CHALLENGES OF PALLIATIVE CARE IMPLEMENTATION IN RURAL AREA OF ASIAN COUNTRIES: A SCOPING REVIEW.

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ABSTRACT

Background: Palliative care is essential for improving the quality of life of patients with life-limiting illnesses. However, rural areas in Asian countries face numerous barriers to implementing effective palliative care services due to geographic, systemic, and sociocultural factors This scoping review aimed to explore the challenge implementation palliative care in rural areas of Asian countries based on WHO six building blocks. **Methods:** This scoping review employed Arksey and O'Malley's framework and PRISMA-ScR guidelines. A systematic search was conducted in Scopus, PubMed, and CINAHL databases, yielding 210 records. After screening and applying inclusion criteria, 12 articles published between 2015 and 2025 were included. These studies covered rural settings in India, Indonesia, China, Nepal, the Philippines, Bangladesh, and Kazakhstan. Data were synthesized using WHO's Six Building Blocks of health systems as an analytical framework. **Results:** The analysis revealed critical challenges including fragmented service delivery, shortage of trained healthcare professionals, weak health information systems, limited access to opioids and essential medicines, financial barriers, and inadequate governance. Cultural issues, such as stigma surrounding death and reliance on family caregiving, further impeded palliative care access. Some innovative approaches, like community-based models and telehealth interventions, showed promise in overcoming these challenges. **Conclusion:** Strengthening rural palliative care systems in Asia requires multi-level interventions focusing on workforce development, equitable financing, culturally sensitive service models, and robust governance. Future research should explore scalable, context-specific solutions such as integrating palliative care into primary health systems and leveraging digital health innovations to improve access in resource-limited rural settings.

Keywords: palliative care, rural area, implementation challenges, Asia

Introduction

Palliative care has become a critical element of global healthcare systems, particularly due to the rising prevalence of chronic, progressive, and terminal illnesses such as cancer, cardiovascular diseases, chronic respiratory conditions, and neurodegenerative disorders(Connor et al., 2020). Palliative care, as defined by the WHO, is "an approach that improves the quality of life of patients and their families facing the problems associated with life-limiting illness" through the early identification, assessment, and treatment of pain and other physical, psychosocial, and spiritual issues, thereby playing a crucial role in contemporary medicine (WHO, 2020). The integration of palliative care into national health systems is progressively recognized as necessary not only for improving patient outcomes but also for improving the emotional, social, and financial burdens on families and caregivers (Reville & Foxwell, 2014)

In high-income countries (HICs), vigorous palliative care services have been proven to reduce hospitalizations, improve symptom management, and enhance end-of-life experiences (Gomes et al., 2012). These benefits are achieved through multidisciplinary approaches that include medical, nursing, psychological, and spiritual care tailored to individual needs (National Consensus Project for Quality Palliative Care, 2018). However, despite its evidenced value, access to palliative care remains highly imbalanced across the globe. According to the WHO (2021), less than 14% of people who require palliative care currently receive it, with the majority living in low- and middle-income countries (LMICs). This disparity underscores the urgent need to expand palliative care coverage, especially in underserved regions where the demand is rising due to demographic and epidemiological transitions.

Within both HICs and LMICs, disparities in palliative care access are totally evident between urban and rural areas. Rural populations face significant barriers to receiving timely and appropriate palliative care due to geographic isolation, limited infrastructure, and shortages of trained healthcare professionals (Shi et al., 2025). These challenges are strengthened by socioeconomic factors, including poverty, lower education levels, and limited transportation options, which further restrict access to expert services (Salikhanov et al., 2023). Additionally, the lack of specialized palliative care providers such as hospice physicians, palliative care nurses, and bereavement counselors in rural settings limits the availability of comprehensive care (Rainsford et al., 2017). As a result, rural patients often count on general practitioners or family members for end-of-life care, which may not be adequate to manage complex symptoms or provide psychosocial support (Freeman et al., 2024). Thus, addressing the unique challenges faced by rural populations requires targeted interventions that consider local contexts, available resources, and cultural norms.

Despite the increasing recognition of palliative care as a public health priority, there remains a significant gap in understanding how it is implemented or fails to be implemented in rural areas of Asian countries. Palliative care in Asia is at varying stages of development, with some countries having promising programs and others lacking formal policies altogether (Fereydooni et al., 2022). Cultural differences in attitudes toward death, dying, and caregiving influence the acceptance and delivery of palliative care services (Cain et al., 2018). For example, in many Asian cultures, discussing death openly is considered taboo, which can hinder advance care planning and open communication about prognosis (Martina et al., 2021). Economic disparities within and between Asian countries affect the availability and affordability of palliative care services. Many rural areas in South and Southeast Asia lack basic healthcare infrastructure, let alone specialized palliative care (Wang et al., 2024). Given these complexities, it is crucial to conduct region-specific analyses that account for the sociocultural, economic, and health system dynamics unique to Asia. Without such insights, global recommendations risk being uneven with local realities, thereby failing to address the actual needs of rural populations in the region.

This scoping review addresses two critical gaps in the literature: (1) the lack of region-specific evidence on rural palliative care in Asia, and (2) the absence of a systematic health systems approach in evaluating the barriers and enablers of service delivery. By focusing exclusively on Indonesia and applying the WHO Six Building Blocks as an analytical framework, this review offers a novel and comprehensive perspective that can inform policy and practice. Furthermore, the review will map the existing literature to identify key themes, trends, and knowledge gaps, providing a foundation for future research and intervention design. It will also highlight successful models and innovations from different parts of Asia that could be adapted or scaled up to improve rural palliative care access.

Method

This scoping review was conducted using the methodological framework developed by Arksey and O'Malley, which includes five key stages: (1) identifying the research question, (2) identifying relevant studies, (3) selecting the studies, (4) charting the data, and (5) collating, summarizing, and reporting the results (Arksey & O'Malley, 2005). The review was also guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) to ensure transparency and methodological rigor (Page et al., 2021). The PRISMA 2020 flow diagram was used to document the study selection process.

The formulation of the research question was guided by the need to explore and synthesize the existing literature on barriers to palliative care (PC) implementation in rural areas of Asian countries. The overarching question was: *"What are the key challenges to implementing PC in rural areas of Asian countries?"* This question was developed in alignment with the World Health Organization (WHO) Health System Framework, which includes six core building blocks: service delivery, health workforce, health information systems, access to essential medicines, financing, and leadership/governance. These building blocks provided a structured lens for classifying and interpreting the challenges reported in the literature.

To identify relevant studies, a comprehensive search strategy was developed and implemented across four major electronic databases: Scopus, CINAHL, EBSCOhost, and ProQuest. The search was limited to peer-reviewed articles published between January 2015 and December 2025, in order to capture contemporary evidence from the last decade. The search terms were developed based on Medical Subject Headings (MeSH) and keywords relevant to palliative care, rural settings, and health service challenges. The Boolean search string used was: ("palliative care" OR "end of life care" OR "hospice care") AND ("rural area" OR "remote area" OR "rural population") AND ("implementation" OR "access to care" OR "health service delivery" OR barriers OR challenges). The search strategy was designed to be broad enough to capture a range of study types while maintaining specificity to the topic of rural palliative care implementation in Asia.

The initial database search yielded a total of 210 records. After removing 65 duplicates, 145 unique records remained for screening. These were assessed based on their titles and abstracts. During this stage, inclusion and exclusion criteria were applied systematically. Studies were eligible for inclusion if they were published in English between 2015 and 2025, conducted in Asian countries, explicitly addressed challenges or barriers to palliative care, and focused on rural or remote areas. Only original research articles were considered; grey literature, systematic reviews, opinion papers, and protocols were excluded.

Following the initial screening, 99 articles were identified for full-text retrieval and assessment. Of these, 20 could not be retrieved due to access limitations. Among the 79 retrieved full texts, 67 articles were excluded for not meeting the eligibility criteria. Specifically, 55 studies were conducted outside Asia, and 12 did not provide sufficient detail on the challenges or barriers to palliative care. Ultimately, 12 studies met all inclusion criteria and were included in the final synthesis. This selection process is illustrated in the PRISMA 2020 flow diagram (Figure 1)

Data extraction was conducted using a standardized charting form developed prior to analysis. Key information extracted from each study included the author(s), year of publication, country of origin, study design, population characteristics, type of intervention (if any), main findings related to implementation barriers, and the relevant WHO health system building blocks to which these findings pertained. Two independent reviewers conducted the data extraction process to ensure accuracy and consistency. Discrepancies were discussed and resolved through consensus.

Once data were charted, a thematic synthesis approach was used to collate and analyze the results. The reported challenges were mapped onto the six WHO health system building blocks to identify patterns, overlaps, and unique barriers in rural Asian contexts. This approach facilitated a comprehensive understanding of both systemic and context-specific obstacles to palliative care implementation. It also enabled the classification of findings in a way that aligns with health systems strengthening frameworks, which is critical for informing policy, practice, and future research.

To ensure the credibility and methodological quality of the included studies, a critical appraisal process was undertaken using appropriate tools based on study design. Qualitative studies were assessed using the Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist, focusing on key elements such as research team reflexivity, study design transparency, and data analysis rigor. For quantitative cross-sectional studies, the Joanna Briggs Institute (JBI) critical appraisal checklist was employed to evaluate aspects such as sampling strategy, validity of measurement, statistical analysis, and response rates. Three independent reviewers conducted the critical assessment process. Each reviewer appraised all included studies independently, and discrepancies were resolved through group discussion to reach consensus. This triangulated review process strengthened the reliability of the appraisal and ensured that only studies meeting a minimum threshold of methodological rigor were included in the final synthesis.

The studies included in the final analysis represented a diversity of geographic and socio-political settings across Asia, including India, Indonesia, China, Bangladesh, and Kazakhstan. Methodologically, the selected studies employed qualitative, quantitative, and mixed-method designs, providing a multifaceted understanding of the challenges faced. Despite this variation, several recurring themes emerged, particularly around workforce limitations, restricted access to opioids, fragmented service delivery, inadequate financial support, and weak governance structures. By clustering the findings according to the WHO building blocks, this review offers a structured synthesis that not only describes the barriers but also illuminates areas for strategic intervention in rural health systems across Asia.

Result

This scoping review examined 12 studies on the challenges to PC implementation in rural areas of Asian countries. Applying the WHO Health System Framework's six building blocks—service delivery, health workforce, health information systems, access to essential medicines, financing, and leadership/governance—the analysis identified systemic and sociocultural challenges across diverse rural contexts (World Health Organization, 2007). Table 1 explained for further detail related the articles that analyzed.

1. Service Delivery

Fragmented and delayed service provision emerged as a key challenge due to geographic barriers, inadequate transportation, and underdeveloped referral systems. Gupta et al. (2024) noted poor integration of palliative care into primary health services in rural North India, exacerbated by logistical isolation. Similarly, Qanungo et al. (2021) found that late referrals and low awareness of terminal diagnoses hindered timely home-based care.

Cultural factors further impeded service uptake, including stigma around death and reliance on traditional medicine (Butola et al., 2021; Gupta et al., 2024). Wicaksono et al. (2025) highlighted how social norms and family dynamics in Indonesia delayed discussions on symptom management and end-of-life care. Marginalized groups, such as rural military families and low-caste populations, faced additional accessibility barriers (Prajitha et al., 2023), underscoring the need for culturally adapted service models.

2. Health Workforce

A critical shortage of trained palliative care providers was widely reported. Many community health workers (CHWs) lacked formal training (Prajitha et al., 2023), while physicians often misunderstood palliative care as solely end-stage cancer treatment (Biswas et al., 2021). Fear of opioid misuse and legal restrictions further limited pain management (Biswas et al., 2021; Qanungo et al., 2021). Tele-mentorship initiatives like Project ECHO showed potential in capacity-building, though internet connectivity and time constraints hindered participation (Doherty et al., 2021)

3. Health Information Systems

Gaps in health information systems led to delayed diagnoses and poor care coordination. Studies noted inadequate data sharing, undocumented patient needs (Butola et al., 2021; Qanungo et al., 2021), and low digital literacy among providers (Guo et al., 2023). Informal care coordination, reliant on oral communication, further complicated service delivery (Wicaksono et al., 2025) These findings highlight the need for interoperable digital tools and standardized documentation.

4. Access to Essential Medicines and Technologies

Limited opioid availability due to stockouts, legal restrictions, and storage issues was a recurring barrier (Gupta et al., 2024; Salikhanov et al., 2023). Patients often turned to non-evidence-based remedies (Wicaksono et al., 2025). While telehealth offered potential, infrastructure gaps and provider unfamiliarity limited its effectiveness (Doherty et al., 2021; Guo et al., 2023). Decentralized supply chains and enhanced pharmacological training are urgently needed.

5. Financing

Financial barriers, including out-of-pocket costs and lack of insurance coverage, disproportionately affected rural populations (Chen et al., 2023). In Indonesia and China, home-based palliative care was often unaffordable (Niu et al., 2025; Wicaksono et al., 2025). Marginalized groups frequently avoided care due to cost concerns (Gupta et al., 2024; Prajitha et al., 2023). Integration into universal health coverage and community-based financing models could mitigate these challenges.

6. Leadership and Governance

Weak policy frameworks and inconsistent guidelines hindered implementation. In China, village doctors lacked clear mandates (Song et al., 2025), while Indian providers faced legal ambiguities in opioid use and end-of-life decisions (Butola et al., 2021; Qanungo et al., 2021). Strengthening multisectoral collaboration and participatory governance could enhance accountability and service sustainability (Prajitha et al., 2023; Wicaksono et al., 2025).

Discussion

This scoping review systematically mapped the challenges of implementing palliative care (PC) in rural areas of Asian countries, utilizing the WHO's Six Building Blocks as a conceptual framework. The findings demonstrate significant structural, cultural, and systemic barriers that impede equitable access to PC for rural populations, highlighting the urgent need for health system strengthening tailored to these unique contexts.

The review identified pervasive service delivery gaps in rural settings, including fragmented care pathways, limited infrastructure, and logistical challenges. These findings echo Stockton et al.'s (2021) integrative review of rural community health services, which found that service fragmentation and lack of culturally tailored models are recurring issues globally. In Asia, these challenges are further compounded by entrenched cultural beliefs surrounding death and dying (Wicaksono et al., 2025; Yen, 2013). This underscores the relevance of the WHO's emphasis on integrating community engagement and cultural competency within service delivery models (World Health Organization, 2007).

Human resources emerged as another critical barrier, with shortages of trained PC professionals and community health workers (CHWs) reported across most included studies. This aligns with findings from Knaul et al. (2018) who highlighted the global deficit in palliative care-trained providers, particularly in low- and middle-income countries (LMICs). In rural Asia, where task-shifting to CHWs is often proposed as a solution, the lack of formal training and support limits effectiveness (Prajitha et al., 2023). The WHO framework emphasizes the need for robust health workforce development, including training, mentoring, and retention strategies for rural areas.

Challenges in health information systems were also evident, with studies citing poor documentation, limited data sharing, and inadequate use of digital health tools (Guo et al., 2023; Wicaksono et al., 2025). Strengthening health information systems is vital for coordinating PC delivery and monitoring outcomes (Allsop et al., 2022; Narvaez, 2024). In Asian rural settings, however, low digital literacy and infrastructure deficits hinder the implementation of telehealth and electronic medical records (EMRs) (Tegegne et al., 2023).

Access to essential medicines, particularly opioids for pain management, remains a substantial barrier due to regulatory restrictions, stockouts, and provider hesitancy (Gupta et al., 2024; Salikhanov et al., 2023). These findings are congruent with Clark et al. (2023), who documented restrictive opioid policies in India, leading to untreated pain among PC patients. The WHO advocates for balanced policies that ensure opioid availability while preventing misuse, a recommendation yet to be widely operationalized in rural Asian contexts (Cleary et al., 2013).

Financial constraints were a recurrent theme, with out-of-pocket expenses and lack of insurance coverage limiting access to PC services (Chen et al., 2023; Niu et al., 2025). This finding resonates with Peeler et al. (2024), who identified financial toxicity as a significant barrier to PC in LMICs. Integration of PC into universal health coverage (UHC) schemes, as advocated by the WHO, could mitigate these financial barriers and promote equity (Mitchell et al., 2024; Sánchez-Cárdenas et al., 2023)

Leadership and governance challenges, including weak policy frameworks, inconsistent guidelines, and limited multisectoral collaboration, were reported across several studies (Butola et al., 2021; Song et al., 2025)). These governance gaps impede the institutionalization of PC and the development of sustainable rural models. Drawing on the WHO framework, strengthening governance structures and fostering community participation are critical for ensuring accountability and responsiveness to local needs (Clapham et al., 2025)

A key strength of this review lies in its systematic use of the WHO Six Building Blocks to categorize barriers, providing a comprehensive and structured analysis of health system gaps. The focus on Asia fills an important evidence gap, given that most existing PC literature is Western-centric. Additionally, the inclusion of studies from diverse Asian countries enhances the transferability of findings across similar LMIC settings. However, several limitations must be acknowledged. The exclusion of non-English language studies may have led to the omission of relevant local research. Also, the scoping review design precludes critical appraisal of study quality, which limits the ability to assess the robustness of individual findings.

Conclusion

The challenges identified in this scoping review underscore the need for multi-level interventions to strengthen rural palliative care systems in Asia. Integrating PC into primary health systems, investing in rural workforce development, improving access to essential medicines, and fostering culturally sensitive governance are critical priorities.

Future research should focus on evaluating innovative models, such as telehealth and community-based participatory approaches, to inform scalable and contextually appropriate solutions. Moreover, longitudinal studies are needed to examine the long-term impact of health system interventions on PC outcomes in rural areas. Research exploring the integration of palliative care into universal health coverage schemes and investigating digital health innovations in resource-limited settings would provide valuable insights for policy and practice.

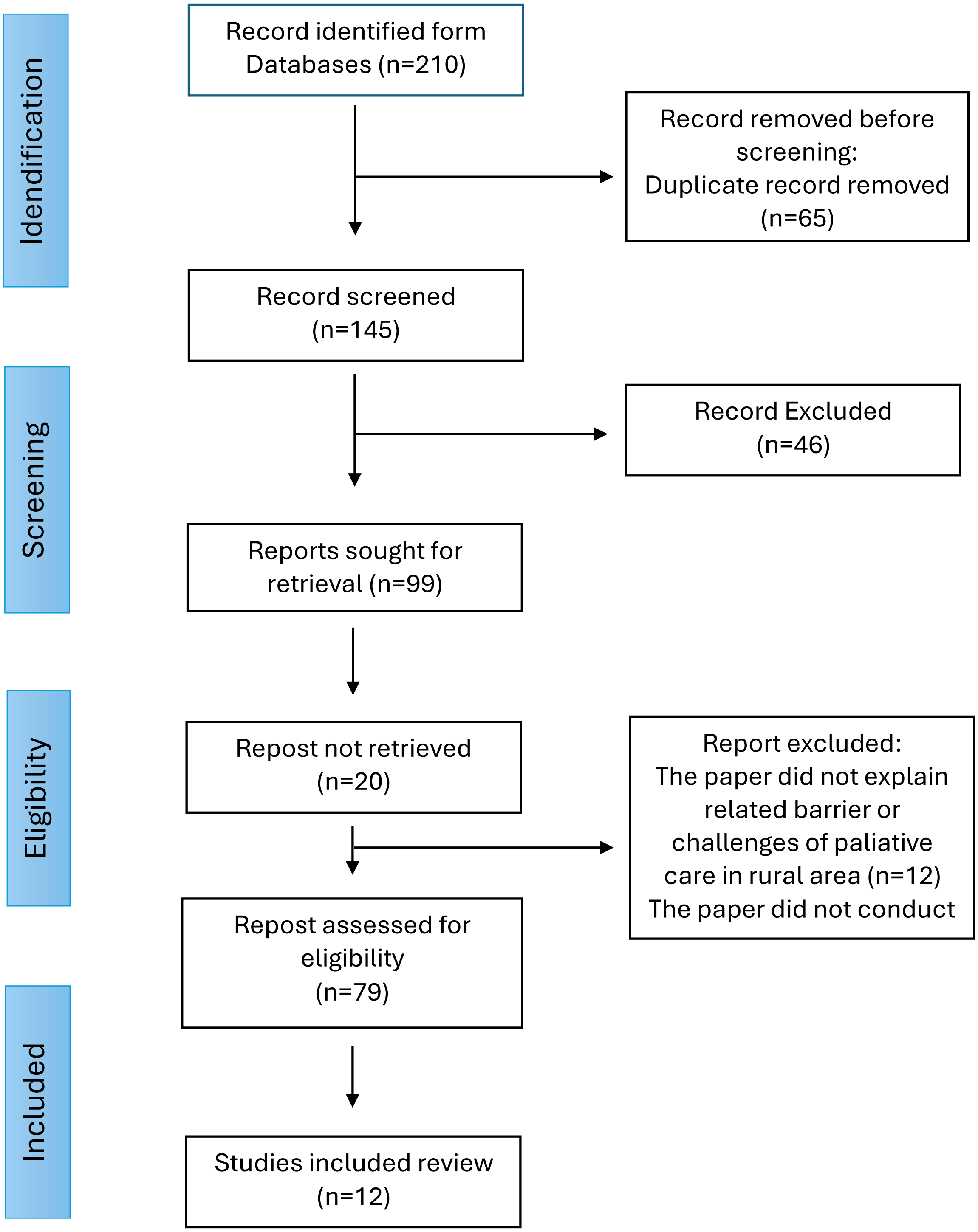

Figure 1. Literature screening process using PRISMA

Table1. Table of evidence-resume of article related the challenges in rural PC

No	Authors	Aims	Study Design	Sample	Data Analysis Techniques	Main finding related Challenges of PC
1	Gupta et al. (2024)	To explore palliative care needs and barriers to accessing PC services among cancer patients in rural North India	Participatory Action Research; Mixed-method (quantitative and qualitative)	256 cancer patients and 526 stakeholders (patients, caregivers, community health workers, village leaders, medical staff)	Descriptive statistics (quantitative), thematic analysis (qualitative)	-Lack of trained palliative personnel in rural areas - Social stigma and discrimination - Low public awareness of cancer and palliative care - Geographical distance and transportation cost - Dependence on traditional medicine - Shortage of essential and opioid medications
2	Prajitha et al. (2023)	To identify community-based palliative care needs and factors for sustainability in rural Puducherry	Qualitative (Community-Based Participatory Research)	7 key informants, 4 FGDs (7–8 people each), including ASHA, AWW, community volunteers, Sanjeevan team	Manual thematic analysis with hybrid coding	-Extreme poverty - Social stigma, especially for cancer - Physical access issues - Shortage of trained health staff - Low public perception of palliative care - Caste system impeding service acceptance
3	Butola et al. (2021)	To investigate caregivers' experiences and challenges in armed forces palliative care	Qualitative: thematic analysis of semi-structured interviews	15 adult caregivers (armed forces personnel or family) providing home-based palliative care within the past 3 years	Verbatim transcription, thematic coding, grounded theory analysis	- Rural service area access gaps - Lack of awareness about services and rights - Late referrals to palliative care - Use of alternative/traditional medicine delaying treatment - Difficulty obtaining leave and organizational support

4	Qanungo et al. (2020)	To explore barriers, facilitators, and strategies for implementing home-based palliative care in Kolkata	Qualitative descriptive	20 participants (10 health professionals, 10 patients/family members) at Saroj Gupta Cancer Center, Kolkata	Thematic content analysis, dual-coder validation	- Late access to care - Patients unaware of terminal diagnosis - High cost (transport, medication) - Morphine stigma - Cultural/family dynamics - Resistance from formal professionals
5	Doherty et al. (2021)	To evaluate impact of Project ECHO virtual learning on pediatric palliative care capacity in South Asia	Descriptive report with online survey	Health professionals in South Asia (18 initial survey participants)	Descriptive statistics	- Limited pediatric palliative services - Lack of provider training - Inadequate pain management knowledge - Morphine prescribing hesitancy - Internet/connectivity issues - Busy schedules - Low survey response rate
6	Wicaksono et al. (2025)	To ethnographically examine how families navigate palliative care in resource-limited Indonesian settings	Ethnographic study	49 participants including patients, family caregivers, healthcare providers; 12 household observations in Banyumas, Indonesia	Reflexive thematic analysis of in-depth interviews	- Shortage of professional palliative care - Health system and awareness gaps - Financial/geographic barriers - Lack of insurance for home care - No national system integration - Emotional issue avoidance - CAM delays care
7	Salikhanov et al. (2023)	To identify caregiver challenges and recommendations for improving rural PC outcomes in Kazakhstan	Qualitative description	29 participants: 12 family caregivers, 12 healthcare professionals, 5 administrators	Descriptive analysis	- Poor caregiver skills - Need for mobile home services - High cost and income loss - Lack of formal training - Opioid shortage - Low public awareness - Lack of government support

8	Biswas et al. (2021)	To assess physicians’ knowledge and misconceptions about PC in Bangladesh	Quantitative (Cross-sectional)	479 physicians from various disciplines in Bangladesh	Descriptive statistics	- Misconceptions hinder patient identification - Belief that palliative care is only for cancer/terminal - Belief care must occur in hospital - Underutilization of concurrent treatments
9	Guo et al. (2023)	To determine telehealth readiness among specialist PC nurses and associated factors in China	Quantitative descriptive (cross-sectional)	409 certified palliative care nurses from 28 provinces in China	t-test, ANOVA, Spearman correlation	- Lack of certified palliative nurses - High workload - Little telehealth training - Need for readiness improvement
10	Chen et al. (2023)	To evaluate association of financial toxicity with symptoms and unplanned care among oral chemotherapy patients	Quantitative Prospective observational	151 oral chemotherapy patients in Southern China	Descriptive stats, ANOVA, t-test, logistic regression	- Lack of support for home chemotherapy patients - Financial burden delays care seeking - Rural/urban disparities
11	Niu et al. (2025)	To assess self-reported PC knowledge and barriers among rural Chinese healthcare professionals	Quantitative (Cross-sectional)	255 healthcare professionals in rural hospitals, Henan, China	Descriptive & inferential stats, regression, validated questionnaires	- Lack of formal training - Cultural death taboos - Unequal insurance - Poor interdisciplinary communication
12	Song et al. (2025)	To explore village doctors’ roles and challenges in end-of-life care in rural China	Qualitative phenomenology	46 village doctors in Henan and Shandong (avg. 29.2 years experience)	Thematic reduction and coding of verbatim transcripts	- Limited medical resources - Strict narcotics control - Cultural taboos - No standard training - Family decision-making - Lacking spiritual/psych support - Poor health education

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