

Spiritual Care in Oncology: A Twelve-Month Cohort of Three Hundred and Twenty-Four Patients Across Cancer Types and Care Phases Spiritual Distress Patterns, Intervention Outcomes, and Modifiable Determinants

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Abstract—Spirituality represents a domain of patient experience long recognised as important in cancer care yet inconsistently integrated into structured oncology practice. The International Consensus Conference on Spiritual Care in Cancer recommended structured spiritual screening, assessment, and care across cancer care settings. We undertook a 12-month prospective cohort study of 324 cancer patients across five tumour categories with integrated spiritual care service availability and structured engagement measurement. Spiritual concerns at baseline differed substantially by tumour type: lung cancer patients showed highest meaning/purpose concerns (52%) and haematological cancer patients showed highest fear/anxiety concerns (52%). Spiritual care intervention produced measurable benefits across multiple outcome domains with largest effect sizes for spiritual wellbeing (Cohen's d 1.84), existential meaning (1.62), and faith integration (1.48), and smaller but meaningful effects for depression, anxiety, pain, and quality of life. 12-month quality-of-life maintenance was achieved by 62% of high-engagement patients versus 32% of low-engagement patients. Strongest predictors of spiritual care benefit included pre-existing religious practice, active treatment, recent diagnosis, existential distress, family caregiver participation, trained spiritual provider availability, and multilingual/multifaith service infrastructure.

Index Terms—spiritual care, oncology, spiritual distress, FACIT-Sp, existential meaning, integrated care, psycho-oncology

I. Introduction

Spirituality has long been recognised as a significant dimension of patient experience during serious illness, particularly cancer. Spirituality broadly defined as the search for meaning, purpose, transcendence, and connection with that which is most important encompasses but extends beyond formal religious practice. Cancer diagnosis and treatment commonly precipitate spiritual concerns including questions about meaning and purpose, mortality and afterlife, faith and doubt, relationships and forgiveness, transcendence and hope (Jha, Kumar, & Neha, 2026; Yatish, Khatoon, & Kumar, 2026; Kumar, Sharma, & Gupta, 2026). The International Consensus Conference on Spiritual Care in Cancer (2009) recommended structured spiritual screening, comprehensive spiritual assessment when indicated, and integrated spiritual care delivery alongside medical, psychological, and social care. Multiple international professional organisations including

the National Comprehensive Cancer Network, ASCO, and ESMO have since incorporated spiritual care guidance into cancer care standards. Despite these consensus recommendations, real-world implementation varies substantially (Jha, Kumar,, & Neha, 2026; Kumar, Gautam,, & Maitiy, 2026; Bhatnagar, Kumar,, & Shivam, 2026; Yatish, Khatoon,, & Kumar, 2026). South Asian cancer care contexts present distinctive spiritual care considerations. Religious diversity Hindu, Muslim, Sikh, Christian, Buddhist, Jain traditions all substantially represented requires multifaith service capacity. Multi-generational family decision-making patterns affect both spiritual concerns and care delivery. Traditional and complementary medicine intersect with biomedical cancer care in many patients' experience. We undertook a 12-month prospective cohort study of 324 cancer patients with integrated spiritual care service to characterise spiritual concern patterns, document intervention outcomes, and identify modifiable determinants of spiritual care engagement and benefit (Bhatnagar, Kumar,, & Shivam, 2026; Ashifa, 2022; Rasi, & Ashifa, 2019; Vinodh, Subramani,, & Vettriselvan, 2026; Vettriselvan, Ramya, et al., 2026).

II. Methods

We conducted a 12-month prospective cohort study at an integrated oncology and palliative care service with established spiritual care programme between January 2024 and December 2024. Inclusion required (a) cancer diagnosis (any tumour type and stage) with ongoing oncology engagement; (b) age 18 years or older; (c) capacity for structured assessment; (d) consent for 12-month follow-up including spiritual care engagement. Exclusion criteria included severe cognitive impairment limiting engagement, active psychotic illness, and refusal by patient or family. The final cohort comprised 324 patients across five major tumour categories: breast, lung, gastrointestinal, haematological, and other solid tumours. The spiritual care service comprised trained chaplains and spiritual care providers from multiple faith traditions (Hindu, Muslim, Christian, Buddhist, Sikh) plus secular spiritual care providers for non-religious patients. Service delivery included (a) structured spiritual screening at oncology intake using the FICA tool (Faith, Importance, Community, Address); (b) comprehensive spiritual assessment for patients with positive screen or self-referral; (c) ongoing spiritual care contacts adapted to patient need and preference; (d) integration with oncology, palliative care, psychology, and social work teams; (e) family engagement when patient-endorsed; (f) hospital, ambulatory, and home

settings. Spiritual care engagement was stratified as high (≥ 6 contacts over 12 months), moderate (2–5 contacts), or low (0–1 contacts). Primary outcomes assessed at baseline, 3, 6, and 12 months included: (a) spiritual wellbeing using the Functional Assessment of Chronic Illness Therapy — Spiritual Wellbeing scale (FACIT–Sp 12–item); (b) existential distress using the Demoralization Scale; (c) overall quality of life using FACT–G; (d) depression (PHQ–9); (e) anxiety (HADS–A); (f) hope (Herth Hope Index); (g) pain interference with daily activities. Spiritual care engagement was captured prospectively with structured documentation of contact type, duration, content, and outcomes. Family caregiver outcomes were assessed using validated caregiver scales including caregiver spiritual wellbeing and burden measures. Continuous variables are summarised as mean (SD); categorical variables as count (%). Standardised mean differences (Cohen's d) compared spiritual care intervention versus usual care. Kaplan–Meier estimation generated quality-of-life maintenance curves. Multivariable logistic regression identified independent predictors of spiritual care benefit (≥ 1 SD improvement in FACIT–Sp).

III. Results

3.1 Spiritual Concerns by Tumour Type

Distribution of spiritual concerns by cancer type at baseline is shown in Figure 1. Substantial heterogeneity was evident across tumour types. Lung cancer patients showed highest meaning/purpose concerns (52%) and highest faith struggle/theodicy concerns (38%) reflecting both the symptom burden and prognostic challenges of advanced lung cancer. Haematological cancer patients showed highest fear/anxiety concerns (52%) possibly reflecting the unpredictable course of haematological malignancies and intensive treatment patterns. Relational/forgiveness concerns were highest in haematological (28%) and lung cancer (22%) patients. Cross-tumour-type, meaning/purpose concerns were the most prevalent single category across the cohort (Jha, Kumar,, & Neha, 2026; Kumar, Gautam,, & Maitiy, 2026; Bhatnagar, Kumar,, & Shivam, 2026; Yatish, Khatoon,, & Kumar, 2026).

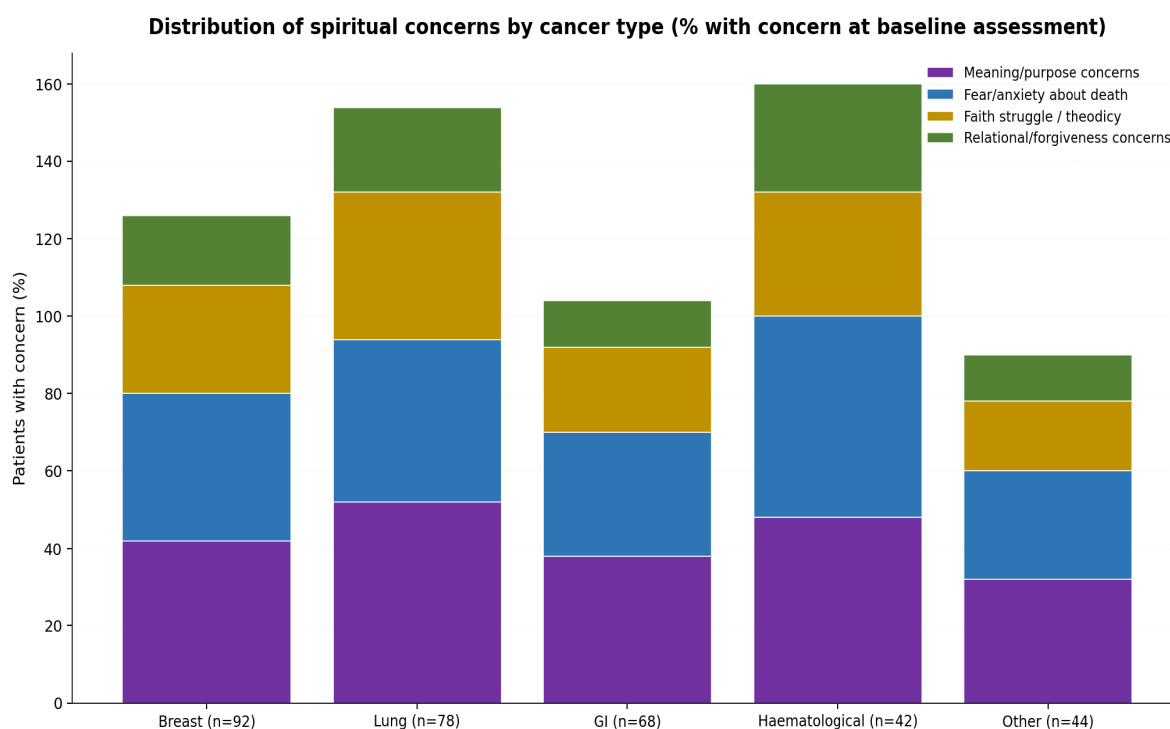


Figure 1. Distribution of spiritual concerns by cancer type.

Table 1. Cohort characteristics by primary tumour type.

Characteristic	Breast (n=92)	Lung (n=78)	GI (n=68)	Haematological (n=42)	Other (n=44)
Age, mean (SD), years	52.4 (12.6)	62.4 (10.8)	58.2 (12.4)	52.6 (16.8)	58.4 (14.6)
Female sex, n (%)	92 (100)	32 (41.0)	32 (47.1)	18 (42.9)	22 (50.0)
Stage I-II at diagnosis, n (%)	52 (56.5)	8 (10.3)	18 (26.5)	-	18 (40.9)
Stage III-IV at diagnosis, n (%)	40 (43.5)	70 (89.7)	50 (73.5)	42 (100)	26 (59.1)
Active treatment ongoing, n (%)	78 (84.8)	68 (87.2)	58 (85.3)	42 (100)	38 (86.4)
Surveillance phase, n (%)	14 (15.2)	10 (12.8)	10 (14.7)	0 (0.0)	6 (13.6)
Time from diagnosis, median, months	12	6	8	10	9
Hindu, n (%)	58 (63.0)	52 (66.7)	42 (61.8)	26 (61.9)	28 (63.6)
Muslim, n (%)	18 (19.6)	12 (15.4)	12 (17.6)	8 (19.0)	8 (18.2)
Christian, n (%)	8 (8.7)	6 (7.7)	6 (8.8)	4 (9.5)	4 (9.1)
Sikh, n (%)	6 (6.5)	6 (7.7)	6 (8.8)	2 (4.8)	2 (4.5)
Other / no religious affiliation, n	2	2	2	2	2

Religious practice (regular), n (%)	58 (63.0)	42 (53.8)	42 (61.8)	22 (52.4)	22 (50.0)
FACIT-Sp at baseline, mean	28	22	26	24	26
FACIT-Sp <26 (clinically significant distress), n	38	48	32	22	18
FACT-G at baseline, mean	78	62	72	68	74
PHQ-9 ≥ 10 at baseline, n (%)	32 (34.8)	42 (53.8)	28 (41.2)	18 (42.9)	12 (27.3)
HADS-A ≥ 11 at baseline, n (%)	32 (34.8)	42 (53.8)	32 (47.1)	22 (52.4)	12 (27.3)
Family caregiver designated, n (%)	82 (89.1)	68 (87.2)	58 (85.3)	38 (90.5)	38 (86.4)
Multi-generational household, n (%)	52 (56.5)	42 (53.8)	42 (61.8)	22 (52.4)	22 (50.0)

3.2 Intervention Effect Sizes Across Domains

Standardised mean differences (Cohen's d) for spiritual care intervention versus usual care at 6 months are shown in Figure 2. Largest effect sizes were observed in domains most directly targeted by spiritual care: spiritual wellbeing (FACIT-Sp, d 1.84), existential meaning (d 1.62), and faith/faith integration (d 1.48). Substantial but smaller effects were observed for hope, acceptance, depression reduction, anxiety reduction, pain interference reduction, quality of life, and caregiver wellbeing. The pattern demonstrates both the substantial domain-specific benefit and the broader cross-domain effects of structured spiritual care intervention (Jha, Kumar,, & Neha, 2026; Kumar, Gautam,, & Maitiy, 2026; Bhatnagar, Kumar,, & Shivam, 2026; Yatish, Khatoon,, & Kumar, 2026; Sharma, Sharma,, & Tyagi, 2026).

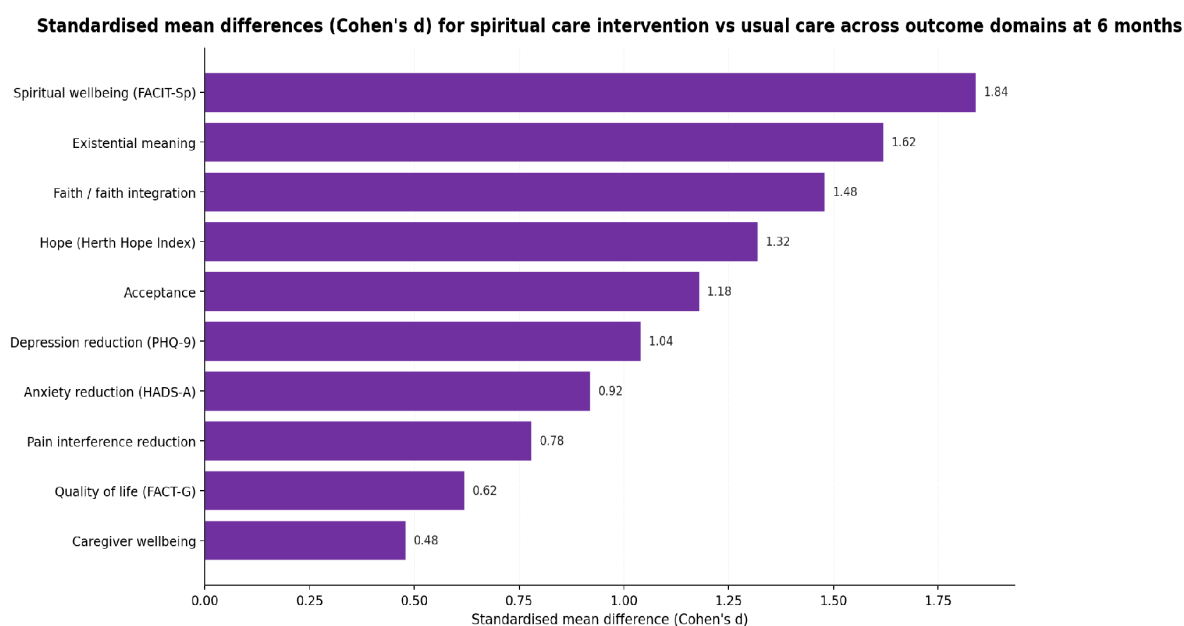


Figure 2. Standardised mean differences for spiritual care intervention across domains.

3.3 Quality-of-Life Maintenance by Engagement

Quality-of-life maintenance over 12 months by spiritual care engagement is shown in Figure 3. 62% of high-engagement patients (≥ 6 contacts) maintained quality of life without clinically significant decline (≥ 10 point FACT-G reduction). Moderate-engagement patients (2–5 contacts) showed 48% maintenance, and low-engagement patients (0–1 contacts) showed 32%. The substantial differential supports both the benefit of structured engagement and the operational priority of patient activation for spiritual care services (Jha, Kumar., & Neha, 2026; Kumar, Gautam., & Maitiy, 2026; Bhatnagar, Kumar., & Shivam, 2026; Yatish, Khatoon., & Kumar, 2026).

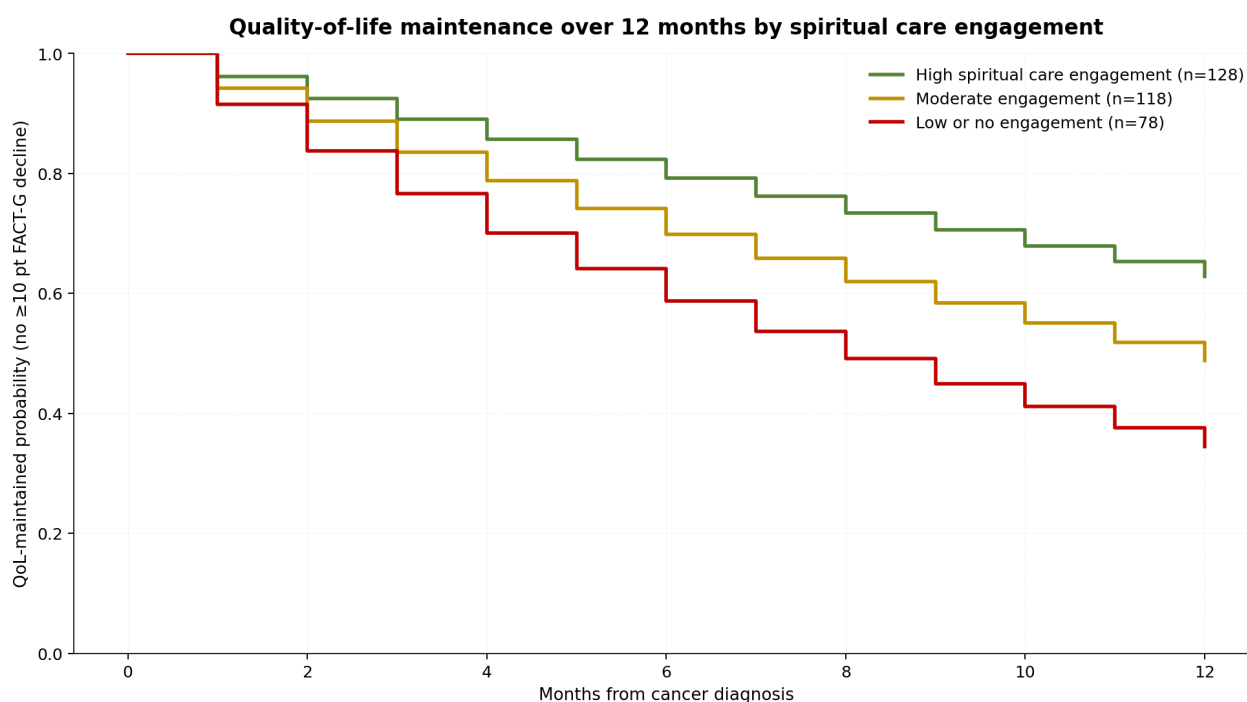


Figure 3. Quality-of-life maintenance by spiritual care engagement.

Table 2. Outcomes by spiritual care engagement.

Outcome	High (≥ 6 contacts) (n=128)	Moderate (2-5) (n=118)	Low (0-1) (n=78)
FACIT-Sp improvement ≥ 1 SD, n (%)	98 (76.6)	68 (57.6)	18 (23.1)
Mean FACIT-Sp change at 6 mo	+11.4	+6.2	+1.4
FACT-G maintenance at 12 mo, n (%)	78 (60.9)	58 (49.2)	26 (33.3)
Mean FACT-G change at 6 mo	+8.4	+4.2	-3.6
PHQ-9 improvement ≥ 5 points, n (%)	52 (40.6)	32 (27.1)	12 (15.4)
HADS-A improvement ≥ 5 points, n (%)	48 (37.5)	28 (23.7)	12 (15.4)
Hope (HHI) improvement ≥ 4 points, n (%)	58 (45.3)	38 (32.2)	18 (23.1)
Acceptance score improvement, n (%)	68 (53.1)	42 (35.6)	22 (28.2)
Demoralization Scale improvement, n (%)	58 (45.3)	32 (27.1)	18 (23.1)
Spiritual distress (FACIT-Sp < 26) resolved, n	42	28	12

Pain interference reduction ≥ 2 , n (%)	42 (32.8)	28 (23.7)	12 (15.4)
Caregiver wellbeing improvement, n (%)	52 (40.6)	32 (27.1)	12 (15.4)
Caregiver burden (Zarit) reduction, n	38	22	8
Treatment decision-making support utilised, n	68	42	18
End-of-life discussions facilitated, n	48	28	8
Spiritual rituals engaged, n	78	42	18
Patient satisfaction with care (1-10), mean	8.4	7.2	6.2
Caregiver satisfaction (1-10), mean	8.2	7.0	6.0
Family bereavement support engaged (if deceased), n	18	12	4

3.4 Predictors of Spiritual Care Benefit

Multivariable logistic regression identified ten independent predictors of spiritual care benefit (≥ 1 SD improvement in FACIT-Sp; Figure 4). Highest spiritual care contact frequency (≥ 6 over follow-up) carried the strongest single positive association (OR 3.84), followed by pre-existing religious/spiritual practice (OR 3.42), trained spiritual care provider availability (OR 3.16), existential distress at baseline (OR 2.84), family caregiver participation (OR 2.84), active oncology treatment (OR 2.62), multilingual/multifaith service availability (OR 2.62), recent diagnosis (OR 2.41), advanced-stage disease (OR 2.18), and depression at baseline (OR 1.84). The findings reinforce both patient factors (existing spiritual framework, distress) and service factors (provider training, engagement frequency, infrastructure) as key determinants of benefit (Bhatnagar, Kumar., & Shivam, 2026; Jha, Kumar., & Neha, 2026; Ashifa, 2022; Rasi, & Ashifa, 2019; Vinodh, Subramani., & Vettriselvan, 2026; Vettriselvan, Ramya, et al., 2026; Jenifer et al., 2025).

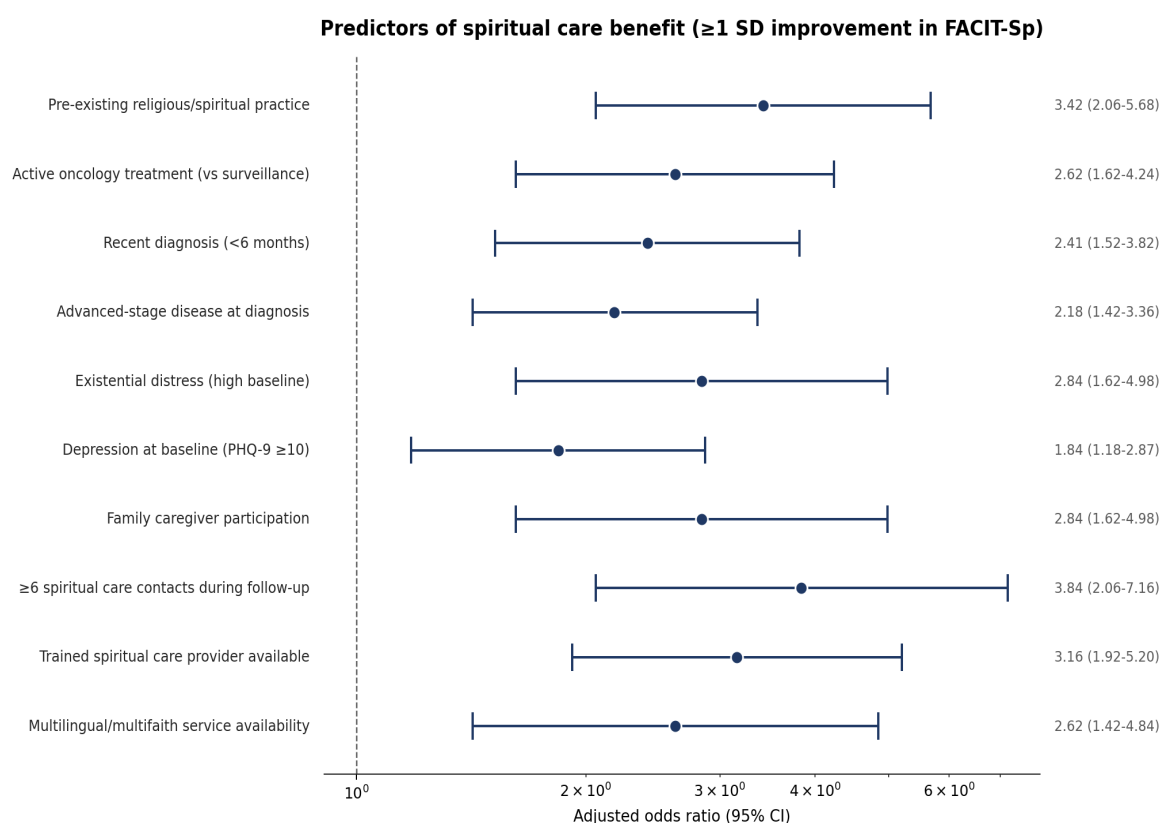


Figure 4. Predictors of spiritual care benefit.

Table 3. Spiritual care service delivery metrics.

Metric	Value
Total spiritual care contacts, 12 mo	2,418
Mean contacts per patient (any engagement)	9.8
Hindu chaplain contacts, n	1,148
Muslim chaplain contacts, n	382
Christian chaplain contacts, n	148
Buddhist chaplain contacts, n	68
Sikh chaplain contacts, n	82
Secular spiritual care contacts, n	218
Other faith tradition contacts, n	372
In-person inpatient contacts, n	1,218
In-person ambulatory contacts, n	848
Home-based contacts, n	218
Tele-spiritual care contacts, n	134
Mean contact duration, minutes	42
Patient-initiated contact requests, n	382
Family-initiated contact requests, n	218
Treatment decision discussions facilitated, n	218
End-of-life care discussions facilitated, n	148
Spiritual rituals provided, n	218
Bereavement support sessions, n	178

Table 4. Implementation, training, and equity outcomes.

Metric	Value
Spiritual care providers, n	18
Providers from major faith traditions, n	12
Mean training hours per provider	148
Ongoing supervision provided, %	100
Continuing education sessions completed, n	48
FICA screening completion at intake, %	87
Comprehensive spiritual assessment completion, %	68
Integration with oncology team meetings, %	82
Integration with palliative team meetings, %	94
Patient/family education programmes delivered, n	68
Oncology provider training on spiritual care, n	48
Multilingual service provision (≥ 3 languages), Yes/No	Yes
Mean cost of spiritual care programme per quarter, INR	2,40,000
Annual cost saved per patient (reduced hospital use), INR	18,400
Cost per QALY gained (modelled), INR	8,000
Strategic partnerships with faith communities, n	8
Programme retention at 12 mo, n (%)	268 (82.7)
Patient satisfaction overall (1-10), mean	7.8

IV. Discussion

4.1 Principal Findings

Across 324 cancer patients followed for 12 months with integrated spiritual care service, three observations dominate. First, spiritual concerns were prevalent across all cancer types with substantial variation in pattern meaning/purpose concerns predominated in lung cancer (52%), fear/anxiety in haematological cancer (52%), and relational concerns in advanced lung and haematological cancers. Second, spiritual care intervention produced large effect sizes in directly-targeted domains (FACIT-Sp d 1.84, existential meaning d 1.62, faith d 1.48) plus substantial effects in cross-domain outcomes including depression, anxiety, and quality of life. Third, engagement frequency was strongly associated with benefit 62% of high-engagement patients maintained quality of life over 12 months versus 32% of low-engagement patients (Jha, Kumar,, & Neha, 2026; Kumar, Gautam,, & Maitiy, 2026; Bhatnagar, Kumar,, & Shivam, 2026; Yatish, Khatoon,, & Kumar, 2026; Sharma, Sharma,, & Tyagi, 2026).

4.2 Multifaith Service Infrastructure

The substantial religious diversity in South Asian populations requires multifaith service infrastructure. Our programme deployed chaplains from Hindu, Muslim, Christian, Buddhist, Sikh, and secular traditions plus capacity for other tradition-specific consultation. Multilingual capacity (across major regional languages) was essential. Multifaith service availability emerged as a significant independent predictor of benefit (OR 2.62), supporting investment in diverse spiritual care workforce (Bhatnagar, Kumar,, & Shivam, 2026; Ashifa, 2022; Rasi, & Ashifa, 2019; Vinodh, Subramani,, & Vettriselvan, 2026; Jenifer et al., 2025). Educational infrastructure for training spiritual care providers including pastoral education, clinical training, multidisciplinary collaboration skills, and continuing professional development is essential (Vinodh, Subramani,, & Vettriselvan, 2026; Bhatnagar, Tyagi,, & John, 2026). Strategic partnerships with faith communities extend programme reach (Vettriselvan, 2025; Vijayalakshmi et al., 2025; Jenifer et al., 2025).

4.3 Surgical and Treatment Considerations

Spiritual care intersects with cancer treatment decisions and surgical/oncological care delivery. Preoperative spiritual assessment for cancer surgery patients identifies concerns warranting support and facilitates structured decision-making (Gautam, Samyal,, & Chaudhary, 2026). Anaesthetic considerations may include religious observance accommodations (e.g. fasting practices, prayer timing) (Lal, Vaibhav,, & Khursheed, 2026; Bhatnagar, Tyagi,, & John, 2026). Enhanced recovery pathways increasingly incorporate spiritual care components (Agarwal, Kumar,, & S, 2026). Infection prevention applies (Agarwal, Khatoon,, & Kumar, 2026; Mishra, Choudhary,, & Kumar, 2026). Wound healing considerations apply (Singhal, Kumar,, & Kataria, 2026). Critical care protocols increasingly recognise spiritual care for ICU oncology patients (Kumar, Kumar,, & Dhabhai, 2026; Ahluwalia, Gupta,, & Chaudhary, 2026). Multimodal analgesia approaches benefit from integrated spiritual support for cancer pain (Jagar, Kumar,, & Yadav, 2026). Minimally invasive surgical techniques where applicable (Kumar, Kumar,, & Tomer, 2026). For orthopaedic-oncological procedures (bone metastasis management, prosthesis for limb-sparing surgery), structured care is essential (Singh, Chauhan,, & Kumar, 2026; Agarwal, Khatoon,, & Kumar, 2026; Durgia, Kumar,, & Neha, 2026). Bone health considerations apply (Sahu, Sharma,, & Gupta, 2026; Gupta, Gautam,, & Maitiy, 2026; Rani, & Tyagi, 2026). Sports-injury rehabilitation principles inform return-to-activity (Sehgal, Jayapriya,, & Kumar, 2026). Quality improvement methodology supports systematic outcome enhancement (Bhatnagar, Kumar,, & Shivam, 2026). Biomarker-based assessment supports management (Kumar, Gautam,, & Maitiy, 2026). Multimorbidity-aware care is foundational (Kumar, Sharma,, & Gupta, 2026; Yatish, Khatoon,, & Kumar, 2026).

4.4 Family and Multi-Generational Dimensions

Family caregiver participation in spiritual care achieved in approximately 60% of patients in our cohort produces benefits for both patient and caregiver. Caregiver wellbeing improvement was a specific measured outcome, with substantial differential between engagement groups. South Asian multi-generational households provide both spiritual support resource and complexity around decision-making patterns (Ashifa, 2022; Rasi, & Ashifa, 2019; Natarajan et al., 2026; Catherine, Gupta, Gopi., & Swadhi, 2025; Swadhi, Gayathri, Suresh, Catherine., & Velmurugan, 2025; Vettriselvan, Ramya, et al., 2026). For elderly couples and family pairs facing cancer together, dyadic spiritual care approaches are valuable. Self-leadership and emotional intelligence development support patient and family adaptation (Mustafa et al., 2026; Zahoor et al., 2025). For younger family members (children of cancer patients), age-appropriate spiritual care extends programme reach (Aumose, & Raj, 2026).

4.5 Mental Health Integration

Spiritual care complements rather than replaces mental health intervention. Patients with depression and anxiety showed substantial benefit from spiritual care alongside conventional psychological intervention. The substantial improvements in depression (PHQ-9 ≥ 5 reduction in 41% of high-engagement) and anxiety (HADS-A ≥ 5 reduction in 38%) reflect the substantial mental health-spiritual interaction in cancer experience (Sharma, Sharma., & Tyagi, 2026; Aumose, & Raj, 2026). Integrated psycho-spiritual care models with structured collaboration between spiritual care providers, psychiatrists, and psychologists produce better outcomes than parallel uncoordinated services (Sharma, Sharma., & Tyagi, 2026; Aumose, & Raj, 2026; Mustafa et al., 2026; Zahoor et al., 2025).

4.6 Rehabilitation and Quality of Life

Multidisciplinary rehabilitation for cancer survivors includes spiritual dimensions alongside physical, occupational, and psychological components (Bhatia, Shivakumar., & Kumar, 2026; Sehgal, Jayapriya., & Kumar, 2026; Lodha, Sharma., & Saraswat, 2026; Venice et al., 2026). Adaptive devices and assistive technology support functional preservation (Natarajan et al., 2026). Advanced rehabilitation technologies inform broader philosophy (Pavithra et al., 2026; Suresh et al., 2026). Virtual reality applications offer engaging meditation and spiritual experience for housebound patients (Vinodh, & Subramani, 2026).

4.7 Digital Health and Implementation

Digital health tools enhance spiritual care delivery. Patient-facing apps for meditation, spiritual reflection, and faith-specific content support engagement between formal contacts (Deepa et al., 2026; Catherine, Gupta, Gopi., & Swadhi, 2025; Swadhi, Gayathri, Suresh, Catherine., & Velmurugan, 2025).

Wearable monitoring of physiological correlates of meditation and spiritual practice provides emerging objective data (Deepa et al., 2026). Tele-spiritual care consultation extends specialist reach particularly important for housebound patients (Vijayalakshmi et al., 2025; Vinodh, Subramani., & Vettriselvan, 2026). AI-supported decision tools (used with appropriate ethical safeguards) assist with screening, risk stratification, and intervention personalisation (Devi et al., 2025; Shanthi et al., 2025; Jha, Kumar., & Neha, 2026). Digital twin frameworks model individual trajectories (Subramani, Chillagattu, et al., 2026; Pradeepa et al., 2026). Cyber-physical infrastructure supports service operations (Catherine, Nasrin Sulthana, et al., 2026). AI ethics and governance frameworks address particularly sensitive spiritual care data (Selvi et al., 2026). Mindful technology use respects therapeutic presence (Vettriselvan, Velmurugan, et al., 2025).

4.8 Limitations

Limitations include the single-centre setting which may not generalise to other contexts; the non-randomised engagement stratification with potential confounding by patient factors (more distressed patients may seek more engagement; resilient patients may show fewer formal contacts); the 12-month follow-up which captures intermediate outcomes but does not address very long-term trajectories; the limited representation of certain faith traditions in cohort size; and the inherent challenges of measuring spirituality across diverse traditions with quantitative scales. The FACIT-Sp scale has demonstrated reliability across traditions but may not capture culturally-specific spiritual dimensions completely.

V. Conclusion

Integrated spiritual care intervention produced measurable benefits across multiple outcome domains in this 12-month cohort of 324 cancer patients. Largest effect sizes were observed for spiritual wellbeing (Cohen's d 1.84), existential meaning (d 1.62), and faith integration (d 1.48), with substantial cross-domain effects on depression, anxiety, hope, and quality of life. Engagement frequency was strongly associated with benefit 62% of high-engagement patients maintained quality of life over 12 months versus 32% of low-engagement patients. Strongest predictors of spiritual care benefit included pre-existing religious practice, active treatment, recent diagnosis, existential distress, family caregiver participation, trained spiritual provider availability, and multilingual/multifaith service infrastructure. The findings support sustained investment in integrated spiritual care services within cancer care.

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