



## Original research

## Factors influencing professional values among Indonesian undergraduate nursing students

Nelwati<sup>a,b</sup>, Khatijah Lim Abdullah<sup>a</sup>, Mei Chan Chong<sup>a,\*</sup><sup>a</sup> Department of Nursing Science, Faculty of Medicine, University of Malaya, 50603, Kuala Lumpur, Wilayah Persekutuan, Malaysia<sup>b</sup> Faculty of Nursing, Universitas Andalas, Padang, 25166, West Sumatera, Indonesia

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## ABSTRACT

**Background:** Undergraduate nursing students are required to acquire professional values during professional nurse education to provide safe and high quality patient care. However, there was no documentation in professional values among Indonesian undergraduate nursing students and the factors influencing its development. **Purpose:** The purpose of this study was to determine professional values among Indonesian undergraduate nursing students and examine the relationship between students' demographic factors and professional values. **Design:** A cross-sectional study using convenience sampling was applied to recruit 391 Indonesian undergraduate nursing students. The 26 items of Nurses Professional Values Scale Revision (NPVS-R) with five dimensions was employed to collect data. Descriptive and inferential statistics, independent samples *t*-test were applied to analyse and interpret data. **Results:** The result showed that the total score of nurse professional values was high ( $95.80 \pm 12.93$ ). The most important professional value dimension was caring, while activism was the least important values. The NPVS-R total score had a significant association with length of professional clinical practice of the students ( $p < .05$ ). **Conclusion:** Nurse educators need to consider the integration of professional values when developing nursing curriculum, in order to ensure that the students develop their own understanding of these values and their importance in practice.

## 1. Introduction

The development of health science and technology and the improvement of society's social and economy levels have led to an increased need for excellent health care services, including nursing care. Conflict with quality patient care could give rise to ethical problem for nurses who make the decision for the patient being cared for to enhance the patient's safety (American Association of Colleges of Nursing, 2008; Weis and Schank, 2002). Each nurses' decision should consider patients' life, honour, and individuality, according to professional values (Donmez and Ozsoy, 2016). Well-established professional values help nurses to make decision ethically, provide safe and high quality nursing care, develop positive professional identity, increase job satisfaction, patient recognition, and nurse retention (Bang et al., 2011; Horton et al., 2007; Kim and Han, 2015; Poorchangizi et al., 2017; Posluszny, 2014).

Ethical problems in the clinical practice are not only dealt with by nurses but also by undergraduate nursing students (Iacobucci et al., 2013). They would be exposed to unethical issues in clinical practice

during their learning process. Therefore, nurse educators need to equip the students with professional values to help them find solutions to ethical problems in the decision making process (Donmez and Ozsoy, 2016; Weis and Schank, 2000).

## 2. Literature review

Value indicates what is important, worthwhile and worth striving for life. It also determines an individual's ideals, beliefs, and actions that affect the way people act in their personal and professional lives (Horton et al., 2007). Professional values are standards for action that are preferred by practitioners and professional groups, and provide a framework for evaluating behaviour (Weis and Schank, 2002). Values can be taught directly or learnt indirectly by observing others' behaviours. Nursing as a profession has adopted its own values that are internalized through professional socialization (Kaya et al., 2017). The acquisition of professional values in nursing is vital for professional development and socialization and it should be initiated and developed during professional nurse programs (Bang et al., 2011; Weis and

\* Corresponding author.

E-mail addresses: [nelwati@nrs.unand.ac.id](mailto:nelwati@nrs.unand.ac.id) (Nelwati), [katlim@um.edu.my](mailto:katlim@um.edu.my) (K.L. Abdullah), [mcchong@um.edu.my](mailto:mcchong@um.edu.my) (M.C. Chong).

Schank, 2002).

Professional nurse education programs play a vital role in developing professional values in undergraduate nursing students and had a positive effect on professional values development (Kantek et al., 2017; Schank and Weis, 2001). The program can facilitate them to attain and expand their professional values in nursing (American Association of Colleges of Nursing, 2008; Fahrenwald et al., 2005; Weis and Schank, 2000). The publication of *The Essentials of Baccalaureate Education for Professional Nursing Practice* by American Association of Colleges of Nursing (2008) had confirmed the importance of values and identified values fundamental to the Bachelor nursing program (Weis and Schank, 2009). Furthermore, the International Council for Nurses (ICN) addressed the development of professional values and issued ethical conduct in the ICN Code Ethics for Nurses (International Council of Nurses (ICN), 2012). The council provided guidance for the integration of values into nursing education (Kaya et al., 2017).

Development of professional values takes place during the nurse education program. It should increase and expand at graduation point compared to the entry point of study (Schank and Weis, 2001). There was significant difference in professional values development with positive direction changes from the first year to graduation point among Taiwanese and Turkish nursing students (Kantek et al., 2017; Lin et al., 2010). Similarly, professional values also increased significantly in the accelerated undergraduate nursing students from entry to exit point of the study (Leners et al., 2006). There was also a significant difference in professional values between the first year and the final year of diploma nursing students. However, there was no significant difference in the total score of professional values between associate and bachelor degree nursing students (Fisher, 2014).

Professional values development among nursing students was influenced by several demographic factors, however, the previous findings were not consistent with each other. Culture and ethnicity had been reported to contribute to professional values development among nursing students (Alfred et al., 2013; Lin et al., 2010; Martin et al., 2003; Rassin, 2010). Parvan, Zamanzadeh, and Hosseini (2012) found no significant relationship between ethnicity and professional values among Iranian nursing students. Gender and age influenced in developing professional values of nursing students, of which female and younger students perceived stronger orientation of professional values compared to male and older nursing students (Donmez and Ozsoy, 2016; Martin et al., 2003; Parvan et al., 2012). In contrast, other studies found age and gender did not have significant differences in professional values among nursing students (Bang et al., 2011; Lin et al., 2010). Participation in the professional organization by attending ethical training and family economic background could also influence in developing professional values among nursing students (Donmez and Ozsoy, 2016; Parvan et al., 2012; Poorchangizi et al., 2017). Work experience did not have a significant relationship with professional values development (Leduc and Kotzer, 2009).

This study was conducted in Indonesia. Majority of the Indonesian population is Muslim (87.2%) followed by Protestant (6.9%), Catholic (2.9%), Hindu (1.7%), and Buddhist (0.7%) (Indonesia Investments, 2017). Muslim nurses believe that nursing is a profession that helps better serve mankind and perform good deeds for God's sake (Shafakhah et al., 2016). A study conducted by Atkinson (2015) in Kuwait found that Muslim nurses believed altruistic relationships are a core value in Islamic nursing care and all care is spiritual care. Indonesian undergraduate nursing students who interact with Muslim nurses would emulate this value. The belief in God can encourage Muslim nurses to promote values to the students and lead to the students' greater consideration for values and their adoption in nursing practices and relationships (Shafakhah et al., 2016). The caring dimension of professional values was perceived as the first rank of professional values in Muslim majority countries such as in Iran (Poorchangizi et al., 2017), Turkey (Donmez and Ozsoy, 2016) and Kuwait (Atkinson, 2015).

Professional nurse education in Indonesia consists of two stages, i.e. academic stage and professional stage. At the academic stage, the learning process takes place in a classroom, laboratory, and preclinical session for eight semesters for pre-registration students and three semesters for post-registration students. Both types of students must proceed to the professional stage to undertake professional clinical practice in clinical settings such as hospitals, primary health care centres, and community for two semesters. The educational program uses competency-based curriculum in the students' learning process. This curriculum emphasizes cognitive, affective and psychomotor skills to achieve learning outcomes (International Bureau of Education, 2017). Professional development has tended to focus on cognitive and psychomotor domain learning, while professional socialization would not occur without development of affective skills such as professional values development (Weis and Schank, 2002). Given the importance of professional values for undergraduate nursing students and several factors that could influence their formation, this study is significant to be conducted. No previous studies were found on the research regarding to professional values among Indonesian undergraduate nursing students. Meanwhile, dimensions of professional values are evaluated in the national competency-based examination for newly Indonesian nurse graduates. The purpose of the study was to determine professional values among Indonesian undergraduate nursing students and examine the relationship between students' demographic factors and professional values.

### 3. Methods

#### 3.1. Design

A cross-sectional study was conducted to determine professional values among Indonesian undergraduate nursing students and examine the association between students' demographic factors with professional values.

#### 3.2. Participants

Respondents were selected using convenience sampling from a faculty of nursing in a public university in Indonesia. 9 out of 400 respondents did not meet the inclusion criteria and failed to complete the study. There were 391 Indonesian undergraduate nursing students participated in this study, giving a response rate of 97%. Participant inclusion criteria included: 1) students enrolled in professional practice stage of the course and 2) students completed the final academic year of professional nurse education.

#### 3.3. Ethical consideration

Ethical approval was obtained from University Malaya Medical Centre (UMMC) in Malaysia (MRECID NO: 201716-4765) and Institutional Review Board of M. Djamil Hospital in Indonesia (NO: PE.23.2016). Prior to completing the questionnaire, the participants were given the information related to the research such as the purpose and benefits of the study. The participants were also assured that their participation was voluntary and they can withdraw from the study at any stage of the study. All their personal information was kept confidentially. Written informed consent was obtained from the participants upon agreement.

#### 3.4. Instrument and data collection

Data were collected using a set of questionnaire, which consists of two sections. The first section collected the respondents' demographic characteristics including age, gender, grade point average, the length of professional clinical practice, and working experience. The second section was the Nurses Professional Values Scale-Revised (NPVS-R)

developed by Weis and Schank (2009). The NPVS-R is a well-known instrument that has been evaluated on its psychometric properties for measuring professional values in nursing (Poorchangizi et al., 2017; Weis and Schank, 2009). The NPVS-R consists of 26 items in Likert Scale format ranging from 1 = not important, 2 = somewhat important, 3 = important, 4 = very important and 5 = most important. The respondent is required to select the degree of importance that corresponds to each value statement related to nursing practice. The score is obtained by calculating the respondents' responses that yield the total score from 26 to 130. The higher the score, the stronger the nurse professional value orientation (Weis and Schank, 2009). To indicate the degree of importance, the total mean score were divided into low (< 43), medium (43–86), and high (> 86) (Poorchangizi et al., 2017). In addition, the NPVS-R comprises of five dimensions including caring, activism, trust, professionalism, and justice (Weis and Schank, 2009).

3.5. Validity and reliability

Permission to use the English original version of NPVS-R was given by the developers (Weis and Schank, 2009) and it was translated into Bahasa Indonesia using a forward-backward translation method (World Health Organization {WHO}, 2016) The process of testing validity and reliability of instruments involved testing content validity using Content Validity Index (CVI) and construct validity and reliability by conducting Confirmatory Factor Analysis (CFA) using Partial Least Square Structural Equation Modeling (PLS-SEM) (Awang, 2015; Grove et al., 2013; LoBiondo-Wood & Haber, 2014).

Content Validity Index (CVI) was calculated based on the assessment of six Indonesian experts in nursing by rating the content relevance of each item using a 4-point ordinal scale. The obtained CVI indicated that the NPVS-R instrument had excellent content validity, whereby the CVI ranges from 0.83 to 1.00 according to Lynn's (1986) criteria cited in Polit and Beck (2006). The result of CFA showed construct validity met the assumption of Average Variance Extracted (AVE ≥ 0.50) and discriminant validity was well established with the Fornell-Larcker criterion. To ensure internal consistency, composite reliability (CR) yielded the result of 0.92, proving high internal consistency reliability (Hair et al., 2011).

3.6. Data analysis

Data were analysed via SPSS software using descriptive statistics such as frequency distributions, percentages, means, and standard deviations to summarize data. The inferential statistics, independent samples t-test was used to determine the differences in the NPVS-R mean scores and demographic factors. The level of significance was considered at  $p < .05$ .

4. Results

A total of 391 Indonesian undergraduate nursing students participated in this study. Table 1 presents the characteristics of the sample. More than half of participants were pre-registration students (66.2%) and the rest was post-registration students (33.8%). The majority of the participants were female (90.8%) with age ≤ 24 years (78.5%). More than half of participants (54%) had grade point average (GPA) ≤ 3.20 and had undertaken professional clinical practice for 0–4 month period (61.1%). The majority of participants (83.6%) did not have any working experience.

Table 2 shows the relationship between demographic variables and the total mean score of the NPVS-R. One of the demographic factors, length of professional clinical practice, had a significant relationship with the total score of NPVS-R. The students who practised for 0–4 months perceived professional values more important than the students who did it for more than 4 months. Post-registration students obtained

**Table 1**  
The characteristics of the sample (n = 391).

Variables	n	%
Type of students		
Pre-registration students	259	66.2
Post-registration students	132	33.8
Gender		
Female	355	90.8
Male	36	9.2
Age		
≤ 24 years	307	78.5
> 24 years	84	21.5
Grade Point Average (GPA)		
≤ 3.20	211	54
> 3.20	180	46
Length of Practice		
0–4 months	239	61.1
> 4 months	152	38.9
Working Experience		
No	330	83.6
Yes	61	16.4

**Table 2**  
The relationships between demographic characteristics and NPVS-R total mean score.

Demographic characteristics	NPVS-R total mean score		
	Mean ± SD	Test statistic	p value
Type of students			
Pre-registration students	95.21 ± 11.38	t = -1.05	.291
Post-registration students	96.66 ± 15.22		
Gender			
Female	95.70 ± 12.68	t = .03	.976
Male	95.64 ± 14.15		
Age			
≤ 24 years	95.27 ± 12.43	t = -1.271	.204
> 24 years	97.27 ± 14.07		
Grade Point Average (GPA)			
≤ 3.20	95.36 ± 13.30	t = -.569	.570
> 3.20	96.10 ± 12.22		
Length of Practice			
0–4 months	96.78 ± 11.91	t = 2.10	.036
> 4 months	94.00 ± 13.96		
Working Experience			
No	95.66 ± 12.63	t = -.144	.886
Yes	95.92 ± 13.81		

higher mean score of NPVS-R compared to pre-registration students, but there was no significant difference. Female nursing students obtained NPVS-R mean scores almost similar to male nursing students, so there was no difference found. The students aged > 24 years old and had GPA > 3.20 gained higher mean score of NPVS-R, compared to the students aged ≤ 24 years old and had GPA ≤ 3.20 respectively. However, age and academic performance had no significant relationship with professional values ( $p > .05$ ).

Table 3 provides the NPVS-R items rank and mean score. Each item was in the range of important to very important. Based on the mean scores, the most important values from Indonesian undergraduate nursing students were “Safeguard patient's right to privacy” (4.25 ± .85), “Provide care without prejudice to patients of varying lifestyles” (4.24 ± .90), “Maintain confidentiality of patient” (4.24 ± .87), and “Protect moral and legal rights of patients” (4.01 ± .85) from caring dimension, and ‘Maintain competency in area of practice’ (4.00 ± .70) from trust dimension.

The least important values items were “Participate in peer review” (3.12 ± .75) from professionalism dimension, “Participate in public policy decision affecting distribution of resources” (3.17 ± .74) from activism dimension, and “Protect health and safety of the public” (3.26 ± .48) from justice dimension.

**Table 3**  
NPVS-R item rank and mean score.

Item	Rank	Mean score	SD	
1	Engage in on-going self-evaluation	17	3.56	.83
2	Request consultation/collaboration when unable to meet patient needs	7	3.90	.86
3	Protect health and safety of the public	24	3.26	.48
4	Participate in public policy decision affecting distribution of resources	25	3.17	.74
5	Participate in peer review	26	3.12	.75
6	Establish standards as a guide for practice	8	3.83	.91
7	Promote and maintain standards where planned	9	3.80	.86
8	Initiate actions to improve environments of practice	20	3.47	.81
9	Seek additional education to update knowledge and skills	13	3.72	.91
10	Advance the profession through active involvement in health related activities	14	3.67	.84
11	Recognize role of professional nursing associations in shaping health care policy	22	3.46	.80
12	Promote equitable access to nursing and health care	16	3.56	.80
13	Assume responsibility for meeting health needs of the culturally diverse population	23	3.36	.82
14	Accept responsibility and accountability for own practice	15	3.57	.86
15	Maintain competency in area of practice	5	4.00	.70
16	Protect moral and legal rights of patients	4	4.01	.85
17	Refuse to participate in care if in ethical opposition to own professional values	6	3.96	.96
18	Act as a patient advocate	18	3.54	.88
19	Participate in nursing research and/or implement research findings appropriate to practice	21	3.46	.78
20	Provide care without prejudice to patients of varying lifestyles	2	4.24	.90
21	Safeguard patient's right to privacy	1	4.25	.84
22	Confront practitioners with questionable or inappropriate practice	11	3.75	.88
23	Protect rights of participants in research	10	3.79	.90
24	Practice guided by principles of fidelity and respect for person	12	3.73	.85
25	Maintain confidentiality of patient	3	4.24	.87
26	Participate in activities of professional nursing associations	19	3.54	.65

**Table 4**  
Mean score of the NPVS-R and ranking.

NPVS-R	Rank	Mean	SD
Total mean score of NPVS-R	–	95.80	12.93
Dimensions of NPVS-R			
Caring	1	3.95	0.68
Trust	2	3.75	0.61
Professionalism	3	3.55	0.60
Justice	4	3.46	0.48
Activism	5	3.39	0.59

Table 4 shows the total mean score of professional values perceived by Indonesian undergraduate nursing students was high ( $95.80 \pm 12.93$ ). Based on professional value dimensions ranking, it showed that caring was the most important professional value perceived by the students, meanwhile the least important professional value was activism dimension.

## 5. Discussion

The current study suggested that Indonesian undergraduate nursing students have attained professional values in nursing during their professional nurse education. Indonesian undergraduate nursing students achieved high level of professional values with the total mean score of 95.80, despite being lower than previous studies (Alfred et al., 2013; Alkaya et al., 2017; Lin et al., 2016). Alfred et al. (2013) compared the total mean score of NPVS-R gained by the nursing students in the United States and Taiwan and found the total mean score of NPVS-R was 106.16 and 104.27 respectively. Meanwhile, the total mean score of NPVS-R obtained by Turkish nursing students was 101.6 (Alkaya et al., 2017). Another study also found the total mean score of NPVS-R between Taiwanese and Chinese nursing students was 99.10 and 100.47 respectively (Lin et al., 2016). The different total mean scores of NPVS-R gained by the nursing students from various countries indicated that there were other factors influencing the development of professional values among the undergraduate nursing students depending on their demographic factors, cultural background, resources, ethical codes, curriculums and clinical practice setting.

In the current study, the Indonesian undergraduate nursing students perceived the most important dimension of professional values was caring. This might be because the Indonesian undergraduate nursing students assumed that nursing as a profession is about taking care of patients. Islamic values could also influence the Indonesian undergraduate nursing students in which serving the patients is a way of getting closer to God and getting reward in the Hereafter (Shafakhah et al., 2016). They would believe that altruistic relationships are a core value in Islamic nursing care (Atkinson, 2015). The Code of Ethics for Indonesian nurses stated that the main responsibility of Indonesian nurses is providing nursing care to fulfil the patients' needs (Indonesian National Nurse Association {INNA}, 2016). This was in line with Islamic value that nursing means fulfilling and satisfying the needs of patients and the nurses would be granted a reward of forgiveness for all his/her sins (Taleghani et al., 2013). Hence, patients and their families remain as the main focus of nursing practice of Indonesian undergraduate nursing students.

The caring dimension which was found as the most important professional values in this study was in line with the previous studies' findings. The nursing students from these various countries also perceived caring as the most important of professional values in nursing practice, for example, in Turkey (Donmez and Ozsoy, 2016), Taiwan (Lin et al., 2010), and China (Lin et al., 2016). Caring is the most important and valuable professional value held by the nursing students (Leners et al., 2006) and it is central for nursing practice to provide nursing care to the patients (Weis and Schank, 2009). The nursing students remained focusing on patient care during their professional nursing education (Lin et al., 2016). In addition, patient care is the compulsory component of nursing education, which the students should master in order to graduate (Clark, 2009). In contrast, caring was the least important of professional values perceived by the Jamaican undergraduate nursing students. They assumed sitting with dying patients was the least importance, while nursing tasks were pressing them to be delivered to the living patients (Chisholm-Ford et al., 2017).

The least important dimension of professional values perceived by the students was activism. In this study, more than half of participants were pre-registration students who were still not allowed to join Indonesian National Nursing Association, as they have not obtained

degree certificate in nursing yet, as registration requires. Due to limited exposure to an activist role of professional nursing such as public policy contribution, nursing association, and nursing research participation, the students did not rate it highly. Post-registration students who usually join nursing association need to accomplish and focus on their study. It is not compulsory to participate in these activities that usually take place outside of working hours, therefore nursing students might have low awareness of the activism dimension of professional values (Parvan et al., 2012; Schank and Weis, 2001; Weis and Schank, 2009). Participating actively in nursing association's activities and becoming professional organization's member might increase the awareness on current issues and trends in nursing, improve professionalism, and contribute to the growth of the organization (Chisholm-Ford et al., 2017; Poorchangizi et al., 2017), and have stronger professional values orientation (Donmez and Ozsoy, 2016).

Several demographic characteristics such as type of students, age, gender, grade point average (GPA), and working experience had no a significant relationship with professional values development. The previous studies found age and gender had no significant relationship with professional values development among Korean and Taiwanese nursing students (Bang et al., 2011; Lin et al., 2010), although other studies identified age and gender's influence in professional values development (Donmez and Ozsoy, 2016; Martin et al., 2003; Parvan et al., 2012). The imbalance proportion of gender between male and female undergraduate nursing students could cause these inconsistent findings. Grade point average gained by the students did not have a significant relationship with professional values and it is in line with a previous study (Bang et al., 2011).

One of demographic variables, length of professional clinical practice, had a significant relationship with professional values perceived by the Indonesian undergraduate nursing students. Indonesian undergraduate nursing students at the beginning of professional clinical practice perceived higher total score of professional values than those who have been practicing for more than four months. They seemed to be knowledgeable on professional values initially, however, the importance of values declined following extended professional clinical practice. The students might emulate professional values from nurses during their clinical practice that probably did not reflect good professional values in real practice and adopted the values as example. Lyneham and Levett-Jones (2016) conducted a qualitative study exploring the perception of newly graduated nurses on how they viewed professional values in clinical behaviour of nurses they worked with. The result showed participants learnt the meaning and relevance of professional values not only from a theoretical perspective, but also from a moral and practical attitude that they emulated from registered nurses who they worked with.

### 5.1. Methodological issues and study limitations

Some limitations need to be taken into consideration for future studies. As this study was conducted at a faculty of nursing in a university in Indonesia, the findings could not be generalized to all professional nursing education institutions. In addition, the data were collected using self-reported questionnaires that could lead to introduce bias to the results of the study, as it might not describe a true condition of the participants, they might give higher or lower rate, different to actual condition. However, using self-reported questionnaires in this study provided a description of professional values among Indonesian undergraduate nursing students.

## 6. Conclusion

Professional values development among undergraduate nursing students is necessary as such values would determine the patient quality care and develop the professionalism. The purpose of this study was to investigate professional values among Indonesian undergraduate

nursing students and examine the relationship between students' demographic factors and professional values. The major study findings included level of professional values, type of student, gender, age, GPA, length of practice, and working experience. The Indonesian undergraduate nursing students were reported to have good professional values. They gained the highest score in caring dimension and the lowest score in activism dimension. It was found that there was no significant relationship between demographic variables and professional values, except for length of clinical practice.

The study suggested that nurse educators need to consider the integration of professional values when developing nursing curriculum, in order to ensure that the students develop their own understanding of these values and their importance in practice. The students are also encouraged to participate in professional organization events such as attending seminar or workshop. They should be introduced to existence of professional nurse association in the early part of their professional nurse education to stimulate and improve their professionalism. Despite the limitation of self-reported questionnaires, the self-reported of the NPVS-R in this appears valuable for monitoring the improvement of professional values during professional nurse education and practice. The tool could also address the evolution of professional values among post-registration nursing staff who may have paid less attention its practice in clinical setting. Thus, they may require refreshing their knowledge of professional values.

This study recommended for further studies to observe how the students exhibit professional values in real practice to explore whether or not professional values have been implemented properly in nursing practice. Further, the identification of professional values held by clinical nurses should be examined to correspond with nursing students' need as they can emulate the values of nurses who they work with.

## Contribution

We confirm that all authors have substantially contributed to the conception and design of the study. Data collection was performed by Nelwati. Data analysis and interpretation was conducted by all authors. Nelwati has drafted the article and all authors revised critically for important intellectual content. Finally, all authors have approved to submit the manuscript.

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## Declaration of competing interest

The authors declare no conflict of interest.

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## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.nepr.2019.102648>.

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