to the COVID-19 tsunami of suffering. *The Lancet*, 395(10235), 1467–1469.
- Renjith, V., Yesodharan, R., Noronja, J., Ladd, E., & George, A. (2021). Qualitative Methods in Health Care Research. *Int J Prev Med*, 12(20). https://doi.org/10.4103/ijpvm.IJPVM_321_19
- Rogers, J. E., Constantine, L. A., Thompson, J. M., Mupamombe, C. T., Vanin, J. M., & Navia, R. O. (2021). Covid-19 pandemic impacts on U.S. hospice agencies: A national survey of hospice nurses and physicians. *American Journal of Hospice and Palliative Medicine*, 38(5), 521–527.
- Rosenberg, A. R., Weaver, M. S., Fry, A., & Wiener, L. (2021). Exploring the impact of the coronavirus pandemic on Pediatric Palliative Care Clinician personal and professional well-being: A qualitative analysis of U.S. survey data. *Journal of Pain and Symptom Management*, 61(4), 805–811.
- Rowe, J. G., Potts, M., McGhie, R., Dinh, A., Engel, I., England, K., & Sinclair, C. T. (2021). Palliative care practice during the COVID-19 pandemic: A descriptive qualitative study of palliative care clinicians. *Journal of Pain and Symptom Management*, 62(6), 1111–1116. <https://doi.org/10.1016/j.jpainsymman.2021.06.013>
- Sheather, J., & Fidler, H. (2021). Covid-19 has amplified moral distress in medicine. *BMJ*. <https://doi.org/10.1136/bmj.n28>
- Sleeman, K. E., Cripps, R. L., Murtagh, F. E. M., Oluyase, A. O., Hocaoglu, M. B., Maddocks, M., Walshe, C., Preston, N., Dunleavy, L., Bradshaw, A., Bajwah, S., Higginson, I. J., & Fraser, L. K. (2022). Change in activity of palliative care services during the COVID-19 pandemic: A multinational survey (covpall). *Journal of Palliative Medicine*, 25(3), 465–471. <https://doi.org/10.1089/jpm.2021.0315>
- Tavares, P., Rodrigues, C., & Neto, I. (2021). The impact of covid-19 on palliative care: Perspective of healthcare professionals. *Cureus*. <https://doi.org/10.7759/cureus.19522>
- Varani, S., Ostan, R., Franchini, L., Ercolani, G., Pannuti, R., Biasco, G., & Bruera, E. (2021). Caring advanced cancer patients at home during COVID-19 outbreak: Burnout and psychological morbidity among palliative care professionals in Italy. *Journal of Pain and Symptom Management*, 61(2). <https://doi.org/10.1016/j.jpainsymman.2020.11.026>
- Weaver, M. S., Rosenberg, A. R., Fry, A., Shostrom, V., & Wiener, L. (2021). Impact of the coronavirus pandemic on pediatric palliative care team structures, services, and care delivery. *Journal of Palliative Medicine*, 24(8), 1213–1220.
- Wiener, L., Rosenberg, A. R., Pennarola, B., Fry, A., & Weaver, M. (2021). Navigating the terrain of moral distress: Experiences of pediatric end-of-life care and bereavement during COVID-19. *Palliative and Supportive Care*, 19(2), 129–134.
- WPCA, 2020. Global Atlas of Palliative Care 2nd edition. Available at: [https://cdn.who.int/media/docs/default-source/integrated-health-services-\(ihs\)/csy/palliative-care/whpca_global_atlas_p5_digital_final.pdf?sfvrsn=1b54423a_3](https://cdn.who.int/media/docs/default-source/integrated-health-services-(ihs)/csy/palliative-care/whpca_global_atlas_p5_digital_final.pdf?sfvrsn=1b54423a_3)