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To cite this article: Martin Duignan, Jonathan Drennan & Vera J. C. Mc Carthy (2024) Work characteristics, job satisfaction and intention to leave: a cross-sectional survey of advanced nurse practitioners, Contemporary Nurse, 60:4, 382-394, DOI: [10.1080/10376178.2024.2327353](https://doi.org/10.1080/10376178.2024.2327353)

To link to this article: <https://doi.org/10.1080/10376178.2024.2327353>



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Published online: 15 Mar 2024.



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Work characteristics, job satisfaction and intention to leave: a cross-sectional survey of advanced nurse practitioners

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(Received 1 December 2023; accepted 1 March 2024)

Background: Advanced Nurse Practitioners (ANPs) are highly skilled health care professionals with the potential to play a major role in improving the quality and accessibility of health care services. However, there is emerging evidence of disquiet among nurse practitioners who often work in suboptimal work environments. Therefore, it is important to understand the elements that contribute to ANPs' job satisfaction and retention in healthcare services.

Aim: To examine the effects of commitment to the workplace, work engagement, and influence at work on job satisfaction and intention to leave of ANPs.

Methods: A total of 153 ANP's on the advanced practice section of the Nursing and Midwifery Board of Ireland register completed a web survey between July and August 2020. Independent variables (commitment to the workplace, work engagement, and influence at work) were measured using the Copenhagen Psychosocial Questionnaire (COPSOQ). Multivariable logistic regression models were used to investigate the association between dependent and independent variables.

Results: Participants who reported higher levels of influence at work and higher levels of commitment to the workplace were also satisfied in their job (OR 1.05, 95% CI 1.01-1.09, $p = 0.025$), (OR 1.10, 95% CI 1.06–1.14, $p < 0.001$) respectively. Additionally, ANPs with higher levels of commitment to work were significantly less likely to leave their role (OR 0.94, 95% CI .92–.96, $p < 0.001$).

Conclusion: Healthcare organisations can improve job satisfaction and decrease intention to leave by creating environments in which ANPs are supported by their colleagues and supervisors, and facilitate their practice to the full extent of their capabilities.

Keywords: nurse practitioner; job satisfaction; work engagement; working conditions; intention

Impact statement

Advanced nurse practitioners should be supported to maximise their capabilities. Organisations can focus on factors known to be important to ANPs' job satisfaction and enhance retention rates.

Plain language statement

Advanced Nurse Practitioners (ANPs) are very skilled and highly qualified nurses who can help make healthcare better for patients. However, many of them are not happy at work because of

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some problems in their workplaces. So, it's important to figure out what makes ANPs happy at work and what makes them want to stay or leave their jobs.

In this work we wanted to see how things like how much they care about their workplace, how involved they are in their work, and how much say they have at work affect how happy they are in their jobs and if they want to leave.

We asked 153 ANPs questions online between July and August 2020 about their feelings at work. We used a survey to measure how committed they were to their workplace, how engaged they were in their work, and how much influence they had at work.

We found that ANPs who felt like they had more say in their work and who cared a lot about their workplace were happier in their jobs. Also, those who were very committed to their work were less likely to want to leave their jobs.

So, hospitals and healthcare places can help ANPs be happier and want to stay in their jobs by making sure they feel supported by their colleagues and the wider organisation. ANPs should also let use all their skills fully. This way, ANPs can do their best, and hospitals can keep more of them working there.

1. Introduction

Advanced Nurse Practitioners (ANPs) play a critical role in the provision of healthcare services and are pivotal because of their ability to work collaboratively and improve access to comprehensive care, which is of high quality and cost-effective (Audet et al., 2023). However, there are some challenges in advanced nursing practice, including lack of organisational support, lack of career pathways, and practice restrictions. Additionally, ANPs often work in unfavourable environments that are not conducive to their practice within healthcare organisations (Poghosyan et al., 2019). This may explain why there is a decreased interest in pursuing a career as an ANP (Woo et al., 2020). It is important for nurses who have achieved professional and clinical acumen to practice as independent, autonomous, and skilled practitioners and practice at a high level of proficiency to be retained within the workforce.

The shortage of advanced healthcare providers has significant implications for patients and communities, including increased hospitalisation rates, lower patient-rated health quality, and elevated mortality rates (Schlak et al., 2022). It has been reported that 22% of ANPs intend to leave their jobs within a year (Poghosyan et al., 2022). Therefore, identifying and addressing the factors that promote ANPs' desire to remain in the profession and those that cause them to leave are crucial. Schlak et al. (2022) showed that better work environments significantly decreased the odds of job dissatisfaction in ANPs and Poghosyan et al. (2022) demonstrated a relationship between ANPs practice environment and intention to leave.

2. Background

Job satisfaction and intention to leave are crucial outcome measures in nursing (Li et al., 2020). Understanding the factors that influence these measures for ANPs is essential for recruitment and retention strategies.

Job satisfaction is associated with staff retention, quality of care, and intention to leave the profession. There are two types of nurse job satisfaction: organisational and professional (Kaunonen et al., 2015). Organisational satisfaction includes compensation and benefits, while professional satisfaction requires an environment conducive to professional practice. Job dissatisfaction among nurses negatively affects the quality of patient care (Franklin & Gkiouleka, 2021; Lejeune et al., 2021). For ANPs, job satisfaction contributes to employee well-being and psychosocial health, which directly affects patient care quality. ANP dissatisfaction and

intention to leave stems from role limitations, lack of acceptance from other clinicians, underutilisation of skills, and lack of support from nursing colleagues (Athey et al., 2016; Poghosyan et al., 2019). The limited research on ANP job satisfaction suggests emerging concerns within this group (Anonymous, 2018; Corbally & Lees-Deutsch, 2018). The contextual features of the ANP role, such as practicing to capacity instead of capability, the absence of policy influence, and conflicting role expectations, are negatively correlated with job satisfaction (Fealy et al., 2018). International studies caution against excessive restrictions on ANP practice, as they may lead to dissatisfaction, attrition, and jeopardise ANP service sustainability (Fox et al., 2018). Such restrictions include managing only low-acuity patients and limiting ANPs' education and expertise utilisation (Smith, 2022).

Commitment to the workplace refers to employees' allegiance to the organisation rather than the work itself (Burr et al., 2019). In healthcare, commitment to the workplace is a crucial performance indicator that affects individual and organisational outcomes (Baird et al., 2019). Healthcare professionals with a high commitment to the workplace deliver higher-quality care (Sharma & Dhar, 2016). However, previous studies have shown that nurses have only a moderate commitment to the organisation (Karami et al., 2017), thereby negatively influencing workplace productivity and organisational objectives (Huang et al., 2021; Lotfi et al., 2018). Commitment to the workplace correlates with employee performance and influences workplace productivity and organisational objectives. Job satisfaction is a significant factor affecting commitment to the workplace in nursing (Sepahvand et al., 2017). Organisations may increase job satisfaction and reduce intention to leave by prioritising strategies that increase ANPs' commitment to the workplace (Huang et al., 2021).

Work engagement is a focal point of research because of its correlation with employee well-being and work performance. Work engagement pertains to an individual's emotional attachment to a task irrespective of their perception of the workplace (Burr et al., 2019). As described by Bakker et al. (2005, p. 664) it is characterised as a 'positive, fulfilling work-related state of mind,' driven by vigour, dedication, absorption in one's work (Schaufeli et al., 2002), and a sense of achievement (Moreno Cunha et al., 2022). Distinct from burnout, work engagement has received less attention in terms of its association with job satisfaction and intention to leave, particularly in ANPs; however, it is key to understanding these factors.

The extent to which ANPs can influence the components of the work they carry out, such as planning or sequencing of activities (Burr et al., 2019), is thought to be one of the most important work factors in employee health (Andersen et al., 2022; Svendsen et al., 2021). Building influence at work for ANPs is crucial for organisational success. Recognised as informal leaders who empower others and drive innovations in care, ANPs nonetheless occupy a tenuous organisational position. The informal nature of the leadership role of ANPs may contribute to a situation where ANPs have difficulty influencing their work and where there is an absence of interventions to ensure their integration into health services (Ryder & Gallagher, 2022).

Therefore, organisational leaders' understanding of the factors that affect ANPs' job satisfaction and intention to leave may lead to an improvement in the ANPs' work environment, which would increase job satisfaction and reduce turnover.

3. The study

3.1. Aim

This study examined the effects of commitment to the workplace, work engagement, and influence at work on job satisfaction and intention to leave of ANPs.

3.2. Research question

Is there an association between commitment to the workplace, work engagement, and influence at work and ANPs' job satisfaction and intention to leave?

3.3. Design

This was a cross-sectional study.

3.4. Participants

ANPs were sampled from one of two organisations: Health Service Executive (HSE) and/or Irish Association of Advanced Nurse and Midwife Practitioners (IAANMP). All participants were required to be registered on the advanced practice section of the Nursing and Midwifery Board of Ireland (NMBI) register, which had 453 registered ANPs at that time. The HSE and IAANMP organisations held email addresses of 245 ANPs. Advanced midwife practitioners and candidate advanced nurse/midwife practitioners were not included in this study.

3.5. Data collection

The HSE and IAANMP organisations circulated a web-based survey to ANPs on behalf of the researchers in July and August 2020. The HSE circulated the survey to 151 ANPs and the IAANMP sent it to 94 ANPs. Owing to invalid email addresses or security issues, ten of these emails were undelivered. A total of 155 ANPs responded to the questionnaire. Among these, two were excluded from the analysis because of incomplete survey responses. Therefore, a total of 153 ANPs represented a valid response rate of 60% (153/245) of the ANPs who received the survey; therefore, 33.8% of registered ANPs completed the survey.

3.6. Measurement instruments

Validated measures were used to gain insight into the work environment factors (commitment to the workplace, work engagement, and influence at work) of ANPs. Single-item measures were used to obtain an overview of job satisfaction and intention to leave.

3.6.1. Sociodemographic and workplace factors

Gender and age were the sociodemographic characteristics included in the study. Workplace factors included the number of years practicing as an ANP, years in current position, and percentage of shifts working alone.

3.6.2. Work environment factors

The independent variables of commitment to the workplace, work engagement, and influence at work were measured using the Copenhagen Psychosocial Questionnaire (COPSOQ). Influence at work was a composite of six items, commitment to the workplace comprised five items and work engagement comprised three items. Both the work engagement and influence at work scales had response options of always, often, sometimes, seldom, never, and hardly ever. Response options for commitment to the workplace were, to a very large extent, to a large extent, somewhat, to a small extent, and to a very small extent. The item 'How often do you consider looking for work

elsewhere?’ was reversed scored. Each scale was then summed to produce a mean item score for work engagement, influence at work, and commitment to the workplace (Pejtersen et al., 2010). If the respondents answered less than half of the items on a particular scale, the responses were considered missing and the data were excluded (Pejtersen et al., 2010). All three scales have a theoretical range of 0-100. A high score indicates high influence at work, high levels of work engagement, and high commitment to the workplace.

3.6.3. *Job satisfaction*

Job satisfaction was measured using a single question ‘How satisfied are you with your current job?’ using a 4-point response scale (very satisfied to very dissatisfied). Scores were dichotomised as follows: (0) very satisfied, somewhat satisfied and (1) somewhat dissatisfied or very dissatisfied. Single-item measures are commonly used, are considered valid, and have acceptable levels of reliability for assessing job satisfaction in organisational research (Fasbender et al., 2019; Fisher et al., 2016). A strength of the single-item measure of job satisfaction is that it allows each individual to rate their job satisfaction based on job-related factors that are important to the individual (Scanlan & Still, 2019; Wanous et al., 1997).

3.6.4. *Intention to leave*

To assess ANPs intention to leave, we used a single-item measure commonly used in nursing research (e.g. Alharbi et al., 2020; Drennan et al., 2018; Lo et al., 2018). Participants were asked, ‘Would you leave your current job within the next year as a result of job dissatisfaction?’ with the response options of yes or no.

3.7. *Ethical considerations*

The Social Research Ethics Committee of University College of Cork approved this study. The participants received an email on behalf of the researchers from either the HSE or the IAANMP organisations, explaining the methodology and the questionnaire. Participation was voluntary and participants were required to provide consent by ticking ‘agree’ before gaining access to the questionnaire.

3.8. *Data analysis*

Statistical analysis was performed using SPSS version 27.0 (SPSS Inc., Chicago, IL, USA). Descriptive statistics were used to describe the characteristics of the participants, and comparisons were made between ANPs who were satisfied or dissatisfied with their jobs and those who intended to leave or remain in their job. A significance level of ≤ 0.05 was used for all statistical analyses. Comparisons of sociodemographic and workplace characteristics, job satisfaction, and intention to leave were assessed using Pearson’s chi-squared test. Pearson’s r coefficient was used to measure the statistical dependence between the independent variables (commitment to the workplace, work engagement, and influence at work) and dependent variables (job satisfaction and intention to leave). A multivariable logistic regression model was used to investigate the association between the independent variables, with a p -value ≤ 0.25 in the univariable analyses, and dependent variables. Independent variables with a p -value ≤ 0.25 were included because of previous evidence showing cut-off points of 0.05 could result in important variables being excluded (Chowdhury & Turin, 2020; Zhang, 2016).

3.9. Validity and reliability

The internal validity of this study was increased by disseminating the study to all ANPs on the HSE and IAANMP databases. In addition, this study found high internal consistency of the three COPSOQ scales (Cronbach's alpha for commitment to the workplace 0.85, work engagement 0.80, and influence at work, 0.72). Moreover, Berthelsen et al. (2020) found reliability and construct validity at both the individual and organisational levels, and determined that the COPSOQ III showed good psychometric properties.

4. Results

The participants' characteristics are shown in Table 1, along with comparisons between their levels of job satisfaction and intention to leave. The majority of participants were female ($n = 125$, 81.7%) and worked more than half of their shifts as a single practitioner ($n = 106$, 69.3%). Almost half of the participants were aged 25–44 years ($n = 72$, 47.1%) and had been working as an ANP for three years or less ($n = 76$, 49.7%). No statistically significant differences were noted in any of the demographic variables collected between satisfied and dissatisfied ANPs or between ANPs who reported an intention to leave.

ANPs who were satisfied with their jobs were more likely to report increased commitment to the workplace ($r = .586$, $p < .01$, $n = 153$), work engagement ($r = .175$, $p < .05$, $n = 153$), and influence at work ($r = .376$, $p < .01$, $n = 153$) (Table 2).

Intention to leave was negatively correlated with commitment to the workplace ($r = -.520$, $p < .01$, $n = 153$) and influence at work ($r = -.221$, $p < .01$, $n = 153$) (Table 2).

A statistically significant association was found between influence at work, commitment to the workplace, and work engagement, and the likelihood of reporting job satisfaction ($\chi^2(4) = 64.427$, $p < 0.001$). ANPs who reported higher levels of influence at work were more likely to

Table 1. Relationship between job satisfaction and intention to leave, with demographic variables and percentage of shifts worked as a lone practitioner.

	Job satisfaction			Intention to leave		
	Satisfied n (%)	Dissatisfied n (%)	<i>p</i>	Yes n (%)	No n (%)	<i>p</i>
Gender (n = 153)			0.83			0.21
Male	22 (81.5)	5 (18.5)		11 (40.7)	16 (59.3)	
Female	104 (83.3)	21 (16.7)		38 (30.2)	87 (69.8)	
Age (n = 153)			0.92			0.98
25–44 Years	60 (83.3)	12 (16.7)		23 (31.9)	49 (68.1)	
45–64 Years	67 (83.0)	14 (17.0)		26 (32.1)	55 (67.9)	
Years Practicing (n = 152)			0.37			0.6
≤3Years	61 (80.3)	15 (19.7)		25 (32.9)	51 (67.1)	
>3Years	66 (84.4)	11 (15.6)		22 (28.9)	54 (71.1)	
Years in Current Position (n = 153)			0.63			0.55
< 3years	55 (85.9)	9 (14.1)		17 (26.6)	47 (73.4)	
3–4 years	22 (81.5)	5 (18.5)		11 (40.7)	16 (59.3)	
5–9 years	24 (85.7)	4 (14.3)		9 (32.1)	19 (67.9)	
≥10 Years	25 (75.8)	8 (24.2)		12 (36.4)	21 (63.6)	
% of Shifts Working Alone (n = 153)			0.16			0.25
< 50%	42 (89.6)	5 (10.4)		12 (25.0)	37 (75.0)	
≥50% or more	85 (80.2)	21 (19.8)		35 (34.9)	69 (65.1)	

p value from Pearson's chi-square.

Table 2. Pearson's Correlations between for job satisfaction, intention to leave and COPSOQ Scales ($n = 153$).

	Commitment to the workplace	Work engagement	Influence at work
Job Satisfaction	.586**	.175*	.376**
Intention to Leave	-.520**	-.062	-.221**

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

Table 3. Multivariable logistic regression for associations between work factors, job satisfaction and intention to leave.

Variables in the Equation	Job satisfaction		Intention to leave	
	Odds Ratio	95% CI	Odds Ratio	95% CI
Influence at Work	1.05	1.01–1.09	0.99	.97–1.02
Commitment to the workplace	1.10	1.06–1.14	0.94	.92 - .96
Work Engagement	0.98	.95–1.02	-	-
% of Shifts worked alone	2.44	.58–10.37	0.69	.28–1.72
Gender	-	-	1.57	.59–4.23

report being satisfied with their job (OR 1.05, 95% CI 1.01–1.09, $p = 0.025$), independent of commitment to the workplace, work engagement, lone working and gender. Similarly, ANPs who reported higher levels of commitment to the workplace were more likely to report being satisfied with their job (OR 1.10, 95% CI 1.06–1.14, $p < 0.001$), independent of influence at work, work engagement, lone working, and gender. No significant association was found for work engagement or the percentage of shifts ANPs worked as a lone practitioner with job satisfaction (Table 3).

ANPs with high levels of commitment to the workplace were significantly less likely to leave (OR 0.94, 95% CI .92–.96, $p < 0.001$) independent of all other variables included in the model (Table 3).

5. Discussion

This study found that ANPs who were committed to their workplace were satisfied with their roles and did not intend to leave. This is important, as it has been argued that the potential connection between job satisfaction and workplace commitment has not received adequate consideration to date (Saridakis et al., 2020). Therefore, the results emphasise the increasing body of evidence of an insoluble connection between features of the psychosocial work environment and staff outcomes such as job satisfaction and intention to leave (Poghosyan et al., 2022, 2019). Our findings are important because favourable psychosocial work environments result in healthcare workers who are committed to their workplaces and are less likely to experience negative outcomes, such as burnout (Handtke et al., 2022; Silverthorne, 2005).

We also found a positive relationship between influence at work and job satisfaction. The sensation of a lack of influence at work exacerbates stress levels and reduces efficiency, whereas the ability to organise work independently and participate in decision-making processes facilitates human performance (Elfering et al., 2017). Underleveraging ANPs who are required to practice to capacity rather than capability is highlighted by the findings of Athey et al. (2016), who determined that the greatest predictor of ANP job satisfaction is the feeling that their

skills are fully used. In support of this, contextual features of the ANP role, such as practicing to capacity and not capability, absence of voice at the policy level, and ambiguous and conflicting role expectations, were negatively correlated with job satisfaction in a study by Pasarón (2013). On the other hand, empowering ANPs and increasing their influence at work by granting greater autonomy engenders a greater sense of support, increases intrinsic motivation, and provides positive work attitudes (Tamunosiki-Amadi & Dede, 2015). The findings of this study demonstrate a positive relationship between influence at work and job satisfaction support calls to reduce impediments to ANP practices cited in the literature, such as legal barriers, reimbursement limitations, and physician resistance (Spetz & Muench, 2018; Wheeler et al., 2022).

This study supports the findings of previous studies that established a relationship between the work environment of nurses and outcomes such as job satisfaction and intention to leave (Inoue et al., 2020; Manea et al., 2018; Zraychikova et al., 2023). This study adds to the literature in several important ways. The findings underscore the importance of enabling ANPs, who are recognised as highly skilled healthcare professionals with the potential to play a major role in improving the quality and accessibility of healthcare services, to practice to the maximum extent of their capability. It was previously recognised that facilitating ANPs to practice to the full extent of their education and training, without unnecessary restrictions on their scope of practice or clinical responsibilities, enabled them to provide comprehensive care (Smith, 2022). This study extends this knowledge and suggests that enabling ANPs to practice at their highest level of training may help retain the 25% of ANPs that report that they do not practice in patient-facing roles within healthcare (NMBI, 2022).

Our study did not find a statistically significant correlation between work engagement, job satisfaction, and intention to leave. In contrast, previous research has established work engagement's position as a motivating factor that can enhance job satisfaction and intention to stay (Tomietto et al., 2019). This finding may be explained by previous evidence showing that work engagement may be closely linked to positive outcomes, such as performance, rather than negative attitudes, such as intention to leave (Arıkan & Çankır, 2019). Moreover, it is conceivable that the long-standing convention that has traditionally depicted robust associations between outcomes, such as job satisfaction or intention to leave, and organisational outcomes may not be as robust as initially perceived, as Schleicher et al. (2011) suggests.

Future research investigating the impact of improving career prospects for ANPs on job satisfaction, retention rates, and psychosocial work experiences is needed. Moreover, current research suggests that little is known about the measures for the retention of mid-to late-career ANPs. Therefore, future research should explore factors that contribute to long-term retention among longer-serving nurse practitioners, such as opportunities for continuing education and flexible working arrangements.

There is an imperative for organisations to ensure that the appropriate local infrastructure to support ANPs psychosocial health is in place, and that it aligns with national and international advanced practice developments (Duignan et al., 2023). This infrastructure should support new strategic requirements that will emerge, such as fostering leadership talent, especially for those who do not hold designated leadership roles, such as ANPs, who are often described as informal leaders, and overcoming barriers to realising individual leadership potential. One strategy is to implement mentorship programmes that provide a structured process to guide new nurse practitioners through role transitions (Belita et al., 2018). Moreover, unfavourable governance arrangements have been identified as an impediment to advanced practice (Sokolowski et al., 2022). Therefore, the impact of supportive management systems and distributive leadership on nurse practitioner retention rates should be explored (Duignan et al., 2020). This will assist healthcare organisations in developing strategies to promote job satisfaction and reduce nurse practitioners' intention to leave.

6. Strengths and limitations

A limitation of the study was the lack of assessment of other factors that may have impacted job satisfaction and intention to leave, including inter-professional collaboration and career development (e.g. opportunities for professional growth, continuing education, and career advancement), which may have had an effect. Therefore, future studies should assess the impact of other possible drivers of job satisfaction and intention to leave.

We performed a cross-sectional study, which prevented the researchers from observing trends in variables over time. Therefore, this study should be used to generate hypotheses for future cohort studies examining the predictors of job satisfaction and intention to leave among ANPs.

Finally, collecting information through self-report has limitations; most prominently, respondents may be biased when they report on their own experiences and may be prone to social desirability bias (Devaux & Sassi, 2016; Smith et al., 2018). However, the scales used in this study demonstrated strong validity, indicating that the instruments measured the intended concepts. Given the subjective nature of the included variables, seeking individual ANPs views was appropriate for this study.

7. Conclusion

This study investigated the relationship between work characteristics, job satisfaction, and intention to leave among ANPs. The results indicate that ANPs who are committed to their workplace and feel that they have influence at work, are more likely to be satisfied with their jobs and less likely to express an intention to leave. These findings are important because they suggest that favourable work environments contribute to greater job satisfaction and retention among ANPs. These findings have implications related to the economic cost of turnover, as well as the development of a skilled and capable ANP workforce that provides safe person-centred, evidence-based, and compassionate care. The study found no significant relationship between work engagement and job satisfaction or intention to leave. This suggests that job satisfaction is not simply a matter of being engaged in one's work but also of feeling that one's work is meaningful and that one has a say in how it is done. The findings suggest that healthcare organisations can improve job satisfaction and retention by creating favourable work environments where ANPs feel supported by their colleagues and supervisors, which allows them to practice to the full extent of their capabilities.

Acknowledgments

Author Contribution: All authors (MD, JD, VMC) meet 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.

Disclosure statement

The authors have no affiliations with or involvement in any organisation 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.

Funding

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

Statistics statement

The statistics were checked prior to submission by an expert statistician. Dr. Vicki Livingstone v.livingstone@ucc.ie.

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