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Relationship between hospitalised patients' perceptions of individualised and compassionate nursing care: a cross-sectional study

Kader Kocaman Şerbetçi,[1] and Şengül Üzen Cura[2*]

Abstract

Background Individualised care and compassionate care are fundamental components of person-centred nursing, yet little is known about their relationship from the patient perspective. Understanding this link may help improve care quality and patient satisfaction.

Method This study examined the relationship between patients' perceptions of individualised and compassionate care. This descriptive, correlational, cross-sectional study was conducted with 382 inpatients treated at Çanakkale Onsekiz Mart University Health Practice and Research Hospital between March and October 2024. During data collection, the "Patient Information Form," the "Individualised Care Scale-B (ICS-B)," and the "5-Item Compassion Scale (5-CM)" were employed. Statistical analyses were performed using the Kolmogorov–Smirnov test, Spearman's rho correlation coefficient, Kruskal–Wallis test, Mann–Whitney U test, and Bonferroni correction test.

Results The mean total ICS-B score was 4.69 ± 0.43. Subscale means were 4.69 ± 0.47 for "Clinical Situation," 4.67 ± 0.52 for "Personal Life Situation," and 4.70 ± 0.44 for "Decision-Making Control." The mean total score for the 5-CM was 3.79 ± 0.39. A statistically significant, moderate, positive correlation was found between the ICS-B total and subscale scores and the 5-CM total score (Spearman's rho = 0.56, 95% CI: 0.44–0.69, $p < 0.001$).

Conclusions A positive relationship was found between patients' perceptions of individualised care and compassionate care. Strengthening individualised-care practices may enhance patients' experiences of compassionate care and improve overall patient satisfaction.

Keywords Individualised care, Compassion, Patient perception, Nursing care, Hospitalised patients

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Introduction

Nursing care is a dynamic process that blends science and art to support patients. This process safeguards the integrity of every individual by respecting their unique bio-psycho-socio-cultural wholeness [1]. In line with this process, individualised care is delivered by considering the person's characteristics and assessing each individual as a whole [2]. For nursing care to acquire the quality of being individualised, patients must become aware of the care they receive and provide feedback [3]. Patient feedback and the favourable outcomes observed in patients contribute to increased motivation and job satisfaction among nurses [3–6]. At the same time, because individualised nursing care positively affects patient outcomes, it is considered a key indicator for evaluating healthcare quality [3, 4]. Therefore, individualised care is an extremely important concept in health services [2].

Compassion, which is a cornerstone of healthcare, is defined as recognising suffering and taking action to relieve it [7, 8]. It is accepted as a fundamental and valuable phenomenon in health services and has always been at the heart of nursing [9, 10]. It requires showing respect and value to patients, understanding their experiences during the care process, and responding appropriately to those experiences [8]. Compassion plays a pivotal role in holistic and person-centred care [11, 12]. Burnell's study emphasises that compassion is the heart of nursing care and practice, highlighting its significance in all nursing interventions [13]. Research shows that compassionate care strengthens trust between patient and nurse, increases patient satisfaction and quality of life, accelerates recovery, reduces suffering, and enhances overall well-being [11, 12, 14, 15].

According to the Person-centred Nursing Framework (PCNF) developed by McCance and McCormack, both individualised and compassionate care are essential components of person-centred nursing, representing the relational and moral dimensions of high-quality nursing practice. The PCNF emphasises that compassion provides the ethical foundation that enables individualised care to be enacted, while individualisation translates compassion into context-specific actions, together forming the basis of person-centred and humanistic nursing care. This theoretical perspective highlights that both constructs—compassion and individualisation—are integral to healthcare quality and reflect nurses' capacity to deliver care that respects human dignity and promotes patient well-being [16].

The present study targeted adult inpatients aged 18–65 years, representing the general adult hospital population commonly encountered in healthcare services. This range was chosen to obtain consistent, comparable, and representative data across adult care settings.

Focusing on the patient's perception should be a primary concern in care, and it is crucial to evaluate the care provided from the patient's perspective [17]. Moreover, compassion holds a key role in achieving holistic, person-centred care [11, 12, 18]. Although studies have assessed patients' perceptions of individualised care [17, 19, 20] and compassionate care [21–24], no research has examined the relationship between these two perceptions.

Therefore, this study aimed to examine the relationship between hospitalised patients' perceptions of individualised and compassionate nursing care and to explore how these constructs are interrelated within the framework of person-centred nursing.

Methods

Design

This study was designed as a descriptive, correlational, cross-sectional study conducted to examine the relationship between hospitalised patients' perceptions of individualised and compassionate nursing care.

Population and sample

The study population consisted of patients hospitalised in the internal medicine clinics of a university hospital. The sample comprised patients who voluntarily agreed to participate and met all inclusion criteria. Eligible participants were recruited through a convenience sampling method; therefore, the sample may not fully represent all internal medicine inpatients. The inclusion criteria were voluntary participation, inpatient status, age between 18 and 65 years, absence of communication barriers, and a Glasgow Coma Scale score of 15. Patients older than 65 years were excluded to minimise potential difficulties related not only to communication but also to cognitive load, fatigue, and the completion of self-reported questionnaires in an inpatient setting, which could compromise the reliability of measurement.

Sample size was calculated with G*Power (version 3.1.9.6) for a two-tailed correlation (effect size = 0.20, α = 0.05, power = 0.95). The expected effect size (r = 0.20) was determined according to Cohen's classification, which defines r = 0.10, 0.30, and 0.50 as small, medium, and large effects, respectively, and is consistent with the power analysis guidelines of Faul et al. [25, 26]. With a small effect size, r = 0.20, α = 0.05, and power = 0.95, the required sample was 314. A total of 382 patients were ultimately enrolled. During the study period, 400 patients hospitalized in the internal medicine clinics of a training and research hospital were approached. Of these, 390 met the eligibility criteria (aged 18–65 years, absence of communication barriers, and a Glasgow Coma Scale score of 15), while 10 patients were excluded. Among the eligible patients, 382 consented to participate (8 declined participation), and all completed the questionnaires.

Consequently, 382 patients were included in the final analysis. Importantly, there were no missing data at either the item or case level, as questionnaires were administered face-to-face by trained researchers and checked for completeness at the time of collection. The study sample thus represents adult inpatients within an internal medicine clinical setting. A recruitment flow diagram (Fig. 1) illustrates this process.

Data collection instruments

Patient information form

Developed based on the relevant literature, this form records patients' demographic characteristics (age, sex, education level, marital status, income level, health insurance, employment status) and illness-related variables (previous hospitalisation, length of stay) [19, 27–29].

Individualised care scale-B (ICS-B)

The scale was developed by Suhonen et al. and validated in Turkish by Acaroğlu et al. The ICS has two sections: awareness of nursing actions that support individuality during hospitalisation (ICS-A) and perception of one's own individuality in care (ICS-B). This study used the ICS-B, which consists of 17 items in three subscales—Clinical Situation (items 1–7), Personal Life Situation (items 8–11), and Decision-Making Control (items 12–17). Each section and subscale is scored from 1 to 5; higher scores indicate stronger perception and experience of individualised care. Cronbach's α for the Turkish ICS-B is 0.93 [27, 30, 31]. In the present study, Cronbach's α values were 0.78 (95% CI: 0.75–0.81) for the total scale, 0.72 (95% CI: 0.67–0.76) for Clinical Situation, 0.67 (95% CI: 0.61–0.72) for Personal Life Situation, and 0.73 (95% CI: 0.69–0.77) for Decision-Making Control.

5-Item compassion scale (5-CM)

Developed by Roberts et al. and adapted to Turkish by Özsaban et al. This five-item, four-point Likert scale yields total scores from 5 to 20, with higher scores reflecting greater perceived compassionate care. The 5-CM is unidimensional. The original Cronbach's α was 0.95; in the Turkish validation, it was 0.83 [32, 33]. In the present study, Cronbach's α was 0.72 (95% CI: 0.67–0.76).

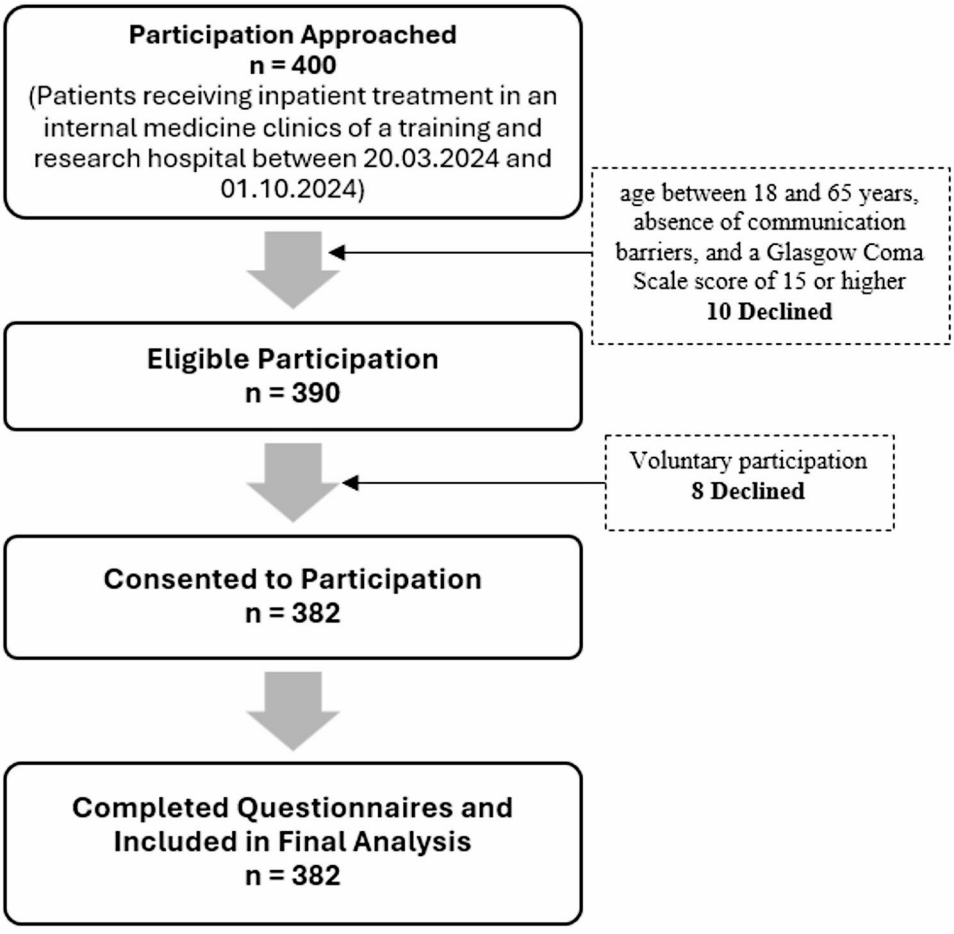


Fig. 1 Recruitment flow diagram

Data analysis

Data were analysed with SPSS for Windows (Version 24.0). Descriptive statistics for continuous variables were reported as mean, standard deviation, minimum, maximum, median, percentes 25 and 75. We assessed internal consistency using Cronbach's alpha (α). Two-sided 95% confidence intervals for α were computed with the Feldt method, which derives bounds from the F distribution based on the sample size (N) and the number of items (k). For each subscale, α and its Feldt 95% CI were reported. Normality was evaluated using the Kolmogorov–Smirnov test, and since the data did not show a normal distribution, non-parametric tests were applied for group comparisons: the Mann–Whitney U test for two groups and the Kruskal–Wallis H test for more than two groups. When the Kruskal–Wallis test indicated significance, Bonferroni-adjusted pairwise post-hoc analyses were performed. Relationships between variables were evaluated using Spearman's rho, with bias-corrected 95% confidence intervals estimated through 1000 bootstrap samples. Associations between ICS-B and 5-CM were analysed using multivariable linear regression. In this model, compassionate care (5-CM) was specified as the dependent variable and individualised care (ICS-B) as the independent variable. Based on preliminary group comparisons and theoretical relevance, education level and ward were included as covariates to adjust for their potential influence. The interaction term was included to explore whether the association between individualised care and compassionate care differed across hospital wards. The analytical procedures refer to inferential statistical analyses and do not imply causal testing.

Results

Of the patients, 62.57% were aged ≥ 56–65 years, 53.40% were male, 50% had completed primary school, and 72.51% were married. A total of 72.51% reported income equal to expenses, 96.60% had health insurance, 82.46% were not employed for reasons unrelated to illness, 35.60% were hospitalised in the internal-medicine ward, 90.05% had previous hospitalisation experience, and 73.04% had been hospitalised for 1–6 days.

The mean total ICS-B score was 4.69 ± 0.43, with subscale means of 4.69 ± 0.47 for Clinical Situation, 4.67 ± 0.52 for Personal Life Situation, and 4.70 ± 0.44 for Decision-Making Control. Detailed item-level results are presented in Table 1.

The mean total 5-CM score was 3.79 ± 0.39, indicating high perceived compassionate care. The highest- and lowest-scoring items are provided in Table 2.

Group comparisons showed that ICS-B scores differed significantly by education level, ward, and length of stay, but not by sex, age, marital status, income, health insurance, employment status, or previous hospitalisation. For the 5-CM, significant differences were observed by age, education level, income, ward, and length of stay, but not by sex, marital status, health insurance, employment status, or previous hospitalisation (Tables 3 and 4).

A statistically significant, positive, moderate correlation was found between the total ICS-B score and its subscales and the total 5-CM score (Spearman's rho = 0.56, 95% CI: 0.44–0.69, $p < 0.001$) (Table 5; Fig. 2).

A multivariable linear regression analysis was conducted to examine the association between individualised care (ICS-B) and compassionate care (5-CM) after

Table 1 Distribution of ICS-B ($n = 382$)

Subscale	Item	Mean ± SD	Median (P25-P75)	Min–Max
Clinical Situation	1	4.66 ± 0.62	5.00 (4.00–5.00)	1.00–5.00
	2	4.68 ± 0.57	5.00 (4.00–5.00)	1.00–5.00
	3	4.68 ± 0.60	5.00 (4.00–5.00)	1.00–5.00
	4	4.68 ± 0.56	5.00 (4.00–5.00)	1.00–5.00
	5	4.74 ± 0.54	5.00 (5.00–5.00)	1.00–5.00
	6	4.74 ± 0.54	5.00 (5.00–5.00)	1.00–5.00
	7	4.70 ± 0.60	5.00 (5.00–5.00)	1.00–5.00
Personal Life Situation	8	4.72 ± 0.60	5.00 (5.00–5.00)	1.00–5.00
	9	4.54 ± 0.75	5.00 (4.00–5.00)	1.00–5.00
	10	4.73 ± 0.58	5.00 (5.00–5.00)	1.00–5.00
	11	4.69 ± 0.70	5.00 (5.00–5.00)	1.00–5.00
Decision-Making Control	12	4.72 ± 0.55	5.00 (5.00–5.00)	1.00–5.00
	13	4.76 ± 0.52	5.00 (5.00–5.00)	1.00–5.00
	14	4.78 ± 0.50	5.00 (5.00–5.00)	1.00–5.00
	15	4.75 ± 0.52	5.00 (5.00–5.00)	1.00–5.00
	16	4.75 ± 0.54	5.00 (5.00–5.00)	1.00–5.00
	17	4.44 ± 0.85	5.00 (4.00–5.00)	1.00–5.00
ICS-B Total Score		4.69 ± 0.43	4.88 (4.53-5.00)	1.00–5.00

SD: Standard Deviation P: Percentiles

Table 2 Distribution of 5-CM items ($n=382$)

5-CM Items	Mean ± SD	Median (P25-P75)	Min-Max
During your hospital stay, how often did you feel that your nurses were concerned with your emotional and psychological health?	3.76 ± 0.49	4.00 (4.00–4.00)	1.00–4.00
During your hospital stay, how often did you feel that your nurses cared for you as a whole person?	3.79 ± 0.47	4.00 (4.00–4.00)	2.00–4.00
During your hospital stay, how often did you feel that your nurses valued your personal needs?	3.79 ± 0.48	4.00 (4.00–4.00)	1.00–4.00
During your hospital stay, how often did you feel that your nurses earned your trust?	3.81 ± 0.45	4.00 (4.00–4.00)	2.00–4.00
During your hospital stay, how often did you feel that your nurses showed you interest and compassion?	3.82 ± 0.43	4.00 (4.00–4.00)	2.00–4.00
Scale total	3.79 ± 0.39	4.00 (3.80–4.00)	1.80-4.00

SD: Standard Deviation P: Percentiles

Table 3 Comparison of patients' sociodemographic with mean ICS-B and 5-CM scores

	ICS-B		5-CM	
	M ± SD	Test	M ± SD	Test
Gender				
Female	4.68 ± 0.46	Z=-0.72; ε^2=0.04	3.79 ± 0.38	Z=-0.45; ε^2=0.02
Male	4.70 ± 0.39	$p=0.473$	3.80 ± 0.40	$p=0.650$
Age				
18–35	4.75 ± 0.28	χ2=6.02; ε^2=0.02	3.64 ± 0.64	χ2=12.04; ε^2=0.03
36–45	4.61 ± 0.56	$p=0.110$	3.64 ± 0.54	$p=0.007$
46–55	4.66 ± 0.33		3.76 ± 0.35	
56–65	4.71 ± 0.45		3.84 ± 0.35	
Post Hoc				(56–65) vs.(≤ 35) Z = 2.72;$p=0.007$* (56–65)vs.(36–55) Z = 2.73;$p=0.006$*
Level of Education				
Literate	4.66 ± 0.39	χ2= 18.62;ε^2=0.05	3.90 ± 0.20	χ2= 14.53;ε^2=0.04
Primary School	4.75 ± 0.41	$p<0.001$*	3.83 ± 0.35	$p<0.001$*
Middle School	4.55 ± 0.35		3.67 ± 0.38	
High School	4.62 ± 0.49		3.75 ± 0.43	
University	4.72 ± 0.49		3.70 ± 0.57	
Post Hoc		University vs. Middle Z=-3.16 $p=0.01$*		Literate vs. Middle Z=-3.18;$p<0.001$*
Marital status				
Married	4.69 ± 0.41	Z=-0.48;ε^2=0.03	3.79 ± 0.36	Z=-0.66;ε^2=0.04
Single	4.68 ± 0.47	$p=0.632$	3.79 ± 0.44	$p=0.509$
Income Level				
Income > expenses	4.76 ± 0.19	χ2= 0.21;ε^2=0.01	3.70 ± 0.33	χ2= 11.49;ε^2=0.03
Income < expenses	4.67 ± 0.56	$p=0.901$	3.75 ± 0.39	$p<0.001$*
Income = expenses	4.7 ± 0.39		3.81 ± 0.39	
Post Hoc				(I = E) vs. (I > E) Z=-2.65;$p=0.0$*
Health insurance				
Yes	4.69 ± 0.43	Z=-1.13;ε^2=0.02	3.8 ± 0.39	Z=-0.72;ε^2=0.09
No	4.65 ± 0.31	$p=0.260$	3.72 ± 0.40	$p=0.470$
Employment status				
Notworking(illness)	4.54 ± 0.86	χ2= 1.54;ε^2=0.01	3.80 ± 0.27	χ2= 1.69;ε^2=0.01
Notworking(other)	4.70 ± 0.40	$p=0.463$	3.80 ± 0.38	$p=0.429$
Employed	4.72 ± 0.27		3.76 ± 0.46	

M: Mean; SD: Standard Deviation Z: Mann-Whitney U Test χ2: Kruskal-Wallis Test *statistically significant

Post Hoc. Bonferroni correction (Age: $p<0.05/6=0.008$; Education: $p<0.05/10=0.005$; Income/Employment: $p<0.05/3=0.016$)

Table 4 Comparison of patients' clinical characteristics with mean ICS-B and 5-CM scores

	ICS-B		5-CM	
	M ± SD	Test	M ± SD	Test
Ward				
Internal medicine	4.62 ± 0.38	χ2= 35.46; ε^2=0.09	3.74 ± 0.41	χ2= 12.29; ε^2=0.03
Cardiology	4.69 ± 0.56	$p < 0.001$*	3.79 ± 0.42	$p = 0.031$*
Neurology	4.73 ± 0.32		3.80 ± 0.38	
Physical Med.Rehab.	4.90 ± 0.20		3.88 ± 0.33	
Pulmonology	4.78 ± 0.47		3.90 ± 0.30	
Infectiousdisease	4.64 ± 0.35		3.90 ± 0.20	
Post Hoc		PMR vs.Inf. Z=-3.37;$p < 0.001$* PMR vs.Int. Z=-4.59;$p < 0.001$* PMR vs.Neu.Z=-3.61;$p < 0.001$* Inf. vs.Int. Z=-3.44;$p < 0.001$* Car. vs.Int. Z=-3.62;$p < 0.001$*		Inf.vs.Int. Z=-2.57; $p < 0.001$*
Previous hospital.				
Yes	4.68 ± 0.45	Z=-0.49; ε^2=0.05	3.78 ± 0.40	Z=-1.29; ε^2=0.11
No	4.78 ± 0.16	$p = 0.624$	3.88 ± 0.27	$p = 0.198$
Length of stay(days)				
1-6days	4.69 ± 0.45	χ2= 16.83; ε^2=0.04	3.80 ± 0.39	χ2= 10.34; ε^2=0.03
7-10days	4.59 ± 0.41	$p < 0.001$*	3.72 ± 0.39	$p = 0.006$*
≥ 11days	4.85 ± 0.23		3.86 ± 0.32	
Post Hoc		(7–10)vs.(1–6) Z=-2.95;$p = 0.003$* (7–10)vs.(≥ 11) Z=-4.15;$p < 0.001$*		(7–10)vs.(1–6) Z=-2.76;$p = 0.006$* (7–10)vs.(≥ 11) Z=-2.75;$p = 0.006$*

M: Mean; SD: Standard Deviation Z: Mann-Whitney U Test χ2: Kruskal-Wallis Test *statistically significant

Post Hoc. Bonferroni correction (Ward $p < 0.05/15 = 0.003$; Length of stay $p < 0.05/3 = 0.016$;)

Table 5 Relationship between 5-CM and ICS-B total and subscales

Variable	Test	5-CM Total	Clinical Situation	Personal Life Situation	Decision-Making Control
Clinical Situation	r	0.58	—		
	p	< 0.001*	—		
	95% CI	0.48–0.69	—		
Personal Life Situation	r	0.49	0.73	—	
	p	< 0.001*	< 0.001*	—	
	95% CI	0.36–0.61	0.62–0.82	—	
Decision-Making Control	r	0.44	0.74	0.71	—
	p	< 0.001*	< 0.001*	< 0.001*	—
	95% CI	0.32–0.57	0.62–0.83	0.59–0.80	—
ICS-B Total	r	0.56	0.93	0.87	0.90
	p	< 0.001*	< 0.001*	< 0.001*	< 0.001*
	95% CI	0.44–0.69	0.90–0.96	0.82–0.91	0.85–0.94

95% CI: Confidence Intervals based on 1000 bootstrap replicates *statistical significance

adjusting for education level, ward, and their interaction. The model was statistically significant ($F = 45.64$, $p < 0.001$), explaining approximately 31% of the variance in compassionate care. ICS-B was a significant predictor of compassionate care ($p < 0.001$, $\eta^2 p = 0.31$), whereas education level ($p = 0.230$, $\eta^2 p = 0.01$), ward ($p = 0.310$, $\eta^2 p = 0.01$), and their interaction ($p = 0.920$, $\eta^2 p = 0.03$) were not significant.

Discussions

In this study, the mean total item score on the ICS-B was 4.69 ± 0.42. Given that the maximum attainable item mean on the ICS-B is 5, these results indicate a high level of individualised care. Berg and colleagues noted that ICS-B item means of 4.50 or higher may be interpreted as evidence that individualised care is being delivered at a high standard [34]. In a multicentre study conducted by Suhonen et al. across four countries, item means for hospitalised cancer patients ranged from 3.25 ± 0.83 to 4.23 ± 0.66 [35]. Other investigations have likewise reported ICS-B item means between 3.58 ± 0.94 and 4.46 ± 0.70 [36–38]. Turkish studies have found mean total item scores varying from 2.33 ± 0.69 to 4.35 ± 0.67 [39–46]. The high score obtained in the present work suggests that the nursing care received by participants was perceived as holistic and humanistic, meeting their

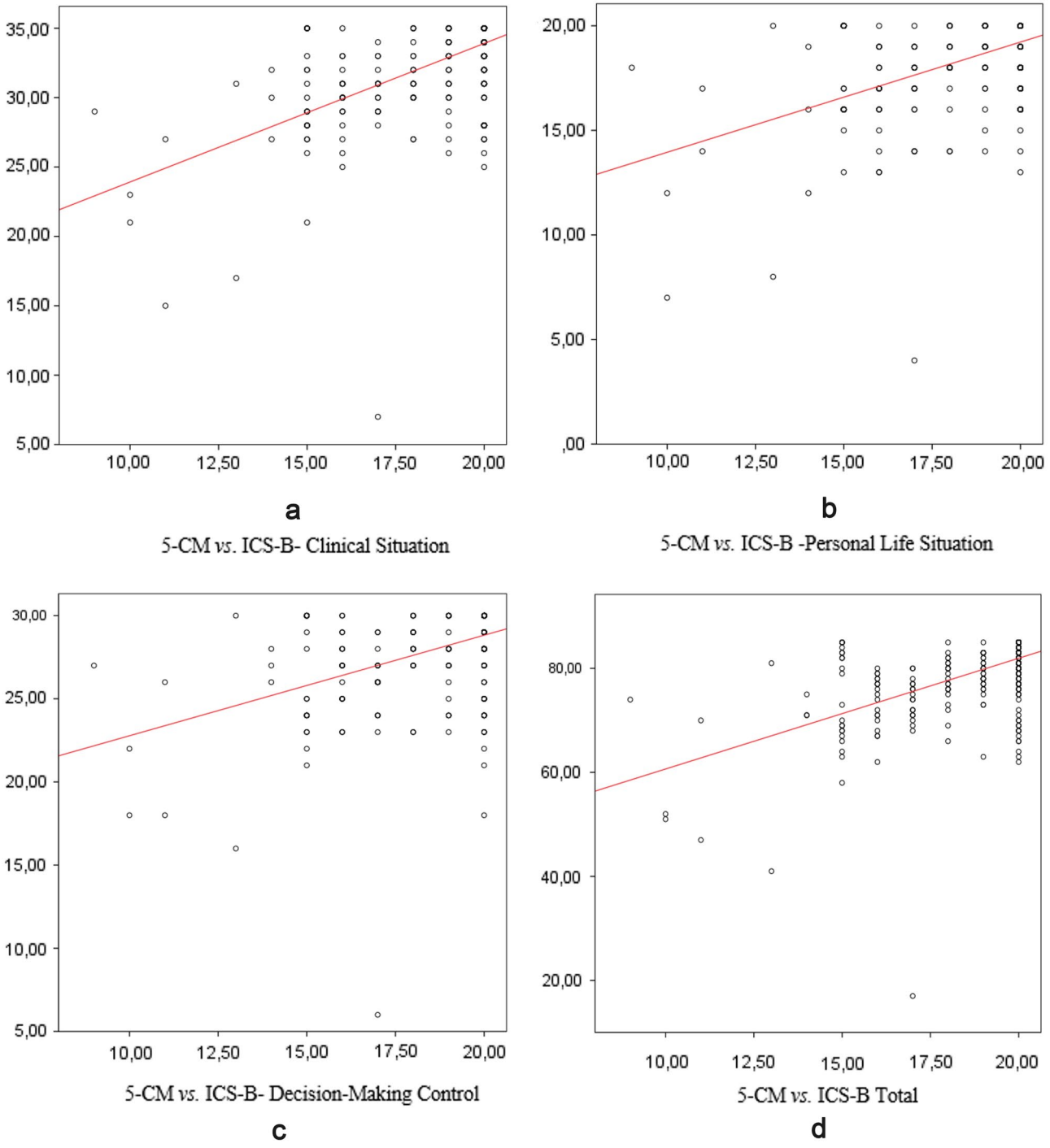


Fig. 2 Scatter-plot curves illustrating the correlations between 5-CM and ICS-B (total and subscales)

individual needs. However, the exceptionally high ICS-B scores observed may reflect potential ceiling effects, cultural response patterns, or social desirability bias, particularly given the face-to-face data collection method. In addition, the slightly lower Cronbach's alpha values compared with previous validation studies may be related to reduced response variability rather than inadequate internal consistency and should be interpreted within the context of the study setting.

According to patients' responses on the ICS-B, the highest item mean was in the Decision-Making subscale—item 14, "During my care, my stated wishes were taken into account", whereas the lowest was item 17, "I decided for myself when to take a bath." Although nurses

appear to approach patients' individual needs empathetically, patients may still expect greater autonomy in highly personal activities such as bathing and may feel constrained by physical conditions in some hospital settings. A similar pattern was reported by Alıcı and Koç, who also found the lowest mean for the bath-time item [40]; this likely reflects patients' desire for greater independence in certain care decisions.

When ICS-B means were compared by education level, university graduates scored significantly higher than secondary-school graduates. Kaplan's thesis likewise showed the highest ICS-B means among university-educated patients [47]. In contrast, Ceylan and Eser and Köberich et al. reported higher individualised-care perceptions in less-educated groups and a decline as education increased [45, 47, 48]. The higher perception among university graduates in the present study may stem from their greater knowledge and more active participation in the care process, enabling them to articulate their needs more clearly individualised care is a prominent indicator of healthcare quality because of its favourable impact on patient outcomes [3, 4].

Patients in pulmonary and cardiology wards had significantly higher mean ICS-B scores than those in internal medicine ($p < 0.05$), consistent with Naef et al. who also found elevated individualised-care perceptions in cardiology and respiratory wards [49]. The relatively lower scores in internal medicine may be due to longer and more complex treatment and care processes in that setting.

Regarding length of stay, patients hospitalised for 1–6 days scored higher than those hospitalised for 7–10 days, while patients hospitalised for ≥ 11 days scored higher than both other groups. Kotan's thesis reported a similar trend, with the highest ICS-B means among patients hospitalised for 11 days or more, although the differences were not statistically significant [20]. Longer stays may enable patients to communicate more openly with nurses and to progress to a stage of better understanding and accepting their treatment, thereby perceiving care as more individualised.

The mean total 5-CM score was 3.79 ± 0.39; considering that the maximum item mean is 4, patients' perceptions of compassionate care were high. The item with the highest mean was "During your hospital stay, how often did you feel that your nurses showed you interest and compassion?"—in line with Tosunöz et al. who found that patients define a good nurse as attentive, humane, and self-sacrificing [50]. Other studies likewise report high perceived compassion in nursing care [21–23]. As the essence of nursing, compassion is linked to positive patient outcomes, and high perceived compassion is regarded as a marker of care quality. The lowest item mean concerned nurses' attention to patients' emotional and psychological health. Hintistan et al. similarly observed pessimistic emotional and psychological experiences among patients [51]. Patients may feel that nurses prioritise physiological care and neglect psychological support.

In the comparison of 5-CM means by age, patients aged ≥ 56–65 years scored significantly higher than those aged 36–45 and 46–55 years ($p < 0.05$). Abozied et al. likewise found higher compassionate-care perceptions among older patients [21]. With advancing age, greater life experience may foster tolerance and a heightened perception of compassion. Although overall differences by education level were not significant, literacy-level patients scored higher than secondary-school graduates ($p < 0.05$). Abozied et al. also reported higher compassionate-care perceptions among illiterate patients [21]; as education increases, expectations of healthcare and nursing may shift.

Patients whose income equalled their expenses scored higher on the 5-CM than those whose income exceeded expenses ($p < 0.05$). Berhe et al. similarly found higher perceived compassion among patients with low or middle income [22]. Higher-income patients may view nurses primarily as professionals who perform technical tasks and may focus less on compassionate behaviour.

With respect to length of stay, patients who hospitalised for 1–6 days scored higher than those hospitalised for 7–10 days ($p < 0.05$), and patients hospitalised for ≥ 11 days scored higher than those hospitalised for 7–10 days ($p < 0.05$). Abozied et al. reported the opposite pattern, with compassionate-care perceptions decreasing as length of stay increased [21]. In the present study, short-stay patients may have experienced heightened anxiety and dependency, leading them to expect and perceive greater compassion. As length of stay increases, stress and fear of not recovering may rise, and expectations of nursing care may become more complex. Patients hospitalised for ≥ 11 days may reach a stage of acceptance, allowing them to recognise nurses' roles more fully and to appraise compassionate approaches more positively.

A statistically significant, positive, moderate correlation was found between the total ICS-B score and its subscales ("Clinical Situation," "Personal Life Situation," "Decision-Making Control") and the total 5-CM score. Çetin and Çevik likewise reported a positive, albeit weak, correlation between nursing students' compassion levels and individualised-care perceptions [52]. It should be emphasised, however, that comparisons with student samples should be interpreted with caution, as training contexts and professional roles differ substantially from hospitalised patient experiences. Differences in setting, cultural norms, and measurement instruments may also influence reported associations. Although some coefficients and confidence intervals fell below commonly

recommended thresholds, this pattern is not unexpected in clinical populations where restricted score variability, contextual influences, and heterogeneity in patient characteristics can attenuate internal consistency and effect sizes. Importantly, the ICS-B and 5-CM are well-validated instruments with established psychometric robustness, and their continued use in this context remains justified.

When individualised care and compassionate care are combined, not only physical but also emotional and psychological needs are met. While individualised care addresses personal requirements, compassionate care approaches these needs empathetically and humanely. This integration enables patients to feel valued, respected, and safe. Compassion reinforces the ethical and emotional foundation of individualised care, leading to a more comprehensive and effective care experience. Hence, individualised care and compassion should be considered together. Compassion plays a key role in holistic, person-centred care [11, 12, 18], and individualised care is a prominent indicator of healthcare quality because of its favourable impact on patient outcomes [3, 4]. Cross-country differences should also be considered. Variations in nurse–patient ratios, healthcare system structures, and cultural expectations may influence how patients perceive both individualised and compassionate care, which may limit the comparability of results across settings.

This study was conducted in a Turkish university hospital, where nurse–patient ratios are relatively high and nurses often work under considerable workload. Nursing care is commonly delivered within a task-oriented model, although recent reforms and educational initiatives have sought to strengthen person-centred approaches. These contextual factors, including staffing levels, workload, and local models of nursing, may shape patients' perceptions of both individualised and compassionate care. Readers should take these contextual elements into account when considering the transferability of the findings to other healthcare systems and cultural settings.

These findings align with the Person-centred Nursing Framework, which identifies compassion as the ethical foundation of person-centred care and individualisation as its practical expression. The positive association observed in this study supports this theoretical link, indicating that recognising patients' unique needs and responding empathetically function together as complementary components of high-quality, person-centred nursing care [16].

Implications for practice

The findings of this study indicate that reinforcing individualised approaches and compassionate communication in nursing care can enhance patient experience and satisfaction. When nurses provide care that takes into account patients' individual characteristics, emotional needs, and personal preferences, both individualised-care perceptions and compassionate-care perceptions may improve. Principles of individualised and compassion-based care should therefore be emphasised in clinical practice, nursing education, and institutional in-service training programmes.

In addition, hospital administrators should adjust workloads so that nurses have sufficient time for one-to-one patient care. By increasing patient–nurse interaction, such arrangements can facilitate the effective delivery of both individualised and compassionate care. This strategy will not only improve patients' physical health but also foster their emotional and psychological well-being, thereby raising the overall quality of healthcare services.

Limitations

This study has several limitations. First, it was conducted in a single university hospital using a convenience sampling method, and participation was voluntary; therefore, self-selection bias may have influenced patients' perceptions of care. Second, patients older than 65 years were excluded to minimise potential difficulties related to communication and questionnaire completion that could affect the reliability of self-reported responses.

Third, although patients were clustered within hospital wards, preliminary checks indicated minimal between-ward variability; therefore, clustering adjustment was not applied, which may still represent a methodological limitation. Fourth, the descriptive, correlational, cross-sectional design precludes causal interpretation of the relationship between individualised-care and compassionate-care perceptions. In addition, although multivariable regression analysis was used to adjust for selected covariates, residual confounding cannot be ruled out, and the results should be interpreted with caution.

Fifth, data were obtained through self-report, which may be subject to systematic biases such as social desirability and may affect objectivity. Sixth, participants' psychological status (e.g., depression, anxiety) and the clinical severity of their illnesses were not controlled, both of which may influence perceptions of care. Finally, data collection was limited to a specific period (March–October 2024); therefore, contextual factors such as hospital workload or staff turnover during this period may have affected the results.

Conclusions

This study demonstrated a positive, moderate, and statistically significant relationship between patients' perceptions of individualised care and their perceptions of compassionate care. The findings suggest that enhancing individualised-care practices may strengthen the

compassion that patients perceive in nursing care. Consequently, individualised care appears to support not only physical well-being but also patients' emotional and psychological well-being.

Overall, the results indicate that reinforcing patient-centred and individualised approaches in clinical practice can improve patients' overall care experience and satisfaction. When nurses adopt an empathetic and compassionate attitude that takes account of patients' individual characteristics throughout the care process, care quality and patient outcomes may be improved.

Future studies should investigate the relationship between individualised care and compassionate care in a variety of hospital settings, using larger and more diverse samples. Moreover, advanced statistical modelling is recommended to determine whether perceptions of individualised care exert a direct mediating effect on perceptions of compassionate care, thereby providing further insights to enhance nursing practice. In addition, future research should apply multivariable regression approaches, adjusting for potential confounders such as ward, education, income, and length of stay, to confirm the robustness of this association.

Supplementary Information

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Supplementary Material 1

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Author contributions
K.K.Ş. conducted the study as part of a thesis project, performed data collection, statistical analyses, and drafted the initial manuscript. Ş.Ü.C. supervised the study design and implementation, provided guidance throughout the research process, contributed to data interpretation, and critically revised the manuscript for important intellectual content. All authors approved the final version of the manuscript.

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Data availability
The datasets generated and analysed during the current study are available from the corresponding author upon reasonable request.

Declarations

Ethics approval and consent to participate
This study was conducted in accordance with the principles of the Declaration of Helsinki. Ethical approval was obtained from the Çanakkale Onsekiz Mart University Graduate Education Institute Ethics Committee (Approval No: 3/49, Date: 26 October 2023). Written informed consent was obtained from all participants prior to data collection.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

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