Received: 11 March 2023 | Revised: 14 August 2023 | Accepted: 28 August 2023

DOI: 10.1111/jan.15855

EMPIRICAL RESEARCH QUANTITATIVE

JAN Leading Global Nursing Research WILEY

Relationship between work-related psychosocial factors and self-leadership in advanced nurse practitioners: A cross-sectional study

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Abstract

Aim: The aim of this study was to investigate the relationship between advanced nurse practitioners' self-leadership and commitment to the workplace, work engagement and influence at work.

Background: The concept of self-leadership is particularly suited to ANPs, who are required to take responsibility for their work roles. An optimum balance between the ANPs' psychosocial work environment and self-leadership may positively impact work ability in this group and can be compromised by interactions between and among these variables.

Design: A cross-sectional correlational study was conducted from July 2020 to August 2020 on 153 ANPs across a national health service.

Methods: The survey was distributed to respondents online. The revised self-leadership questionnaire was used to measure self-leadership, and three scales from the Copenhagen Psychosocial Questionnaire were used to measure commitment to the workplace, work engagement and influence at work. Multiple linear regression was used to examine the association between self-leadership and the psychosocial variables.

Results: ANPs with high levels of self-leadership reported high levels of work engagement and commitment to the workplace. No relationship was found between self-leadership and influence at work.

Conclusion: Improving self-leadership among ANPs by involving them in strategic leadership activities at an organizational level could be an effective strategy for optimizing the role and facilitating ANPs to contribute at an organizational level beyond the clinical interface. However, organizational support is required to ensure that ANPs practise to the full potential of their training and capability.

Patient or Public Contribution: No patient or public contribution.

Impact: This study provided new evidence of a relationship between ANPs' self-leadership and psychosocial factors. This study found that ANPs with high levels of self-leadership reported high levels of work engagement and commitment to the workplace. Policymakers and organizational leaders can optimize the ANP role and facilitate ANPs to contribute strategically to improve care systems. This

study identifies a relationship between ANPs' self-leadership and specific psychosocial variables.

KEYWORDS
advanced practice, cross-sectional, psychosocial, self-leadership

1 | INTRODUCTION

Leadership has been identified as a core tenet of advanced practice roles in nursing and is interwoven with the definitions, policy statements and practice ambitions of advanced nurse practitioners (ANPs). Effective leadership is required to initiate, drive and actualize reforms within healthcare organizations. Most leadership definitions reflect traditional understandings of the leader–follower relationship, focusing on individual behaviours and positional power (Gordon et al., 2015), with the implication that the leader in a position of power exerts influence and directs the activities of others with less power. However, this traditional concept of leadership may be unsuited to ANPs who are required to adopt a high degree of professional autonomy in their roles. Therefore, there is a need to conceptualize the specific domains in which ANPs enact their leadership role, which is driven in part by an increased recognition of the potential and opportunity for ANPs to influence global health through healthcare delivery and the prevention of ill health.

An emerging leadership development paradigm suggests that organizations focus on a multilevel strategy of developing the individual to lead themselves, that is, self-leadership; to lead others; and to lead at an organizational/system level (Williams & Weber, 2019). This framework has been adopted by nursing organizations to frame competency categories (ANA, 2018) and in the wider healthcare literature as a means of developing leaders in healthcare (Rayburn et al., 2018; Shannon & Sebastian, 2018; Yost, 2014).

1.1 | Background

Studies from a number of countries have reported that ANPs have difficulty enacting their leadership roles (Bergman-Evans, 2021; Coyne et al., 2016; Kraaij et al., 2020; Lamb et al., 2018). A multilevel approach to ANP leadership development involving self-leadership while leading others and leading at an organizational/system level may assist not only in personal development but also in facilitating ANPs to optimize their leadership of others and contribute at an organizational level (ANA, 2018).

The concept of self-leadership rests on underpinning psychological theory and research including self-regulation theory, social-cognitive theory, self-management theory, intrinsic motivation theory, self-determination theory and positive psychology. Self-leadership is concerned with individuals controlling their own behaviour and influencing themselves toward achieving desired behaviours and outcomes through the adoption of specific skills, behavioural strategies and cognitions (Cristofaro & Giardino, 2020; Kör, 2016). Self-leadership is defined as the general capability or skill to engage in the regulation of one's behaviour (Stewart et al., 2019). The theory of self-leadership emerged in the 1980s from the awareness that the traditional top-down flow of instructions, orders, control and management from a team leader or organization to its subordinates is suboptimal for individuals' achievement of goals because of rapid organizational change (Bum, 2018; Marques-Quinteiro et al., 2019; Ugoani, 2021). Self-leadership consists of specific behavioural and cognitive strategies designed to positively influence personal effectiveness. A self-leadership model, developed by Neck et al. (2019), consists of behaviour-focused strategies, constructive thought pattern strategies and natural reward strategies and draws on previous self-leadership instruments to measure the self-leadership skills, behaviours and cognitions of individuals.

Behaviour-focused strategies aim to increase the ANP's self-awareness and facilitate behavioural management towards necessary but unpleasant tasks (Goldsby et al., 2021; Neck et al., 2019). Constructive thought pattern strategies are designed to facilitate the formation of nuanced ways of thinking that can positively impact performance and may include identifying and replacing dysfunctional beliefs and assumptions (Neck et al., 2019). Constructive thought pattern strategies create a unique psychological world, which in turn affects the physical world inhabited by ANPs (Neck et al., 2019). Natural reward strategies attempt to foster situations in which an individual is motivated or rewarded by the inherently enjoyable aspects of a task or activity (Goldsby et al., 2021; Neck et al., 2019). The grouping of these strategies constitutes an overall construct of self-leadership. ANPs, as self-leaders, can use self-leadership not only to facilitate self-development but also to create a practice environment where professional collaborative practice can thrive, as self-leadership is known to increase organizational performance (Ugoani, 2021). Although leadership is closely related to the psychosocial work environment, the association between self-leadership and the psychosocial work environment for healthcare professionals has received insufficient attention (Lundgren et al., 2016; Lundqvist, 2013). This is particularly true for influence at work and commitment to the workplace, but the associations between self-leadership and work engagement also warrant further investigation.

Factors that can potentially impact on self-leadership ability include age, years practising as an ANP and the percentage of shifts working as a lone practitioner. For example, the development and

the use of self-leadership were found to be affected by age in a study by Ricketts et al. (2012), who found that younger individuals in early career life stages have more accessible self-leadership skills than older individuals in middle to late career life stages in the education sector. However, on the other hand, Kunagornpitak et al. (2019) found that participants in the education sector aged 51 years and older had higher self-leadership behaviours than those aged 30 years and younger. The time that advanced practice providers are in their current employment, as well as their total years practising as advanced practice providers, is important. There is evidence of a negative directional relationship between length of employment and use of self-leadership strategies, with findings from Ugurluoglu et al. (2015), suggesting that personal observation diminishes over time as people conform to organizational norms. The amount of time working as a lone practitioner may affect the leadership potential of ANPs because of heavy workloads and lack of time to engage in leadership activities with other staff (Higgins et al., 2014; Kerr & Macaskill, 2020).

Studies have demonstrated a positive association between self-leadership and work engagement, which is defined as a positive, affective-motivational connection to one's work role, combined with high levels of dedication and a strong focus on excessive effort in the workplace (Breevaart et al., 2016; Dorssen-Boog et al., 2021; Knotts & Houghton, 2021; Kotzé, 2018; Schaufeli, 2021; van Dorssen-Boog et al., 2020). Previous research has linked work engagement to a range of patient, staff and organizational outcomes including quality of care, job satisfaction, collaborative climate and organizational culture (Slåtten et al., 2022). In particular, work engagement is recognized as one of the key enablers of innovativeness at work through autonomous motivation (Koroglu & Ozmen, 2022).

Influence at work is concerned with the distribution of power-related activities between people in a work environment (Heller, 1998). Burr et al. (2019) suggested that influence in the work environment is concerned with the degree to which employees can influence different aspects of their work, such as ordering tasks or planning work. Giving influence to employees by empowering them to lead themselves through behavioural and cognitive strategies is a goal of self-leadership (Amundsen & Martinsen, 2015). To date, however, the role of self-leadership in facilitating influence at work has not been explored in ANPs.

Commitment to the workplace, which is the degree to which employees are committed to the organization rather than the work itself (Burr et al., 2019), is an important performance indicator within healthcare because of its impact on both individual and organizational performance (Baird et al., 2019; Ellenbecker & Cushman, 2012). Healthcare workers who are committed to the organization are more likely to provide better quality care (Mosadeghrad & Ferdosi, 2013; Sharma & Dhar, 2016). Commitment to the workplace is associated not only with employee performance (Huang et al., 2021) but also with workplace productivity and is important in achieving organizational goals (Lotfi et al., 2018). Greater commitment to the workplace is a determinant of employees' workplace behaviour (Perreira & Berta, 2016) such as the leadership they enact during their roles. To date, the association between self-leadership and ANPs' commitment to the workplace has received little attention.

Therefore, to address current knowledge gaps, this study aims to investigate the relationship between advanced nurse practitioners' self-leadership and commitment to the workplace, work engagement and influence at work.

1.2 | Conceptual framework

Self-determination theory (Ryan & Deci, 2000) was the theoretical framework chosen to examine self-leadership and psychosocial variables among the ANPs in this study. This is because the three basic psychological needs (autonomy, relatedness and competence) of self-determination theory, which serve as the basis for self-leadership, relate to both the ANP role and construct of self-leadership. In this study, we incorporated theories of self-determination and self-leadership with the findings from our literature review to guide the study (Figure 1).

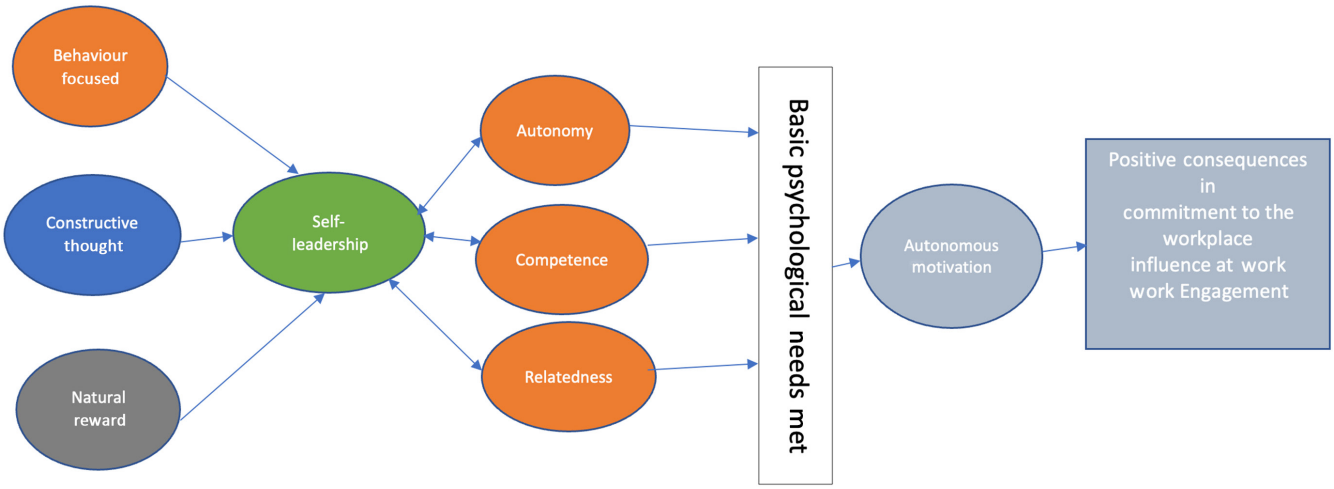

FIGURE 1 Conceptual framework.

2 | THE STUDY

2.1 | Aim

This study examined the relationship between ANPs' self-leadership and commitment to the workplace, work engagement and influence at work.

2.2 | Design

A cross-sectional descriptive survey was conducted between July and August 2020.

2.3 | Participants

The sample included ANPs registered with the Nursing and Midwifery Board of Ireland (NMBI). The sampling frame for this study was all ANPs on the Health Service Executive (HSE) and Irish Association of Advanced Nurse and Midwife Practitioners (IAANMP) databases of registered ANPs at the time of the study. Potential respondents were asked to confirm that they were working as an ANP during the consent and data collection phase of the survey. Based on these databases, nonprobability sampling was used to secure a sample of ANPs registered with the Nursing and Midwifery Board of Ireland (NMBI). The survey was sent to 245 email addresses, 151 of which were sent by the HSE and 94 by the IAANMP on behalf of the researcher. Of those distributed, 10 were not delivered for various reasons, including invalid email addresses and security/permission issues. The exclusion criteria were advanced midwife practitioners (as midwifery is a separate and distinct profession from nursing) and candidate (trainee) advanced nurse practitioners.

2.4 | Data collection and instruments

Participants completed an online questionnaire comprising demographic questions and questions related to self-leadership and psychosocial factors. The online survey, consisting of 56 items, was built using Google Forms and included a consent form before starting. Web-based surveys, such as those created in Google Forms, overcome some of the inherent limitations of other survey methods, such as face-to-face surveys or telephone interviews, which require manual data entry, a limited sample size and cost (Szolnoki & Hoffmann, 2013).

2.5 | Demographic data

The participants' demographic data, including gender and age, were collected. In addition, data on the length of time working as an ANP, experience in their current role and the extent to which they worked alone (i.e. consulted with patients on a one-to-one basis and not as part of a team) were collected.

2.6 | Self-leadership instrument

The revised self-leadership questionnaire (RSLQ) is a 35-item instrument used to measure the concept of self-leadership (Houghton & Neck, 2002). All items are measured using a five-point Likert scale ranging from 1 (definitely not true) to 5 (definitely true). Each item was averaged to obtain an overall self-leadership score, with higher total scores indicating greater levels of self-leadership.

2.7 | Psychosocial measures

Three scales from the third international long version of the Copenhagen Psychosocial Questionnaire (COPSOQ III; Burr et al., 2019) were used to examine aspects of ANPs' work, such as the degree to which ANPs have influence in their workplace, their commitment to the workplace and work engagement. The authors of the COPSOQ permit the use of individual scales from the COPSOQ, and there are previous instances where individual scales are used to answer specific research questions relating to psychosocial factors in nurses (e.g. Hatch et al., 2019; Mc Carthy et al., 2017). The influence at work scale was a composite of six items, and work engagement was comprised of four items. Both the influence at work and work engagement scales had response options of: always, often, sometimes, seldom and never/hardly ever. Commitment to the workplace was measured using five items with response options of: to a very large extent; to a large extent; somewhat; to a small extent; to a very small extent. The item 'How often do you consider looking for work elsewhere?' was reversed scored. All three scales have a theoretical range of 0–100. A high score on each scale indicates high influence at work, high levels of work engagement and commitment to the workplace. The average score for each scale was calculated if at least half of the items were completed. If the respondents answered less than half of the items on a particular scale, the responses were considered missing and the respondents' data were omitted from the analysis (Pejtersen et al., 2010).

2.8 | Validity and reliability

Good reliability and construct validity of the RSLQ have been ascertained in previous research (Mahembe et al., 2013). In this study, the internal consistency for self-leadership, measured using Cronbach's alpha, was .73, which is above the threshold of .70 suggested by Kline (2015), and >0.60, which Pallant (2020) asserts can be considered satisfactory.

The Cronbach's alpha coefficients for the individual COPSOQ III scales were as follows: influence at work ($\alpha = .72$), commitment to the workplace ($\alpha = .85$) and work engagement ($\alpha = .80$). COPSOQ

III has been validated for use across a range of work sectors (Burr et al., 2019; Sahan et al., 2018), and previous research has validated its individual scales (Nübling, 2005). Berthelsen et al. (2020) evaluated the reliability and construct validity of the COPSOQ III Swedish national standard version and found Cronbach's alphas above .70 for all scales indicating satisfactory levels of reliability. Additionally, reliability and construct validity were found at both the individual and organizational levels. Therefore, the authors concluded that the COPSOQ III demonstrated good psychometric properties for its intended use (Berthelsen et al., 2020).

2.9 | Ethical considerations

Ethical approval for the study was obtained from the Research Ethics Committee of the researchers' university. ANPs were provided with the researchers' contact information and a contact email address for the research ethics committee if potential study participants required additional information or had concerns. Participants were provided with study information, participated in the study on a voluntary basis and were required to give explicit consent to participate by ticking 'agree' prior to gaining access to the questionnaires. No email addresses or other contact information of participants was collected during the data collection, all responses were anonymous, and no individual or healthcare setting was identifiable in the data returned.

2.10 | Data analysis

Descriptive statistics, means and standard deviations (SD) were calculated for all variables. Prior to the analysis, normality tests were conducted on the study variables (commitment to the workplace, work engagement, influence at work and self-leadership). Independent samples *t*-tests, ANOVA and chi-squared tests were conducted to test for between-group differences. Pearson's *r* was calculated to investigate the relationship between self-leadership and demographic and psychosocial variables. Multiple linear regression was conducted to assess the direction, strength and statistical significance of the relationship between the independent variables (commitment to the workplace, work engagement and influence at work) and the outcome (self-leadership). The assumptions of regression analysis were checked. The residuals were judged as normally distributed based on visual inspection of their histograms, normal Q-Q plots and box plots and the Shapiro–Wilk test (Tabachnick & Fidell, 2018). The residuals were normally distributed and homoscedastic. Variance inflation factor values were all below 0.2, and variance inflation factor (VIF) scores were greater than .9 indicating no problems with multicollinearity between independent variables in the model (Dormann et al., 2013; Kim, 2019).

Independent variables with a *p*-value ≤.25 in the univariable analyses were included in the linear regression models. The inclusion of independent variables that had a *p*-value ≤.25 in the univariable analyses was based on the evidence that traditional levels such as 0.05 can fail to identify variables known to be important (Bursac et al., 2008; Hosmer et al., 2013). The cut-off of $p \leq .25$ is supported by the literature (Chowdhury & Turin, 2020; Zhang, 2016) and has been previously used in nursing and wider health research (Alrawashdeh et al., 2021; Dias et al., 2019; Esposito et al., 2017; Etissa et al., 2021). Age, years practising and percentage of shifts working alone were considered potential confounding variables and were included in the regression model either on a theoretical basis or due to a *p*-value ≤.25 in the univariable analyses. SPSS for Windows (version 27; IBM Corp.) was used for all the analyses.

3 | RESULTS

In total, 155 ANPs commenced the online survey; one participant completed only the demographic section and did not answer any items from the remaining sections, while a second participant completed less than a quarter of the items measuring self-leadership (these two participants' data were excluded from the analysis). This resulted in a valid response from 153 out of 453 ANPs on the advanced practice section of the NMBI Register. Hence, 33.8% of the study population were included in this study.

Table 1 shows that the majority of participants were female (82.2%, $n = 125$), and approximately half were aged over 45 years (52.9%, $n = 81$). Half of the participants reported practising as an ANP for 3 years or less (50.3%, $n = 76$), and more than two-thirds of the participants (69.3%, $n = 106$) reported that they worked approximately 50% or more of their shifts as a lone practitioner.

Commitment to the workplace, work engagement, influence at work and self-leadership scores based on the demographic and professional work factors are shown in Table 1. The ANPs' self-leadership skills, behaviours and cognitions were influenced by the number of years the ANP had spent in their current position. ANPs practising between 3 and 4 years had significantly higher scores on self-leadership than those practising for less than 3 years ($p = .01$), and those practising between 5 and 9 years ($p = .002$). No significant association was found for age, years practising and percentage of shifts worked alone and self-leadership, commitment to the workplace, work engagement or influence at work.

Table 2 shows that there was a statistically significant correlation between work engagement and self-leadership ($r = .50$, $p < .01$, $n = 153$), and a weak but statistically significant correlation between commitment to the workplace and self-leadership ($r = .17$, $p < .01$, $n = 153$). Specifically, ANPs who reported higher levels of commitment to the workplace and work engagement were more likely to report higher self-leadership scores. No significant association was found between influence at work and self-leadership ($r = .06$, $p = .47$, $n = 153$).

Table 3 shows the results of the multiple linear regression analysis. The regression model was statistically significant ($F_{7,144} = 9.395$, $p < .001$). Work engagement was a significant independent positive predictor for self-leadership ($B = .017$, 95% CI [.011, .022], $p < .001$),

TABLE 1 ANP's demographic and professional work factor variables with self-leadership and psychosocial variables ($n = 153$).

		Self-leadership[a]		Commitment to the workplace[a]		Work engagement[a]		Influence at work[a]	
	N	Mean (SD)	*p*	Mean (SD)	*p*	Mean (SD)	*p*	Mean (SD)	*p*
Gender			.05[b]		.42[b]		.06[b]		.39[b]
Female	125	3.35 (0.50)		65.68 (23.00)		76.27 (15.41)		61.37 (15.88)	
Male	27	3.28 (0.67)		61.85 (17.88)		70.06 (15.55)		64.35 (17.91)	
Age category			.72[b]		.75[b]		.94[b]		.34[b]
25–44 years	72	3.32 (0.50)		64.44 (21.52)		75.11 (13.74)		60.64 (18.02)	
45–64 years	81	3.35 (0.57)		65.62 (22.75)		75.31 (17.05)		63.22 (14.49)	
Years practising as an ANP			.20[b]		.20[b]		.99[b]		.90[b]
≤3 years	76	3.28 (0.49)		67.37 (24.06)		75.22 (15.69)		62.17 (16.76)	
>3 years	75	3.39 (0.57)		62.79 (19.90)		75.22 (15.47)		61.85 (15.82)	
Years in current position			.004[c]		.60[c]		.28[c]		.71[c]
<3 years	64	3.27 (0.46)		67.11 (23.77)		75.00 (15.36)		61.76 (17.52)	
3–4 years	27	3.68 (0.57)		67.04 (20.72)		79.01 (14.69)		60.80 (16.35)	
5–9 years	29	3.15 (0.45)		61.79 (22.45)		71.43 (13.50)		64.58 (12.85)	
≥10 years	33	3.34 (0.61)		62.27 (20.20)		75.51 (18.03)		60.85 (16.57)	
% of shifts working as a lone practitioner			.99[b]		.26[b]		.53[b]		.27[b]
<50%	47	3.33 (0.52)		68.09 (21.96)		76.42 (16.14)		59.84 (16.99)	
≥50%	106	3.34 (0.55)		63.72 (22.16)		74.69 (15.30)		62.97 (15.89)	

[a]Higher scores indicate higher levels of self-leadership (SL), commitment to the workplace (CW), work engagement (WE) and influence at Work (IN).
[b]*p* values from independent samples test.
[c]*p*-value from Welch's ANOVA. Theoretical range for SL 1–5. Theoretical range for CW, WE and IN 0–100.

TABLE 2 Pearson's correlations—Self-leadership and COPSOQ scales ($n = 153$).

	CW	WE	IN
Self-leadership	.166*	.495**	.059

*$p < .05$. **$p < .01$.

as were the years the ANP reported being in their current position ($p < .01$). Work engagement uniquely explains 18.4% of the variance in overall self-leadership.

ANPs who were 3–4 years in their current position had statistically significantly higher self-leadership compared with those in their current position of <3 years, those in their current position between 5 and 9 years, and those in their current position of 10 years or more. Years in their current positions uniquely explained 5.8% of the variation in overall self-leadership. The regression model was statistically significant, $p < .001$, with $R^2 = 31.4\%$ and an adjusted R^2 of 28.0%.

4 | DISCUSSION

This study aimed to explore the relationship between ANPs' commitment to the workplace, work engagement, influence at work and self-leadership. The key finding was the identification of a positive relationship between work engagement and self-leadership even after accounting for potential confounders. The findings of this study support previous work that reported a positive relationship between self-leadership and work engagement within the context of professional nursing practice and within the general workforce (Breevaart et al., 2016; Dorssen-Boog et al., 2021; Gomes, Curral, & Caetano, 2015; Knotts & Houghton, 2021; Park et al., 2016; van Dorssen-Boog et al., 2020); however, this is the first time that this relationship with ANPs has been reported. Neck et al. (2019) described how self-determination, self-management and purpose are associated with self-leadership, which then acts as an emotional driver to increase work engagement (Harunavamwe et al., 2020; Inam et al., 2021), which in turn explains the finding of a direct relationship between self-leadership and work engagement. Gomes, Curral, and Caetano (2015), following an analysis of responses of 337 nurses and doctors, found that respondents who reported higher levels of work engagement also reported greater self-leadership and found that work engagement was a mediator between self-leadership and individual motivation. These results are similar to those of the present study with respect to the positive relationship between overall self-leadership and work engagement. This strengthens the argument that fostering self-leadership may improve outcomes related to work engagement in healthcare workers such as increased patient satisfaction, high patient safety ratings, in-role performance, organizational citizenship,

TABLE 3 Multiple linear regression with work engagement, commitment to the workplace, years practising, years in current position and age included as independent variables for self-leadership, $n = 152$.

Variables	Regression coefficient	SE	95% confidence interval		t value	p-value
			Lower bound	Upper bound		
Work engagement	.017	.003	.011	.022	6.215	<.001
Commitment to the workplace	−.001	.002	−.005	−.605	.546	.55
Years practising						.49
≤3 years	Reference					
>3 years	.082	.118	−.152	.316	.689	
Years in current position						<.01
<3 years	Reference					
3–4 years	.279	.139	.003	.554	2.000	
5–9 years	−.139	.148	−.432	.153	−.940	
>10 years	−.015	.134	−.280	.250	−.113	
Age						.69
25–44 years	Reference					
45–64 years	.032	.079	−.124	.188	.404	

Note: $R^2 = .314$ (Adjusted $R^2 = .280$).

extra-role performance, financial returns and work effectiveness (Brooks Carthon et al., 2019; Cesário & Chambel, 2017; Gomes, Curral, Caetano, & Marques-Quinteiro, 2015; Pearson et al., 2016; Ta'Amnha et al., 2021; van Wingerden & Poell, 2017). However, whether the work engagement of ANPs extends beyond their clinical role or into other role dimensions where they are expected to substantially contribute to areas such as organizational leadership and professional development is unknown (Clarke et al., 2021; Heinen et al., 2019; Lamb et al., 2018).

Additionally, we found that ANPs with higher levels of self-leadership reported greater commitment to the workplace. The findings of this study highlight that high levels of commitment to the workplace exist among the ANPs surveyed, which, as de las Heras-Rosas et al. (2021) suggest, results in high levels of identification with the organization in which they work. Our study also found a confounding effect when the variables of years practising, years in current position and age were introduced, suggesting that the relationship between self-leadership and commitment to the workplace is non-linear. One possible explanation for this result is that the ANPs in this study exhibited continuance commitment, a dimension of commitment that arises when employees believe they have to stay in a position because they lack opportunities to move or progress their careers in other areas (Meyer & Allen, 1997). Until recently, many ANPs' jobs were aligned with a specific post within the health service in which they were employed, limiting the options for advancement or movement. This possibly restricted their leadership influence at the organizational level, which in turn may have led to ANPs increasing their focus on clinical practice and expertise (Casey, & O'Connor, 2021). Therefore, it is possible to argue that the commitment to the workplace reported by ANPs in this study may be continuance commitment due to organizational impediments to movement within the health service.

Another finding was that self-leadership was not associated with influence at work. It is possible to argue that while ANPs work autonomously, self-leadership strategies are insufficient to increase their influence at work. If ANPs are viewed as 'outsiders' in their clinical environments, it may be more difficult to communicate with members of the interdisciplinary team and exert influence due to the lack of a shared purpose, responsibility and sense of duty, which comes with being an 'insider' within a team (Gong et al., 2021). Moreover, 'insiders' use their voices to determine and shape their work environments and enhance their self-leadership (Gong et al., 2021). The findings of this study suggest that ANPs need relatedness, as described in self-determination theory (Ryan & Deci, 2000), and may not be satisfied beyond the clinical workplace, which may limit their influence at the local and national agenda levels and cause plateauing in specialized areas of practice (O'Connor et al., 2018). Moreover, the practice of self-leadership is an intrinsic process, whereas influence at work requires ANPs to move beyond self-influence and establish and negotiate influence to practice to the maximum extent of their professional collaboration within the interdisciplinary team. Utilizing the full extent of ANPs' influence may increase patients' ability to access care by removing unnecessary impediments that limit the autonomy of ANPs and, therefore, increase the efficacy of healthcare systems, as patients would have faster access to ANPs who could provide more comprehensive models of care (Peterson, 2017; Poghosyan et al., 2022). Without such influence, ANPs are vulnerable to senior decision-makers, who may have a limited understanding of advanced practice roles or the potential they offer. This study demonstrated that while ANPs have the ability to

exercise leadership, at least over themselves, no relationship has been established between self-leadership and influence at work, which may suggest an untapped potential of utilizing ANPs' self-leadership in clinical care (Cranmer et al., 2019) and suggests that formal positioning rather than expertise determines influence in the workplace.

ANPs spend a low proportion of their time engaging in and operationalizing self-leadership (Corbally & Lees-Deutsch, 2019). Similarly, there is little evidence that ANPs are involved in leadership at a strategic level within the organizations in which they work (Elliott, 2017). Rather, there are reports of isolation and a local focus on ANP roles (Wood et al., 2021; Yuill, 2018). ANPs have a unique scope of practice, which McGilton et al. (2021) suggest places them in an ideal position to act as self-leaders. According to self-determination theory, ANPs naturally desire sensations of competence, relatedness and autonomy (Ryan & Deci, 2000). These represent, in turn, the desires to feel linked to others, to feel like one's activities have significance and influence and to become more effective through the acquisition of new skills and exploration of new opportunities. Although this study found relatively high levels of self-leadership among ANPs, the findings support those of Rosser et al. (2017), who posited that ANPs need to learn to use self-leadership to extend their sphere of influence beyond the immediate clinical area. Arising from this study, there is a need to challenge the reductive perceptions of ANPs that portray them as managing low-acuity patients in practice, and instead nurture and challenge them to contribute at a system level beyond the clinical interface.

As senior clinical nurses in most clinical settings, ANPs demonstrate significant autonomy and are expected to lead at a strategic level (Cooper et al., 2019; Peacock & Hernandez, 2020). However, the leadership role of ANPs remains underdeveloped and lacks visibility at both the clinical and organizational levels. Organizational respect of ANP' self-determination can be achieved through a collaborative approach, which helps ANPs to optimize their contribution and engage in professional development to contribute at a strategic level within their organizations. This study adds to the scant body of knowledge on ANPs and self-leadership, and provides insights that may assist in planning curricular strategies to teach and sustain the use of self-leadership strategies over an ANP's career span. At present, ANP education does little to develop self-leadership skills for working in innovative clinical environments, and instead primarily focuses on the clinical workload skills required (Casey, & O'Connor, 2021). For educators of ANPs, an emphasis on self-leadership strategies during advanced practice education may increase the awareness and actualization of self-leadership of ANPs who are new in post, of when and why one engages in specific behaviours. This type of self-awareness is a necessary first step towards changing or eliminating ineffective and unproductive behaviours and may assist new ANPs in avoiding reductionist behaviours, which has led to a prioritization of the clinical aspect of advanced practice roles and instead increase their individual performance level at a more strategic level. From an applied perspective, this study highlights the importance of self-leadership among ANPs. The results suggest that it would be beneficial for managers to facilitate and encourage ANP self-leadership development to reap the organizational benefits of their employees' self-leadership skills, behaviours and cognitions.

4.1 | Limitations

The results reported in this study provide insights into the relationship between ANPs' self-leadership and commitment to the workplace, work engagement and influence at work. However, this study has some limitations. The adoption of a cross-sectional design prevented the observation of self-leadership trends over time. Our study did not adopt a census approach by sampling the entire population of ANPs on the NMBI's advanced practice register. However, this approach was not deemed feasible for this study owing to issues with approval times, delays in potential access and the reported inefficiency of this approach (Lohr, 2022). It is possible that a small number of potential respondents were on the email lists of both organizations and may have been contacted twice. This issue was addressed in the introductory email, with respondents asked to respond only once; however, some may have completed it twice. As the study data were collected without identifying factors to ensure anonymity, the researcher could not confirm or dispute this.

It is possible that the regression model in this study is subject to endogeneity, such as bias from omitted variables. Specifically, other key qualitative factors, such as organizational culture or managers' support of ANPs, which may have a large impact on ANPs' motivation and capacity to engage in self-leadership, cannot be articulated when measuring self-leadership using the RSLQ. Furthermore, unobserved confounding factors in ANPs may have limited our understanding of self-leadership in this cohort.

5 | CONCLUSION

The present study demonstrated a relationship between ANPs' self-leadership and specific psychosocial variables. Given the potential of ANPs to influence care both at the clinical interface and a wider strategic level, developing self-leadership in this cohort may assist not only in creating independent decision-makers but also in increasing work engagement and commitment to the workplace with resulting organizational benefits.

These findings suggest a negative directional relationship between the time an ANP remains in their current position and self-leadership. This must be considered in the context that many ANPs' jobs were aligned with a specific post within the health service where the study was conducted. However, it reinforces the recognized need for the establishment of career pathways beyond the clinical role that would enable ANPs to remain involved in patient care while developing research-literate clinical leaders capable of conducting and applying evidence-based care to improve care outcomes.

AUTHOR CONTRIBUTIONS

All authors (Martin Duignan, Jonathan Drennan, Vera J. C. Mc Carthy) met all four criteria for authorship [recommended by the ICMJE (http://www.icmje.org/recommendations/)]:

- Substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data.
- Drafting the article or revising it critically for important intellectual content.
- Final approval of the version to be published.
- Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

ACKNOWLEDGEMENTS

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors. Open access funding provided by IReL.

FUNDING INFORMATION

The authors do not declare a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

CONFLICT OF INTEREST STATEMENT

The authors have no affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

PEER REVIEW

The peer review history for this article is available at https://www.webofscience.com/api/gateway/wos/peer-review/10.1111/jan.15855.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

STATISTICS STATEMENT

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How to cite this article: Duignan, M., Drennan, J., & Mc Carthy, V. J. C. (2024). Relationship between work-related psychosocial factors and self-leadership in advanced nurse practitioners: A cross-sectional study. *Journal of Advanced Nursing*, *80*, 1120–1131. https://doi.org/10.1111/jan.15855