



## Research article

## Motivation as a facilitator of self-leadership in nurse academics

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## ABSTRACT

**Background:** Although working in an academic environment can be rewarding and fulfilling, there are instances when nurse academics are exposed to situations that can negatively affect their motivation to teach. Few studies have been conducted regarding how motivational factors can facilitate self-leadership in nurse academics at academic nursing institutions. This study is aimed at developing guidelines to facilitate nurse academics' self-leadership.

**Methods:** The study employed an exploratory sequential mixed methods design with nurse academics teaching at higher education institutions in two provinces of South Africa. The findings of an integrative literature review, qualitative data from four focus group interviews with nurse academics, quantitative data from 265 nurse academics, field notes, and supportive literature were used to develop the guidelines. The guidelines were validated by field experts using set criteria.

**Results:** Phase 1 and Phase 2 results were integrated and discussed as a narrative. Concluding statements were subsequently drawn from the data. Guidelines that could facilitate nurse academics' self-leadership were generated from the concluding statements. This article focuses on two validated guidelines related to the factors that motivate nurse academics in developing self-leadership characteristics. The influence of intrinsic and extrinsic factors was a strong motivator for self-leadership development.

**Conclusion:** Nurse academics are discouraged from relying on extrinsic factors for motivation, instead they are encouraged to utilise intrinsic factors that encourage deep fulfilment, knowledge, feelings of meaningfulness and competence.

## 1. Introduction

Organisational environments, including higher education institutions are experiencing a paradigm shift in leadership where they no longer rely on traditional controlling leadership styles. They now put more efforts on investing on employees' internal leadership abilities that could assist individual employees to make strategic decisions even in the absence of designated leaders. This phenomenon has led to self-leadership emerging as one way to achieve organisational success. The emergence of self-leadership is due in part because in today's organisations, including educational institutions, there is a heightened need for employees with self-leadership attributes, who are proactive enough to challenge the inflexible nature of the work environment, thus easing the leadership responsibilities of the designated leader (Özdemir, 2020).

Self-leadership is a process through which an individual can intentionally influence, lead, and self-regulate themselves in such a manner that they develop strategies to control their own behaviour and thoughts after thoroughly examining own actions (Manz, 2015). In this article,

self-leadership occurs when an individual nurse academic directs and motivates themselves to ultimately achieve success and improved performance in an academic nursing institution (ANI) setting (Özdemir, 2020).

This study is founded on Manz (1986) self-leadership theory, which provided a thorough analysis of the different strategies that promote self-leadership, as is evident from literature (Stewart et al., 2019). Self-leadership has its branches stemming from the social cognitive, control, and intrinsic motivation theories, which describe dynamics of self-regulation process. The theory is based on the principle that just as work environments provide standards for performance, systems for performance evaluation and mechanisms for reward and reprimand, each employee is capable of some form of self-control. An individual possesses personal standards which are self-generated, can partake in self-assessment processes, as well as direct own rewards and penalties. Thus, this article recognises that nurse academics in an ANI setting can have the capacity and capability to implement these self-regulatory mechanisms.

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Self-leadership is purported to be based on how individuals define their meaningfulness through goals and purpose, how they own up to their actions based on own set standards and mobilising external resources and utilise them to achieve the chosen standard (Manz, 1986). Nurse academics' engagement in self-leadership could empower them to self-reflect and introspect to gain clarity on their actions when interacting with others, whilst intentionally contributing meaningfully to the ANI (Matahela, 2022). Thus, nurse academics should intensely focus on self-goal setting which conforms to their idealised perception of how they should behave to achieve the set performance standards and motivate themselves to reach the performance standard.

In an organisational setting, there are two motivational forces that stimulate the practice of self-leadership, namely extrinsic and intrinsic factors (Stewart et al., 2019). Extrinsic forces can influence the practicing of self-leadership but originate from an external source, such as a leader that empowers employees. Intrinsic forces are factors that are derived from the individuals themselves, as they have final control over their actions in particular contexts. Whilst self-motivation is an individual academic's internal process, the organisation plays a role in creating conducive environments for continuous improvement of the academic's self-concept (Ross, 2014). The institution's supportive ambiance cultivates self-confidence, positive attitude, and motivation necessary for the academic to achieve set goals (Ross, 2014). An educational environment can motivate academics to achieve their goals and feelings of meaningfulness by bestowing them with respect, competence, autonomy, and relatedness and eradicating bureaucratic hassles in their work (Frenkel, 2021; Fouché et al., 2017; Stirling, 2016).

However, nurse academics' motivation can be undesirably affected in situations that are distressing and anxiety-inducing, such as uncivil and disruptive student behaviours (Christensen et al., 2021). There has been increasingly worrying trend of student entitlement and unprofessional conduct aimed at nurse academics (Christensen et al., 2021). Unfortunately, academics also face demotivating situations attributed to colleagues who form cliques or badmouth peers instead of providing support and counselling for each other on aspects related to pedagogics (Bailey, 2019). It is significant for nurse academics to be driven by intrinsic motivation which will enable them to influence and direct themselves irrespective of the challenges of the context in which they may find themselves in, but still strive towards accomplishing ideal performance as set out in their performance standard (Jooste and Frantz, 2017).

This information and other similar reports in literature prompted the researchers to ask the following question: *How can nurse academics' self-leadership be facilitated in ANIs?* Given the impact of motivation on nurse educator performance, the researchers responded to the question by developing and validating guidelines that aim to support nurse academics to practice self-leadership through motivation.

## 2. Methods

### 2.1. Study design

A three-phase exploratory sequential mixed methods study was undertaken. Mixed methods research allowed the researchers to collect, analyse, and integrate data, and draw conclusions from both qualitative and quantitative research approaches (Creswell, 2014; Tashakkori et al., 2020). The researchers chose this particular mixed-methods design to enable an elaborate explanation of the phenomenon through the qualitative data as well as through a complete comprehension of the research problem through the quantitative data (Creswell and Plano Clark, 2018). Whereas the data obtained in the qualitative subphase provided in-depth comprehension of the views of nurse academics regarding their self-leadership and ways in which self-leadership could be promoted in ANIs, quantitative data (Phase 2) described how nurse academics practiced their self-leadership nurse academics in ANIs.

The study had three phases as illustrated in the form of a diagram in Figure 1. Firstly, understanding what the concept nurse academic self-

leadership means in an ANI setting was explored and described by conducting an integrative literature review (ILR). Secondly, views of nurse academics concerning perceptions of their self-leadership and how it could be promoted within an ANI, was explored. Thirdly, the researchers used quantitative data to determine and describe the nurse academics' perceptions of their self-leadership practices in an ANI. The researchers then made use of data obtained and the reviewed literature, with the intention of developing and validating guidelines that could facilitate nurse academics' self-leadership.

### 2.2. Setting

The study was conducted at purposively selected ANIs, comprising of private and public nursing colleges as well as universities in two provinces in South Africa. ANIs in the two provinces have reliably produced the highest throughput of registered nurses and midwives for the past decade.

### 2.3. Data sources

The data sources (labelled as Population 1) of the first phase, that is, ILR consisted of all relevant published data on academic self-leadership, published in the English language between years 2000 and 2019.

Population 2, which was the population for the qualitative and the quantitative phases, were nurse academics in purposively selected ANIs. The nurse academics needed to be providing education and training to student nurses on a full-time basis with at least a year of teaching experience, and readily available to be included in the study. The planning of the selection process ensured that an institution whose nurse academics partook in the qualitative sub-phase would not be considered for participation in the quantitative phase.

## 3. Data collection

### 3.1. Integrative literature data

The data obtained in the ILR subphase was collected from all relevant peer-reviewed studies published between 2000 and 2019 and written in the English language. The search was conducted through a comprehensive computer-assisted literature search in the following online databases: Academic Search Premier Business Source Premier, CINAHL, Emerald, Eric, Medline, Proquest, PubMed, Sage, and Science Direct Taylor and Francis. The key terms used for the search were: 'faculty self-leadership', 'teacher self-leadership', 'nurse academic self-leadership', 'self-leadership of coaches', 'self-leadership of the preceptor', and 'academic self-leadership'. A set of inclusion and exclusion criteria assisted in reaching a decision on which studies would be included. Studies were included provided they could be categorised into academic literature, systematic reviews, theses, and dissertations, that had undergone peer review. The publications needed to have been published in English between January 2000 to December 2019. Studies on self-leadership by any category of healthcare worker that is involved in teaching or training, nurse academics or teachers were included in the search. We excluded articles that were not published in English, were published before the year 2000 and after December 2019, and unpublished studies or manuscripts.

We independently read and evaluated the titles and abstracts of the articles generated by the literature search. Only full-text articles that met the inclusion and exclusion criteria were selected. Of the 9 069 articles generated by the literature search, only 21 studies matched the inclusion criteria. We further conducted manual hand searching of studies on self-leadership in the library, which yielded only three that met the inclusion criteria. Therefore, a total of 24 made it to the next stage of critical review. The critical review on the 24 articles was independently conducted by the authors to identify the best available evidence to be included in the ILR, using the Joanna Briggs Institute (JBI) Critical Appraisal Tools

	Phase 1		Phase 2 (quantitative)	Phase 3 (guideline development)
	Subphase 1 (ILR)	Subphase 2 (qualitative)		
<b>Research objective</b>	To explore and describe the concept “nurse academic self-leadership” through an ILR	To explore and describe the perceptions of nurse academics on self-leadership through semi-structured focus group interviews	To develop a structured questionnaire that is grounded on Phase 1 (subphases 1 and 2) findings.	To develop and validate guidelines that can promote self-leadership within nurse academics in ANIs
<b>Population</b>	Empirical and theoretical data sources on self-leadership of academics, published in English in the year period 2000- 2019	Nurse academics teaching in Gauteng and KwaZulu-Natal ANIs	Nurse academics teaching in Gauteng and KwaZulu-Natal ANIs	Integrated data from phases 1 and 2. Field experts in guideline development, nursing practice, nursing education, nursing management and leadership
<b>Sampling method</b>	Inclusion and exclusion criteria	Purposive	Convenient	Purposive
<b>Data collection</b>	A comprehensive computer-assisted literature search (n=14 included studies)	Four focus groups Field notes	Questionnaires (n=265 participants)	Validation criteria instrument (n=19 field experts)
<b>Data analysis</b>	Thematic techniques by Miles and Huberman (in Whittemore & Knafl, 2005)	Tesch’s protocol (Creswell, 2014).	Exploratory factor analysis utilizing descriptive statistical methods (SPSS version 25).	Inductive and deductive reasoning

Figure 1. Diagram depicting phases of the study

(2017). We then sought opinion of an independent reviewer on areas where we disagreed and could not reach a consensus. In the end, the critical appraisal resulted in only 14 of the 24 studies that underwent the critical review meeting the JBI criteria of inclusion, and the remaining ten articles being excluded. Subsequently, consensus was reached between the authors and independent coder. Some of the reasons that informed the exclusion of the ten studies include unclear research objectives; poorly defined study population; the vague research process; unclear derivation of conclusions; poorly written English language that could result in misunderstanding of the study; and when there was no mention of the study's ethical considerations.

Figure 2 below displays a literature search flow chart.

### 3.2. Qualitative data

The first author conducted four focus group interviews using a semi-structured interview guide. This guide had possible areas for in-depth probing, and was made available to the participants preceding interviews. Although the interview guide consisted of prepared questions, participants’ responses elicited probing questions that brought on illumination on their answers. The focus group interviews were conducted in

the institutions where the nurse academics work, thus a natural setting, with necessary permission from the authorities and informed consent from participants.

To explore the perceptions of the nurse academics the following key questions were asked:

- ‘Describe how you perceive your self-leadership?’
- ‘What are the self-leadership activities that you engage in as a nurse academic?, and
- ‘How can the self-leadership in nurse academics be facilitated in an ANI?’

Communication techniques such as reflection, using silence and nodding where appropriate, were used to obtain as much information as possible. Each interview was audio-recorded with the nurse academics’ consent. Field notes were also written to capture non-verbal cues and tones throughout interviews to reinforce the collection of data. All interviews were transcribed word for word immediately after the interviews, enabling the first author to become acquainted and immersed in the data whilst listening to the audio-recording. The transcribed interview data was read and re-read together with field notes to get a deeper understanding of what emerged in the interviews.

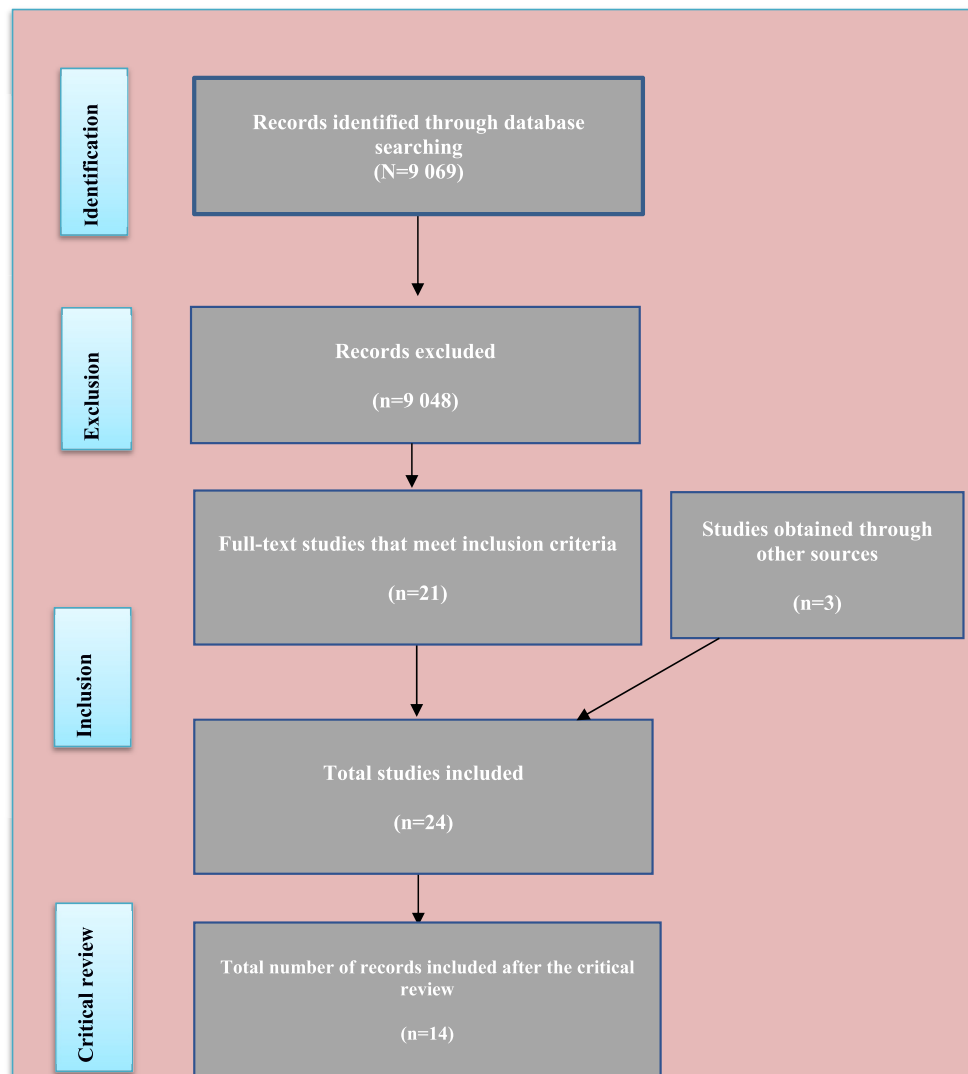


Figure 2. Literature search flowchart.

### 3.3. Quantitative data

For the collection of quantitative data to determine and describe nurse academics' self-leadership practices, a 78-item structured questionnaire was designed in English language using the integrated themes from the ILR and qualitative sub-phases (Phase 1), [Manz's \(1986\)](#) self-leadership theory, and the literature. The questionnaire was made up of four sections. Section A had 7 items to elicit socio-demographic data of the participants. Section B comprised of 29 items which ascertained the participants' perceptions of the nurse academics' self-leadership concept and its constructs. Section C encompassed 33 items that were intended to establish the activities that described nurse academics' self-leadership practices. Section D consisted of 9 items aimed at establishing the extent at which motivation could contribute to nurse academics' self-leadership. The researchers designed the questionnaire in such a way that some of the items in the above-mentioned sections were open-ended questions so that participants' responses could be explored further to gather richer information. A seven-point Likert scale questionnaire with responses ranging from strongly disagree (1) to strongly agree (7) was utilised.

The questionnaire was pre-tested with 16 participants who did not participate in the study. Data was collected between 2018 and 2019. A

total of 443 nurse academics from 15 ANIs were approached to participate through hand-delivered questionnaires and survey monkey. The response rate was 67% ( $n = 252$ ) on hand-delivered questionnaires and 19% ( $n = 13$ ) through survey monkey. Thus 265 nurse academics responded to the questionnaire. In most institutions, the questionnaires were hand-delivered, disseminated, and later collected by the first author, whilst in others, the hard copy questionnaires were issued to the institutions' research coordinator, who used sealable and lockable boxes for the posting and keeping of completed questionnaires.

### 3.4. Guidelines

The researchers used a narrative discussion to integrate the ILR, qualitative and quantitative data for development of guidelines that could promote the self-leadership in nurse academics. Logical reasoning in the form of deductive and inductive reasoning were employed during the development of guidelines. Concluding statements drawn from the integrated findings supported the proposed guidelines. Once the guidelines had been developed, they went through a validation process by 19 field experts. The identified experts had varying expertise in nursing policy, guideline development, as well as the nursing management and leadership facets of nursing education from private and public nursing sectors.

#### 4. Ethical consideration

The study was approved by the university's research committee (Ethical Code: REC-012714-039). Permission was also requested from and approved by the relevant research bodies and health authorities in ANIs and provincial health departments.

Upon being informed about the objectives, all participants completed a consent form. They were guaranteed of confidentiality and their right to retract from the study at any moment without ramifications.

#### 5. Data analysis

Miles and Huberman's thematic data analysis technique, as outlined by Whittemore and Knafelz (2005), was employed to analyse the ILR data, namely: data reduction, data display, data comparison, conclusion drawing, and verification. The included studies that went through critical review described self-leadership in academics in glowing terms, meaning, engagement in self-leadership practices improved the performance of academics regardless of educational settings. However, the manner in which nurse academics' self-leadership occurs in ANIs remained not fully defined, due to a dearth of literature that is specific on the phenomenon.

Data analysis of the transcripts as well as the field notes that were collected during the focus group interviews was undertaken independently by the first author and a co-coder following Tesch's thematic analysis procedures (Creswell, 2014). They held a consensus meeting where the categories and subcategories that were identified independently, were discussed. They also verified if there were related patterns and gaps until they reached consensus on the relationship between categories and subcategories, and how these would be arranged in columns. The four themes that emerged from the data analysis relate to perceptions of nurse academics' self-leadership; nurse academics' engagement in self-leadership practices; motivational factors influencing nurse academics' self-leadership; and facilitating nurse academics' self-leadership.

The participants' (n = 265) raw data from the was coded and captured on a Microsoft (MS) Excel (Windows 2016) spreadsheet for analysis by a statistician, making use of the descriptive SPSS Version 25 statistical package. Testing for the validity of the questionnaire constructs was accomplished through performing an exploratory factor analysis (EFA) to the responses of the motivation construct. The analysis assisted in determining whether the individual questions loaded onto the constructs as envisioned. Techniques that were employed to extract the factors were maximum likelihood method and a varimax (orthogonal) rotation. In determining the number of factors that could be used for rotation, the following criteria was followed: cumulative percentage variance greater than 50%, Eigen value greater than 1, and a significant decline in the scree plot. A factor loading cut-off of 0.40 was used for interpretation of a reasonable item that was loading on a factor, as depicted in Table 1.

Following validity testing of the motivation construct, item analysis was conducted to assess reliability of the construct in the questionnaire in accordance with Cronbach's Alpha coefficient, thereby confirming that relevant items of each construct measured the construct reliably.

The composite construct scores for motivation construct were calculated by taking the average of the reliable items that loaded onto that factor. Histograms were used for showing distribution and descriptive statistics (see Figures 3 and 4). The researchers considered distribution as skew if the skewness value was outside the range of -1 and +1, and as such the median was used in interpretation of results.

The researchers used integrated findings and literature to formulate concluding statements, from which 12 guidelines were developed. The guidelines were developed to facilitate self-leadership in nurse academics through motivation. Validation of the guidelines was accomplished using a criterion that ensured the guidelines were clear, comprehensive, applicable, adaptable, credible, and valid (Chinn and Kramer, 2014; De Swardt, 2019). Thus, this article reports on two of the 12 guidelines that relate to the motivational factors in nurse academic self-leadership.

**Table 1.** Factor loadings from EFA for the motivation subscale.

Item no.	Items	Factor 1	Factor 2
D79	I am a proactive nurse academic who takes self-directed initiatives that improve students' performance.	0.77	0.06
D80	I involve myself in innovative and creative initiatives to improve the students' performance.	0.76	0.08
D82	I have a natural desire to learn the mastery of the subject or course that I currently teach.	0.62	0.17
D81	Nurse academics should have autonomy, control and ownership over their work in the academic nursing institution.	0.62	0.11
D87	The academic nursing institution management should motivate me to have autonomy, control and ownership over my work.	0.14	0.68
D86	The academic nursing institution management should provide support for me to improve my performance.	0.10	0.68
D83	In my opinion, the academic nursing institution has a role to play in motivating me to be autonomous and competent so that I can produce quality work.	0.24	0.44
D85	In my opinion, incentives from the academic nursing institution motivate me to improve my performance.	-0.1	0.41
D84	My colleagues (peers) value my work and are supportive.	0.21	0.30

#### 6. Rigour of the data

##### 6.1. Integrative literature review data

Rigor in the ILR was accomplished by using diverse empirical and theoretical sources. The researchers followed different stages of conducting the research review. The strategies used in the literature search were well-defined, to include the search of manual hand searching, research journals, and networking and not only a computer-based search strategy. The researchers observed the university's copyright and anti-plagiarism policies to ensure that the academic integrity of the ILR was maintained. All sources used in the ILR were listed in the references section.

##### 6.2. Qualitative data

Lincoln and Guba's (1985) criteria of trustworthiness, which comprise credibility, transferability, dependability, and confirmability, were employed to ensure rigor in qualitative data. Credibility was ensured by accurate description and presentation of data on the self-leadership of nurse academics to an extent that other nurse academics who may have encountered related experiences would identify with the descriptions. Credibility was achieved through prolonged engagement, wherein the first author spent sufficient time interacting with nurse academics; triangulation was achieved via use various data collection techniques and writing field notes. Member checking was achieved with participants of two focus groups to ensure that the analysis reflected their actual experiences. Transferability was ensured by providing an in-depth description of the study's research methods. Dependability was ensured by comprehensively describing the methodology of the study, while confirmability was maintained through keeping audit trail, triangulation, and through the first author and the independent coder holding a meeting to reach consensus on the theme and subthemes that emerged. After the consensus meeting the two authors finalised the themes and subthemes.

##### 6.3. Quantitative data

Internal and external validity was established through measures of validity and reliability. Validity of the data collection instrument, content validity, face validity and construct validity were measured. Content validity was accomplished through the ILR, holding discussions, and

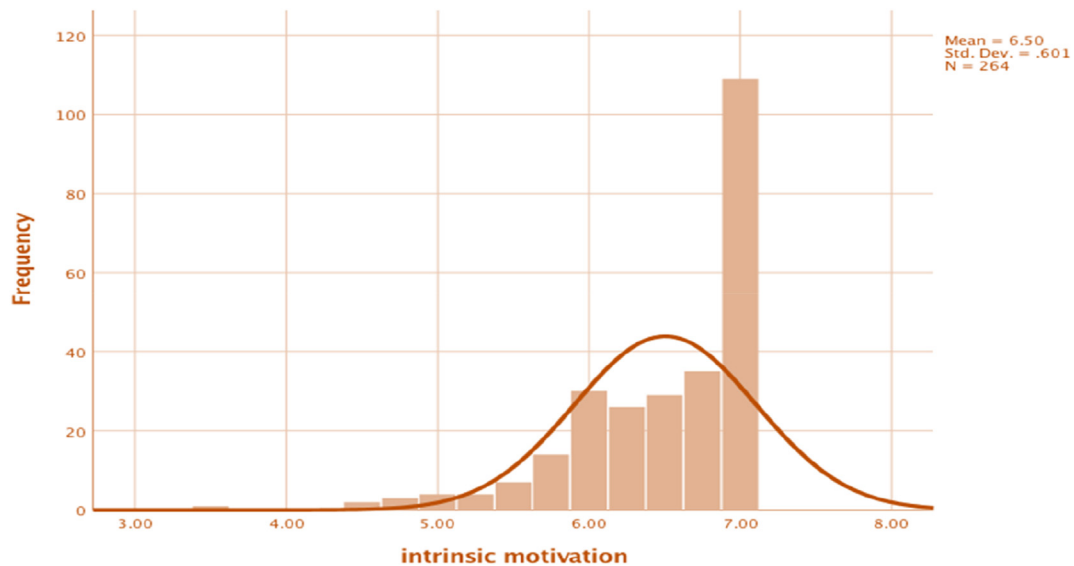


Figure 3. Distribution of composite scores for Intrinsic motivation construct (n = 264).

consultations with the second author to consider the significance of questionnaire items on the phenomenon under investigation. Practices such as pre-testing of the questionnaire and coding the question items assisted in improving the content validity. Face validity was established by making use of the services of a statistician and independent nurse academics, not otherwise involved in the study to assess the questionnaire and identify potential problems with the questions. Incorporation of the self-leadership theoretical framework and the ILR into the questionnaire assisted in establishing construct validity. The Cronbach alpha coefficient of the constructs measured between 0.6 and 0.8. Pre-testing of the questionnaire further ensured.

## 7. Results

### 7.1. Integrated results from phase 1 (ILR and qualitative data)

Data collection and analysis methods were merged, and data from the ILR and the qualitative phase were integrated so that the self-leadership in nurse academics in an ANI context could be fully understood (Fetters et al., 2013). Merging involved combining, analysing and comparing the two databases of themes. Through this data integration, the meaning of self-leadership within nurse academics in an ANI was compared with the views of nurse academics on their self-leadership practices and

experiences; which provided a clearer insight of each sample's view regarding nurse academics' self-leadership. The themes that emerged from the integration were: Nurse academics as self-leaders, Nurse academics' self-leadership activities, Nurse academics as motivated self-leaders, and Facilitators of nurse academics' self-leadership.

#### 7.1.1. Nurse academics as self-leaders

Nurse academics perceived self-leadership as having a deep understanding of themselves, that is, being self-aware of own strengths and weaknesses, values, motivations, beliefs and emotions in relation to teaching. They used the characteristics observed from their role models and mentors as a reference point to describe self-leading behaviours. Self-leading attributes were described in literature as setting goals, being self-disciplined, availing self to mentor others, taking initiatives, seeking knowledge, and being a reflective practitioner. Self-leading academics were expected to be role models to fellow colleagues, students and in the communities they lived in.

#### 7.1.2. Nurse academics' self-leadership activities

Nurse academics acknowledged that engagement in self-leadership activities could lead to improved performance of the individual academic, the academic team and the ANI. These activities include engaging in self-reflection, role modelling, collaboration, self-development and

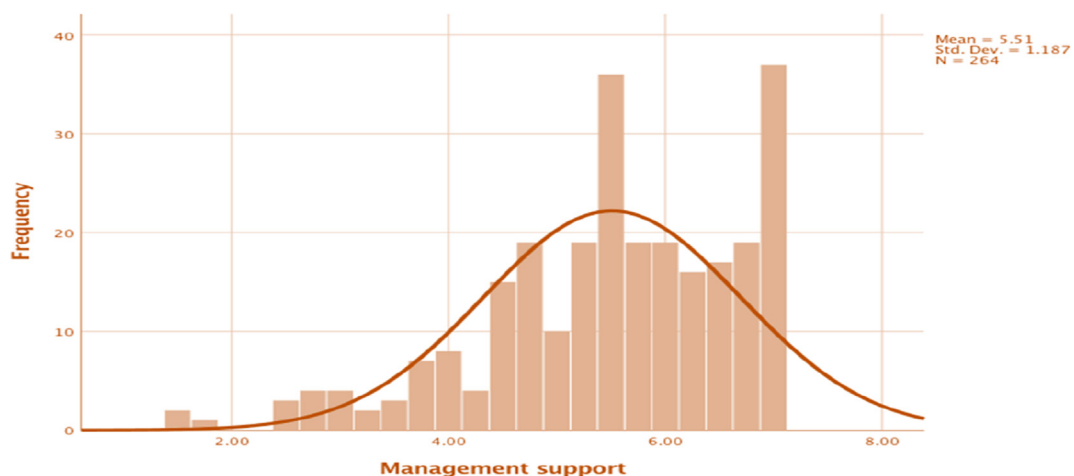


Figure 4. Distribution of composite scores for Management support construct (n = 264).

self-controlling. Their performance was not dependent on the designated leaders' presence or supervision. Instead, they were willing to take leadership roles in their academic departments in situations where the designated head of department was not available. Literature highlighted a general absence of self-leadership awareness amidst academics and leaders in academic institutions. This lack of understanding perpetuated use of ineffective leadership styles which stifle self-leadership practices in academics.

### 7.1.3. Nurse academics as motivated self-leaders

Nurse academics indicated that there were certain motivating and demotivating aspects that could influence and affect their engagement in self-leadership practices. Motivating factors included experiencing deep feelings of satisfaction after teaching student nurses, without expecting any form of institutional reward. They added that some within their professional circles influenced their internal motivation to teach, for example, peers in terms of teamwork and students in terms of their willingness to learn. Factors that de-motivated nurse academics' self-leadership practices were lack of incentives; and lack support from colleagues and institutional managers. The literature provides two natural reward self-leadership strategies that can be utilised by academics in an academic setting. These are building intrinsic motivation by creating enjoyable work activities and focusing on intrinsic motivators by performing a pleasurable job feature. Enjoyable teaching activities were purported to be intrinsically motivating if they were challenging and stimulated curiosity to explore a new stimulus.

### 7.1.4. Facilitators of nurse academics' self-leadership

Nurse academics embraced the responsibility they have for facilitation of their own self-leadership through self-initiated activities, for instance continuing professional development. Continuing professional development enables academics to develop their teaching mastery by not waiting for the support of a mentor. Instead, they took initiatives to find resources, research and read, as well as observe senior colleagues during their classes. The ANI was identified as a critical role player in the facilitation of nurse academic self-leadership through provision of mentoring, succession planning and management support. Other aspects that were identified as facilitators of self-leadership in academics pertained to institutional managers engaging in transformational, shared, and collaborative leadership, as well as role modelling.

This integrated data was then used as a foundation for developing questionnaire that collected quantitative data participants that were not legible to participate in Phase 1 (sub-phase 2).

## 7.2. Phase 2 (quantitative data)

### 7.2.1. Participants' demographic data

Regarding the demographic information of the participants, a total of 265 nurse academics completed the questionnaire. Of them, 15 (6%) participants were males, and 250 (94%) were females. The youngest participant was aged 27, whilst the oldest participant was 72 years old. A total of 178 (67%) participants taught at public nursing colleges, whilst 60 (23%) taught at private nursing colleges and 27 (10%) were teaching at universities. Whilst the lowest number of years of teaching experience in a ANI was a year, the highest years of teaching experience 40 years. A sum of 239 (90%) participants shared that they had an additional postgraduate qualification in Nursing Education, whereas 170 (64%) participants specified their additional qualification as Nursing Management. Though postgraduate Nursing Education and Nursing Management are distinctive programmes, they can be attained as additional qualifications simultaneously. Thus, some nurse academics indicated that they had both qualifications.

### 7.2.2. Validity testing of the subscale D motivation construct

Table 1 portrays the rotated factor loadings for Subscale D (motivation). Factor loadings that met the cut-off of 0.40 or greater are

emphasised in **bold** numbers. Two factors displayed Eigen values above 1 and had 52.6% of cumulative variance. These were identified as meaningful based on scree plot results.

No items were cross-loaded in the subscale. There were four items that loaded on the Factor 1, which we termed "intrinsic motivation"; as well as four items that loaded on Factor 2, which we termed "management support".

### 7.2.3. Reliability testing of the motivation construct

Table 2 depicts results of analyses conducted for the questionnaire subscale of motivation. It shows the Cronbach alpha coefficient of the two factors, which are both greater than 0.6, demonstrating the reliability of the items of the constructs. Therefore, the results indicate internal consistency of motivation subscale.

### 7.2.4. Composite scores for motivation subscale

Calculation for construct scores for factors in this subscale entailed taking the average of the items that loaded onto that factor for each participant and was reliable. Hereafter is a discussion on the composite scores of each of the constructs for subscale motivation:

**7.2.4.1. Intrinsic motivation construct (items D79, 80, 82, 81).** Figure 3 is a depiction of distribution of composite scores on the construct intrinsic motivation.

The composite scores for each participant ranged from 3.5 to 7 (maximum score). The histogram exhibits a negatively skewed distribution of composite scores, with a skewness value of -1.49 and a mean of 6.5. Therefore, for interpretation purposes, the researchers used the median (6.75), which is greater than the mean of 6.5, and has a standard deviation of 0.6. This suggests that participants strongly agreed with this construct and by extension perceiving themselves to be in possession of intrinsic motivation.

**7.2.4.2. Management support construct (items D83, 85, 86, 87).** Figure 4 below is a depiction of the distribution of composite scores on the construct management support.

The composite scores for each participant ranged from 1.5 to 7 (maximum score). On average, the participant composite scores are at 5.51 (mean). The mean (5.51) is greater than the median of 5.5 and has a standard deviation of 1.2. This suggests that by strongly agreeing with this construct, participants perceived that there was a need for management support in the ANI.

## 7.3. Integration of phase 1 and phase 2 results

The qualitative and quantitative data were integrated and discussed as a narrative, that is, by describing the two sets of data in a single report (Fetters et al., 2013). The three themes that emerged are a) taking ownership of one's self-leadership in self-reflection of own behaviour; b) motivational factors in nurse academic self-leadership; and c) facilitation of self-leadership in nurse academics. The guidelines addressed in this article relate to the theme b) motivational factors in nurse academic self-leadership, which addresses both intrinsic and extrinsic factors. Motivation is at the core of self-leadership, which is aptly described as an individual's ability to motivate the self to accomplish tasks (Mayfield and Mayfield, 2021; Stewart et al., 2019). If organisations like ANIs are to

**Table 2.** Reliability testing on the motivation subscale.

Subscale	Constructs	Items	Items left out	Cronbach	Reliability
Motivation	Intrinsic motivation	D79, 80, 82, 81	None	0.79	Acceptable reliability
	Management support	D83, 85, 86, 87	None	0.62	Acceptable reliability

promote self-leadership by flattening hierarchies and giving employees more responsibilities and less supervision, then there is greater need to understand the role of motivation on employees' performance (Huopainen, 2021; Nanayakkara and Wilkinson, 2022).

### 7.3.1. Motivational factors in nurse academic self-leadership

**7.3.1.1. Intrinsic factors.** Nurse academics reflected on feeling internally motivated when they teach solely for its inherent fulfilment without any external influence or expectation of a reward. This resulted in them feeling increasingly competent, in-control, meaningful and purposeful as quoted:

'I think as an academic I should be innovative and creative because I am nurse leader' (F1G4)

'I am encouraged and motivated by knowing that I have the responsibility and accountability

to demonstrate leadership to my students, in a way that will lead them to be independent,

responsible, and accountable nurse practitioners' (F5G2)

Nurse academics also perceived themselves as being in possession of intrinsic motivation, by strongly agreeing with the intrinsic motivation construct, with the median (6.75) greater than the mean (6.5), with a standard deviation of 0.6. They were fulfilled even after giving up their vacation to participate in institutional events designed to improve student performance. An example of this was when some participants provided remedial classes to students on their weekend time off with no anticipation of reward from the ANI. Participants reflected on feelings of pride and enjoyment after assisting students to improve their grades. The participants said:

'Some time our team sacrifices their weekend-off time to give extra classes to the students. This is done to improve the students' performance' (F2G1)

The participants also went further to share that they shaped their career development goals around their passion for teaching and the institution's vision: *'My research interest is on gender equality, and I would like to base my scholarly work and publish on gender issues. I would like to be recognised as someone who contributes to the outlook of the institution'* (F1G3)

The participants' intrinsic motivation seemed to have provided them with resilience to endure, despite the setbacks encountered in academia, as quoted:

'I do not quit because today I failed what I wanted to accomplish, I have a chance to improve tomorrow ... it is a continuing process, eventually I will get there' (F2G2)

The construct intrinsic motivation was reported with the highest median (6.75) in the subscale *motivation*, meaning that when compared, the participants had a better perception for the construct *intrinsic motivation* than *management support*, which had a median of 5.5. The composite construct *intrinsic motivation* determined whether nurse academics perceived that their academic activities were guided by intrinsic motivation. *Intrinsic motivation* items comprised being proactive, being initiative, innovative and creative, deriving a natural desire to master the taught subject. Another facet in this construct was whether the nurse academics perceived being autonomous, being in control, and having ownership over one's work as important in an ANI. Evidence showed that nurse academics perceived themselves to be in possession of *intrinsic motivation*. Intrinsic motivation stimulates improved performance in employees, makes them work efficiently and yearn to give a performance that is impactful and contributing to the realisation of the institution's overall goal (Nguyen et al., 2019)

Participants described feeling deeply satisfied with their teaching activities because teaching was inherently interesting. The composite construct *natural reward* measured whether nurse academics attained fulfilment from teaching students; understand the course they teach to be spontaneously interesting; and if they derived deep motivation and purposefulness succeed in their studies. Evidence indicates that nurse academics get motivated to teach because of *natural rewards*. Extrinsic rewards, whether financial, recognition or promotion did not promote self-leadership (Kusdinar and Haholongan, 2019). Rather, as Kusdinar and Haholongan (2019) further assert, it is through natural rewards that employees had feelings of being capable, pro-active, accountable, resilient, confident, competent, and in control.

**7.3.1.2. Extrinsic factors.** The nurse academics indicated that other actors in their work environment such as managers, peers, and students had an influence on their motivation to teach. The following view further illuminates the role played by the ANI environment in motivating nurse academics to partake in self-leadership activities:

'My colleagues are pursuing their studies, doing Master's and Ph.D's. When you join the department as a novice academic you will have the opportunity to learn from peers. They believe in lifelong learning... they motivate you to further your studies. They use motivating words, you become motivated' (F6G3)

The following statements give an indication that nurse academics felt purposeful and efficient when they reflected on their students' success, as quoted below:

'Our hard work in researching, preparing lessons, and accompanying students in the clinical field so that they have the required skills, knowledge and competencies qualify as registered nurses has paid off' (F1G3). 'As a nurse academic, you see your work through students, the product that you have produced' (F3G3)

The nurse academics identified lack of financial incentives or rewards as one of the factors that dissuaded them from self-leadership engagement. They were adamant that financial incentives and financial rewards were some of their motivational foundations to teach. The expected incentives were through positive reviews of the performance management and development system, supervisors showing recognition and gratitude for accomplished tasks, as well as the fringe benefits for nurse academics working on contractual basis. The institutional leadership's perceived dependence on the highlighted areas was perceived as contributing adversely to the retention of nurse academics. They said:

'They cannot expect me to be motivated if I do not earn enough. One ends up deciding to go for greener pastures. One is always preoccupied with the thought of leaving the ANI' (F5G2)

'Financial incentives are very important because you need for the daily demand of living' (F7G2)

Evidence also showed that participants perceived management support to be important in the facilitation of nurse academics' self-leadership in the ANI, by agreeing to the construct *management support* which had composite mean score at (5.51) greater than the median of 5.5, and a standard deviation of 1.2. The participants expected management support to be in the form of facilitating an ambiance of recognition, respect, fair treatment, and equality. The participants expected management to support and provide guidance when they were faced with challenging tasks. The participants were quoted as follows:

'Our management is not supportive; they frustrate us on a daily basis. This makes one to feel despondent and think twice before putting more effort in the work. They can make you lose self-control' (F5G3)

The composite construct *management support* assessed whether nurse academics perceived the ANI management played a part in the



facilitation of nurse academic self-leadership through intervening by providing an autonomy supportive and skill enriching environment; providing incentives; and offering required support to ensure that nurse academics take control and ownership of their responsibilities. From the findings it was evident that the nurse academics perceived *management support* necessary to facilitate their self-leadership in the ANI. The finding reported earlier pertaining to the participants having a more positive perception of the composite construct *intrinsic motivation* (median 6.75) in comparison to *management support* (median 5.5), signifies the composite construct *management support* being perceived to be of less importance in facilitating nurse academics' self-leadership when compared to *intrinsic motivation*. An explanation to this finding could be the participants' awareness that the obligation of facilitating self-leadership attributes amongst nurse academics lies mainly on the individual academic's intrinsic motivation than the extrinsic management support (Ghosh, 2015).

## 8. Discussion

The findings indicate that nurse academics' engagement in self-leadership activities was motivated by both intrinsic and extrinsic factors. Regarding intrinsic factors, nurse academics were motivated to teach because they found teaching to be naturally interesting, thus fulfilling their desires and purpose in their lives. However, there were instances wherein nurse academics' engagements in self-leadership activities were influenced by actions from external sources within their professional circles such as their peers, managers, and students. Nurse academics also expected supportive interventions from the ANIs including financial incentives and financial rewards, which appeared to be induced by the need or urge to satisfy basic needs.

It is not surprising that some nurse academics from a developing country such as South Africa may feel motivated by financial rewards to meet their basic needs (Iliya and Ifeoma, 2015). When nurse academics do not receive financial support and competitive incentives that are commensurate with their qualifications, they feel unsupported and feel that their efforts are not unappreciated, ultimately leaving academia (Matahela, 2021). The nurse academics' inclination to be motivated by financial resources may partly be due to not thoroughly engaging in self-goal setting or not having clearly defined goals to identify the inner purpose for teaching (Iliya and Ifeoma, 2015). Inner purpose comes from self-awareness and has a potential of anchoring individuals when they experience setbacks, challenges, and failures (Prevost, 2020). Without inner purpose that defines one's core values the nurse academic will not derive inner joy from teaching and is likely to experience burnout (Prevost, 2020).

Blackmore and Kandiko (2011) refer to the following as examples of internal stimuli that could motivate nurse academics to practice self-leadership: dedicating time assisting students with their work; necessity to be supportive; the passion of seeing students making progress; the fulfilment derived from interacting with students, feeling informed and competent to improve student skills and having a sense of autonomy. Other examples of intrinsic motivators are improving the quality of teaching and learning, integrating theory with practice, collaborating opportunities with peers, the pleasure derived from teaching, and acquiring knowledge (Goroizidis and Papaioannou, 2014).

An explanation on nurse academics' reliance on extrinsic motivation from their peers on their self-leadership is that they are each other's colleagues and because of shared professional practices, they are bound to seek approval on intellectual matters from each other (Blackmore and Kandiko, 2011). Thence, nurse academics' self-leadership may be facilitated by the community of academics in their teaching discipline as in hindsight, it is this community that has the power to adopt or reject the academics' work. In the same vein, academics get deeply gratified with joy and pride when they get feedback on the effectiveness and success of their teachings (Martínez-Sierra et al., 2019).

The nurse academics' opinions give an indication that the factors that provided with extrinsic motivation could be contributing to enhanced feeling of autonomy and positive self-image, which could have consecutively increased their intrinsic motivation. Pederson (2002) is of the assertion that intrinsic factors might be dependent on extrinsic factors, and that individuals may swing between the two motivations for a particular activity. Thus, according to Pederson (2002)'s view, engaging in a particular activity could be influenced by either or both intrinsic and extrinsic motivation. Similarly, feedback that is perceived by academics as supportive to their competence and skill has a prospect of facilitating their intrinsic motivation, thus stimulating them to improve their performance (Bukhari et al., 2021).

Thus, a balance between extrinsic and intrinsic interests is necessary in the academic's daily teaching activities. On this, Feist (2016) advises academics to navigate between intrinsic interest, extrinsic rewards and impact in a balanced fashion. As an example, a nurse academic can 'marry' extrinsic and intrinsic interests by partaking in academic activities that blend intrinsic enjoyment, flavour or appeal, and interest, with extrinsic appreciation and career development. For academics involved in research activities, Feist (2016) advises that they need to search and advance the perilous and creative lines of research which could be potentially transformative while they need to develop the safer, more fundable innovations. This could lead to nurse academics attaining both intrinsic and extrinsic motivations through recognition, respect, and rewards for engaging in research activities (Feist, 2016).

The need for financial incentives as expressed by nurse academics could be motivated by the urge to fulfil basic needs (Deci et al., 2017). However, this is discordant with anticipated facilitators of self-leadership attributes which discourage emphasis of external interventions as sources of motivation. Ryan and Deci (2000) warn institutions against utilising financial rewards upon performance reviews as a core strategy for motivating employees since this tactic can easily weaken the employees' internal drive to perform. The rationale for this warning is that rewards can lead to employees only focusing on extrinsic benefits, which can generate short-term motivation, consequently having an adverse spill-over influence on the employees' performance in subsequent work tasks (Deci et al., 2017).

Blackmore and Kandiko (2011) support the nurse academics' perceptions that effective management support could promote their self-leadership in an ANI environment, when purporting that bureaucratic and controlling leadership styles antagonise the intrinsic motivation that stimulates academics. In the same vein, an autocratic management can demoralise academics' motivation and performance. Additionally, such a work environment can contribute to academics feeling disengaged, meaningless, stressed, and burnt out (Fouché et al., 2017; Stirling, 2016).

There is abundant confirmation in literature about the important role played by leaders in the establishment of a positive and supportive organisational climate, that enables proactive action, taking initiatives and future-oriented behaviours. Wu and Parker (2014) purport that institutional leaders could further provide support by promoting nurse academics' self-determination that will empower them to take on more responsibility and accountability in the institution.

It is also purported that supportive leaders demonstrate affection for employees by demonstrating empathy, involving them in decision-making, supporting their lifelong learning, and providing them with positive feedback (Janik and Rothmann, 2015). Therefore, this kind of support could inspire employees to persist engaging in their work and enhance their self-determination, to an extent that they would feel safe to be creative and try new innovations, and safe to discuss mistakes. The feelings generated by a sense of being supported would, consequently, provide a sense of meaningfulness and competence in nurse academics.

The evidence above and supportive literature, the concluding statements below, with recommendations, were formulated as guidelines as described in Table 3.

**Table 3.** Summary of concluding statements formulated as guidelines.

Theme	Category	Concluding statements	Guideline	Recommendations for implementation
Motivational factors in nurse academic self-leadership	Intrinsic factors	<ul style="list-style-type: none"> <li>● Nurse academics felt gratified after engaging in certain academic activities beyond expectations but did not anticipate to be rewarded for the act.</li> <li>● Nurse academics who are intrinsically driven, with deep interest in their work achieved academic achievements.</li> <li>● Intrinsically motivated academics engage in teaching and learning activities for their inherent satisfaction</li> <li>● Perceptions of successful teaching and learning experiences lead to educators' deep sense of gratification.</li> </ul>	<p><b>Guiding nurse academics to participate in self-directed activities that facilitate feelings of self-confidence, self-efficacy, and belief in their competence</b></p> <p><b>Rationale:</b> Nurse academics that are intrinsically motivated tend to focus on their core values, purpose, and self-direction, and take pleasure in teaching for its natural reward. They have an inclination to be responsible and accountable for their behaviours. They contribute in decision-making processes within the ANI and positively influence peers and students to engage in self-leadership activities to enhance their academic performance.</p>	<ul style="list-style-type: none"> <li>● Nurse academics self-motivate by: <ul style="list-style-type: none"> <li>○ Enthusiastically showing interest and enjoyment in their teaching.</li> <li>○ Striving to be creative educators, who implement innovative teaching methodologies by integrating digital technological systems in teaching and learning activities.</li> <li>○ Engaging in upscaling of own skills to adapt to the dynamic academic milieu that accommodates changes brought about by digital technologies through the Fourth Industrial Revolution.</li> </ul> </li> <li>● The ANI motivates nurse academics by: <ul style="list-style-type: none"> <li>○ Providing nurse academics with the platform and autonomy for creativity, innovation and taking risks.</li> <li>○ Providing nurse academics with autonomy to partake in capacity strengthening teaching and learning scholarships of their interest, thus allowing showcasing of competencies, leading to recognition by their peers and related communities. <ul style="list-style-type: none"> <li>○ Mobilising teaching and learning resources that promote student learning and enhances academics' sense of accomplishment and intrinsic motivation for teaching.</li> </ul> </li> <li>○ Promoting lifelong learning by investing in continuing professional development programmes that capacitate institutional leaders on how to involve nurse academics in participative decision-making processes.</li> <li>○ Create an ambiance that promotes new and diverse ideas to promote psychological empowerment of nurse academics.</li> </ul> </li> </ul>
	Extrinsic factors	<ul style="list-style-type: none"> <li>● Nurse academics were motivated to teach by financial rewards.</li> <li>● Nurse academics indicated that their performance could improve if they were incentivised through a performance appraisal system, received appreciative supervisor feedback, as well as improved fringe benefits for those on contracts.</li> <li>● “Pay for performance” rewards incentive system has a potential to shift academic motivation to extrinsic focus, which could only lead to short-term satisfaction.</li> <li>● Nurse academics expected and derived motivation from peripheral sources, for example, peers, institutional managers, as well as incentives.</li> </ul>	<p><b>Guiding nurse academics to rely on inner sources for fulfilment and encourage demonstration of distinctive competencies</b></p> <p><b>Rationale:</b> To discourage nurse academics tendencies of relying on external factors to attain motivation to teach. Instead of attaining motivation through recognition, rewards, and incentives, nurse academics engage in activities that facilitate, teaching skills and competence.</p>	<ul style="list-style-type: none"> <li>● Nurse academics self-motivate through: <ul style="list-style-type: none"> <li>○ Partaking in activities that enhance feelings of competence and self-determination during the teaching-learning process. These include engagement in co-learning, self-development, and in tasks that are optimally-challenging.</li> <li>○ Identifying one's purpose to teach, making efforts to prepare lessons adequately, managing classes efficiently, and seeking access to a supportive teaching environment to ultimately accomplish teaching mastery.</li> <li>○ Creation of a student-centric atmosphere that emphasises putting more energy on providing feedback on students' performance, which results in feelings of satisfaction when students apply the learnt skills and demonstrate improvement.</li> </ul> </li> <li>● Identifying subject or course that is naturally interesting to teach and focusing on attaining teaching mastery on the subject.</li> <li>● The ANI motivates nurse academics through: <ul style="list-style-type: none"> <li>○ Offering prospects for continuing professional development so that academics can further their studies, develop and enhance their subject speciality self-mastery.</li> <li>○ Recruiting nurse academics that possess self-leadership attributes, including self-reflection, self-motivation; good interpersonal relationships; and effective communication skills.</li> <li>○ Safeguarding the ANI's investment in nurse academics' academic freedom, autonomy, and psychological empowerment.</li> <li>○ Striving to allocate nurse academics to teach programmes or modules of their choice or speciality to highlight, acknowledge and</li> </ul> </li> </ul>

(continued on next page)

Table 3 (continued)

Theme	Category	Concluding statements	Guideline	Recommendations for implementation
				<ul style="list-style-type: none"> <li>o appreciate their worth and significance to the ANI.</li> <li>o Empowering nurse academics by advocating and by mobilising for resources, support, and information essential for the academics to effectively execute their teaching and learning activities.</li> <li>• The ANI's performance management system considers the following: <ul style="list-style-type: none"> <li>o Availability of human, financial, technical, and institutional support for nurse academics, thus locating outcomes on individual performance instead of a reward or incentive.</li> <li>o Nurse academics are provided opportunity for self-appraisal to measure their success, utilising a criteria that they co-crafted, thus promoting nurse academic self-leadership within the agreement's framework.</li> </ul> </li> </ul>

The first guideline, *Guiding nurse academics to participate in self-directed activities that facilitate feelings of self-confidence, self-efficacy, and belief in their competence*, is developed to facilitate the intrinsic motivation of nurse academics. When nurse academics are intrinsically motivated, they will align and focus their teaching to their values and purpose, and they appreciate teaching for natural reward and feel accountable for their actions (Engels et al., 2021). Such nurse academics role-model teaching thus stimulating their peers and students to partake in self-leadership behaviours. The significance of having intrinsically motivated academics in an ANI is further emphasised by Daumiller et al. (2020) when they assert that the quality of education offered by institutions relies on the performance of a motivated and focused academic workforce. A self-leading academic workforce strives to produce students that are disciplined, informed and responsible citizens that contribute to the upliftment of society and decision-making processes in their communities (Daumiller et al., 2020). Thus, self-leading academics are emulated by their colleagues and students for their self-leadership which manifests through inner motivation and resilience that propels them towards producing quality performance (Daumiller et al., 2020).

The second guideline, *Guiding nurse academics to rely on inner sources for fulfilment and encourage demonstration of distinctive competencies*, is aimed at discouraging nurse academic dependence on external factors for motivation. Examples of external sources sought by nurse academics for motivation are recognition, rewards, and incentives. Instead, nurse academics should be encouraged to pursue motivation from activities that promote fulfilment, positive attitude, knowledge, and skills. Intrinsically motivated academics take accountability for their own performance and actions by observing own behaviour, setting goals, and self-administering rewards, which results in lifelong learning that brings change to the academic's teaching and learning practices (Arquero et al., 2015). Such academics view intrinsic motivation as more desirable upon realising that it leads to better teaching and learning outcomes than extrinsic motivation (Tsimane, 2018).

It is purported that the educational context or institutional environment and its working conditions, contribute to nurse academic motivation (Daumiller et al., 2020). Whilst lower-order basic needs are necessary for sustenance of livelihood, they are not a sustainable driver for nurse academic motivation. Instead, nurse academics need support that encourages their intrinsic motivation such as achievement and career development (Iliya and Ifeoma, 2015; Engels et al., 2021). The demands placed by a variety of academic activities on nurse academics necessitates support by a work environment that makes them feel devoted and engaged in teaching so that they can reciprocate this supportive environment for students (Kaylor and Johnson, 2019). Thus, motivated academics provide students with a motivating and

autonomy-supportive teaching and learning milieu that improves students' academic performance.

## 9. Conclusion

This study described how an exploratory sequential mixed methods design was utilised to develop and validate guidelines which could be used to facilitate the nurse academics' self-leadership, specifically motivational aspects of self-leadership. Both the qualitative and quantitative findings elucidated that despite the ANI and its managers having a responsibility of enabling self-leadership practices by nurse academics, the onus of promoting self-leadership was with the individual nurse academics themselves. In general, nurse academics are capable of self-directing and self-motivating in efficiently accomplishing their delegated roles and obligations in the ANI. However, the ANI should pay attention to the factors or situations that affect nurse academics' motivation which may have a direct effect on students' performance. The study developed and validated guidelines as well as their recommendations for implementation by the nurse academics, and the ANI.

## Declarations

### Author contribution statement

Vhothusa Edward Matahela: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Wrote the paper.

Gisela Hildegard van Rensburg: Conceived and designed the experiments; Analyzed and interpreted the data; Wrote the paper.

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### Data availability statement

Data will be made available on request.

### Declaration of interests statement

The authors declare no conflict of interest.

## Additional information

No additional information is available for this paper.

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