



# Assessing the Personality Traits of Mid- and Senior-Level Nurses: Insights Derived from the Dominance-Influence-Steadiness-Conscientiousness (DISC) Behavioral Model

<sup>1</sup> Saliha Koç Aslan

<sup>1</sup> Acibadem Health Group Head Office Ataşehir, Istanbul

**Article received:** 14. 08. 2025.

**Article accepted:** 10. 12. 2025.

<https://doi.org/10.24141/2/10/1/5>

**Author for correspondence:**

Saliha Koç Aslan  
Acibadem Health Group Head Office Ataşehir, Istanbul  
E-mail: [skoc@acibadem.com](mailto:skoc@acibadem.com)

**Keywords:** behavioral model, leadership competencies, nurse managers, personality assessment, DISC model

## Abstract

**Introduction.** Understanding personality tendencies, communication patterns, leadership competencies, and motivational styles among nurse leaders is essential for strengthening managerial effectiveness and improving patient care outcomes. Mapping these traits provides insight into both the strengths and the developmental needs of nursing leadership within complex healthcare environments.

**Aim.** To examine the Dominance-Influence-Steadiness-Conscientiousness (DISC) behavioral traits of middle- and senior-level nurse managers working in a private healthcare institution.

**Methods.** A descriptive cross-sectional study was conducted with 186 nurse leaders. Data on demographic characteristics, DISC behavioral tendencies, and key leadership competencies were collected using an online questionnaire. Descriptive statistical analyses were performed using SPSS to evaluate leadership-related behavioral patterns.

**Results.** Conscientiousness emerged as the most prevalent dominant DISC trait (54.8%), particularly among Nurse-in-Charge roles (45.6%). Communication competencies demonstrated strong factual grounding (42.4% very high). System-aligned and systematic decision-making approaches were also prominent (44.6% very high). Management competencies showed high performance in strategic planning and work discipline (44.08%). However, rapid decision-making under pressure was identified as a significant challenge, with 44.6% scoring very low in this domain.

**Conclusion.** The findings indicate that nurse leaders possess strong conscientious, structured, and strategic characteristics that support effective leadership. Nonetheless, targeted development is needed in rapid decision-making under pressure and in self-motivation. Addressing these gaps through structured leadership development programs may enhance managerial effectiveness and contribute to improved patient care and organisational outcomes.

---

---

## Introduction

---

---

Effective nursing management and leadership play a critical role in shaping patient outcomes, improving staff well-being, and supporting the operational efficiency of healthcare organisations. Nurse managers—particularly those in middle and senior leadership roles—serve as essential intermediaries between clinical practice and administrative decision-making. Understanding their behavioural tendencies is therefore crucial for cultivating work environments that enhance staff satisfaction, organisational communication, and patient safety (1-6).

The Dominance-Influence-Steadiness-Conscientiousness (DISC) behavioural model, developed by William Moulton Marston in the 1920s, categorises behavioural tendencies into four domains: Dominance (D), Influence (I), Steadiness (S), and Conscientiousness (C) (7-10). Widely used in organisational psychology, the DISC model supports improvements in leadership effectiveness, interpersonal communication, and team functioning (7). In healthcare settings, aligning leadership responsibilities with behavioural strengths may reduce job stress, improve efficiency, and increase job satisfaction—particularly in high-pressure environments such as hospitals (11).

Conscientiousness—characterised by accuracy, reliability, and attention to detail—is especially important in nursing leadership, where accountability and precision are essential (12-14). Leaders who demonstrate conscientious behavioural tendencies often contribute to cultures of safety and quality, positively affecting team performance and patient outcomes (4). Interpersonal traits such as Influence also support leadership effectiveness by enhancing motivation, engagement, and communication within teams (11,13,15).

Personality assessments, including the DISC model, are increasingly used to inform leadership development initiatives. Targeted educational programmes can be designed around the behavioural patterns of nurse leaders, enabling organisations to strengthen decision-making, communication, and motivational competencies (16). For example, individuals with high Steadiness may benefit from training in rapid decision-making under pressure (12). Additionally, linking personality traits with transformational or

transactional leadership styles may help organisations identify and develop individuals best suited for leadership roles (11,12,17,18).

Personality traits also influence ethical leadership behaviours, which play a vital role in shaping organisational culture, employee morale, and retention (13,19). Ethical, consistent leadership strengthens trust and contributes to a positive work climate, reinforcing the importance of understanding leaders' behavioural patterns (4,20,21).

Understanding the full spectrum of DISC behavioural profiles—not only conscientiousness—provides valuable insight into how different personality tendencies align with the characteristics required for effective leadership in healthcare settings (7-9,22). Previous research demonstrates that personality assessments such as the DISC model can effectively identify an individual's strengths, developmental needs, and optimal areas of contribution, enabling organisations to deploy leaders in ways that maximise their impact within teams (23-26).

Despite growing international interest in behavioural leadership assessments, limited research has examined DISC behavioural tendencies among nurse leaders in Türkiye. Understanding the distribution of DISC profiles in this population is essential for designing effective leadership development strategies tailored to local healthcare contexts. Identifying behavioural strengths and limitations can also support competency planning, workforce development, and improvements in organisational leadership structures.

This study provides the first comprehensive examination of DISC behavioural tendencies among mid- and senior-level nurse managers in Türkiye. By linking DISC profiles with behavioural, communication, decision-making, managerial, and motivational competencies, the study offers new insights into leadership patterns within Turkish nursing management. These findings inform future leadership development programmes and contribute to the limited body of evidence on behavioural leadership models in Turkish healthcare settings.

---



---

## Aim

---



---

This study aimed to:

1. Identify the dominant DISC behavioural characteristics of nurses in mid-level and senior management roles.
2. Evaluate their behavioural, communication, decision-making, managerial, and motivational competencies, and explore how these align with their DISC profiles.

---



---

## Methods

---



---

### Study Design and Setting

This descriptive cross-sectional study was conducted between 1 and 31 May 2021 within a large private healthcare group in Türkiye, comprising 16 hospitals and 4 medical centres. The Dominance-Influence-Steadiness-Conscientiousness (DISC) behavioural assessment is routinely administered in this institution as part of its annual leadership development programme for Nurses in Charge, Nurse Managers, and Nurse Educators. The study was carried out during the COVID-19 pandemic, a contextual factor that may have influenced managerial workload, stress levels, and leadership behaviours.

### Study Population and Sampling

The target population included all middle- and senior-level nurse managers employed in the participating facilities during the study period. Due to the limited size of the managerial workforce and the exploratory nature of the study, no formal sample size calculation was conducted. Instead, a census sampling approach was used, inviting all 280 eligible managers to participate. A total of 186 managers completed the survey, yielding a response rate of 66.4%.

### Eligibility Criteria

The inclusion criteria were:

1. Employment in a middle or senior nursing management role (e.g., Nurse in Charge, Department Manager).
2. A minimum of one year of experience in a leadership position.

The exclusion criteria were:

1. Acting leadership roles of less than six months.
2. Extended leave during the study period.

### Variables and Hypothesis

The primary variable of interest was the distribution of DISC behavioural profile types—Dominance, Influence, Steadiness, and Conscientiousness. Predictor variables included age, gender, education level, professional nursing experience, managerial experience, and prior leadership training.

Based on existing research and institutional observations, it was hypothesised that Conscientiousness would be the most common dominant DISC style among nurse leaders and that associated leadership competencies would reflect systematic, collaborative, and evidence-based behaviours.

### Instruments

#### 1. DISC Behavioral Assessment

The DISC Behavioral Assessment used in this study is a standardised and licensed psychometric instrument consisting of 28-40 forced-choice items that evaluate behavioural preferences across four major domains:

1. *Dominance (D)*: assertiveness, decisiveness, competitive orientation
2. *Influence (I)*: sociability, enthusiasm, persuasion
3. *Steadiness (S)*: patience, empathy, cooperation
4. *Conscientiousness (C)*: accuracy, analytical thinking, structured work style

Instrument details (added per statistical reviewer requirements):

- *Version*: DISC Classic 2.0 (institutional licensed version)
- *Publisher*: PeopleKeys® / DISCinsights®
- *Language*: Turkish professionally translated version
- *Scoring method*: Ipsative forced-choice scoring generating dominant and secondary profiles
- *License*: Used under institutional leadership development authorization

## Instrument Validity and Reliability

The DISC model is widely validated internationally, with published Cronbach alpha coefficients typically ranging from 0.72–0.87 across behavioural domains. However, due to the ipsative scoring structure, internal consistency measures (e.g., Cronbach's alpha) cannot be meaningfully calculated for this dataset, which aligns with psychometric standards for forced-choice assessments.

### 2. Competency Mapping Questionnaire

A structured 40-item competency questionnaire developed by the institution's Nursing Services Directorate was used to evaluate leadership competencies in five domains:

1. *Behavioural Competencies*: Extroversion, individuality, entrepreneurship, positive thinking, logical prioritisation, adaptability, rule adherence, quality orientation, systematic planning, guidance and support, risk aversion, and stability maintenance.
2. *Communication Competencies*: Evidence-based communication, active listening, persuasive ability, audience engagement, and maintaining conversational relevance.
3. *Decision-Making Competencies*: Data-based analysis, independent judgment, system-aligned decision-making, optimal option selection, and rapid decision-making under pressure.
4. *Management Competencies*: Strategic vision, initiative, authority establishment, stress management, calculated risk-taking, innovation adoption, long-term planning, teaching-based delegation, work discipline, team motivation, inspiring leadership, and empathy.
5. *Motivation Style Competencies*: career planning, provision of social support, creation of a positive environment, and fostering team inclusion.

The tool reflects organisational competency expectations for nurse leaders, though it does not have published psychometric validation—an issue acknowledged as a limitation.

## Data Collection

Data were collected through a secure online platform and included:

1. The standardised DISC Assessment
2. The institutional competency questionnaire

## Recruitment and Administration

- Invitations were distributed electronically through official institutional channels.
- Participation was voluntary, and informed consent was obtained electronically.
- No identifiable personal data were collected.
- All participants completed the DISC application under standardised institutional conditions.

## Bias Reduction Measures

- Use of a validated, standardised DISC tool
- Uniform administration procedures across all facilities
- Census recruitment to minimise selection bias
- Predefined data analysis plan to avoid selective reporting

The online format enabled participation from managers across all 4 medical centres and 16 hospitals, ensuring broad representation.

## Ethics

The study adhered to the ethical principles of the Declaration of Helsinki-2013 (27). Although formal ethics committee approval was not required due to the institution's internal assessment policies, several ethical safeguards were implemented:

- Written informed consent was obtained from all participants.
- Institutional approval was secured for conducting the study and disseminating the findings.
- All data were anonymised and stored confidentially.
- Participants were informed of their right to withdraw at any stage without penalty.

These measures ensured that participant rights, privacy, and welfare were upheld throughout the research process.

## Statistics

Due to the descriptive and exploratory nature of the research, statistical analyses were limited to frequencies, percentages, means, and standard deviations. Although inferential statistics are referenced in some literature, they were not used in this study; interpretations rely strictly on descriptive findings. SPSS v25 was used. A sensitivity analysis excluding incomplete DISC results confirmed that findings remained unchanged.

## Results

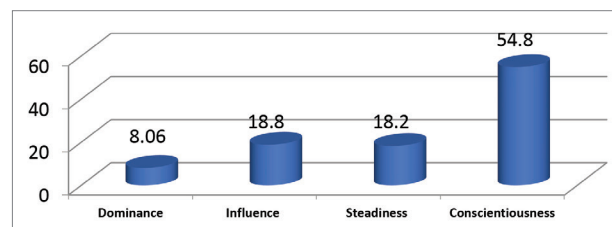
Table 1 summarises the socio-demographic characteristics of the participating nurse leaders. The majority of respondents were female (75.3%), and most held undergraduate (38.7%) or postgraduate degrees (21.5%). The workforce was highly experienced, with 78.5% reporting more than 61 months of professional experience. In terms of departmental distribution, nearly half worked in inpatient units (43.0%), followed by Nurse Specialist roles (18.8%) and outpatient services (13.4%). Most participants held the position of Nurse in Charge (81.2%), indicating strong representation from frontline leadership roles.

The average age of participants was 37.13 years (range: 27-48 years), reflecting a mature and experienced leadership cohort.

Gender	n	%
Female	140	75.3
Male	46	24.7
Education	n	%
High School	58	31.2
Associate degree	16	8.6
Undergraduate	72	38.7
Postgraduate	40	21.5
Work Experience	n	%
0-12 Months	7	3.8
13-36 Months	16	8.6
37-60 Months	17	9.1
61 Months and Over	146	78.5
Department	n	%
Inpatients	80	43.0
Nurse Specialist	35	18.8
Outpatients	25	13.4
Intensive Care Units	16	8.6
Emergency Services	12	6.5
Operating Room	10	5.4
Position	n	%
Nurse in Charge	151	81.2
Education and Development Nurse	18	9.7
Manager	17	9.1
<b>Total</b>	<b>186</b>	<b>100.0</b>

Table 2 presents the distribution of dominant DISC behavioural traits across the 186 participating nurse leaders. Conscientiousness (C) was the most prevalent dominant trait overall, reported by 54.8% of the sample. This pattern was especially pronounced among Nurses in Charge, 45.6% of whom demonstrated a primarily conscientious profile. Managers also showed a notable inclination toward conscientiousness (5.37%).

Influence (I) emerged as the second most common trait, particularly among Nurses in Charge (12.8%) and Education and Development Nurses (3.76%). Steadiness (S) and Dominance (D) were comparatively less frequent across all leadership groups. Overall, Conscientiousness remained the consistently dominant behavioural style across all managerial positions (Table 2).



Graphic 1. DISC Personality Distribution of Nurses

Table 3 presents the distribution of general behavioural characteristics among the participants. Most traits—such as efficiency orientation, assertiveness, charisma, persistence, friendliness, precision, and consideration—clustered predominantly within the normal range, indicating generally balanced behavioural patterns among nurse leaders.

A notable exception was independence, where 44.6% of participants scored very low, suggesting a preference for collaborative or system-dependent working styles. Patience and tolerance demonstrated predominantly high levels, while sharing emerged as an exceptionally strong trait, with 44.6% of respondents scoring very high.

Self-motivation showed a downward tendency, with 37.6% of participants reporting low levels. Observation and awareness were distributed mainly within the normal range, though a meaningful proportion achieved high scores.

Overall, the findings suggest a largely well-balanced behavioural profile among nursing leaders, while highlighting distinct tendencies in areas such as in-

Table 2. DISC Personality Distribution of Nurses

The Most Dominant Factor	Manager		Nurse in Charge		Educational Development Nurse		Total	
	n	%	n	%	n	%	n	%
Dominance (D)	1	0.53	10	5.37	4	2.14	15	8.06
Influence (I)	4	2.14	24	12.8	7	3.76	35	18.8
Steadiness (S)	2	1.07	32	17.1	0	0	34	18.2
Conscientiousness (C)	10	5.37	85	45.6	7	3.76	102	54.8
Total	17	9.1	151	81.1	18	9.6	186	100.0

Table 3. The General Behavioral Competencies Distribution of Nurses

The general behavioral competencies	Very Low		Low		Normal		High		Very High		Group	
	n	%	n	%	n	%	n	%	n	%	Average	SS(±)
Efficiency Orientation	20	10.8	39	21	100	53.8	18	9.7	9	4.8	Normal	0.94
Self-Motivation	49	26.3	70	37.6	47	25.2	14	7.5	6	3.23	Low	1.02
Independence	83	44.6	42	22.6	51	27.4	7	3.7	3	1.6	Very Low	1.009
Assertiveness	59	31.7	39	20.9	68	36.6	15	8.06	5	2.7	Normal	1.08
Charisma, Impressiveness	41	22.04	50	26.9	65	34.9	23	12.4	7	3.8	Normal	1.08
Persistence	12	6.4	38	20.4	110	59.1	21	11.3	4	2.1	Normal	0.8
Friendliness, Friendship	8	4.3	18	9.7	101	54.3	37	19.9	22	11.8	Normal	0.94
Patience, Tolerance	7	3.8	14	7.6	46	24.7	63	33.9	56	30.1	High	1.07
Sharing	3	1.6	7	3.8	48	25.8	45	24.2	83	44.6	Very High	1
Being Considerate	7	3.8	18	9.7	70	37.6	48	25.8	43	23.1	Normal	1.06
Precision, Attention to Detail	5	2.7	15	8.06	68	36.5	37	19.8	61	32.7	Normal	0.93
Awareness, Observation	4	2.15	20	10.7	108	58.06	42	22.5	12	6.45	High	1.07

dependence, self-motivation, and interpersonal generosity (Table 3).

The evaluation of communication competencies demonstrated substantial variation across different skill areas. Grounding in facts emerged as a notable strength, with 42.4% of participants scoring very high, reflecting a strong reliance on evidence and data in communication. In contrast, competencies related to influence and attracting attention were more evenly distributed, with most respondents scoring within the normal (34.9%) or low (26.8%)

ranges. Speaking by listening similarly showed a predominance of normal scores (38.1%). Maintaining relevance presented a balanced distribution, with 36.02% rated as normal and 32.7% rated as very high. Overall, while factual communication is a key strength, other communication competencies—such as influence, attentive listening, and relevance—were more evenly balanced among participants (Table 4).

Decision-making competencies revealed additional patterns. Paying Attention to Data was most frequently rated as normal (36.02%), followed closely by very

high (33.3%). Independent decision-making also fell predominantly within the normal range (38.1%), indicating moderate autonomy. Notably, both Decision-Making in Parallel With the System and the Ability to Choose the Best Result showed the strongest performance, with 44.6% of respondents rated as very high, suggesting strong alignment with organisational processes and optimal outcome selection. Conversely, Quick Decision-Making Under Pressure showed substantial challenges, with 44.6% of participants scoring very low, indicating difficulty with rapid decisions in high-pressure situations (Table 4).

Motivation style competencies also displayed distinct tendencies. Career planning emerged as the strongest motivational domain, with 44.08% scoring very high. Supporting social opportunities showed a balanced distribution, with most respondents scoring normal (34.9%). Creating a warm and positive environment demonstrated a pronounced concentration in the normal range (72.5%), indicating this style is widely and consistently used. Finally, ensuring team inclusion showed high engagement, with substantial proportions scoring in the high (34.4%) and very high (30.1%) categories, underscoring strong tendencies toward team-oriented motivational behaviours (Table 4).

Table 5 summarises the distribution of management competencies among the participants. Awareness of the Big Picture was strongest in the high category, with 38.1% of respondents demonstrating strong strategic awareness. Taking the Initiative was most commonly rated as normal (42.4%), while Establishing Authority showed a pronounced concentration in the normal range (73.1%), indicating consistent but moderate levels of authoritative leadership.

Competencies related to stress and risk showed clear challenges. Combating Stress was predominantly rated as very low (33.3%), and Risk-Taking also demonstrated a strong very low distribution (45.1%), suggesting a cautious approach and a potential need for development in resilience and calculated risk behaviour.

In contrast, competencies reflecting forward planning and organisational discipline were notably strong. Being Open to Innovation was most frequently rated as high (38.1%), and Long-Term Strategic Planning and Business Discipline both had the highest concentration in the very high category (44.08%), indicating a strong strategic orientation and structured work approach among nurse leaders. Delegating by Teaching

showed the highest proportion in the normal range (37.6%), suggesting this competency is generally well-developed but with room for enhancement.

In interpersonal and motivational leadership domains, Adding Excitement to Work had the highest proportion in the normal category (36.5%). Effective Speaking and Leadership also clustered primarily in the normal range (34.9%). Notably, Establishing an Emotional Bond with the Team demonstrated strong relational leadership capacity, with high (33.8%) and very high (30.6%) scores, indicating a substantial emphasis on empathy and emotional connection within management practices (Table 5).

---

## Discussion

---

This study aimed to identify the dominant DISC behavioural tendencies of mid- and senior-level nurse leaders and examine how these traits relate to key leadership competencies. The findings revealed a mature and experienced nursing leadership cohort, predominantly female, with strong educational backgrounds and extensive professional and managerial experience. Such a profile aligns with previous research highlighting the association between leadership self-efficacy, a positive work environment, and readiness to assume formal leadership responsibilities (28). This suggests that the organisational context provides a suitable foundation for leadership capacity development.

The predominance of Conscientiousness (C) across leadership roles is consistent with the literature describing this trait as essential for nursing management, given its strong association with accuracy, accountability, and systematic work habits (28). Conscientious leaders are known to support safety culture, structured decision-making, and quality performance—elements that are critical in complex healthcare environments. The presence of Influence (I) as the second most common trait indicates the value of interpersonal and motivational behaviours, which are central to leadership approaches such as transformational leadership (2,13,29-31). In contrast, lower representation of Steadiness (S) and Dominance (D) reflects a less confrontational and

**Table 4. Communication, The Decision-Making, and The Motivation Style Competencies Distribution of Nurses**

Communication Competencies	Very Low		Low		Normal		High		Very High		Mod	SS(±)
	n	%	n	%	n	%	n	%	n	%		
Grounding in Facts	9	4.8	11	5.9	52	27.9	35	18.8	79	42.4	Very High	1.17
Influence, Attract Attention	40	21.5	50	26.8	65	34.9	23	12.3	8	4.3	Normal	1.09
Speaking by Listening	8	4.3	18	9.6	71	38.1	47	25.2	42	22.5	Normal	1.07
Maintaining Relevance	6	3.2	15	8.06	67	36.02	37	19.8	61	32.7	Normal	1.1
The decision-making competencies	n	%	n	%	n	%	n	%	n	%	Mod	SS(±)
Paying Attention to Data	5	2.6	13	6.9	67	36.02	39	20.9	62	33.3	Normal	1.07
Independent Decision-Making	42	22.5	65	34.9	71	38.1	7	3.7	1	0.5	Normal	0.86
Decision-Making in Parallel with the System	3	1.6	6	3.2	49	26.3	45	24.1	83	44.6	Very High	0.99
Ability To Choose the Best Result	3	1.6	6	3.2	49	26.3	45	24.1	83	44.6	Very High	0.99
Under Pressure, Quick Decision-Making	83	44.6	42	22.5	51	27.4	7	3.7	3	1.6	Very low	1.009
The motivation style competencies	n	%	n	%	n	%	n	%	n	%	Mod	SS(±)
Career Planning	8	4.3	4	2.1	54	29.03	38	20.4	82	44.08	Very high	1.1
By Supporting Social Opportunities	41	22.04	50	26.8	65	34.9	23	12.3	7	3.7	Normal	1.08
By Creating a Warm, Positive Environment	5	2.6	15	8.06	135	72.5	29	15.9	2	1.07	Normal	0.62
By Ensuring That They are Part of The Team	6	3.2	14	7.5	46	24.7	64	34.4	56	30.1	High	1.05

more collaborative leadership style, resonating with the relational and team-focused nature of nursing practice (32).

The distribution of general behavioural characteristics showed predominantly normal levels across most domains, indicating a balanced leadership group. Strengths such as patience, tolerance, and attention to detail are particularly relevant to roles requiring emotional regulation and meticulous oversight. However, the low levels of self-motivation and independence among some leaders point to areas where additional organisational support could be beneficial. Research highlights that intrinsic motivation, resilience, and self-efficacy influence engagement,

satisfaction, and performance, particularly in high-stress clinical environments (1,30,33,34). This aligns with the present findings, suggesting opportunities to strengthen confidence and autonomous decision-making through targeted development.

Communication competencies showed clear strengths in factual, evidence-based communication, which supports high-quality clinical practice and interdisciplinary coordination (34). Competencies such as influence, attentive listening, and maintaining relevance, however, demonstrated more balanced distributions, indicating variability that may benefit from focused communication training. Effective communication remains one of the strongest predictors of collaboration, team cohe-

Table 5. The Management Competencies Distribution of Nurses

The management competencies	Very Low		Low		Normal		High		Very High		Mod	SS(±)
	n	%	n	%	n	%	n	%	n	%		
Awareness Of the Big Picture	9	4.8	30	16.1	51	27.4	71	38.1	25	13.4	Low	1.06
Taking The Initiative	34	18.2	34	18.2	79	42.4	35	18.8	4	2.1	Normal	1.04
Establishing Authority	3	1.6	27	14.5	136	73.1	15	8.06	5	2.6	Normal	0.6
Combating Stress	62	33.3	59	31.7	45	24.1	<sup>16</sup>	8.6	4	2.1	Very low	1.04
Risk-Taking	84	45.1	42	22.5	52	22.9	6	3.2	2	1.07	Very Low	0.9
Being Open to Innovation	42	22.5	66	35.4	71	38.1	6	3.2	1	0.5	Normal	0.8
Long-Term Strategic Planning	3	1.6	6	3.2	51	27.4	44	23.6	82	44.08	Very High	0.9
Delegating By Teaching	1	0.5	7	3.7	70	37.6	61	32.7	47	25.2	Normal	0.8
Business Discipline	4	2.1	6	3.2	49	26.3	45	2.4	82	44.08	Very High	1.01
Adding Excitement to Work	58	31.1	39	20.9	68	36.5	15	8.06	6	3.22	Normal	1.09
Effective Speaking and Leadership	41	22.04	50	26.8	65	34.9	<sup>23</sup>	12.3	7	3.7	Normal	1.08
Establishing An Emotional Bond with The Team	6	3.22	13	6.9	47	25.2	<sup>63</sup>	33.8	57	30.6	High	1.04

sion, and patient safety (35,36), underscoring the importance of reinforcing these competencies.

Decision-making profiles reflected strong alignment with systematic, data-oriented approaches, as evidenced by high scores in paying attention to data and system-parallel decision-making. These tendencies reflect a structured cognitive style that is well suited to the requirements of clinical leadership (36). However, the significant difficulty reported in quick decision-making under pressure suggests an area for improvement. Crisis decision-making, rapid risk assessment, and adaptive leadership skills are essential during periods of uncertainty or urgent clinical needs. Literature supports that transformational leadership behaviours and supportive work environments can enhance rapid decision-making and critical thinking (37,38), pointing to a potential direction for leadership development initiatives.

Motivation-related competencies revealed strong tendencies in career planning and team inclusion, indicating a forward-looking mindset and commitment to maintain-

ing cohesive teams—both known predictors of engagement and retention (1,30,39,40). More balanced ratings related to social support suggest individual differences in how leaders cultivate social environments. Enhancing structured social opportunities may strengthen cohesion, morale, and workplace culture, aligning with evidence that supportive environments improve satisfaction and organisational commitment (16,41).

Management competencies demonstrated noteworthy strengths in strategic planning, business discipline, and awareness of the broader organisational context, reflecting a strong strategic orientation among nurse leaders (11,42,43). However, lower scores in areas such as risk-taking, stress management, and initiative indicate developmental needs in adaptive and proactive leadership domains. These competencies are essential for navigating organisational change, leading innovation, and supporting staff in dynamic clinical environments (6,8). Enhancing such competencies through structured leadership training, mentorship programmes, and resilience-building interventions could address these gaps.

Overall, the findings portray a highly competent and conscientious nursing leadership group with notable strengths in structure, planning, factual communication, and strategic vision. However, important growth areas remain, particularly in rapid decision-making under pressure, self-motivation, risk-taking, and stress management. Addressing these areas through targeted leadership development and competency-based training programmes could enhance leadership effectiveness and organisational performance. Continued research into behavioural leadership patterns and competency development among nurse leaders will be essential for informing organisational policy, shaping leadership pathways, and supporting high-quality patient care.

### Limitations

This study has several limitations that should be considered when interpreting the findings. First, the research was conducted within a single private healthcare group and may not fully represent nurse leaders working in other organisational structures or public-sector settings, which limits generalisability. The data were collected through an online, self-report format, which may introduce response biases, including social desirability and self-enhancement tendencies that can influence personality and competency ratings.

The DISC behavioural assessment used in this study employs an ipsative, forced-choice scoring method, which does not permit traditional psychometric evaluation such as Cronbach's alpha. Similarly, the institutional competency tool lacks published validity and reliability data, which may affect the interpretability and comparability of results.

The cross-sectional design captures behavioural tendencies and competencies at a single time point, preventing assessment of temporal changes or developmental progress. Additionally, data collection occurred during the COVID-19 pandemic, a period characterised by increased workload and stress for nurse leaders, which may have influenced participants' behaviours, self-perceptions, and decision-making competencies.

Future studies should consider longitudinal designs, inclusion of multiple healthcare settings, and the use of psychometrically validated competency instruments to provide a more comprehensive and generalisable understanding of leadership behaviours in nursing.

### Conclusion

This study provides a comprehensive overview of the behavioural tendencies and leadership competencies of an experienced nursing leadership workforce. The participants demonstrated notable strengths in conscientiousness, strategic planning, and data-driven decision-making—competencies that are essential for effective leadership and high-quality management in contemporary healthcare settings. The predominance of conscientious behavioural traits indicates a methodical, detail-oriented, and structured approach to leadership, while balanced communication and general behavioural characteristics suggest adaptability and strong foundational interpersonal skills.

Despite these strengths, the findings highlight several key areas for development, including rapid decision-making under pressure, self-motivation, and assertiveness in risk-taking. Addressing these gaps through targeted leadership development programmes, mentorship, and competency-based training has the potential to further enhance managerial effectiveness, strengthen resilience, and support high-performing clinical teams.

As healthcare environments grow increasingly complex, understanding the behavioural foundations of nurse leadership becomes critical. Investing in leadership development that aligns personality tendencies with organisational needs will not only support individual growth but also contribute to improved patient outcomes, stronger team dynamics, and sustainable organisational performance.

### Author Contributions

Conceptualisation: (SKA); Methodology: (SKA); Investigation: (SKA); Writing—Original Draft Preparation: (SKA); Writing—Review and Editing: (SKA). All authors have approved the final manuscript.

### Conflict of Interest

The authors declare no conflicts of interest.

### Acknowledgments

The author extends their sincere gratitude to all the participants who contributed to this study.

## Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

## References

- Breed M, Downing C, Ally H. Factors influencing motivation of nurse leaders in a private hospital group in Gauteng, South Africa: a quantitative study. *Curationis.* 2020;43(1):a2011. <https://doi.org/10.4102/curationis.v43i1.2011>
- Asamani JA, Naab F, Ofei AMA. Leadership styles in nursing management: implications for staff outcomes. *J Health Sci (El Monte).* 2016;6(1):23-36. <https://doi.org/10.17532/jhsci.2016.266>
- Bahlman-van Ooijen W, van Belle E, Bank A, de Man-Van Ginkel J, Huisman-de Waal G, Heinen M. Nursing leadership to facilitate patient participation in fundamental care: an ethnographic qualitative study. *J Adv Nurs.* 2023;79(3):1044-55. <https://doi.org/10.1111/jan.15329>
- Bianchi M, Bagnasco A, Bressan V, Barisone M, Timmins F, Rossi S, et al. A review of the role of nurse leadership in promoting and sustaining evidence-based practice. *J Nurs Manag.* 2018;26(8):918-32. <https://doi.org/10.1111/jonm.12638>
- Foots L, Swiger PA, Orina J, Campbell CM, Javed M, Hodson P, et al. Recommendations from a systematic review of leadership development to support a new nursing practice model. *J Nurs Adm.* 2023;53(12):661-7. <https://doi.org/10.1097/NNA.0000000000001363>
- Alanazi FJ, Mersal FA. Achieving excellence: the role of leadership styles in fostering work performance and autonomy in nurses' decision-making. 2024. <https://doi.org/10.21203/rs.3.rs-4427158/v1>. Accessed February 20, 2025.
- Baldino D. What is DISC? IMSTS. Available at: <https://www.imsts.com/what-is-disc>. Accessed: 20.02.2025.
- Underhil M. The relationships among situational leadership II, emotional intelligence and DiSC behaviour [Master's thesis]. Cheney (WA): Eastern Washington University; 2015.
- Herrity J. The 4 DISC personality types (plus 12 styles with careers). Indeed Career Guide. Available at: <https://www.indeed.com/career-advice/career-development/disc-personality-types>. Accessed: 20.02.2025.
- Slowikowski MK. Using the DISC behavioural instrument to guide leadership and communication. *AORN J.* 2005;82(5):835-43. [https://doi.org/10.1016/S0001-2092\(06\)60276-7](https://doi.org/10.1016/S0001-2092(06)60276-7)
- Aini Q, Dzakiyullah NR, Abdulamir M. The use of the DISC personality test in assessing nurses' personal characteristics. *J Keperawatan Soedirman.* 2023;18(2):111-8. <https://doi.org/10.20884/1.jks.2023.18.2.6592>
- Shahzad K, Raja U, Hashmi SD. Impact of the five big personality traits on authentic leadership. *Leadersh Organ Dev J.* 2020;42(2):208-18. <https://doi.org/10.1108/LODJ-05-2019-0202>
- Damti S, Hochman G. Personality characteristics as predictors of ethical leadership in regular times and in times of crisis. *Sustainability.* 2022;14(16):9800. <https://doi.org/10.3390/su14169800>
- Peršolja M, Žvanut B, Rot Š, Markič M. Assessment of management styles among top nursing leaders in Slovenian primary health centres: a cross-sectional analysis. *Leadersh Health Serv.* 2024;37(5):157-68. <https://doi.org/10.1108/LHS-10-2023-0083>
- Assiri MA. The big five personality traits and leadership practices of academic department chairs: a predictive study. *Cent Educ Policy Stud J.* 2024;15(3). <https://doi.org/10.26529/cepsj.1736>
- Chen M., Wang A., Zhou B. Exploring core competencies of clinical nurses in Chinese tertiary hospitals: qualitative content analysis. *BMC Nurs.* 2023;22(1):166. <https://doi.org/10.1186/s12912-023-01337-2>
- Kelagina G. A study on the effectiveness of the DISC personality test [Doctoral dissertation]. Selinus University; 2021.
- Mert-Karadaş M, Terzioğlu F, Koc G. Effects of personality traits and leadership orientations of Turkish nursing students on their career adaptability: a cross-sectional study. *Leadersh Health Serv.* 2024;37(1):53-68. <https://doi.org/10.1108/LHS-11-2022-0114>
- Nurochim AD, Wardani AA, Putri AR. Pembentukan dan perkembangan alat tes DISC: sexual literature review. *Flourishing J.* 2022;2(1):59-63. <https://doi.org/10.17977/um070v2i12022p59-63>
- Barkhordari-Sharifabad M, Ashktorab T, Atashzadeh-Shoorideh F. Ethical leadership outcomes in nursing: a qualitative study. *Nurs Ethics.* 2018;25(8):1051-63. <https://doi.org/10.1177/0969733016687157>
- Gómez PL, Barquero JD, Pestana JV. Evidencia empírica del DISC en futuros líderes iberoamericanos. *An Psicol.* 2021;51(3):30855. <https://doi.org/10.1344/ANPSIC2021.51/3.30855>
- Fuqua RM, Bryan J. Leadership selection: DiSC results and leadership success in healthcare. *Adv Soc Sci Res J.* 2017;4(10):1-10. <https://doi.org/10.14738/assrj.410.3136>
- Purnamasari G. The Effectiveness of Group communication effectiveness using DISC measurement at PT ABC. *Int J Res Publ.* 2023;132(1):1-10. <https://doi.org/10.47119/IJRP1001321920235444>
- Laschinger HKS, Wong CA, Macdonald-Rencz S, Burkoski V, Cummings G, D'Amour D, et al. Part 1: The influence of personal and situational predictors on nurses' aspi-

- rations to management roles: preliminary findings of a national survey of Canadian nurses. *J Nurs Manag.* 2013;21(2):217-30. <https://doi.org/10.1111/j.1365-2834.2012.01452.x>
25. Sukri U, Sari EC, Kailuhu CD. Pelatihan personal branding and communication untuk meningkatkan percaya diri mahasiswa semester akhir di stak anak bangsa. *J PKM Setiadharm.* 2023;4(3):167-75. <https://doi.org/10.47457/jps.v4i3.431>
  26. The PeopleKeys Store. DISC theory: understanding the DISC assessment. Available at: <https://discinsights.com/pages/disc-theory>. Accessed: 20.02.2025.
  27. World Medical Association. World Medical Association Declaration of Helsinki: ethical principles for medical research involving human subjects. *JAMA.* 2013;310(20):2191-4. <https://doi.org/10.1001/jama.2013.281053>
  28. Holgaard R, Bruun B, Zingenberg F, Dieckmann P. Nurses and physicians conceptualising similar terms differently: an interview study. *BMC Med Educ.* 2024;24(1):698. <https://doi.org/10.1186/s12909-024-05682-x>
  29. Hosseini Moghaddam M, Mohebbi Z, Tehranineshat B. Stress management in nurses caring for COVID-19 patients. *BMC Psychol.* 2022;10(1):124. <https://doi.org/10.1186/s40359-022-00834-4>
  30. Cziraki K, Read E, Spence Laschinger HK, Wong C. Nurses' leadership self-efficacy, motivation, and career aspirations. *Leadersh Health Serv.* 2018;31(1):47-61. <https://doi.org/10.1108/LHS-02-2017-0003>
  31. Labrague LJ, Al Sabei S, Al Rawajfah O, Burney IA, Abu AlRub R. Factors associated with millennial nurses' intention to pursue leadership roles. *Leadersh Health Serv.* 2024;37(2):215-30. <https://doi.org/10.1108/LHS-04-2023-0024>
  32. Pursio K, Kankkunen P, Sanner-Stiehr E, Kvist T. Professional autonomy in nursing: an integrative review. *J Nurs Manag.* 2021;29(6):1565-77. <https://doi.org/10.1111/jonm.13282>
  33. Krczal E. Determinants of attractiveness of integrated care. *J Health Sci.* 2017;5(6):329-39. <https://doi.org/10.17265/2328-7136/2017.06.008>
  34. Alhakami IY, Baker OG. Factors influencing nurses' work motivation. *Iris J Nurs Care.* 2018;1(1):1-7. <https://doi.org/10.33552/IJNC.2018.01.000503>
  35. Poortaghi S, Shahmari M, Ghobadi A. Exploring nursing managers' perceptions of nursing workforce management during the outbreak of COVID-19: a content analysis study. *BMC Nurs.* 2021;20(1):27. <https://doi.org/10.1186/s12912-021-00546-x>
  36. Kim KJ, Yoo MS, Seo EJ. Exploring the Influence of Nursing Work Environment and Patient Safety Culture on Missed Nursing Care in Korea. *Asian Nurs Res.* 2018;12(2):121-6. <https://doi.org/10.1016/j.anr.2018.04.003>
  37. Lievens I, Vlerick P. Transformational leadership and safety performance among nurses: the mediating role of knowledge-related job characteristics. *J Adv Nurs.* 2014;70(3):651-61. <https://doi.org/10.1111/jan.12229>
  38. Hayati D, Charkhabi M, Naami A. The relationship between transformational leadership and work engagement in governmental hospitals nurses: a survey study. *SpringerPlus.* 2014;3(1):25. <https://doi.org/10.1186/2193-1801-3-25>
  39. Smith CM, Lane SH, Brackney DE, Horne CE. Motivators and Success Strategies Experienced by Men in Nursing: An Interpretive Description Study. *J Mens Stud.* 2022;30(2):271-90. <https://doi.org/10.1177/10608265211066096>
  40. Abu Yahya O, Ismaile S, Allari RS, Hammoudi B.M. Correlates of nurses' motivation. *Nurs Forum.* 2019;54(1):7-15. <https://doi.org/10.1111/nuf.12291>
  41. Wan Q, Li Z, Zhou W, Shang S. Effects of work environment and job characteristics on the turnover intention of experienced nurses: The mediating role of work engagement. *J Adv Nurs.* 2018;74(6):1332-41. <https://doi.org/10.1111/jan.13528>
  42. González-García A, Pinto-Carral A, Pérez-González S, Marqués-Sánchez P. Nurse managers' competencies: a scoping review. *J Nurs Manag.* 2021;29(6):1410-9. <https://doi.org/10.1111/jonm.13380>
  43. Tolentino D, Sousa DRN, Melo NET. Metodología DISC: tendencias comportamentales en el ambiente de trabajo. *RECIMA21 Rev Cient Multidiscip.* 2023;4(11):e4114466. <https://doi.org/10.47820/recima21.v4i11.4466> [Spanish]