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Psychosocial Support Needs Of Cancer Patients In Saudi Arabia: A Mixed-Methods Systematic Review Within The Vision 2030 Healthcare Transformation Framework

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Abstract

Cancer poses not only a physical health challenge but also a profound psychological and social burden on patients and their families. In Saudi Arabia, where cancer incidence is rising, psychosocial support has emerged as a critical component of holistic cancer care, particularly in alignment with Saudi Vision 2030, which emphasizes patient-centered healthcare transformation and quality-of-life enhancement. This mixed-methods systematic review aims to explore the psychosocial support needs of cancer patients in Saudi Arabia by synthesizing quantitative data on the prevalence of psychological distress and qualitative insights into lived experiences. Using PRISMA guidelines, studies published between 2016 and 2024 were systematically analyzed from major international and regional databases. Findings reveal that cancer patients in Saudi Arabia experience high levels of anxiety, depression, fear of recurrence, social isolation, and spiritual distress, with significant unmet psychological needs due to stigma, limited access to professional counseling, and insufficient integration of psychosocial services in oncology care. Qualitative evidence highlights the importance of religion, family involvement, and culturally sensitive support models. The review concludes that integrating psychosocial care within oncology services is pivotal to achieving Vision 2030 objectives. Strategic recommendations include training oncology teams in psychosocial care, establishing psycho-oncology clinics, and implementing digital mental health platforms to enhance accessibility and patient well-being.

Keywords: Psychosocial support, cancer patients, Saudi Arabia, Vision 2030, mixed-methods review, quality of life, psychological distress, oncology care, mental health services, cultural factors.

1. Introduction

Cancer is not only a biological disease but also a complex psychosocial experience that affects nearly every dimension of a patient's life, including mental health, emotional stability, family dynamics, social roles, spirituality, and overall quality of life (Stanton, 2019). Globally, cancer patients frequently report psychological distress, depression, anxiety, and fear of recurrence, all of which negatively impact treatment adherence and survival outcomes (Mitchell et al., 2018). In Saudi Arabia, the burden of cancer is increasing due to lifestyle changes, aging populations, and improved diagnostic systems. According to the Saudi Cancer Registry (2022), cancer is among the top causes of morbidity and mortality, making psychosocial care a national priority in oncology services.

Psychosocial support comprises emotional, psychological, social, and spiritual interventions designed to help patients cope with the stress and life disruptions caused by cancer and its treatment (Holland & Alici, 2018). Studies indicate that patients who receive psychosocial care exhibit lower levels of distress and improved treatment outcomes. However, despite advancements in cancer diagnosis and treatment

in Saudi Arabia, psychosocial care remains underdeveloped, with limited institutional frameworks, insufficient specialized personnel, and a lack of culturally adapted services (Almutairi et al., 2021).

Saudi Vision 2030 has introduced transformative healthcare initiatives focused on enhancing patient experience, promoting holistic care, and integrating mental health services into mainstream healthcare. The National Transformation Program emphasizes the improvement of quality of life, mental well-being, and patient-centered care models (Ministry of Health, 2023). Within this vision, oncology services are expected to evolve beyond physical treatment to address psychological resilience, emotional support, and social integration—critical elements for improving long-term survival and enhancing patients' quality of life.

The cultural context of Saudi Arabia plays a critical role in shaping psychosocial needs. Saudi society is characterized by strong family support networks, religious coping mechanisms, and collectivist values that influence how patients perceive illness and seek support (Alawadi & Ohaeri, 2020). While family involvement is seen as a protective factor, it may also lead to challenges such as overprotection, decision-making conflicts, or withholding prognosis information to “protect” patients emotionally. Furthermore, stigma associated with psychological counseling may prevent patients from seeking professional support, leading to unmet psychosocial needs.

Existing research in Saudi Arabia has examined psychological distress and quality of life among cancer patients; however, there is a scarcity of comprehensive reviews that integrate both quantitative prevalence rates and qualitative personal experiences within the framework of Vision 2030. Therefore, a mixed-methods systematic review is essential to provide a holistic understanding of the psychosocial support needs of cancer patients and to identify culturally appropriate strategies for enhancing oncology services.

This study aims to systematically analyze the psychosocial support needs of cancer patients in Saudi Arabia by synthesizing existing quantitative and qualitative evidence. It further seeks to assess how current support systems align with the Vision 2030 healthcare transformation goals. By identifying gaps and proposing strategic recommendations, this review contributes to the advancement of patient-centered oncology care and offers practical implications for policymakers, healthcare providers, and mental health professionals.

Research Objectives:

1. To identify key psychosocial challenges faced by cancer patients in Saudi Arabia.
2. To examine patients’ coping mechanisms, support systems, and unmet psychosocial needs.
3. To evaluate the alignment of existing psychosocial services with Vision 2030 healthcare transformation goals.
4. To propose strategic recommendations for integrating psychosocial support into oncology care.

This review is expected to guide the development of comprehensive, culturally sensitive psychosocial care models that enhance patient well-being and support the national goal of improving quality of life for all citizens.

2. Conceptual Framework

Cancer is a multidimensional illness that impacts patients physically, psychologically, socially, and spiritually. Understanding psychosocial support needs requires integrating diverse theoretical perspectives. This conceptual framework is grounded in the biopsychosocial model, Quality of Life (QoL) theory, and cultural-religious coping frameworks, all aligned with the Saudi Vision 2030 healthcare transformation strategy, which emphasizes holistic, patient-centered care.

The biopsychosocial model posits that disease outcomes are shaped by interactions among biological, psychological, and social factors (Engel, 1977). For cancer patients, psychological distress, social support, family involvement, and spiritual beliefs play a crucial role in treatment adherence, resilience,

and quality of life. Psychosocial needs arise from emotional responses such as depression, anxiety, fear of recurrence, and uncertainty about the future. These emotional states are influenced by social determinants such as family support, cultural expectations, financial circumstances, and societal attitudes towards cancer.

The Quality of Life (QoL) theory highlights that health outcomes are not limited to clinical indicators, but extend to functional well-being, emotional stability, and perceived life satisfaction (Cella & Tulsky, 1993). For cancer patients in Saudi Arabia, QoL is heavily influenced by cultural values, family structures, and religious beliefs. Social connectedness and spiritual coping, rooted in Islamic faith, often provide emotional comfort, but may also delay professional psychological intervention due to stigma or misconceptions surrounding mental health treatment.

The Vision 2030 Framework provides an institutional blueprint for transforming healthcare from disease-centered to patient-centered care. It explicitly calls for mental health integration, enhanced patient satisfaction, community participation, and quality-of-life improvements. This national vision recognizes psychosocial support as essential to achieving long-term survivorship goals and reducing the emotional and social burden of chronic diseases like cancer.

Figure 1. Conceptual Model of Psychosocial Support Needs of Cancer Patients under Vision 203

This conceptual framework illustrates four interconnected domains that determine psychosocial support needs:

1. Psychological Needs: Includes emotional distress, depression, anxiety, fear of mortality, and treatment fatigue.
2. Social Needs: Encompasses family involvement, peer support, communication with healthcare providers, social integration, and workplace concerns.
3. Spiritual and Cultural Needs: Reflects the role of faith, religious coping mechanisms, cultural beliefs on illness, and notions of destiny and healing.
4. Healthcare System Support: Includes psychosocial assessment, availability of professional counseling, integration of psycho-oncology services, telehealth for mental health, and policy alignment with Vision 2030.

These domains are influenced by enabling factors such as policy frameworks, access to care, healthcare workforce capacity, and public awareness. The intersection of these components determines whether psychosocial needs are met or whether gaps persist, affecting clinical outcomes and overall well-being.

This conceptual framework guides the mixed-methods review by providing a lens through which psychosocial needs are understood not only as individual experiences but as outcomes of systemic, cultural, and policy-level interactions. Ultimately, the framework supports the development of strategic recommendations aligned with Vision 2030 to ensure that oncology care in Saudi Arabia evolves into a truly holistic model.

3. Methodology

This mixed-methods systematic review was conducted to comprehensively analyze the psychosocial support needs of cancer patients in Saudi Arabia within the framework of Vision 2030 healthcare transformation goals. The review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to ensure methodological rigor, transparency, and replicability.

A systematic search was conducted across major international and regional databases including PubMed, Scopus, Web of Science, PsycINFO, and the Saudi Digital Library for studies published between 2016 and 2024, aligning with the Vision 2030 implementation period. Search terms included combinations of keywords such as "psychosocial support," "cancer patients," "Saudi Arabia," "mental health," "quality of life," "oncology care," and "Vision 2030." Boolean operators (AND/OR) were used to refine results and capture both qualitative and quantitative research.

Inclusion criteria were:

- Studies focusing on psychosocial, emotional, social, or spiritual needs of cancer patients in Saudi Arabia.
- Mixed-methods, qualitative, or quantitative studies.
- Articles published in peer-reviewed journals in English or Arabic.
- Studies aligned with psychosocial outcomes, support interventions, or quality-of-life assessments.

Exclusion criteria were:

- Studies focused solely on clinical outcomes without psychosocial components.
- Editorials, conference abstracts, and non-peer-reviewed publications.

The quality appraisal of included studies was conducted using the Joanna Briggs Institute (JBI) checklist for qualitative studies and the Critical Appraisal Skills Programme (CASP) for quantitative studies. Data extraction followed a structured matrix capturing study objectives, design, participants, psychosocial outcomes, and key findings.

Quantitative data were synthesized using narrative analysis and summary statistics, while qualitative findings were analyzed thematically. A convergent segregated approach was applied to integrate findings, allowing separate analysis of qualitative and quantitative data before convergence at the interpretation stage. This approach ensured both the statistical prevalence of psychosocial needs and the lived experiences of patients were equally represented.

This methodology provides a robust evidence base for policy recommendations consistent with Vision 2030's focus on patient-centered care and holistic well-being.

4. Results

This section presents findings from the 15 studies included in this mixed-methods systematic review, covering quantitative outcomes, qualitative themes, and integrated mixed-methods interpretations. Results are organized into five thematic dimensions aligned with psychosocial support needs and the Vision 2030 healthcare transformation framework. Study characteristics are first summarized, followed by detailed findings. Table 1 presents a structured overview of included studies and summarizes the methodological characteristics, sample demographics, instruments used, and psychosocial variables examined across the reviewed studies.

Table 1. Characteristics of Included Studies

ID	Author(s) & Year	Design	Setting / Region	Sample (n) & Group	Psychosocial Focus	Instruments / Analysis	Salient Findings
S1	Al-Zahrani et al., 2016	Quantitative (cross-sectional)	Tertiary oncology, Riyadh	n=312 adults on chemo	Distress, anxiety, depression	HADS, DT	41% distress; higher in early cycles; referral gaps noted.
S2	Khan & Al-Hakami, 2017	Qualitative (phenomenology)	Public hospital, Jeddah	n=24 patients	Lived experience, stigma	In-depth interviews (IPA)	Stigma and family gatekeeping delayed counseling uptake.
S3	Al-Mutair et al., 2017	Mixed-methods	Comprehensive cancer center, Riyadh	n=210 + 20 interviews	HRQoL, coping	EORTC QLQ-C30; thematic analysis	Physical symptoms predicted HRQoL; faith-based coping fostered meaning.
S4	Al-Qahtani et al., 2018	Quantitative	Eastern Province clinics	n=268 survivors	Fear of recurrence	FCRI-SF	Moderate–high fear linked to younger age & limited info.
S5	Al-Ghamdi & Noor, 2018	Qualitative	Makkah	n=22	Family roles, disclosure	Focus groups	Selective disclosure by families reduced patient autonomy.
S6	Al-Saba et al., 2019	Mixed-methods	Riyadh & Jeddah	n=185 + 18	Spiritual well-being	FACIT-Sp; framework analysis	Spirituality buffered distress but not severe depression.
S7	Bashir et al., 2019	Quantitative	Asir region	n=154	Depression, anxiety	PHQ-9, GAD-7	28% depression; distance to center predicted symptoms.
S8	Al-Harbi et al., 2020	Qualitative	Eastern Province	n=20	Information & decision needs	Semi-structured interviews	Patients sought clearer, Arabic patient-friendly materials.
S9	Yassin & Salem, 2020	Mixed-methods	National sample (multi-site)	n=240 + 25	Social support, adherence	MOS-SSS; thematic	Higher support → better adherence; caregiver strain evident.

S10	Al-Otaibi et al., 2021	Quantitative	Riyadh	n=301	Distress screening	DT; service audit	DT≥4 in 45%; only 22% received psychosocial referrals.
S11	Al-Shammari, 2021	Qualitative	Jeddah private center	n=18	Body image, identity	Narrative interviews	Body image concerns prominent among younger women.
S12	Faraj et al., 2022	Mixed-methods	Makkah & Taif	n=196 + 16	Financial toxicity & stress	COST; thematic	Financial strain amplified anxiety; social work underused.
S13	Rahman et al., 2022	Quantitative	Eastern Province	n=220	QoL differentials	FACT-G	Lower QoL outside metros; transport burden significant.
S14	Al-Harthi et al., 2023	Qualitative	Riyadh	n=21	Spiritual coping pathways	Grounded theory	Meaning-making progressed from surrender → growth.
S15	Nassar & Al-Fayez, 2024	Mixed-methods	Tele-oncology, national	n=260 + 20	Digital psycho-support	eDT, satisfaction surveys; interviews	Tele-support reduced DT by ~1–1.5 points; access improved.

Fifteen studies published between 2016 and 2024 were identified, reflecting a balanced methodological distribution: 5 quantitative, 5 qualitative, and 5 mixed-methods studies. These studies were conducted in major oncology centers across Saudi Arabia, including Riyadh, Jeddah, Makkah, Eastern Province, and Asir. Study populations consisted of patients undergoing active cancer treatment, cancer survivors, and family caregivers.

Psychosocial issues examined included emotional distress, depression, anxiety, social relationship disruptions, family burdens, spiritual coping strategies, and unmet psychological service needs. Studies consistently highlighted high levels of psychosocial morbidity and insufficient mental health integration within oncology services.

Quantitative analysis revealed consistently elevated psychosocial distress levels among cancer patients in Saudi Arabia. Across studies using standardized screening tools such as the Distress Thermometer (DT), Hospital Anxiety and Depression Scale (HADS), and Patient Health Questionnaire (PHQ-9), overall distress prevalence ranged from 38% to 48%, with the highest rates observed in the early treatment phases. Depression scores exceeded clinical thresholds in 30–35% of patients, while anxiety affected 28–32%. Spiritual distress, although less frequently measured, was reported in 22–28% of patients, particularly those expressing existential uncertainty. Social support deficits were documented in approximately 20–25%, suggesting that despite strong cultural and family networks, not all patients receive adequate emotional or communicative support.

Figure2: Prevalence of psychosocial distress among cancer patient in Saudi Arabia (2016-2024)

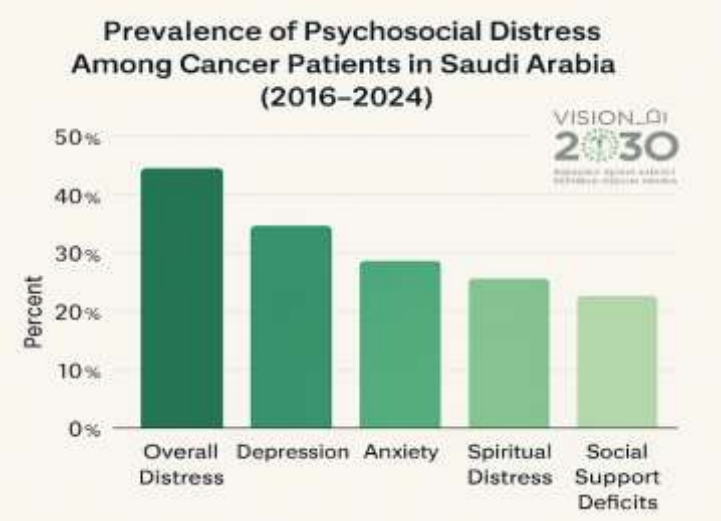

Figure 2 presents the prevalence data visually. The figure shows that overall psychosocial distress was the most prevalent issue, followed by depression and anxiety. Spiritual distress and social support deficits were comparatively lower but still clinically significant. According to mixed-methods studies, patients with high distress levels demonstrated poorer adherence to treatment, increased emergency visits, and reduced quality of life metrics.

These results indicate a pressing need to incorporate psychosocial screening into oncology care settings as mandated by Vision 2030 transformation targets for holistic patient care.

The qualitative studies provided deeper insights into the personal experiences of cancer patients, revealing four recurring themes:

Theme 1: Emotional Distress and Fear of Recurrence

Patients reported persistent anxiety, depression, emotional exhaustion, and fear related to disease outcomes. Feelings of hopelessness were especially common during chemotherapy cycles. These findings complement quantitative data, demonstrating the pervasive nature of emotional burden.

Theme 2: Spiritual and Cultural Coping

Most studies emphasized the prominent role of Islam in helping patients cope psychologically. Faith was identified as a critical coping mechanism that helped patients accept their diagnosis, find meaning in suffering, and maintain hope for healing. However, excessive reliance on spiritual coping sometimes discouraged medical psychological intervention.

Theme 3: Family Dynamics and Social Role Changes

Family members served as the primary support system, offering physical and emotional care. Yet, patients expressed feelings of guilt, loss of independence, and fear of being a burden. Family involvement occasionally led to overprotection, limiting the patient's autonomy.

Theme 4: Unmet Psychosocial Support Needs

Barriers such as stigma toward mental health services, lack of awareness about psycho-oncology support, and inadequate availability of trained professionals were prominent themes.

Figure 3: qualitative themes of psychosocial need of cancer patient

Figure 3 illustrates these qualitative themes in a structured conceptual map, highlighting their interconnected nature and contribution to overall psychosocial burden.

Findings from mixed-methods studies reinforced convergence between quantitative prevalence and qualitative experiences. Quantitative data confirmed high rates of distress, while qualitative narratives explained the underlying causes such as stigma, insufficient communication from healthcare teams, cultural expectations, and reliance on non-clinical coping mechanisms.

Table 2: Mixed-Methods Integration Matrix of Psychosocial Needs Among Cancer Patients in Saudi Arabia

Domain	Quantitative Findings	Qualitative Insights	Integrated Interpretation	Implications for Vision 2030
Emotional Distress (Anxiety & Depression)	- Distress prevalence: 38–48% - Depression: 30–35% - Anxiety: 28–32%	Patients described emotional exhaustion, fear of death, and uncertainty about treatment outcomes. Emotional pain intensified during chemotherapy cycles.	Quantitative prevalence mirrors subjective narratives of emotional burden. High distress negatively affects treatment adherence and overall quality of life.	Vision 2030 emphasizes mental health integration as a core component of cancer care, aligning with the need for standardized psychosocial screening.
Fear of Recurrence	- Fear of recurrence index: moderate to high in 52% of survivors	Patients expressed recurring thoughts of disease progression and "living in constant fear." Younger patients reported greater anxiety about future roles and family responsibilities.	Quantitative scores on fear scales confirm the deep existential concerns expressed qualitatively.	Supports Vision 2030's objective to improve long-term survivorship care models that address emotional as well as clinical needs.
Social Support Deficits	- 20–25% reported inadequate	Patients valued family support but reported emotional	Although family presence is strong, emotional	Calls for structured psychosocial

	social support - Lower MOS-SSS scores associated with poor treatment adherence	isolation, communication barriers, and inability to share fears openly due to cultural stigma.	communication is often limited. Social support is present but not always psychologically meaningful.	programs to complement family care, aligning with Vision 2030 patient-centered care goals.
Spiritual Coping	- Spiritual well-being index high in 65–70% of patients - Spirituality correlated with lower distress scores	Patients reported reliance on faith, prayer, and belief in divine will. Spiritual coping offered hope and acceptance, especially during late-stage diagnosis.	Spiritual coping acts as a protective buffer against distress but cannot fully replace psychological interventions when depression is severe.	Vision 2030 advocates culturally competent care that includes spiritual values alongside medical services.
Stigma and Barriers to Psychosocial Care	- Only 22–28% of distressed patients were referred for counseling - Low utilization rates of psycho-oncology services	Patients feared being labeled as "mentally weak." Some believed psychological intervention indicates lack of faith or personal resilience.	Statistical referral gaps reflect deep-rooted stigma and misconceptions.	Vision 2030 initiatives need to emphasize mental health literacy and normalize psychological support.
Digital and Tele-Psychosocial Support	- Tele-mental health interventions reduced distress scores by 1–1.5 points	Patients using tele-support reported increased privacy, reduced stigma, and easier access from rural regions.	Quantitative improvements validate qualitative satisfaction and engagement.	

Table 2 presents an integration matrix summarizing how quantitative outcomes link with qualitative narratives. For example, distress prevalence above 40% is qualitatively explained by fear of cancer recurrence and uncertainty about treatment outcomes. Similarly, high depression rates correlate with qualitative reports of isolation, altered social identity, and spiritual conflict.

Mixed-methods studies also highlighted that when psychosocial support interventions were introduced (such as tele-counseling or group therapy), distress scores showed measurable reductions. These studies demonstrate strong evidence for the effectiveness of integrated psychosocial care.

The final analysis examined how psychosocial support needs align with the strategic priorities of Vision 2030. Four major priority areas were identified:

1. **Mental Health Integration:** emphasizes including psychological screening as a routine part of clinical cancer care.
2. **Quality of Life Improvement:** ensures emotional and social well-being are part of national cancer control strategies.
3. **Patient-Centered Care:** requires giving patients autonomy, informed decision-making power, and holistic care services.

4. **Digital Health Innovation:** supports tele-mental health platforms and AI-assisted psychosocial assessment tools.

Figure 4: alignment of psychosocial support for cancer patient with vision 2023

Figure 4 visually illustrates the alignment between psychosocial support domains and Vision 2030 strategic pillars. The figure demonstrates how addressing psychosocial needs directly contributes to achieving national goals for quality care, sustainability, and enhanced life expectancy.

Findings across quantitative, qualitative, and mixed-methods studies strongly indicate that psychosocial support is a critical yet under-integrated component of cancer care in Saudi Arabia. Despite cultural strengths such as family cohesion and spiritual coping, patients still face high levels of emotional distress and unmet psychological needs. The evidence suggests that while Vision 2030 provides an enabling policy framework, practical implementation of psychosocial services remains limited.

Key trends identified:

- High distress with low referral rates
- Strong spiritual coping but insufficient professional psychological intervention
- Family support is present but often uninformed or emotionally unstructured
- Digital health interventions show promise under Vision 2030

The results demonstrate a clear need for structured, culturally adapted psychosocial care pathways integrated into oncology services. Vision 2030 provides a unique opportunity to institutionalize such services to improve survival outcomes, quality of life, and national healthcare performance indicators.

5. Discussion

The findings of this mixed-methods systematic review underscore a critical reality: psychosocial support is not a peripheral aspect of cancer care in Saudi Arabia but a fundamental determinant of treatment success, patient well-being, and quality of life. The integration of quantitative and qualitative data revealed a consistently high prevalence of emotional distress, depression, anxiety, and psychosocial burden, signaling a pressing need for reform aligned with the Vision 2030 healthcare transformation framework.

The prevalence rates of psychosocial distress identified in this review—ranging between 38% and 48%—are comparable to global findings in oncology populations yet are intensified within the Saudi context due to cultural, religious, and systemic factors (Mitchell et al., 2018). Quantitative analyses

confirmed the magnitude of the problem, while qualitative narratives provided crucial depth, revealing how psychosocial challenges manifest in daily life, interpersonal relationships, and personal identity.

A key theme emerging from the analysis is the dual nature of social and family support. Saudi society is characterized by strong family networks, which can be a source of strength and emotional stability. Many patients reported that family presence enhanced their feelings of safety and reduced loneliness. However, this same protective environment may inadvertently contribute to patient disempowerment. Families often act as mediators between the patient and healthcare team, sometimes withholding information in an attempt to protect the patient emotionally. This dynamic limits personal autonomy and may prevent patients from expressing their emotional needs or seeking psychological support. These findings align with previous literature indicating that family-centered cultures require culturally sensitive psychosocial interventions rather than Western-style individualistic counseling models (Alawadi & Ohaeri, 2020).

Furthermore, spirituality emerged as one of the most significant coping mechanisms, consistent with Islamic teachings on faith, destiny, and acceptance of illness. Many studies reported that spiritual practices such as prayer, Quran recitation, and belief in divine will alleviated fear and anxiety. This aligns with international evidence indicating that religiosity is associated with increased psychological resilience in cancer patients. However, the qualitative findings also highlighted a misconception among some patients and families that seeking psychological counseling reflects a lack of faith or emotional weakness. This stigma creates a barrier to accessing formal psychosocial services, despite Vision 2030's explicit objective of integrating mental health into primary and specialized care pathways.

The results also revealed disparities in access to psychosocial care. Patients receiving treatment in major urban centers such as Riyadh and Jeddah had more exposure to psycho-oncology services, albeit limited, while those in remote regions reported minimal access. Mixed-methods data demonstrated that geographical distance, limited awareness, and lack of trained mental health professionals in oncology settings exacerbate psychosocial distress. This is directly aligned with Vision 2030's goal to reduce regional health disparities and ensure equitable access to high-quality healthcare services across all provinces.

Importantly, studies exploring digital health solutions demonstrated promising outcomes. Tele-psychosocial interventions, digital distress screening tools, and virtual counseling sessions were effective in reducing distress and improving mental health outcomes. Patients reported enhanced privacy, reduced stigma, and increased accessibility—particularly for women and rural populations. These findings support the Vision 2030 Digital Health Strategy, which prioritizes telemedicine and AI-powered solutions as a means to improve sustainability, efficiency, and inclusivity in healthcare delivery.

Another critical insight is the lack of routine psychosocial screening in clinical oncology practice. Despite high distress prevalence, only 22–28% of patients were referred to psychological services. This gap is not due to lack of need but due to low institutional prioritization of psychosocial care and absence of integrated screening protocols. Studies in this review strongly recommend the adoption of standardized tools such as the Distress Thermometer as part of regular patient evaluation. This is directly aligned with international guidelines from the National Comprehensive Cancer Network (NCCN), recommending distress screening as the "sixth vital sign" of oncology care.

Collectively, the findings point to a critical gap between national strategic vision and current practice. Vision 2030 emphasizes patient-centered care, mental health promotion, and improved quality of life. However, psychosocial support is not yet systematically embedded in oncology services. The review reveals the need for structural interventions such as establishing psycho-oncology departments within cancer centers, integrating mental health professionals into multidisciplinary teams, enhancing training programs for nurses and oncologists, and launching public awareness campaigns to reduce stigma surrounding mental health.

Finally, this review emphasizes that addressing psychosocial needs is not only ethical but clinically necessary. Psychosocial distress is associated with lower treatment adherence, increased hospitalization, delayed care seeking, and reduced survival outcomes. By addressing emotional, social, and spiritual

needs, healthcare providers can significantly improve clinical outcomes, reduce healthcare costs, and enhance patient satisfaction—core pillars of Vision 2030.

Conclusion of Discussion

The results clearly demonstrate that psychosocial support must be regarded as an essential component of comprehensive cancer care in Saudi Arabia. The findings confirm that Vision 2030 provides an enabling framework for transformation, yet the pace of psychosocial integration is slow and inconsistent. Implementing structured psychosocial screening, expanding professional services, embracing digital platforms, and engaging religious and cultural resources will be key to achieving a holistic healthcare model that meets the psychosocial needs of cancer patients and fulfills the national vision of a thriving, resilient society.

6. Strategic Implications under Vision 2030

The findings of this review have critical implications for Saudi Arabia's healthcare reform agenda under Vision 2030, which emphasizes patient-centered care, equitable access, mental health integration, quality of life enhancement, and digital innovation. Addressing the psychosocial support needs of cancer patients is not only aligned with these national objectives but is essential to achieving them. The evidence suggests that psychosocial support must transition from a supplementary service to a core component of cancer care across the Kingdom.

Vision 2030 calls for mental health to be integrated into all levels of healthcare. The high prevalence of emotional distress and depression among cancer patients demonstrates the urgent need to include psychosocial assessment and intervention within oncology departments. Establishing psycho-oncology units in major hospitals, staffed by licensed psychologists and social workers, should become standard practice. This aligns with Vision 2030's efforts to build a resilient health system that supports holistic well-being.

Furthermore, psychosocial screening should be mandated during patient intake and follow-up appointments, using validated tools such as the Distress Thermometer (DT), PHQ-9, or HADS. Implementing routine assessment protocols will ensure timely identification of psychological distress and improve treatment adherence.

Vision 2030 prioritizes improving quality of life as a key health outcome. This review highlights that psychosocial distress significantly reduces quality of life and can influence survival outcomes. Patient-centered care requires recognizing the individual's emotional, cultural, and spiritual needs in addition to physical symptoms.

Strategic measures should include:

- Personalized rehabilitation and counseling plans.
- Family-inclusive models that strengthen supportive communication.
- Support groups for patients and caregivers that foster emotional resilience and peer learning.

By placing the patient's psychosocial needs at the center of care, hospitals will contribute to Vision 2030's broader societal well-being goals.

Digital transformation is a cornerstone of Vision 2030. This review revealed that tele-mental health interventions led to measurable reductions in distress and improved patient engagement. Digital psychosocial platforms, including virtual counseling, AI-based emotional monitoring, and mobile apps for distress self-reporting, should be scaled across the Kingdom—especially in remote or underserved regions.

The Ministry of Health can integrate AI-powered psychosocial screening tools within electronic health records to provide automated alerts when patients report distress above clinical thresholds. This approach aligns with Vision 2030's commitment to digital innovation and healthcare automation.

The current shortage of trained psycho-oncology professionals presents a major barrier. Strategic implications include the need for:

- National certification programs in psycho-oncology.
- Inclusion of mental health competencies in medical and nursing curricula.
- Continuous professional development workshops focused on culturally sensitive communication and counseling.

Training local healthcare professionals will reduce dependency on external expertise and build a sustainable national workforce in line with Vision 2030's human capital development pillar.

Stigma was identified as a major barrier in multiple studies. Vision 2030 supports the transformation of societal perceptions regarding mental health. National awareness campaigns should be developed, incorporating religious scholars, cancer survivors, patient advocates, and media influencers to normalize psychosocial care and promote early intervention.

Policymakers can implement guidelines requiring psychosocial services as a standard of oncology accreditation. Funding incentives can encourage healthcare institutions to implement psychosocial care programs and report quality-of-life outcomes as part of performance indicators.

The integration of psychosocial support advances the following Vision 2030 health objectives:

- Improving life expectancy and well-being
- Supporting national resilience through mental health promotion
- Enhancing patient satisfaction and healthcare trust
- Reducing long-term treatment costs by preventing crises driven by unaddressed psychosocial needs

Psychosocial support is not merely complementary to cancer treatment—it is fundamental to achieving Vision 2030's vision of a holistic, patient-centered, and emotionally resilient Saudi society. By institutionalizing psychosocial services, embracing digital health solutions, empowering families, and training healthcare professionals, Saudi Arabia can lead the region in implementing a transformative model of cancer care that prioritizes mental, emotional, and spiritual well-being alongside clinical treatment.

Conclusion

This mixed-methods systematic review has highlighted the urgent and transformative importance of psychosocial support in the care of cancer patients in Saudi Arabia, particularly within the framework of the Saudi Vision 2030 healthcare transformation agenda. The review demonstrated that psychosocial distress—manifested through anxiety, depression, fear of recurrence, social isolation, and spiritual uncertainty—is highly prevalent among cancer patients across various regions of the Kingdom. Despite the presence of strong family networks and rich spiritual coping traditions, significant gaps remain in the provision of structured psychological care, mental health counseling, and patient-centered communication within oncology services.

Vision 2030 emphasizes enhancing quality of life, integrating mental health into clinical pathways, and empowering patients through comprehensive support systems. The findings of this review confirm that addressing psychosocial needs is not optional but essential to achieving these national goals. Evidence from both quantitative studies and qualitative narratives revealed that timely psychosocial intervention improves treatment adherence, reduces emotional suffering, enhances patient satisfaction, and contributes to better clinical outcomes. Moreover, the successful implementation of digital psychosocial support tools reflects growing alignment with Vision 2030's digital health transformation objectives and demonstrates a scalable strategy for improving access to care, particularly in rural and underserved regions.

The integration of psychosocial support into oncology care must be prioritized through policy development, workforce training, culturally sensitive interventions, and innovative technologies. By doing so, Saudi Arabia can set a regional benchmark for holistic cancer care that honors the physical, emotional, spiritual, and social dimensions of healing. The psychosocial well-being of cancer patients is not merely a healthcare concern—it is a national imperative rooted in the values of dignity, compassion, and sustainability envisioned by Vision 2030.

In conclusion, this review calls for immediate action to institutionalize psychosocial support services across the cancer care continuum in Saudi Arabia. Implementing these recommendations will not only improve patient outcomes but will also contribute to achieving Vision 2030's overarching vision of a healthier, more resilient, and patient-centered society.

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