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Research Article

Dignity and Related Factors in Patients with Cancer: A Cross-Sectional Study

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SUMMARY

Purpose: Dignity is a basic human right that is related to psychological distress factors in patients with cancer such as depression and demoralization. Hence, the dignity issue is of great importance to healthcare professionals. The present study aimed to advise healthcare professionals regarding the related distress factors of dignity in patients with cancer by investigating its relationship with patients' demographics, disease characteristics, and psychological distress.

Methods: This was a cross-sectional study design. A convenience sample of 267 patients with cancer from a medical center was recruited into this study. Each patient completed demographics and disease characteristics questionnaires, the Patient Dignity Inventory Mandarin Version, the Demoralization Scale Mandarin Version (DS-MV), and the Patient Health Questionnaire-9 (PHQ-9). Data were analyzed with SPSS 22.0 software.

Results: Dignity was significantly correlated with age, demoralization, and depression. Cancer patients aged 65 or above were more likely to have a lower sense of dignity. In the present study, the sensitivity and specificity of the Patient Dignity Inventory Mandarin Version for demoralization (DS-MV \geq 30) were 84.8% and 79.1% and for depression (PHQ-9 \geq 10) were 73.8% and 70.9% in patients with cancer with an aggregate score of 35 or above.

Conclusions: Dignity is significantly correlated with personal demographic characteristics and psychological distress in patients with cancer. The results provide reference data for healthcare professionals to understand and enable dignity in patients with cancer and aid in the development of methods that promote their dignity.

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Introduction

Cancer is a life-threatening disease. The number of patients with cancer worldwide is estimated to be 18.1 million [1], and since 1982, cancer has been the number one cause of death in Taiwan [2]. Patients with cancer experience physical symptoms as well as psychological distress such as fear of relapse, depression,

demoralization, despair, loneliness, loss of autonomy, and fear of becoming a burden to others [3]. Previous research has shown that the psychological distress patients with cancer experience are related to dignity [4,5]. A severe loss of dignity can lead to a desire for early death [3,6].

Dignity is an intrinsic human feature and is related to personal values, freedom, responsibility, and capability [7]. It arises from interpersonal interactions, in which social constructionism plays a role [8]. Dignity can thus be classified as either fundamental or absolute, or personal or relative [9]. Fundamental or absolute dignity is a universal concept, having its roots in human rights, proclaiming that all humans have value regardless of status and situation, and this does not change under any circumstances [9]. Personal or relative dignity, however, is subject to change. It can be affected by

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culture, society, and education; it can also be threatened by a healthcare system or lack thereof [10,11]. Everyone hopes to maintain their dignity in all settings and circumstances, including when they seek medical help at healthcare institutions. Previous studies on patient dignity have pointed out that provision of dignified care is closely related to the patient's sense of dignity [12], although being physically weak or challenged, capabilities of patients with cancer might be impaired, leading to an imbalance between health and human rights. In addition, if healthcare professionals do not pay attention to their needs, patients could feel that their dignity has been violated [12,13]; accordingly, protecting the dignity of patients with cancer is a priority for healthcare professionals.

The dignity of patients with cancer is related to personality and psychological distress [5,13,14]. Depression falls under psychological distress, affecting approximately 45.0% of patients with cancer [15]. Compared with the general public, patients with cancer are three or four times more likely to have depression. In severe cases, they may commit suicide [16,17]. Depression is a mood-related disorder; its diagnostic criteria include sadness or feeling down, loss of enthusiasm or joy for daily activities, and recurrent listlessness almost daily for more than 2 weeks. There may also be accompanying symptoms such as lowered self-esteem, guilt, sleeplessness, change in appetite, inability to focus, changes in activity, and suicidal thoughts [18]. Demoralization is also a common psychological state found in patients with cancer, characterized by a sense of misery and doubts over one's own capability [19].

Characteristics of demoralized patients include feeling incapable, helpless, having a sense of failure, feeling like an outcast, despairing, and even considering giving up [20,21]. A systematic review of 10 studies has shown that 13–18.0% of patients with cancer feel demoralized [22]. Three systematic reviews list the following as some of the demoralization-related factors: poor health, poor control over physical or psychological symptoms, decreased quality of life, unemployment and economic pressure, decreased social skills, singlehood, and social rejection or isolation [22–24]. In addition, compared with depression, demoralization has stronger correlation with suicidal thoughts or behavior [25–27]. These findings highlight that demoralization is indeed significant. As a result, sometime in the last 10 years, demoralization was included in the Diagnostic and Statistical Manual of Mental Disorders (DSM) [20]. Our review of existing literature revealed that the dignity of patients with cancer is almost always discussed alongside demoralization or depression [5,28,29]. The Patient Dignity Inventory (PDI) indicates lower sense of dignity with higher scores [14]. According to previous studies, the dignity of patients with cancer with demoralization and depression were positively significantly correlated [28–31], which means that the higher the sense of low dignity, the higher the level of demoralization and depression in patients with cancer.

However, what do dignity scores really mean to patients with cancer and healthcare professionals, and what is the threshold that indicates that the patient may be demoralized or depressed? Existing literature barely addresses these questions. Building on the literature reviewed, the present study examined the relationship between the dignity of patients with cancer in Taiwan and demoralization and depression; it also focused on the cut-off point pertaining to their dignity.

Methods

Study design, setting, and sample

This was a cross-sectional study design and convenience sampling from a medical center in Southern Taiwan. Participants were recruited between June 2016 and February 2017, and the inclusion criteria were (1) having a diagnosis of cancer; (2) being 20 years of

age or greater; (3) being mentally alert, clear; (4) having no history of diagnosis of depression or other psychiatric disorders; (5) being able and willing to provide written informed consent; and (6) being able to express their own opinions and complete the questionnaires. Participants were excluded if (1) they had organic diseases of the brain, as diagnosed by a physician; (2) they were delirious or unconscious; (3) they had depression or other emotional problems; and (4) they were unable to speak and read Mandarin Chinese. This study was approved by the Institutional Review Board of the X Medical Center (Approval no. 10411-003).

Variables and instruments

Demographics and disease characteristics

Participants' demographics included gender, age, marital status, number of children, education, occupation, monthly income, cohabitation status, religious beliefs, tumor site, cancer stage, and disease characteristics.

Dignity

The original English version of the Patient Dignity Inventory (PDI) was developed by Chochinov et al. in 2008. It is mainly used to measure the degree of dignity in patients with cancer over the past few days [32]. This study used the Mandarin Version of Patient Dignity Inventory (PDI-MV) for measuring dignity. The PDI-MV was translated from the original English version by Li et al. in 2018 [28]. It is a 25-item self-report questionnaire, with each item rated on a 5-point Likert scale (from 1 = not a problem to 5 = an overwhelming problem). Higher scores indicate lower levels of dignity. Cronbach's α coefficient for the PDI-MV was .95. In construct and criterion-related validity, the PDI-MV significantly correlated with the Mandarin Version of the Demoralization Scale (DS-MV) ($r = .58, p < .010$), with the Patient Health Questionnaire-9 (PHQ-9) ($r = .54, p < .010$), and with the Rosenberg Self-Esteem Scale (RSES) ($r = -.30, p < .010$) [28]. In this study, Cronbach's α for the PDI-MV was .95.

Demoralization

The original English version of the Demoralization Scale (DS) was developed by Kissane et al. in 2004. It was used to assess the levels of demoralization over the past 2 weeks [33]. This study used the Mandarin Version of Demoralization Scale (DS-MV) for measuring demoralization. The DS-MV was translated from the original English version by Hung et al. in 2010 [34]. It is a 24-item self-report questionnaire, with each item rated on a 5-point Likert scale (from 0 = strongly disagree to 4 = strongly agree). Scores higher than 30 indicated significant demoralization [34]. Cronbach's α coefficient for the DS-MV was .90. In construct and criterion-related validity, the DS-MV significantly correlated with the Beck Hopelessness Scale (BHS) ($r = .66, p < .001$), with the PHQ-9 ($r = .65, p < .001$), and with the McGill Quality of Life Scale-Taiwan (MQOL-T) ($r = -.68, p < .001$) [34,35]. In this study, Cronbach's α for the DS-MV was .85.

Depression

The original English version of the PHQ-9 was developed by Kroenke et al. in 2001. It was used to assess the degree of depression over the past 2 weeks [36]. This study used the Mandarin Version of PHQ-9 for measuring depression. The Mandarin version of PHQ-9 was translated from the original English version by Liu et al. in 2011 [37]. It is a 9-item self-report questionnaire; with each item rated on a 4-point Likert scale (from 0 = not at all to 3 = almost every day). The PHQ-9 score higher than 10 had a sensitivity of 86.0% and a specificity of 94.0% for major depression. Cronbach's α coefficient for the PHQ-9 was .80 [37]. In construct and criterion-related validity, the PHQ-9 significantly correlated with the

Patient Health Questionnaire-15 (PHQ-15) ($r = .65, p < .010$), with the World Health Organization-five Well-Being Index (WHO-5) ($r = -.38, p < .050$), and with the short form of the Beck Depression Inventory-13 (BDI-13) ($r = .70, p < .010$) [38]. The PHQ-9 used in the study had a Mandarin version with good reliability and validity. In this study, Cronbach's α for the PHQ-9 was .96.

Data collection

The study protocol was approved by the Institutional Review Board (IRB number: 10411–003). Informed consent and confidentiality were obtained from all the participants. Consent letters for the use of the PDI-MV, DS-MV, and PHQ-9 were obtained for this study. The study obtained the permission from a medical center of Southern Taiwan to contact the participants and conduct the study. The participants were recruited through a face-to-face interview by a research assistant using the self-report questionnaires with standard instructions. A research assistant, who possessed a license to practice nursing and had been the deputy head nurse in the hematology and oncology division for three years, was trained to administer the questionnaires and ensured rigor during administration and data retrieval from the medical charts. The research assistant checked the list of newly admitted patients with cancer in the inpatient information system every day, screened those meeting enrollment criteria, and confirmed with the attending physician. Subsequently, the research assistant went to the ward to recruit patient one by one and face-to-face based on the list of participants who were eligible for inclusion in this study. The research assistant explained the purpose and procedure of the study to patient, and obtained patient's informed consent in writing, after which the questionnaire survey was conducted. The research assistant used easy-to-understand words, and appropriate volume, speed, and tone to explain the study objectives and processes for the patients. The explanation method of the research assistant was appropriate to the patient's educational level and cultural background, and allowed sufficient time for the patients to consider the pros and cons of participating in the study. If the patient was unable to select the questionnaire options, the research assistant would read out the questions one-by-one and complete the scale based on the patient's answers. Patient autonomy was respected during the completion of the questionnaire and patients were allowed to withdraw or stop at any time during the study. The research assistant was present throughout the administration of the questionnaires to answer any questions that the participant had. Appropriate support, which included support from the attending physician, was provided in a timely manner if the patient experienced emotional distress.

Data analysis

All statistical analyses were performed using SPSS version 22.0 (IBM Corporation, Armonk, NY, USA). Descriptive statistics were used to present variable distributions, which included frequencies, scores, percentages, means, and standard deviations. Inferential statistics were used for the correlation analysis between the independent variables, such as sociodemographic and clinical characteristics, and the dependent variable, a sense of dignity. These tests included an independent t -test, one-way analysis of variance, Pearson's correlation, and receiver operating characteristic (ROC) curve.

Results

Participant's demographics

A total of 267 participants were included in the study. Demographic data and disease characteristics of the participants

are shown in Table 1. The mean of PDI-MV total score was 35.69 (range = 25–93). Regarding demographic and clinical characteristics, the following groups had the mean of PDI-MV total scores higher than the mean of the whole sample: patients who aged 65 years or older ($M = 37.65, t = 3.13, p = .002$), patients who were demoralization ($M = 47.12, t = 8.93, p < .001$) and patients who had depression ($M = 43.66, t = 5.57, p < .001$), there were statistically significant difference between the groups. While women ($M = 36.02$), single patients ($M = 36.26$), patients who had children ($M = 35.71$), had a college level or higher education ($M = 38.58$), were employed ($M = 37.10$), had a monthly income more than NTD 40,000 ($M = 38.58$), lived with family ($M = 35.79$), had religious beliefs ($M = 35.91$), had breast cancer ($M = 37.84$), had leukemia

Table 1 Participants Characteristics and Bivariate Correlations with Dignity ($N = 267$).

Variable	n (%)	M \pm SD	t/F/r	P
Dignity (PDI-MV) (mean \pm SD = 35.69 \pm 12.30, range 25–93)				
Gender			–0.42	.674
Men (reference)	137 (51.3)	35.38 \pm 13.02		
Women	130 (48.7)	36.02 \pm 11.54		
Age (mean \pm SD = 57.43 \pm 11.51, range 21–87)			.14	.021
≥ 65 (reference)	153 (57.3)	37.65 \pm 12.85	3.13	.002
<65	114 (42.7)	33.06 \pm 11.05		
Marital status			–0.45	.655
Married (reference)	198 (74.2)	35.49 \pm 12.32		
Single	69 (25.8)	36.26 \pm 12.30		
Children			0.01	.993
Yes (reference)	141 (52.8)	35.71 \pm 12.62		
No	126 (47.2)	35.66 \pm 11.96		
Education			1.97	.050
College or above (reference)	55 (20.6)	38.58 \pm 14.43		
Below college	212 (79.4)	34.94 \pm 11.60		
Occupation			0.86	.392
Yes (reference)	70 (25.5)	37.10 \pm 13.96		
No	197 (74.5)	35.21 \pm 11.68		
Monthly income (NTD)			1.07	.293
>40000 (reference)	31 (11.6)	38.58 \pm 16.53		
≤ 40000	236 (88.4)	35.31 \pm 11.62		
Cohabitation status			0.39	.698
Live with family (reference)	240 (89.9)	35.79 \pm 12.25		
Alone	27 (10.1)	34.81 \pm 12.96		
Religious belief			0.67	.501
Yes (reference)	223 (83.5)	35.91 \pm 12.62		
No	44 (16.5)	34.55 \pm 10.58		
Tumor site			2.00	.812
Breast	38 (14.2)	37.84 \pm 12.90		
Reproductive	36 (1.9)	35.42 \pm 9.21		
Leukemia	16 (5.2)	36.50 \pm 14.77		
Digestive tract	115 (41.6)	34.67 \pm 11.96		
Lung	22 (7.9)	31.23 \pm 6.89		
Urology	12 (11.2)	32.75 \pm 7.71		
Head and neck	24 (8.6)	42.79 \pm 17.60		
Others	4 (9.4)	34.50 \pm 15.02		
Cancer stage			–0.07	.941
I-II stage (reference)	78 (29.2)	35.60 \pm 13.12		
III-IV stage	189 (70.8)	35.72 \pm 11.98		
Disease characteristics			0.68	.497
Initial diagnosis (reference)	170 (63.7)	36.08 \pm 12.76		
Recurrence	97 (36.3)	35.01 \pm 11.49		
Demoralization (DS-MV) (mean \pm SD = 23.84 \pm 10.37, range 0–68)			.55	<.001
Scoring ≥ 30 (reference)	66 (24.7)	47.12 \pm 12.69	8.93	<.001
Scoring <30	201 (75.3)	31.94 \pm 9.57		
Depression (PHQ-9) (mean \pm SD = 4.52, range 0–24)			.49	<.001
Scoring ≥ 10 (reference)	62 (23.2)	43.66 \pm 12.79	5.57	<.001
Scoring <10	205 (76.8)	33.28 \pm 11.10		

Note. Means and SDs refer to scores on the Patient Dignity Inventory Mandarin version. NTD = new Taiwan dollars; PDI-MV = Patient Dignity Inventory Mandarin version; DS-MV = Demoralization Scale Mandarin version; PHQ-9 = Patient Health Questionnaire-9; M = mean; SD = standard deviation.

(M = 36.50), had head and neck cancer (M = 42.79), had stage III–IV tumors (M = 35.72), patients for whom it was the initial diagnosis (M = 36.08), there were no statistically significant difference between the groups (Table 1).

Bivariate correlations with dignity

Bivariate correlations were used to examine the relationship between ratio variables and dignity. Significant correlations were found between dignity and age ($r = .14, p = .021$), demoralization ($r = .55, p < .001$), and depression ($r = .49, p < .001$) (Table 1). Specifically, patients aged 65 or older having demoralization and depression were more likely to have lower dignity.

Mean item scores of the PDI-MV

The PDI-MV items with the highest mean scores were item 8 “worrying about my future,” (M = 1.78, SD = 0.97), item 3 “experiencing physically distressing symptoms,” (M = 1.73, SD = 0.83), item 7 “feeling uncertain about my illness and treatment” (M = 1.67, SD = 0.81), and item 18 “feeling that I am a burden to others” (M = 1.67, SD = 0.82) (Table 2).

Cut-off point of the PDI-MV

Figures 1 and 2 show the receiver operating characteristic (ROC) curve and area under the curve (AUC) of the PDI-MV (total score) for detecting the presence of demoralization and depression. The results show that when the best cut-off point of PDI-MV was at 36, the AUC, sensitivity, and specificity for demoralization ($DS-MV \geq 30$) were .86, 84.8%, and 79.1%, respectively. When the best cut-off point was 35, the AUC, sensitivity, and specificity for depression ($PHQ-9 \geq 10$) were .77, 73.8%, and 70.9%, respectively (Table 3).

Table 2 The Item Mean Scores of Patient Dignity Inventory Mandarin Version (PDI-MV) (N = 267).

Number	Item	M ± SD	Rank
1	Not being able to carry out tasks associated with daily living	1.26 ± 0.69	21
2	Not being able to attend to my bodily functions independently	1.20 ± 0.59	22
3	Experiencing physically distressing symptoms	1.73 ± 0.83	2
4	Feeling that how I look to others has changed significantly	1.40 ± 0.68	11
5	Feeling depressed	1.59 ± 0.80	9
6	Feeling anxious	1.62 ± 0.82	6
7	Feeling uncertain about my illness and treatment	1.67 ± 0.81	3
8	Worrying about my future	1.78 ± 0.97	1
9	Not being able to think clearly	1.34 ± 0.67	17
10	Not being able to continue with my usual routines	1.43 ± 0.76	10
11	Feeling like I am no longer who I was	1.60 ± 0.83	8
12	Not feeling worthwhile or valued	1.37 ± 0.76	15
13	Not being able to carry out important roles	1.39 ± 0.68	14
14	Feeling that life no longer has meaning or purpose	1.36 ± 0.70	16
15	Feeling that I have not made a meaningful and lasting contribution during my lifetime	1.29 ± 0.68	20
16	Feeling I have unfinished business	1.61 ± 0.86	7
17	Concern that my spiritual life is not meaningful	1.40 ± 0.74	12
18	Feeling that I am a burden to others	1.67 ± 0.82	4
19	Feeling that I don't have control over my life	1.63 ± 0.93	5
20	Feeling that my illness and care needs have reduced my privacy	1.33 ± 0.73	18
21	Not feeling supported by my community of friends and family	1.06 ± 0.39	24
22	Not feeling supported by my health care providers	1.05 ± 0.33	25
23	Feeling like I am no longer able to mentally fight the challenges of my illness	1.40 ± 0.67	13
24	Not being able to accept the way things are	1.33 ± 0.60	19
25	Not being treated with respect or understanding by others	1.19 ± 0.50	23
Total score		35.69 ± 12.3	
Range		25–93	

Note. Used with permission from Li et al. [28].

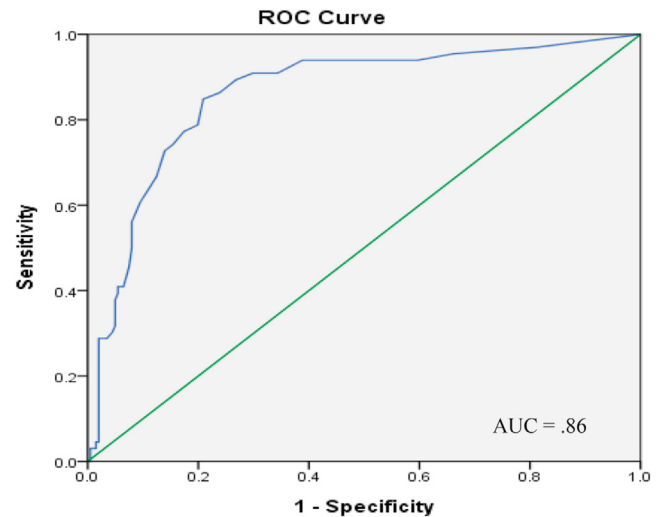


Figure 1. The Receiver Operating Characteristics (ROC) Curves of PDI-MV for Demoralization.

Discussion

This study examined the dignity of patients with cancer in Taiwan and related psychological distress factors. We found that the higher the PDI-MV aggregate score, the lower the sense of dignity and the greater the problem—the PDI-MV average aggregate score was 35.69 and the average itemized score was 1.43. These scores are higher than those obtained in a study conducted in Italy (M = 21.01) [29] and lower than those obtained in studies conducted in Germany (M = 51.60) [14], Spain (M = 38.80) [39], and Iran (average itemized score = 1.94) [40]. The patients with cancer studied in those studies were similar to the present study's participants in terms of the disease's basic attributes, type, stage, and treatment methods. Notably, previous studies have pointed out that when the Patient Dignity Inventory itemized scores were

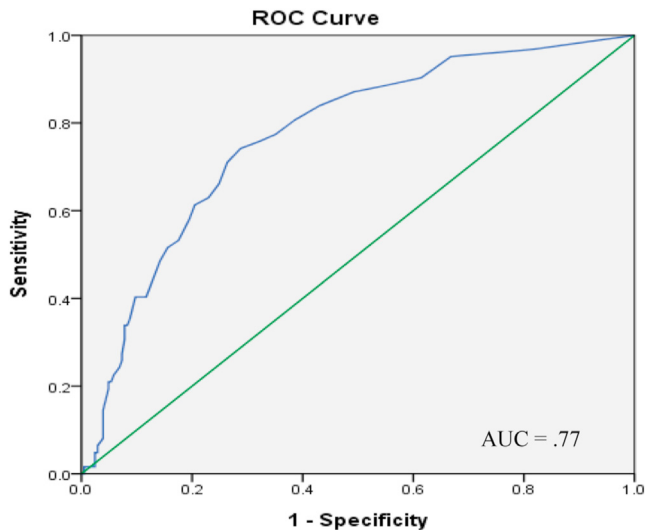


Figure 2. The Receiver Operating Characteristics (ROC) Curves of PDI-MV for Depression.

greater than 3, this indicates that the patient has dignity-related issues [41]. In the present study, none of the itemized scores were greater than 3, but the aggregate score showed a significant correlation with demoralization and depression. Therefore, we recommend looking at aggregate scores along with itemized scores to understand the overall state of patient dignity, and this should minimize the possibility of psychological distress in patients from being overlooked. Dignity scores might differ across countries due to varying cultural backgrounds, social structures, and contextual expression [42,43]; nonetheless, it can be concluded from previous studies that dignity-related issues in patients with cancer have garnered much attention.

The present study also found that dignity and age were significantly correlated, which is in line with the findings of the studies conducted in Italy [29] and Iran [40]. In the present study, two groups were observed: patients with cancer aged below and above 65. We found that patients with cancer aged above 65 had significant dignity-related issues. Previous studies have mentioned that elderly people feel that they have nothing to contribute and are not valued if they have cancer or any other disease or weakness, so they feel a greater lack of recognition and even being ignored, with these self-perceived behaviors posing the greatest threats to dignity in elderly patients with cancer [44]. It is therefore crucial to maintain the dignity of elderly patients with cancer in healthcare settings, be it through the healthcare professionals paying attention to their language, attitude, and behaviors, or the environment and facilities. The key is to ensure that the elderly patients with cancer feel valued and recognized and see their life as meaningful.

In the present study, the top three PDI-MV questions with the highest itemized scores were Q8 (worried about the future), Q3 (experiencing physical discomfort), and Q7 (feeling uncertain about the disease and treatment). The results are similar to those of the studies conducted in Germany [31], Spain [39], and Italy [29]. As medicine continues to advance, the odds of cancer survival are also

increasing. Having cancer is no longer considered a hopeless and fatal situation. That said, patients with cancer will still feel anxious and uncertain about their future; the pain they experience is not limited to the physiological condition. Accordingly, we recommend that healthcare professionals share the disease progression and treatment process with the patients in detail and also encourage them to express their views about the future. This will help reduce their uncertainty and psychological distress and boost their hopes for the future.

Furthermore, the present study came to a similar conclusion as have most studies on dignity, demoralization, and depression: the dignity of patients with cancer is significantly correlated with demoralization and depression [29,30]; it even went a step further, discovering that at a threshold of 36, the sensitivity and specificity for demoralization (DS-MV \geq 30) were 84.8% and 79.1%, respectively, and when the threshold was 35, the sensitivity and specificity for depression (PHQ-9 \geq 10) were 73.8% and 70.9%, respectively. Previous studies lack in-depth analyses on the dignity threshold scores for demoralization and depression, and therefore, no comparison can be made; moreover, these studies merely point out that patients suffer from dignity-related issues when each itemized score is equal to or greater than 3 (a problem) [41] and do not analyze the aggregate score. Although the PDI-MV cut-off point of 35 and 36 in the present study did not reach the “a problem to overwhelming problem” level (>75–125), these cut-off points had higher sensitivity and specificity for depression and demoralization in patients with cancer in Taiwan.

This is an important finding. We hope that the PDI-MV can be used to detect early signs of dignity-related issues in patients with cancer and also be applied as a preventive screening tool for psychological distress. For healthcare professionals, diagnosing demoralization or depression is challenging, especially because the side effects of cancer treatments are similar to the symptoms of demoralization and depression. We recommend that healthcare professionals pay more attention toward patients with cancer with a PDI-MV aggregate score of 35 or more as they may have developed psychological distress due to dignity-related issues (such as demoralization or depression); implementing additional psychological assessments or counseling for such patients will allow healthcare professionals to better understand their psychological state and offer appropriate treatment and care.

Negative associations such as perceiving cancer as fatal and equating growing old with nearing the end of life, can directly threaten patient dignity. If healthcare professionals share such negative attitudes, they will not be able to provide dignified care to patients. Therefore, the dignity of patients with cancer should receive greater educational attention and social recognition in the healthcare sector. Healthcare professionals have to advocate for a dignified healthcare environment. This applies to their language, attitude, and behaviors, as well as medical and care facilities.

Limitation

This study had several limitations. First, a cross-sectional design was used, making causal inferences impossible to determine. Second, although an effective sample size was used for the analysis, there were insufficient samples for understanding and

Table 3 The Cut-off Point of Patient Dignity Inventory Mandarin Version (PDI-MV) for Demoralization and Depression.

Item	AUC	Cut-off points	Sensitivity	Specificity	SE	<i>p</i>	95% CI	Cronbach's α
Demoralization (DS-MV \geq 30)	.86	36	84.8	79.1	0.03	<.001	0.81–0.92	.91
Depression (PHQ-9 \geq 10)	.77	35	73.8	70.9	0.03	<.001	0.70–0.83	.85

Note. AUC = Area Under Curve; DS-MV = Demoralization Scale Mandarin version; PHQ-9 = Patient Health Questionnaire-9.

comparing dignity for every type of cancer diagnosis. Third, we only included cases from one medical center, and the collected data were from a period of time indexed 5 years ago (2017); therefore, the study results cannot be generalized to all patients with cancer.

Conclusion

This study found that dignity in patients with cancer was correlated with age, demoralization, and depression. Healthcare professionals could use the PDI-MV to routinely monitor dignity changes in patients with cancer, understand how they view dignity and dignity-related distress, encourage them to speak out regarding their personal views, and provide suitable care measures based on local backgrounds and cultural habits. This will increase dignity in patients, alleviate dignity-related distress, and reduce adverse outcomes. Future studies should examine dignity in chronic diseases, major illnesses, terminal illnesses, and long-term care to enable clinical caregivers or competent authorities to better meet the needs of the patients.

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Conflict of interest

No conflict of interest has been declared by the authors.

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