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Article *in* Journal of Nursing Management · April 2018

DOI: 10.1111/jonm.12611

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Accepted: 11 December 2017

DOI: 10.1111/jonm.12611

ORIGINAL ARTICLE

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Turkish adaptation and psychometric characteristics of the Nursing Authority and Autonomy Scale

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Aim: To adapt the Nursing Authority and Autonomy Scale (NAAS) into Turkish the Nursing Authority and Autonomy Scale (NAAS) to Turkish and assess its psychometric properties for Turkish nurses and nurse managers.

Background: The NAAS is a tool that specifically measures nursing authority and autonomy from the perspectives of nurses and nurse managers.

Methods: The study sample consisted of 160 nurse managers and 266 staff nurses. Content validity was assessed using expert approval. Construct validity was assessed using confirmatory factor analysis. Internal consistency was assessed using Cronbach's α, and the test–retest reliability was assessed using Pearson's correlation coefficients.

Results: The model achieved a good fit. The internal reliability of the NAAS' authority and autonomy in nursing practice and importance of nursing practice subscales were .84. The Cronbach's α of the instrument was .88. The test–retest scores within an interval of 3 weeks were statistically not significant.

Conclusions: The Turkish version of the NAAS has good psychometric properties and this scale can be employed to measure nurses' authority and autonomy.

Implication for Nursing Management: Nurse managers and educators should use an appropriate scale such as NAAS in order to assess nurses' clinical authority and autonomy to improve patient outcomes and develop nurses.

KEYWORDS

authority, autonomy, nursing practice, professional authority, professional autonomy, validity and reliability

1 | INTRODUCTION

Nurses work in complex health care systems with sophisticated medical technology and increasing demands for evidence-based care, service quality, and patient safety. This requires professional competency and autonomy. Furthermore, nurses are the largest group of workers at the forefront of care delivery globally and they play a pivotal role in all areas of health service delivery; however, universal challenges that affect health care also influence nurses. In developed countries, the ageing of populations due to the increase in average life expectancy has led to an increase in chronic diseases and more complicated health problems, while 1.3 billion people across the world are living in poverty and have limited access to health care. There is a growing demand for nursing care because of the epidemics of infectious diseases such as HIV/AIDS, TB, malaria, outbreaks of SARS, and also factors such as climate change, which increases the likelihood of weather-related natural disasters, and forced migration or displacement induced by conflict of interest between or within countries. In contrast, most countries have nursing shortages, and many nurses are considering leaving the profession for various reasons (International Council of Nurses, 2002). In order to overcome human resource deficits, and to retain nurses and midwives, effective strategies should be developed and implemented (World Health Organisation, 2013). The involvement of nurses in policy-and decision-making is important as greater professional autonomy and authority to control over practice tends to create a more satisfied nursing workforce, which can respond to global and national health care needs.

Professional autonomy in nursing is defined as the ability to act according to a person's knowledge and judgment and provide nursing care within the full scope of practice as defined by existing professional, regulatory, and organisational rules (Weston, 2008). Autonomy is closely linked with authority because professionals need authority, which is sanctioned power to make decisions and perform role-related functions (Blanchfield & Biordi, 1996). The Institute of Medicine of the National Academies (2004) recommended that a higher level of clinical autonomy be given to staff nurses and that they be trusted and supported in using the outcomes of evidence-based practice initiatives to make decisions about patients' care. Studies have documented that perceived professional autonomy in nursing is positively associated with job satisfaction (Finn, 2001; Iliopoulou & While, 2010; Mohamed Seada & Eman Abd El Alim, 2012), increased quality of patient care (Kennerly, 2000), healthy work environment, and lower mortality rate (Aiken, Clarke, Sloane, Lake, & Cheney, 2008; Rao, Kumar, & McHugh, 2017) and negatively related to job stress (Forbes, Bott, & Taunton, 1997) and turnover intention (Dysvik & Kuvaas, 2013). The use of valid and reliable instruments is therefore crucial for measuring perceptions of professional autonomy and authority in nursing practice.

The literature discusses several instruments for measuring autonomy or the perception of autonomy in nurses. These include the Nursing Activity Scale (Schutzenhofer, 1988), the Control Over Nursing Practice (CONP) Scale (Gerber, Murdaugh, Verran, & Milton, 1990), the Preference for Decision-Making Autonomy Questionnaire (Blegen et al., 1993), the Nursing Work Index-Revised (Aiken, Smith, & Lake, 1994), The Autonomy: The Caring Perspective instrument (Boughn, 1995), the Maastricht Autonomy Scale (Jonge, 1995), the Autonomy and Control Scale (Haynes, Wall, Bolden, Stride, & Rick, 1999), and the Hellenic Intensive Care Nurses Autonomy Scale (Papathanassoglou et al., 2005). Unfortunately, the instruments that are available to measure autonomy have significant limitations. In her analysis of the validity of instruments for measuring autonomy and CONP, Weston (2009) reported that the majority of instruments that are employed to measure autonomy are frequently imprecise or inaccurate for measuring the concept of interest; some of these instruments lack construct validity. Previous research on professional autonomy tended to focus on measuring nurses' perceptions of professional autonomy instead of specifying both nurses and nurse managers' perceptions of autonomy and authority in nursing practice.

The purpose of this study was to adapt an instrument that specifically focuses on nurses' and nurse managers' perceptions of nurse professional autonomy and authority and test its psychometric properties.

2 | BACKGROUND

The term "autonomy" is derived from the Greek word *autonomos*—a compound of *auto*—which is defined as "self" and *nomos*; *nomos* is defined as "custom" or "law," meaning self-governing, and freedom of will or freedom to determine one's own actions (http://www.vocabulary.com/dictionary/autonomy). These definitions indicate that the word "autonomy" is related to the concepts of freedom, independence, self-determination, self-government and sovereignty; it is sometimes employed synonymously with these concepts (Gagnon, Bakker, Montgomery, & Palkovits, 2010; Keenan, 1999; Varjus, Leino-Kilpi, & Suominen, 2011; Wade, 1999). Autonomy is a multidimensional concept with different conceptions from philosophical, moral, political, and professional points of view, which are related to the concept of authority.

Authority is defined as the power to determine, adjudicate, or settle issues or disputes; jurisdiction; and the right to control, command, or determine (http://dictionary.reference.com/browse/authority). Autonomy and authority can be differentiated by considering authority as the legitimate power of an individual within an organisation and considering autonomy as the individual's ability to perform his or her role/responsibilities independently based on acquired knowledge and experience (Weston, 2008; Yukl, 2006).

The terms "autonomy" and "authority" are considered to be essential components of a profession. According to Freidson (1994, p. 10), "profession" refers to an occupation that controls its work and is organised by a special set of institutions that are sustained in part by a particular ideology of expertise and service. Professional autonomy includes both the autonomy of the individual practitioner based on the professional knowledge and skills acquired by specialized education and the collective professional knowledge and skills of the profession. In her concept analysis of professional nurse autonomy, Wade (1999) states that professional autonomy refers to a professional's ability to (1) independently utilize their knowledge, competence and abilities without oversight from another person; (2) identify patient needs and concerns; and (3) select and implement nursing actions that result in patient advocacy and positive patient outcomes. The nursing literature suggests various types of professional autonomy, including CONP, work autonomy and clinical autonomy. Control over nursing practice has been defined as the authority, freedom, and discretion of nurses to make decisions related to the context of nursing practice, including organisational structures, governance, rules, policies, and operations (Weston, 2008). Work autonomy has been described as freedom and discretion in work scheduling, including (1) the ability to influence work time, break time, and pacing of tasks; (2) work methods, including influence over procedures and processes; and (3) work criteria, including the ability to participate in setting goals and methods for evaluating the achievement of goals (Weston, 2008). Both autonomy and CONP refer to the freedom, power, and authority to make decisions related to professional nursing practice. The distinction between CONP and work autonomy is that CONP involves decision making about structures and operations, whereas work autonomy refers to decision making about work scheduling, methods, and criteria within the existing structures and operations (Weston, 2008). Clinical autonomy has been described as the authority, freedom, and discretion to indicate clinical nursing judgments about the care of individual patients (Kramer, Maguire, & Schmalenberg, 2006; Weston, 2008).

Many factors affect the autonomy and authority of nurses, including the level of nursing education, age, years of experience, legal regulations, employment status, the organisational structures of institutions, and working conditions. Worldwide, these factors are highly diverse and influence how nurses perceive autonomy and make autonomous

TABLE 1 Sections, sub-dimensions, items, scores and Cronbach's α values of the original NAAS

Sections	Sub-dimensions	Items	Number of items	Reverse scored items	Possible maximum score	Cronbach's α
Authority and autonomy in nursing practice	Authority	20	1, 2, 3, 4, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 23, 25, 26	16	100	.86
	Autonomy	8	5, 9, 14, 21, 22, 24, 27, 28	5, 9, 21, 24, 28	40	.72
Importance of nursing practice	Importance of authority	6	1, 2, 3, 4, 6, 10	–	30	.84
	Importance of autonomy	4	5, 7, 8, 9	–	20	.78

decisions in practice. Studies have indicated that nurse managers are instrumental in producing the conditions for autonomy and that nurses who were unsatisfied with their supervisors had weaker autonomy (Brunetto, Wharton, & Shacklock, 2011; Bularzik, Tullai-McGuinness, & Sieloff, 2013; Hall, 2007). Kramer and Schmalenberg (2003) suggest that nurse managers should provide staff with opportunities to maintain and improve skills, build trusting relationships, share power to help strengthen these relationships, and develop a reward system in the use of clinical autonomy to enhance the autonomy of nurses. For nurse managers to support the autonomous practices of nurses, they should have professional autonomy. Because perception is a cognitive process that directs our behaviours and practices and with which individuals organise and interpret their sensory impressions, measuring nurses' and nurse managers' perceptions of autonomy and authority from different cultural contexts may provide insights into professional conceptualization.

3 | AIM

This methodological study aimed to adapt the Nursing Authority and Autonomy Scale (NAAS) to Turkish and assess its psychometric properties in a population of Turkish nurses and nurse managers.

4 | METHODS

4.1 | Design

This methodological study is part of a PhD dissertation that aimed to analyse nurses' and nurse managers' perceptions of nurses' professional autonomy and the effects of their perceptions on their professional practices.

4.2 | Study sample

The study was conducted in Ankara at 10 general public hospitals and one university hospital, each of which had a maximum total bed capacity of 650. The most extensively employed rule is the ratio of the number of subjects (*N*) to the number of items (*p*), which ranges from 4/1 (Fabrigar, Wegener, MacCallum, & Strahan, 1999) to 10/1 (Costello & Osborne, 2005). Tabachnick and Fidell (2001) recommended a minimum of five cases per variable and a minimum of 300 cases for factor analyses. In this study, we therefore selected seven subjects per item of the instrument (38 items) to determine the sample size. Of the 2,968 nurses employed at these hospitals, the study sample included 266 staff nurses and 160 nurse managers who had been working at the hospital for at least 6 months. Participants were recruited by proportionate stratification based on their total number at each hospital, and all nurse managers were included.

4.3 | Data collection

Data were collected using the Turkish version of the NAAS and a sociodemographic form. To assess the construct validity and reliability of

the Turkish version of the NAAS, the nursing directories of the hospitals were contacted by phone and appointments were arranged to schedule data-collection visits. Then the instrument was administered to 266 nurses and 160 nurse managers during the period from 30 May 2014 to 30 December 2014.

4.4 | Instrument

The original version of the NAAS was developed by Blanchfield and Biordi (1996). The NAAS has three parts/sections with a total of 38 items on a five-point scale, where 5 = strongly agree and 1 = strongly disagree. The first section of the instrument consists of 28 items that measure nurses' perceptions of their authority and autonomy. The second section consists of 10 items that measure nurses' perceptions of the importance of nursing practice. The first section includes several items that should be reverse scored. No cut-off points are employed for scoring the items or the entire instrument; higher scores indicate higher autonomy and authority. The content validity for the NAAS was based on expert opinion and pilot studies. Blanchfield (1992) conducted a study of 590 nurses and nurse managers (511 nurses and 88 nurse managers) to analyse the reliability of the instrument. Reliability was indicated by Cronbach's α values of .86 for authority items, .72 for autonomy items, .84 for importance of authority items, and .78 for importance of autonomy items (Table 1). The instrument was employed by Lyons (2002) in a study of military nurses' perceptions of autonomy; an α of .84 was obtained for internal consistency of autonomy/authority items, and an α of .85 was obtained for importance of autonomy/authority items. The third section of the instrument consisted of demographic items (Blanchfield & Biordi, 1996). We developed a socio-demographic form instead of this third section of the instrument. The socio-demographic form includes multiple-choice questions regarding age, gender, education level, length of experience in nursing, and length of time at their respective institution.

4.5 | Translations and content validity of the NAAS

The NAAS was translated into Turkish by three experts, including one faculty member at Hacettepe University Faculty of Letters, Department of Translation and Interpretation, and two faculty members of the Nursing Faculty at the same university. A combined analysis of the translated material was performed by researchers to reach a consensus. To revise the grammatical structure and its suitability for the Turkish language, the first Turkish version was submitted to a faculty member from the department of Turkish language and literature and minor revisions were made based on his suggestions.

For the content validity, the revised Turkish version of the instrument was submitted to a panel of experts that was composed of seven faculty members (three faculty members in the nursing management department, two faculty members in the Fundamentals of Nursing Department, one faculty member in the business administration department of the university, and one nurse manager who works as the nursing director at the university hospital). The expert panel evaluated the content validity of this version using a content validity index (CVI) suggested by Kline (2011). This index is a Likert-type ordinal scale with four possible responses that should be scored for each item. The responses include a rating of 1 = not relevant, 2 = somewhat relevant, 3 = quite relevant, and 4 = very relevant. An evaluation score of approximately 0.90 is considered to be "excellent," values of approximately 0.80 are "very good," and values of approximately 0.70 are "adequate" (Kline, 2011). In this study, the inter-rater agreement score of the committee of experts was 0.96, which indicated the content validity of the Turkish version of the NAAS. Following the content validity, the Turkish version was back-translated into English by a professional translator. Both the Turkish translation and the back translation of the instrument were submitted to the original authors by email. The original authors of this inventory provided their approval for the back-translated version with minor grammatical revisions.

4.6 | Data analysis

The quantitative data were analysed using SPSS 20.0 for Windows (SPSS Inc., Chicago, IL, USA). For the demographic data, the mean, standard deviation (*SD*), and percentages were calculated. For construct validity, the data were transferred to LISREL 8.54 software. Construct validity was assessed using a confirmatory factor analysis (CFA) and structural equation modelling (SEM). The absolute fit indices of the chi-square (χ^2) test, the normed fit index (NFI), non-normed fit index (NNFI), comparative fit index (CFI), relative fit index (RFI), and root mean square error of approximation (RMSEA) were employed to determine the fit of the model to the data. The internal consistency was assessed using Cronbach's α. The test–retest reliability was assessed from responses of 35 nurses and 30 nurse managers with an interval of 3 weeks, and Pearson's correlation coefficients of the test–retest scores were calculated. A one-way analysis of variance and independent sample *t* tests were performed to analyse the differences among the groups. Statistical significance was set to $p < .05$.

5 | RESULTS

5.1 | Study sample characteristics

The majority of the nurses and nurse managers (94.4%) were female, had a baccalaureate degree in nursing (61.6% and 64.4% respectively), had professional nursing experience of more than 15 years, and were employed at public hospitals. The mean age of the nurses was 33.12 years (*SD* = 6.49), while the mean age of the nurse managers was 39.43 years (*SD* = 5.27). Nurse managers were working at their current hospital for 11 years, and more than half (59.4%) of the nurse managers had been working as unit charge nurses (nurse managers) for 5 years.

5.2 | Mean scores of nurses and nurse managers

The scores for the nurse leaders' perception of the staff nurses' authority (73.23 ± 12.17) and the staff nurses' perception of their

TABLE 2 Mean scores for nurses and nurse managers obtained from the Turkish version of the NAAS

	Nurses (*n* = 266)			Nurse managers (*n* = 160)			Statistical analysis	
NAAS	Mean (*SD*)	Min	Max	Mean (*SD*)	Min	Max	*t*	*p*
Authority and autonomy in nursing practice								
Authority	71.65 ± 11.32	38.00	98.00	73.23 ± 12.17	13.00	96.00	1.350	.176
Autonomy	18.23 ± 4.01	6.00	32.00	18.47 ± 3.92	7.00	28.00	0.600	.546
Importance of nursing practice								
Importance of authority	24.87 ± 3.69	8.00	30.00	25.98 ± 3.07	15.00	30.00	3.197	**.001**
Importance of autonomy	15.61 ± 2.73	6.00	20.00	15.74 ± 2.87	4.00	20.00	0.47	.640

*p = .001 authority (71.65 ± 11.32) were moderately high. The scores for the nurse leaders' perception of the staff nurses' autonomy (18.47 ± 3.92) and the staff nurses' perception of their autonomy (18.23 ± 4.01) were moderately low. The mean scores for the nurse leaders' perception of the importance of staff nurses' authority (25.98 ± 3.07) and the staff nurses' perception of the importance of their authority (24.87 ± 3.69) were high. Additionally, the mean scores for the nurse leaders' perception of the importance of staff nurses' autonomy (15.74 ± 2.87) and the staff nurses' perception of the importance of their autonomy (15.61 ± 2.73) were high. The nurse leaders' perception of the importance of staff nurses' authority was significantly higher (p = .001) than the staff nurses' perception of the importance of their authority (Table 2).

5.3 | Construct validity results for the Turkish version of the NAAS

The results for the absolute indices were χ^2/SD = 3.14, NFI = 0.87, NNFI = 0.90, CFI = 0.91, RMSEA = 0.071, and goodness of fit index (GFI) = 0.80 (Table 3). The construct validity results indicated that the scale consisted of four factors: authority, autonomy, importance of authority and of autonomy, which were similar with the original NAAS version importance developed by Blanchfield and Biordi (1996). The first factor (authority) included items 1, 2, 3, 4, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 23, 25, and 26; the second factor (autonomy) included items 5, 9, 14, 21, 22, 24, 27, and 28; the third factor (the importance of authority) included items 1, 2, 3, 4, 6, and 10; and the fourth factor (the importance of autonomy) included items 5, 7, 8, and 9.

The factor loadings of the 20 items in the first factor ranged from 0.60 to 1.00; the eight items in the second factor ranged from 0.64 to 1.00; the six items for the third factor loaded between 0.43 and 0.75, and the four items in the fourth factor loaded between 0.45 and 0.82. The relationships between the items and the total factor scores ranged from 0.31 to 0.58 for the 20 items in the first factor, from 0.05 to 0.60 for the eight items in the second factor, from 0.54 to 0.75 for the six items in the third factor, and from 0.43 to 0.74 for the four items in the fourth factor. The relationships between the four factors and the total factor scores ranged from 0.55 to 1.00. These findings indicate that all four factors (authority, autonomy, importance of authority, and importance of autonomy) significantly contributed to the total score of the NAAS (Figure 1). According to the item correlation distributions of the subscales of the NAAS, each item makes a statistically significant contribution to the scores on its subscale; however, item 16 in the first factor was p = .129. This item was not excluded from the scale because the factor loading of each item exceeded 0.43.

TABLE 3 Fit indices for the Turkish version of the NAAS (N = 426)

Fit indices	
NFI (Normed Fit Index)	0.87
NNFI (Non-Normed Fit Index)	0.90
CFI (Comparative Fit Index)	0.91
RFI (Relative Fit Index)	0.86
GFI (Goodness of Fit Index)	0.80
RMSEA (root mean square error of approximation)	0.071
χ^2/df	3.14 < 5

5.4 | Reliability results for the Turkish version of the NAAS

Cronbach's α internal consistency coefficient was α = .84 for the authority and autonomy in nursing practice and α = .84 for the importance of nursing practice. The statistical analysis results indicated that the scale had internal consistency and reliably measured the same variables at different times. No statistically significant difference among the test–retest scores on the scale was observed (t = 0.00–0.77; p > .05) (Table 4).

6 | DISCUSSION

In this study, we adapted the NAAS to Turkish and tested its psychometric properties with 266 nurses and 160 nurse managers who were employed at hospitals in Ankara. The strength of this study is that we

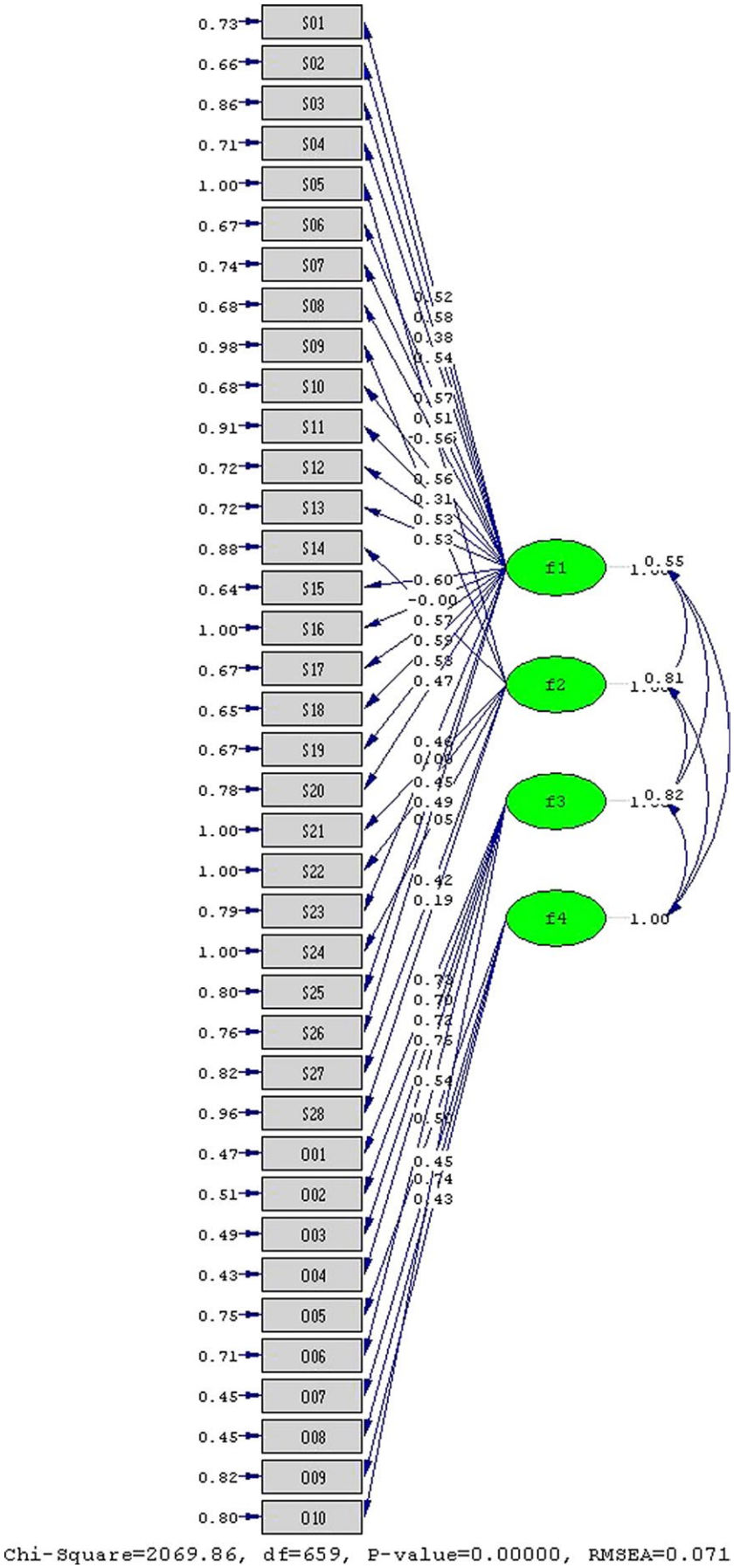

FIGURE 1 Path diagram for the NAAS [Colour figure can be viewed at wileyonlinelibrary.com]

TABLE 4 Cronbach's α coefficients and test–retest mean scores for the Turkish version of NAAS (*N* = 65)

Nursing Authority and Autonomy Scale	Cronbach's α	Mean (*SD*)		*t*	*p*
		Test	Re-test		
Authority and autonomy in nursing practice					
Authority	.84	73.69 ± 11.49	73.91 ± 11.49	0.23	.822
Autonomy		18.35 ± 4.32	18.35 ± 4.37	0.00	1.000
Importance of nursing practice					
Importance of authority	.84	25.14 ± 3.26	25.37 ± 3.25	0.77	.445
Importance of autonomy		15.94 ± 2.31	15.71 ± 2.77	0.69	.498
Total	.88				

conducted CFAs to test how well the model fits the data and to examine correlations among the factors. The results from the CFA of the data on the 38 items of the instrument support the four-factor model (authority, autonomy, importance of authority and importance of autonomy) as reported by previous studies (Blanchfield, 1992; Lyons, 2002). In this study, we employed structural equation modelling to evaluate the model fit. Although no agreement has been obtained regarding which indices to report or the cut-offs for various indices, Kline (2011) suggests that an insignificant chi-square value at a 0.05 threshold and values greater than 0.90 for the NFI, NNFI, GFI, and CFI indicate an acceptable model fit. For the RMSEA, a value of .06 or less is considered indicative of acceptable model fit, whereas a value of ≤0.08 was considered to be plausible (Kline, 2011). An NFI, NNFI, CFI, RFI and GFI near one, an RMSEA less than .8, and an χ^2/df value less than 5 indicate that all items were properly distributed in the four subscales and significantly contributed to the total score of the NAAS (Kline, 2011). The results indicate a sufficient model fit between the original model and the data of our sample, which provides evidence for the construct validity of the Turkish version of the NAAS.

Reliability was indicated by a Cronbach's α = .84 for the authority and autonomy in nursing practice and α = .84 for the importance of nursing practice. Our findings are consistent with a study by Blanchfield (1992), who developed the original instrument and obtained Cronbach's α from .72 to .86 for authority and autonomy in nursing practice, and a study by Lyons (2002), which reported Cronbach's α of .84 for authority and autonomy in nursing practice and .85 for the importance of nursing practice.

We calculated Cronbach's α of .88 for the total scale. Kline (2011) suggests that a score of approximately 0.90 is excellent, a score of approximately 0.80 is very good and a score of approximately 0.70 is adequate. Therefore, our findings indicate the consistency of the results across items within the scale. No significant difference was observed among the test–retest scores in a sample of 65 nurses, which indicates the stability of this instrument over time (Alpar, 2012). Based on these results, we conclude that the NAAS is a valid and reliable instrument for measuring nurses' and nurse managers' perceptions of professional autonomy and authority in a Turkish population. Our results imply that the perception of professional autonomy and authority is similar across countries even though various factors influence the autonomy and authority of nurses in practice.

With regard to the mean scores obtained from the Turkish version of the NAAS, nurses and nurse managers had slightly higher scores for perception of nurses' authority. Given that the possible maximum score from the autonomy subscale can be 40, their perceptions of autonomy were lower than the original study results of Blanchfield and Biordi (1996), who reported a score of 26.99 for the autonomy subscale from a sample of 590 nurses. A possible explanation for these findings may be related to the Turkish Mediterranean, patriarchal, and traditional cultural context. In Western societies self-determination, independence and autonomy are held paramount, while more collectivistic cultures emphasize interdependence, emotional attachment, loyalty and mutual obligation to the family and groups. The Turkish cultural context includes elements of both individualism and collectivism; however, Turkey is a Mediterranean country where the family structure is based on male superiority and female inferiority. Furthermore, Islam, the predominant religion, divides the world into the public sphere, which belongs to men, and the private sphere, which belongs to women (Müftüler-Bac, 1999). Although women's rights were granted by Mustafa Kemal Atatürk in the 1920s, and the process of secularization, modernization, and economic developments changed the perception of self and autonomy, a mix of these factors determines the status of women in Turkey. Adherence to traditional norms and social obligations, and consulting husband and family before decision-making are important, all of which restrict women's autonomy and exercise of authority. With the revision of nursing law in 2007, men have been accepted into nursing programmes; however, nursing is still regarded as a feminine profession. The status of nursing is parallel to women's status and the hierarchical structure of the Turkish health care system rests on male superiority, which might have influenced nurses' perception of professional autonomy in practice. In contrast, nurses and nurse managers' scores for their perceptions of the importance of staff nurses' authority and autonomy were moderately high. These findings are consistent with the results of Blanchfield and Biordi (1996), and Lyons (2002), which implies that nurses have a high opinion of the importance of authority and autonomy for nursing practice despite some challenges in practice.

6.1 | Limitations

Several limitations of this study must be considered. The first limitation concerns the study settings and sample, which consisted of nurses and nurse managers who were employed at general public and

university hospitals. Nurses who work at private or specialized hospitals or outpatient clinics may have different perceptions of autonomy and authority due to the working conditions in these settings. The second limitation is related to the small number of studies that employ this instrument, which limited the comparison of our findings and discussion. The third limitation is that we did not investigate the influence of socio-demographic characteristics and work-related factors on the perceptions of nurses and nurse managers. We are planning another study using the Turkish version of the NAAS across different settings to investigate the effect of sociodemographic characteristics.

7 | IMPLICATIONS FOR NURSING MANAGEMENT

The NAAS is a valid and reliable instrument for measuring the perceptions of Turkish nurses and nurse managers regarding professional autonomy and authority. In this study, staff nurses' authority, and the importance of autonomy and authority in nursing practice were perceived to be high by all participants, while the perception of autonomy was moderately low. Nurses work in complex health care systems that require autonomous decision-making and authority in practice for positive outcomes both for nurses and the quality of patient care. Perceptions of nurses and nurse leaders on autonomy and authority in nursing practice from different cultural contexts may provide insights on professional conceptualization. Nurse managers and nurse educators should consider the perceptions of nurses when developing strategies to support nurses' autonomy as a method for enhancing patient care outcomes.

8 | CONCLUSIONS

Authority is the legitimate basis for the use of a person's autonomy in practice whereas autonomy is important for commitment to the profession, accountability in practice, the delivery of quality care, and for positive patient outcomes. A recent study by Rao et al. (2017) analysed cross-sectional data three sources—the patient discharge data from state administrative databases, a survey of nurses from four states, and the American Hospital Association annual survey from 2006 to 2007—to examine if patient outcomes such as 30-day mortality and failure to rescue (FTR) are better in hospitals where nurses report greater levels of autonomy. Results of this study suggest that greater nurse autonomy at the hospital level was significantly associated with lower odds of 30-day mortality and FTR for surgical patients even after accounting for patient risk and structural hospital characteristics. Each additional point on the nurse autonomy scale was associated with approximately 19% lower odds of 30-day mortality and 17% lower odds of FTR. The link between nurse autonomy and patient outcomes should be endorsed using robust research designs that examine results over time to assess differences in autonomy levels (van Oostveen & Vermeulen, 2017), but the results of this study highlight the importance of enhancing nurse autonomy for improving patient outcomes.

Authority and autonomy in nursing practice are also essential attributes of professionalism. Valid and reliable instruments that specifically focus on measuring nurses' perceptions of nurse professional autonomy and authority are therefore needed. This study is the first that demonstrated the validity and reliability of the NAAS in a sample of Turkish nurses and nurse managers. The results of this study confirm that the NAAS has good psychometric properties in the Turkish context and can be used to measure nurses' and nurse managers' perceptions of their autonomy and authority in practice. However, additional studies are recommended to assess the psychometric properties of this instrument in different cultural contexts over time.

ACKNOWLEDGEMENTS

We thank Kathleen Cleary Blanchfield and Diana Luskin Biordi for their permission to translate and adapt the NAAS to Turkish. We are grateful to all expert for their contributions in translation and back-translation, and their suggestion for content validity of the NAAS.

ETHICAL APPROVAL

This study was approved by the Hacettepe University Non-Interventional Clinical Research Ethics Board (GO 14/123-22). Written consent was obtained from the Association of Public Hospitals Agency and Directories and the nursing services administrators of the university and public hospitals. Kathleen Blanchfield and Diana L. Biordi, who developed the NAAS, granted permission for the adaptation of this instrument to Turkish via email. The participants were informed of the objective of the study and that their participation was voluntary; informed consent was obtained.

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REFERENCES

Aiken, L. H., Clarke, S. P., Sloane, D. M., Lake, E. T., & Cheney, T. (2008). Effects of hospital care environment on patient mortality and nurse outcomes. *Journal of Nursing Administration*, *38*(5), 223–229. https://doi.org/10.1097/01.NNA.0000312773.42352.d7

Aiken, L. H., Smith, H. L., & Lake, E. T. (1994). Lower medicare mortality among a set of hospitals known for good nursing care. *Medical Care*, *32*(8), 771–787. https://doi.org/10.1097/00005650-199408000-00002

Alpar, R. (2012). *Spor, Sağlık ve Eğitim Bilimlerinden Örneklerle Uygulamalı İstatistik ve Geçerlik-Güvenirlik*. Ankara, Turkey: Detay yayıncılık.

Blanchfield, K. C. (1992). *Authority and autonomy of staff nurses providing patient care: A study of nursing power*. PhD thesis, Health Sciences Center, University of Illionis at Chicago.

Blanchfield, K. C., & Biordi, D. L. (1996). Power in practice: A study of nursing authority and autonomy. *Nursing Administration*, *20*(3), 42–49. https://doi.org/10.1097/00006216-199602030-00007

Blegen, M. A., Goode, C., Johnson, M., Maas, M., Chen, L., & Moorhead, S. (1993). Preferences for decision-making autonomy. *Image Journal of Nursing Scholarship*, *25*(4), 339–344. https://doi.org/10.1111/j.1547-5069.1993.tb00269.x

Boughn, S. (1995). An instrument for measuring autonomy-related attitudes and behaviors in women nursing students. *Journal of Nursing Education*, *34*(3), 106–113.

Brunetto, Y., Wharton, R. F., & Shacklock, K. (2011). Supervisor–subordinate communication relationships, role ambiguity, autonomy and affective commitment for nurses. *Contemporary Nurse*, *39*(2), 227–239. https://doi.org/10.5172/conu.2011.39.2.227

Bularzik, A. M., Tullai-McGuinness, S., & Sieloff, C. L. (2013). Nurse's perceptions of their group goal attainment capability and professional autonomy: A pilot study. *Journal of Nursing Management*, *21*(3), 581–590. https://doi.org/10.1111/j.1365-2834.2012.01381.x

Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research and Evaluation*, *10*(7), 1–9.

Dysvik, A., & Kuvaas, B. (2013). Perceived job autonomy and turnover intention: The moderating role of perceived supervisor support. *European Journal of Work and Organizational Psychology*, *22*(5), 563–573. https://doi.org/10.1080/1359432X.2012.667215

Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, *4*(3), 272–299. https://doi.org/10.1037/1082-989X.4.3.272

Finn, C. P. (2001). Autonomy: An important component for nurses' job satisfaction. *International Journal of Nursing Studies*, *38*(3), 349–357. https://doi.org/10.1016/S0020-7489(00)00065-1

Forbes, S. A., Bott, M. J., & Taunton, R. L. (1997). Control over nursing practice: A construct coming of age. *Journal of Nursing Measurement*, *5*(2), 179–190.

Freidson, E. (1994). *Professionalism reborn: Theory, prophecy and policy*. Cambridge: Polity Press in association with Blackwell.

Gagnon, L., Bakker, D., Montgomery, P., & Palkovits, J. A. (2010). Nurse autonomy in cancer care. *Cancer Nursing*, *33*(3), E21–E28. https://doi.org/10.1097/NCC.0b013e3181c98985

Gerber, R., Murdaugh, C., Verran, J., & Milton, D. (1990). *Control over nursing practice scale: Psychometric analysis*. Poster Presentation, National Conference on Instrumentation in Nursing, Tucson, AZ.

Hall, D. S. (2007). The relationship between supervisor support and registered nurse outcomes in nursing care units. *Nursing Administration Quarterly*, *31*(1), 68–80. https://doi.org/10.1097/00006216-200701000-00015

Haynes, C. E., Wall, T. D., Bolden, R. I., Stride, C., & Rick, J. E. (1999). Measures of perceived work characteristics for health services research: Test of a measurement model and normative data. *British Journal of Health Psychology*, *4*(3), 257–275. https://doi.org/10.1348/135910799168614

Iliopoulou, K. K., & While, A. E. (2010). Professional autonomy and job satisfaction: Survey of critical care nurses in mainland Greece. *Journal of Advanced Nursing*, *66*(11), 2520–2531. https://doi.org/10.1111/j.1365-2648.2010.05424.x

Institute of Medicine of the National Academies (2004). *Keeping patients safe: Transforming the work environment of nurses*. Washington, DC: National Academies Press.

International Council of Nurses (2002). *Eighth ICN workforce forum*, Reykjavik, Iceland. Retrieved from http://www.icn.ch/images/stories/documents/pillars/sew/sew_workforce_forum_overview_2002.pdf

de Jonge, J. (1995). *Job autonomy, well-being and health: A study among Dutch health care workers*. PhD thesis, Datawyse, Maastricht.

Keenan, J. (1999). A concept analysis of autonomy. *Journal of Advanced Nursing*, *29*(3), 556–562. https://doi.org/10.1046/j.1365-2648.1999.00948.x

Kennerly, S. (2000). Perceived worker autonomy: The foundation for shared governance. *Journal of Nursing Administration*, *30*(12), 611–617. https://doi.org/10.1097/00005110-200012000-00013

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York, NY: Guilford Press.

Kramer, M., Maguire, P., & Schmalenberg, C. E. (2006). Excellence through evidence: The what, when, and where of clinical autonomy. *Journal of Nursing Administration*, *36*(10), 479–491. https://doi.org/10.1097/00005110-200610000-00009

Kramer, M., & Schmalenberg, C. E. (2003). Magnet hospital nurses describe control over nursing practice. *Western Journal of Nursing Research*, *25*(4), 434–452. https://doi.org/10.1177/0193945903025004008

Lyons, D. M. (2002). *Military nurses perceptions of autonomy*. Master of Science thesis, Uniformed Services University of The Health Sciences, Bethesda, MD.

Mohamed Seada, A., & Eman Abd El Alim, E. (2012). Relationship between staff nurses' perception of professional shared governance and their job satisfaction. *Journal of American Science*, *8*(5), 199–208.

Müftüler-Bac, M. (1999). Turkish Women's Predicament. *Women's Studies International Forum*, *22*(3), 303–315. https://doi.org/10.1016/S0277-5395(99)00029-1

van Oostveen, C., & Vermeulen, H. (2017). Greater nurse autonomy associated with lower mortality and failure to rescue rates. *Evdence-Based Nursing*, *20*(2), 56. https://doi.org/10.1136/eb-2016-102591

Papathanassoglou, E. D., Tseroni, M., Karydaki, A., Vazaiou, G., Kassikou, J., & Lavdaniti, M. (2005). Practice and clinical decision-making autonomy among Hellenic critical care nurses. *Journal of Nursing Management*, *13*(2), 154–164. https://doi.org/10.1111/j.1365-2934.2004.00510.x

Rao, A. D., Kumar, A., & McHugh, M. (2017). Better nurse autonomy decreases the odds of 30-day mortality and failure to rescue. *Journal of Nursing Scholarship*, *49*(1), 73–79. https://doi.org/10.1111/jnu.12267

Schutzenhofer, K. K. (1988). The problem of professional autonomy in nursing. *Health Care for Women International*, *9*(2), 93–106. https://doi.org/10.1080/07399338809515808

Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston, MA: Allyn & Bacon.

Varjus, S. L., Leino-Kilpi, H., & Suominen, T. (2011). Professional autonomy of nurses in hospital settings—A review of the literature. *Scandinavian Journal of Caring Sciences*, *25*(1), 201–207. https://doi.org/10.1111/j.1471-6712.2010.00819.x

Wade, G. H. (1999). Professional nurse autonomy: Concept analysis and application to nursing education. *Journal of Advanced Nursing*, *30*(2), 310–318. https://doi.org/10.1046/j.1365-2648.1999.01083.x

Weston, M. J. (2008). Defining control over nursing practice and autonomy. *Journal of Nursing Administration*, *38*(9), 404–408. https://doi.org/10.1097/01.NNA.0000323960.29544.e5

Weston, M. J. (2009). Validity of instruments for measuring autonomy and control over nursing practice. *Journal of Nursing Scholarship*, *41*(1), 87–94. https://doi.org/10.1111/j.1547-5069.2009.01255.x

World Health Organisation (2013). *WHO nursing and midwifery progress report 2008–2012*. Retrieved from http://www.who.int/hrh/nursing_midwifery/NursingMidwiferyProgressReport.pdf

Yukl, G. (2006). *Leadership in organizations* (6th ed.). Upper Saddle River, NJ: Pearson Education International.

How to cite this article: Basaran Acil S, Dinç L. Turkish adaptation and psychometric characteristics of the Nursing Authority and Autonomy Scale. *J Nurs Manag*. 2018;26:735–743. https://doi.org/10.1111/jonm.12611