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Quality-of-life and Depressive Symptoms in Korean-American Cancer Dyads: Preserved Functioning and Somatic-Dominant Distress

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Abstract

Purpose

Poor quality-of-life and depressive symptoms are prevalent among cancer-affected immigrant families yet remain understudied among Korean Americans. Cultural norms may influence how emotional distress is expressed and managed in this population. Guided by the Sociocultural Stress and Coping Framework, this study examined quality-of-life and depressive symptoms among Korean American cancer dyads and compared their outcomes with non-Hispanic White cancer dyads and Korean American benchmark samples.

Methods

This cross-sectional study included 60 Korean American cancer patients and their 60 family caregivers. Paired-samples t-tests evaluated within-dyad differences in quality-of-life and depressive symptoms. Benchmarking analyses compared the cohort with external samples assessed with the same measures and examined both statistical and clinical significance using effect sizes and minimal important difference thresholds.

Results

Korean-American patients reported higher total quality-of-life and functional well-being than normative samples, with differences exceeding minimal important difference thresholds. In contrast, Korean American caregivers reported lower total quality-of-life and lower social, functional, and physical well-being than non-Hispanic White caregivers, with clinically meaningful differences across subscales. Patients and caregivers also showed a pattern of greater somatic symptoms but lower reported behavioral distress compared with healthy benchmarks.

Conclusions

These findings suggest a quality-of-life paradox among Korean American cancer dyads, characterized by patient functional resilience alongside clinically meaningful caregiver burden and somatic distress. Culturally responsive supportive care may need to look beyond functional ability to identify internalized distress and prioritize physical respite and supportive resources for caregivers.

Background

In the United States, approximately 2 million individuals identify as Korean-American [1], a population for whom cancer remains the leading cause of death [2]. Korean-Americans experience substantial cancer-related disparities, including elevated risk for certain malignancies, lower cancer screening rates, and

reduced health insurance coverage compared with the general population [1, 3, 4]. Beyond these structural challenges, growing evidence suggests that Korean-Americans experience a considerable burden of psychological distress [5]. However, cultural norms emphasizing emotional restraint may influence how distress is expressed and recognized, potentially obscuring psychosocial needs despite significant symptom burden [6]. Understanding quality-of-life (QOL) and depressive symptoms is particularly important in cancer survivorship, where psychosocial well-being represents a central goal of supportive care [7].

As Korean-American patients navigate their cancer journey with and their informal caregivers, such as spouse or adult children, both face additional challenges, including linguistic barriers, restricted social networks, and cancer-related stigma [3, 8]. Previous research has shown that cultural values and illness appraisals influence QOL and psychological adjustment in this population [9]. Yet little is known about how Korean-American cancer patients and caregivers compare with established cancer and community benchmarks, particularly with respect to patterns of psychosocial distress and caregiver burden.

Despite these documented needs, relatively few psycho-oncology studies have examined the dyadic natures of distress within Korean-American families. Much of the existing literature remains centered on non-Hispanic White populations, limiting the cultural generalizability of findings related to distress expression, caregiving expectations, and supportive care needs. Recent evidence highlights the profound interdependence of patients and their informal caregivers, who function as a cohesive dyadic unit; the health outcomes, coping strategies, and emotional well-being of one member directly influence those of the other [10, 11]. Consequently, examining patients or caregivers in isolation may overlook important patterns of mutual influence and shared burden.

The experience of cancer within Korean-American families may be influenced by cultural norms, such as emotional restraint and filial piety (*hyo*), which influence expectations surrounding caregiving, help-seeking, and emotional expression [6]. These cultural values may contribute to the internalization of distress, placing caregivers at risk of substantial burden while simultaneously masking psychological suffering through the preservation of daily functioning. Yet current evidence examining these patterns remains limited. Most studies involving Korean-American cancer populations were conducted more than a decade ago [12], preceding important changes in healthcare access, survivorship care, and patterns of acculturation. As a result, the current psychosocial experiences of Korean-American cancer patients and caregivers remain insufficiently understood.

Theoretical Framework

Guided by the Sociocultural Stress and Coping Framework [13], which emphasizes the role of cultural resources, appraisals, and coping processes on health outcomes [14], this study sought to address these gaps by examining both patients and caregivers as an interconnected dyadic unit. Specifically, the aims were to: (1) describe the sociodemographic and clinical characteristics of Korean-American cancer patients and their family caregivers; and (2) evaluate QOL and depressive symptoms through

benchmarking comparisons with published reference populations. By comparing this cohort with both historical Korean-American samples and established cancer and community benchmarks, this study sought to identify clinically meaningful patterns of functioning and distress. Such comparisons may reveal supportive care needs that are not readily apparent from absolute scores alone and provide evidence to inform culturally responsive interventions for Korean-American cancer patients and their families.

METHODS

This descriptive, cross-sectional study utilized a benchmarking approach to characterize QOL and depressive symptoms among Korean-American cancer patient–caregiver dyads. Observed outcomes were compared with published reference samples selected based on the use of identical instruments and conceptual relevance to the study populations. Reference samples included cancer patients, family caregivers, and Korean-American immigrants without cancer, allowing interpretation of observed outcomes within clinically and culturally meaningful contexts. These comparisons were intended to provide contextual benchmarks for interpreting the magnitude and clinical significance of observed scores rather than to establish causal or group-based differences, given variations in demographic, clinical, and temporal characteristics across samples.

Participants

Patients were eligible if they: 1) self-identified as a Korean-American; 2) had a confirmed cancer diagnosis within the past five years; 3) were 18 years or older at diagnosis; 4) spoke English or Korean; and 5) had a family caregiver willing to participate. Caregivers were eligible if they: 1) were identified by the patient as the primary source of support, 2) self-identified as a Korean-American, 3) were 18 years or older, and 4) spoke English or Korean. Dyads were excluded if either member was unwilling or unable to participate. “Family caregiver” refers to a family member or significant other designated by the patient to provide emotional or physical care. Power calculations indicated the study was adequately powered ($1 - \beta = .80$, $\alpha = .05$) to detect medium effect sizes relative to the published reference samples. The University of Michigan Institutional Review Board approved the study (#HUM00082249).

Data Collection

Participants were recruited using convenience sampling method. Both English and Korean flyers were posted at various places like, Korean-American community health agencies, religious organizations (churches and temples), senior housing, ethnic newspapers, and physician referrals in Chicago, Illinois, and Ann Arbor, Michigan. Following telephone screening, written informed consent was obtained. Participants completed questionnaires independently, either in person or by mail, in their preferred language (English or Korean). Each participant received a $15 USD honorarium.

Measures

Sociodemographic and Clinical Characteristics. A researcher-developed questionnaire collected data on age, place of birth, years of US residency, and linguistic background (including primary language and physician's principal language). For patients, medical data included cancer type, stage, time since diagnosis, treatment history, and comorbidities. For caregivers, weekly caregiving hours were recorded.

Depression The Kim Depression Scale for Korean Americans (KDSKA) [15] measured symptoms across affective, cognitive, behavioral, and somatic domains. The 21-item scale (0–63) uses a 4-point Likert response, with higher scores indicating greater distress. One item assessing suicidal ideation was removed in accordance with IRB requirements for community-based recruitment, resulting in a 20-item version for this study. This modification should be considered when comparing scores with published KDSKA reference samples that utilized the full 21-item instrument. The KDSKA has demonstrated strong validity and reliability (α = 0.94) [15]; in the current study, internal consistency remained high (α = 0.95; subscales: α = 0.73–0.92).

Quality-of-life Quality-of-life was assessed using the Functional Assessment of Cancer Therapy–General [16], evaluating physical, social/family, emotional, and functional well-being. The 27-item scale yields a total score (0–108), with higher scores indicating better QOL. The FACT-G has demonstrated robust reliability in the Korean population (α = 0.91) [17] and among cancer dyads [18]. In this study, internal consistency was excellent (total = 0.93; subscales = 0.82 to 0.91).

Data Analysis

Outcomes were first characterized within the Korean-American sample using descriptive statistics for QOL and depressive symptoms. To assess within-dyad differences, paired *t*-tests were conducted to compare scores between Korean-American cancer patients and their matched family caregivers. Before inferential testing, the assumption of normality was confirmed via Shapiro-Wilk tests and visual inspection of score distributions; all data met the criteria for parametric analysis.

To contextualize the findings, patient QOL scores were compared with published data from Korean-American breast cancer patients [19] and a national sample of U.S. adult cancer patients [20]. Caregiver QOL scores were compared with two published caregiver cohorts assessed using the FACT-G [14, 21], and depressive symptom scores for both patients and caregivers were compared with published normative data from first-generation Korean-American immigrants without cancer [15]. One-sample *t*-tests were used to evaluate whether observed means differed significantly from these benchmark values.

To assess both the magnitude and clinical relevance of these differences, absolute mean differences (M_{diff}) and Cohen's *d* effect sizes were calculated. For one-sample comparisons, Cohen's *d* was computed as the difference between the observed sample mean and the reference mean divided by the observed sample standard deviation. Ninety-five percent confidence intervals (CI) were also calculated

for mean differences. Following Cohen's [22] conventions, effect sizes were interpreted as small (*d* = 0.2), medium (*d* = 0.5), or large (*d* = 0.8).

Clinical significance for QOL was interpreted using established Minimal Important Difference (MID) thresholds for the FACT-G (2 points for subscales; 5 points for total scores) [19]. Because standardized MID thresholds have not been established for the KDSKA, depressive symptom findings were interpreted relative to published normative means reported in prior studies. All analyses were conducted using SPSS version 26.0.

For QOL, patient scores were compared with two published samples: Korean-American breast cancer patients [19] and a large national sample of U.S. adult cancer patients consisting predominantly of non-Hispanic White and Black individuals [20]. Caregiver QOL scores were compared with those from two reference studies utilizing the same FACT-G measure, including predominantly non-Hispanic White caregivers of prostate cancer patients [14] and an additional caregiver cohort [21]. Depressive symptoms for both patients and caregivers were compared with a published sample of first-generation Korean-American immigrants without a cancer diagnosis [15].

RESULTS

Sample and Individual Characteristics

A total of 74 dyads were recruited, of which three dyads were found ineligible. Of the 71 eligible dyads, 3 (4%) refused participation, and 8 (11%) did not complete the questionnaire packet. Sixty dyads completed the study, resulting in an 84.5% completion rate. The majority of participants (75%) opted to complete the surveys by mail, while 25% completed them in person at a location of their preference where privacy is protected.

The mean age was 62 years (± 13.3) for patients and 56 years (± 17.5) for caregivers. Most patients (68.3%) and caregivers (53.3%) were female. Spouses constituted the majority of the caregiver group (71.7%), followed by adult children (15%), friends (3.3%), and other relatives (Table 1). While most participants had attained some college education, approximately half reported an annual household income below $30,000. Occupational status varied: 60% of patients were unemployed or retired, and nearly half of caregivers (48.3%) were employed outside the home.

Table 1
Demographic and Medical Characteristics of the Sample

Demographic Characteristics	**Patients n = 60**	**Caregivers n = 60**
Age, Mean (SD)	61.6 (13.3)	56.2 (17.5)
Range	31–85	22–85
Gender, N (%) Male	19 (31.7)	28 (46.7)
Female	41 (68.3)	32 (53.3)
Education, N (%)		
Less than high school	6 (10.0)	5 (8.3)
Graduated from high school	17(28.3)	13 (21.7)
College or higher	37(61.7)	41 (68.3)
Missing	-	1(1.7)
Household Income, N (%)		
< $15,000	22 (36.7)	20 (33.3)
$15,001–30,000	10 (16.7)	12 (20.0)
$30,001–50,000	9 (15.0)	8 (13.3)
$50,001 or more	12 (20.0)	17 (28.4)
Missing	7 (11.6)	3 (5.0)
Dyad relationship, N (%)		
Patient-Spouse/Partner	43 (71.7)	-
Patient-Adult Children	10 (16.7)	-
Patient- Other	5 (8.4)	-
Missing	2 (3.3)	-
Hours of Caregiving per Week, N (%)		
0–10	-	20 (33.2)
11–20	-	10 (16.7)
21–40	-	8 (13.4)
Over 50	-	14 (21.7)

Demographic Characteristics	Patients n = 60	Caregivers n = 60
Missing	-	9 (15.0)
Primary Care Physician's Language, N (%)		
Speaks Korean	37 (61.7)	49 (81.6)
Speaks only English	19 (31.7)	10 (16.7)
Missing	4 (6.6)	1 (1.7)
Language at Home, N (%)		
Korean	46 (76.7)	47 (78.3)
English	2 (3.3)	3 (5.0)
Both (Korean & English)	10 (16.7)	10 (16.7)
Missing	2 (3.3)	-
Mother Language, N (%)		
Korean	53 (88.3)	52 (86.7)
English	1 (1.7)	3 (5.0)
Both (Korean & English)	4 (6.7)	5 (8.3)
Missing	2 (3.3)	-
Years Living in USA, N (%)		
Mean (SD)	26.7 (11.4)	25.9 (11.3)
Range	5–50	1–50
< 10	6 (10.0)	10 (16.7)
11–20	17 (28.3)	13 (21.7)
> 21	34 (56.7)	36 (59.9)
Missing	3 (5.0)	1 (1.7)
Type of Cancer, N (%)		
Breast	19 (31.6)	-
Colorectal	10 (16.6)	-
Stomach	7 (11.7)	-
Prostate	5 (8.3)	-

Demographic Characteristics	Patients n = 60	Caregivers n = 60
Lymphoma/Leukemia	5 (8.4)	-
Lung/Liver/Kidney	6 (10.0)	-
Oral/Skin/Ovarian/Thyroid	8 (13.4)	-
Stage, N (%)		
Early (0, I, II)	34 (56.7)	-
Advanced (III, IV)	18 (30.0)	-
Unknown or missing	8 (13.3)	-
Years of Cancer Diagnosis, N (%)		
<1	8 (13.3)	-
1	19 (31.7)	-
2	6 (10.0)	-
3	8 (13.3)	-
4	7 (11.7)	-
Current Treatment, N (%)		
Completed treatment	33 (55.0)	-
Chemotherapy	12 (20.0)	-
Hormone Therapy	7 (11.6)	-
Surgery	4 (6.7)	-
Radiation	4 (6.7)	-

Regarding clinical characteristics, 56.4% of patients were diagnosed with early-stage cancer, and 30% with advanced-stage disease. The most prevalent diagnoses were breast, colorectal, and stomach cancers. At the time of the study, 55% of patients had completed primary treatment, while others were undergoing chemotherapy (20%), hormone therapy (11.6%), surgery (6.7%), or radiation therapy (6.7%). Comorbidities were reported by 38.3% of patients. Caregivers provided a mean of 16–20 hours of care per week, with a notable subgroup (20%) providing intensive care exceeding 50 hours weekly.

Immigration-Related Characteristics

The sample consisted primarily of first-generation immigrants; 95% of patients and 87% of caregivers were born in South Korea. Both groups reported an average length of residence in the United States of 25 years. Linguistic patterns were consistent across the dyad, with the majority speaking Korean at home (patients, 88%; caregivers, 86%) and utilizing Korean-speaking physicians (patients, 62%; caregivers, 82%). Reflecting these preferences, nearly all participants completed the study instruments in Korean.

Dyadic Comparison of Quality-of-life and Depression Symptoms

Paired-samples analyses revealed no significant differences between Korean-American cancer patients and their matched family caregivers in overall QOL scores or depressive symptoms (Table 2). Although patients reported slightly higher QOL across most domains, the overall pattern suggests that patients and caregivers experienced comparable levels of psychosocial adjustment, supporting the view of the cancer experience as a shared dyadic process.

Table 2
Internal Consistency Reliability, and Dyadic Comparisons for Patients and Family Caregivers

Variable	**Patient**			**Family Caregiver**				
	α	**Mean**	**SD**	**α**	**Mean**	**SD**	**Matched *t***	***p* value**
Quality of life								
Physical	0.91	20.9	6.9	0.93	22.4	6.8	-1.31	0.23
Social	0.84	20.8	5.5	0.83	19.3	5.7	1.81	0.07
Emotional	0.82	18.4	4.6	0.87	18.0	5.8	0.47	0.39
Functional	0.82	20.8	5.0	0.89	19.4	6.4	1.36	0.30
FACT-G total	0.93	80.9	18.1	0.94	79.3	19.6	0.58	0.55
Depression	0.95	14.3	12.3	0.94	12.5	11.5	0.85	0.40
Affective	0.92	4.3	4.6	0.89	3.7	4.1	0.99	0.32
Cognitive	0.85	3.3	2.8	0.79	2.9	2.5	0.81	0.42
Behavioral	0.76	3.4	3.1	0.65	3.2	3.3	0.23	0.82
Somatic	0.73	2.9	2.0	0.67	2.4	2.2	1.20	0.24

Note. Internal consistency reliability coefficients (Cronbach's α) were calculated separately for patients and family caregivers in the current study.

Depression Symptoms

Mean total depression scores were comparable to those reported among Korean-American adults without cancer [15]. However, examination of symptom domains revealed a distinct pattern of distress. Both patients and caregivers reported elevated somatic depressive symptoms, with small-to-moderate effect size (*d* = 0.36–0.56), indicating greater physical manifestations of distress than observed in the community benchmark (Table 3). In contrast, both groups reported lower behavioral depressive symptoms (*d* = − 0.43 to -0.48), suggesting less outward expression of distress. Affective symptoms were largely comparable across groups, while differences in cognitive symptoms were minimal. Collectively, these findings point to a somatic-dominant distress profile among Korean-American cancer dyads, characterized by elevated physical manifestations of distress despite relatively preserved emotional and behavioral functioning.

Table 3
Depression One-Sample *t*-tests for Patients and Caregivers

Depression/ Subscale	**Current Study Patient/Caregiver**	**Comparison Group Mean**	**Mean Difference**	**95% Confidence Interval**	**Cohen's *d* (Point Estimate)**	***p*-value**
Affective	Patient: 4.3 (4.6)	3.6 (4.0)	0.7	[-0.48, 1.95]	0.16	.231
	Caregiver: 3.7 (4.0)		0.1	[-0.93, 1.16]	0.03	.824
Cognitive	Patient: 3.3 (2.8)	3.6 (2.7)	-0.3	[-1.07, 0.39]	-0.12	.354
	Caregiver: 2.9 (2.5)		-0.7	[-1.30, 0.00]	-0.12	**.050**
Behavioral	Patient: 3.4 (3.2)	4.8 (3.8)	-1.4	[-2.23, -0.53]	-0.43	**.002**
	Caregiver: 3.2 (3.2)		-1.5	[-2.39, -0.69]	-0.48	**< .001**
Somatic	Patient: 2.9 (2.1)	1.7 (1.9)	1.2	[0.60, 1.74]	0.56	**< .001**
	Caregiver: 2.4 (2.2)		0.8	[0.18, 1.38]	0.36	**.012**
Total Depression	Patient: 14.3 (12.0)	13.5 (11.1)	0.8	[-2.56, 4.19]	0.07	.631
	Caregiver: 12.5 (11.2)		-0.8	[-3.98, 2.35]	0.07	.608

Note. The study was compared to a sample of 154 first-generation Korean-American immigrants without cancer using the Kim Depression Scale for Korean Americans; mean age 44 [15]

Benchmarking Patient Quality-of-life

Korean-American patients demonstrated generally favorable QOL outcomes relative to published reference populations (Table 4). Compared with a sample of Korean-American breast cancer patients, patients reported higher overall QOL (*d* = 0.49), social well-being (*d* = 0.54), and functional well-being (*d* = 0.74). The differences in social and functional well-being exceeded established Minimal Important Difference (MID) thresholds, indicating clinically meaningful advantages. When compared with a national U.S. cancer sample, overall QOL was largely comparable; however, patients continued to report higher functional well-being (*d* = 0.38), a difference that approached the MID threshold. Physical and emotional well-being were similar across comparison groups. Overall, these findings suggest a pattern of preserved functioning among Korean-American cancer patients despite the challenges associated with cancer survivorship.

Table 4
Quality of Life One-Sample *t*-tests for Patients

Quality of Life/Subscale	**Current Study Caregiver**	**Comparison Group Mean**	**Mean Difference**	**95% Confidence Interval**	**Cohen's *d* (Point Estimate)**	***p*-value**
Physical	20.9 (6.9)	Study 1: 19.3 (5.9)	1.6	[-0.15, 3.42]	0.24	.072
		Study 2: 21.3 (6.0)	-0.4	[-2.15, 1.42]	-0.05	.683
Social	20.8 (5.5)	Study 1: 17.9 (6.7)	3.0	[1.53, 4.40]	0.54	**< .001**
		Study 2: 22.1 (5.3)	-1.2	[-2.67, 0.20]	-0.22	.090
Emotional	18.4 (4.6)	Study 1: 17.8 (5.3)	0.6	[-.64, 1.84]	0.13	.335
		Study 2: 18.7 (4.5)	-0.3	[-1.54, 0.94]	-0.06	.629
Functional	20.8 (5.0)	Study 1: 17.1 (6.5)	3.7	[2.41, 4.99]	0.74	**< .001**
		Study 2: 18.9 (6.8)	1.9	[0.61, 3.19]	0.38	**.005**
Total Quality of Life	80.9 (18.1)	Study 1: 72.1 (19.9)	8.8	[4.11, 13.55]	0.49	**< .001**
		Study 2: 80.9 (17.0)	0.0	[-4.69, 4.75]	0.00	.989

Note. Study 1: Sample of 29 Korean American early-stage breast cancer patients; mean age 53 [20]

Study 2: Sample of 2,236 national adult mixed types of cancer patients; the majority were older than age 55, primarily Non-Hispanic White [21]

Benchmarking Caregiver Quality-of-life

In contrast to patients, Korean-American caregivers showed a more vulnerable QOL profile (Table 5). Compared with non-Hispanic White caregiver reference samples, caregivers reported lower overall QOL (*d* = -0.43), with the largest deficits observed in social (*d* =

Table 5
Quality of Life One-Sample *t*-tests for Caregivers

Quality of Life/Subscale	Current Study Caregiver	Comparison Group Mean	Mean Difference	95% Confidence Interval	Cohen's *d* (Point Estimate)	*p*-value
Physical	22.4 (6.8)	Study 1: 25.3 (3.5)	-2.9	[-4.72, -1.11]	-0.43	.002
		Study 2: 22.8 (5.4)	-0.4	[-2.22, 1.39]	-0.06	.647
Social	19.3 (5.7)	Study 1: 22.8 (5.4)	-3.5	[-4.98, -1.94]	-0.61	**< .001**
		Study 2: 18.7 (5.6)	0.6	[-0.88, 2.16]	0.11	.403
Emotional	18.0 (5.8)	Study 1: 17.0 (2.7)	1.0	[-0.55, 2.59]	0.18	.200
		Study 2: 15.3 (5.4)	2.7	[1.15, 4.29]	0.47	**.001**
Functional	19.6 (6.4)	Study 1: 22.7 (4.5)	-3.1	[-4.86, -1.41]	-0.49	**< .001**
		Study 2: 18.2 (5.7)	1.4	[-0.36, 3.09]	0.21	.119
Total Quality of Life	79.3 (19.6)	Study 1: 87.8 (11.6)	-8.5	[-13.88, -3.16]	-0.43	**.002**
		Study 2: 75.0 (16.7)	4.3	[-1.08, 9.64]	0.22	.116

Note. Study 1: Sample of 170 spousal caregivers of newly diagnosed prostate cancer patients; mean age 58, primarily Non-Hispanic White [14]

Study 2: Sample of 37 caregivers of mixed types of cancer patients; mean age 53, primarily Non-Hispanic White [22]

-0.61), functional (*d* = -0.49), and physical well-being (*d* = -0.43). All three domains exceeded established MID thresholds, indicating clinically meaningful disparities that are likely to affect daily functioning and caregiving capacity. Notably, caregivers reported higher emotional well-being than one comparison

cohort (*d* = 0.47), with this difference also exceeding the MID threshold. While overall QOL did not differ significantly from the second caregiver benchmark, the observed difference approached the MID threshold for clinical significance. Taken together, these findings highlight a pattern of caregiver burden characterized primarily by diminished social, functional, and physical well-being rather than overt emotional distress.

DISCUSSION

This study identified a pattern of preserved functioning alongside somatic-dominant distress among Korean-American cancer patient-caregiver dyads. Although overall depressive symptom scores were comparable to community benchmarks, both patients and caregivers reported elevated somatic symptoms and lower behavioral expressions of distress. These findings suggest that culturally influenced patterns of distress expression may contribute to supportive care needs that are not readily identified through conventional psychological assessments.

Somatic-Dominant Distress Profile

A primary finding was the distinct somatic-dominant distress profile. While total scores did not significantly differ from the healthy immigrant group, both members of the dyad reported significantly higher somatic symptoms (e.g., “chest heaviness,” “mental pain”). This pattern aligns with East Asian cultural paradigms where psychological distress is expressed through physical ailments [23]. Conversely, both groups exhibited moderately lower levels of externalized distress (such as anger) than the benchmark [24]. For clinicians, this indicates that traditional depression screening questions, which focus heavily on mood, may fail to capture distress. Assessing physical symptoms such as back pain, headaches, or fatigue may help identify underlying psychological burden.

More than half of participants reported annual household incomes below the federal poverty line [25], despite relatively high educational attainment (60% possessing a college degree or higher) [26]. Combined with the high reliance on Korean-speaking physicians and preference for Korean-language questionnaires, these findings highlight the importance of culturally and linguistically responsive supportive care for Korean-American cancer survivors and their families [27]. Socioeconomic and language-related barriers may continue to affect healthcare access and supportive care utilization despite long-term residence in the United States.

Clinical Disparities: Quality-of-life

A notable finding of this study was the contrasting quality-of-life profiles of Korean-American patients and caregivers. Compared with non-Hispanic White caregiver reference samples, Korean-American caregivers reported lower physical, social, and functional well-being, with all three domains exceeding established Minimal Important Difference thresholds. These findings suggest clinically meaningful caregiver burden that extends beyond emotional distress alone. The reduced physical and functional well-being observed among caregivers may reflect the substantial demands associated with caregiving

responsibilities. Prior research has shown that caregivers, particularly immigrant women, often balance multiple family, household, and employment roles that can contribute to physical strain and reduced daily functioning [28, 29].

Lower social well-being may similarly reflect linguistic, cultural, and structural barriers that can limit access to social support and community resources [8, 30, 31]. These findings highlight the importance of supportive care interventions that address practical caregiving demands and strengthen social support networks. Community-based approaches delivered through trusted settings, such as ethnic community organizations and churches, may be particularly valuable for overcoming linguistic and cultural barriers.

Interestingly, despite these deficits, Korean-American caregivers reported higher emotional well-being than one caregiver comparison cohort. This pattern may reflect cultural values emphasizing familism, collectivism, and caregiving as a meaningful family responsibility [29, 31]. However, because these cultural constructs were not directly measured, such interpretations remain speculative. Regardless of the underlying mechanism, the coexistence of emotional well-being with substantial physical, social, and functional burden suggests that reliance on emotional distress alone may underestimate supportive care needs among Korean-American caregivers.

In contrast, Korean-American cancer patients demonstrated generally favorable QOL outcomes. Compared with a cohort of Korean-American breast cancer patients [19], participants in the current study reported higher overall, social, and functional quality-of-life. Patients also demonstrated comparable overall quality-of-life and higher functional well-being than a national U.S. cancer sample [20]. Several factors may have contributed to these findings. Compared with the Korean-American breast cancer cohort, participants in the current study were older (mean age = 61years) and represented a broader range of cancer diagnoses. Previous research suggests that younger cancer patients may face additional life-stage challenges including concerns related to fertility, employment, and financial stability [32]. However, differences in disease stage, treatment status, survivorship trajectory, family support, and temporal changes in cancer care may also have influenced the observed comparisons. Accordingly, these benchmark analyses should be interpreted as contextual rather than causal comparisons.

Higher functional well-being among patients may also reflect sociocultural influences on symptom reporting and adaptation. Cultural norms emphasizing endurance, self-restraint, and avoidance of burdening family members may influence how functional difficulties are perceived and reported [33]. The strong family involvement may further help maintain day-to-day functioning by providing practical and emotional support, particularly among first-generation immigrants who often rely on family members to navigate healthcare systems and language barriers [30, 34–37]. Nevertheless, preserved functioning depressive profile observed in this study, supportive care assessment should extend beyond functional status to include somatic and internalized manifestations of distress that may otherwise remain unrecognized

Potential Sociocultural Contributors to Caregiver Burden

The somatic-dominant distress profile observed among caregivers ay reflect broader sociocultural factors relevant to Korean-American caregiving. Although these factors were not directly measured in the present study, prior research suggests that traditional caregiving expectations, gender roles, and cultural values such as filial piety may contribute to caregiver burden and influence how distress is expressed [38] [39, 40]. Because most caregivers in this study were women, caregiving responsibilities may have been shaped by gendered expectations surrounding family care.

In addition, the high prevalence of co-residence in the current sample (93%) may have increased day-to-day caregiving involvement [41]. Future research should directly examine cultural values, family structure, and caregiving demands to better understand their influence on caregiver well-being among Korean-American families affected by cancer.

Limitations and Future Directions

Several limitations should be acknowledged. The use of convenience sampling limits generalizability, the sample was modest and heterogeneous, and the cross-sectional design limited causal inferences. Future studies should employ longitudinal and dyadic approaches, such as the Actor-Partner Interdependence Model, to better understand how cultural and interpersonal processes influence adjustment over time. Future research should directly measure cultural constructs that may shape distress expression and caregiving experiences among Korean-Americans, including acculturation, *chemyon* (concern for social face), *hyo* (filial piety), emotional restraint, and caregiving expectations. Such work may clarify mechanisms underlying the somatic-dominant distress profile observed in this study. Additionally, culturally tailored supportive care interventions that address the paradox of high physical strain alongside relatively preserved emotional should be developed and tested to address caregiver burden and somatic manifestations of distress while reducing linguistic and cultural barriers to care.

New Contribution to the Literature

This study adds to the limited body of research examining on Korean-American cancer patient-caregiver dyads by providing evidence on quality-of-life and depressive symptoms within a sociocultural context. By benchmarking outcomes against published cancer and community reference populations, the study identified a distinct pattern of preserved patient functioning alongside clinically meaningful caregiver burden and elevated somatic symptoms among both patients and caregivers. These findings suggest that that psychosocial distress in Korean-American cancer families may not be adequately captured through traditional assessments focused primarily on emotional symptoms. The results underscore the importance of culturally responsive supportive care approaches that incorporate assessment of somatic distress and caregiver burden among immigrant cancer populations.

Declarations

Author Contribution

H.Y. led the study conception and design, conducted material preparation, data collection, software development, data curation, and formal analysis, and wrote the first draft of the manuscript. L.N. contributed to study conception and design and provided methodological guidance and validation. L.E., R.M., A.W.H.D., L.S., and L.N. contributed to data interpretation and critical review of the analyses. All authors critically reviewed previous versions of the manuscript, provided intellectual input, and approved the final manuscript. All authors read and approved the final manuscript.

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Data Availability

The data from the present study are available from the corresponding author, but restrictions may apply to the availability of these data to ensure maintenance of participant anonymity.

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