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Do student nurses experience Imposter Phenomenon? An international comparison of Final Year Undergraduate Nursing Students readiness for registration.

Running Head: Do student nurses experience Imposter Phenomenon?

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Do student nurses experience Imposter Phenomenon? An international comparison of Final Year Undergraduate Nursing Students readiness for registration.

ABSTRACT

Background

The transition shock sometimes associated with moving from student to registered nurse can lead to feelings of self-doubt and insecurity especially with the increased expectations and responsibilities that registration brings. Known as Imposter Phenomena, individuals often express a lack of self-confidence, uncertainty in their abilities or that others have an over inflated opinion of them.

Aim

The aim of this study is to examine the extent at which imposter phenomenon is evident in four final year nursing student cohorts in Australia, New Zealand and the United Kingdom.

Design

A survey design.

Settings

The study took place at 4 higher education institutes – two metropolitan campuses and two regional campuses between October 2014 and February 2015 in Australia, New Zealand and the United Kingdom. A sample of 223 final year nursing students undertaking nationally accredited nursing programmes were approached.

Results

Each cohort exhibited mild to moderate feelings of Imposter Phenomena. A positive weak correlation between imposter phenomena and preparedness for practice was found. The New Zealand cohort scored higher than both the Australian and United Kingdom cohorts on both feelings of imposterism and preparedness for practice.

Conclusions

Nursing students possess internalised feelings which suggest their performance and competence once qualified could be compromised. There is some speculation that the respective curriculums may have some bearing on preparing students for registration and beyond. It is recommended that educational programmes designed for this student cohort should be mindful of this internal conflict and potential external hostility.

Keywords: Imposter Phenomenon, imposter phenomenon, fraudulence, student nurse transition, nursing registration, new graduate practice.

SUMMARY STATEMENT

Why is this research or review needed?

- Transitioning from student to registered nurse is often anxiety provoking and stressful Many nursing students are unprepared for the reality of new graduate practice; many experience transition shock.
- Transition shock often creates feelings of self-doubt, inadequacy and imposterism.

What are the key findings?

- This study identified that final year nursing students will experience some degree of mild-moderate Imposter Phenomena; others feel inadequately prepared for registration.

How should the key findings be used to influence policy/practice/research/education?

- The findings of this study can be used to guide the development of transition programmes that are directed towards reducing the perceived feelings of self-doubt as manifested by IP and develop confidence building programmes that ready nursing students to the rigors of new graduate practice.
- Ameliorating the impact of Imposter Phenomenon at a curriculum level has the potential to build self-awareness and resilience, reducing the risk of burnout.

Introduction

Preparing for graduation and the 'real life-world' of professional nursing practice invokes in many final year nursing students feelings of anxiety, depression and stress (Chernomas & Shapiro 2013). Sometimes referred to as transition shock this is often as a result of expressed feelings of doubt, inadequacy and insecurity as to the expectations of the registered nurse role and responsibilities, coupled with the level of knowledge the new graduand is deemed to possess (Mooney 2007, Boychuk-Duchscher 2009). In Mooney's (2007) study it was these exact observations that identified the "unexpected reality" of new graduate practice – the implicit expectations of the registered nurse such as the assumption of knowing everything and increased responsibilities. 'Transition Shock' can also be associated with Imposter Phenomenon (IP), a syndrome first recognised by Clance and Imes (1978) that is associated with feelings of self-doubt in one's ability. To date there are very few studies assessing undergraduate nurses' experiences of IP. Following an extensive literature review only one study has assessed IP in nursing students (Henning *et al.* 1998); others provide only discursive commentary (Sherman 2013). Despite the emergence of graduate transition programmes whether they consist of preceptorship type models, buddying systems or comprehensive induction/orientation programmes, it is evident that some students will experience feelings of self-doubt and a lack of confidence when faced with the reality of being an accountable and responsible registered nurse. By identifying and measuring confidence levels together with the presence of Imposter Phenomenon (IP) there is potential to guide the development of transition programmes that are directed towards reducing perceived feelings of self-doubt as manifested by IP and develop confidence building programmes that ready nursing students to the rigors of new graduate practice.

Background

The literature is resplendent with examples of transition models and programmes that have attempted to try and ease the transition from student to registered nurse (Newton & McKenna 2007, Johnstone *et al.* 2008, Hoffart *et al.* 2011, Harrison White & Simons 2013). Each model and programme provides a different approach to support and mentoring the new graduate into the registered nurse role such as buddying, clinical mentor models and hospital based graduate entry programmes. Although successful in some aspects there is a notion that the emotional stressors student nurses experience especially in the final year of their programme can lead to feelings of low self-esteem, feelings of abandonment and feelings of being demeaned once registered (Edwards *et al.* 2010, Melincavage 2011).

Transitioning to the Registered Nurse Role

However, what is less evident from the literature is how confident 3rd nursing students feel at the prospect of new graduate practice. Whilst many will feel anxious for those reasons highlighted above, it is the cognitive ability to be able to do the job and provide care that is often negated. Nash *et al.*'s (2009) study attempted to address this through the delivery of a transition programme and the assessment of 3rd year student nurse's preparedness for practice using the Preparation for Hospital Practice Questionnaire (PHPQ). This enhanced transition programme was undertaken in Australia and consisted of 1:1 preceptorship, rotation through 3

clinical areas as opposed to one and flexible rostering across the seven day shift pattern including rotation to night shift. In comparison the standard clinical practice programme encompassed students remaining in one clinical area which required them to work normal morning and afternoon shift patterns through Monday-Friday. Surprisingly students spoke strongly of growing in confidence and having high expectations of themselves; nevertheless were also scared by the prospect of becoming an RN, which many thought was not a bad thing. Yet, this study found no differences between those students who had undertaken the enhanced transition placement (ETP) and those students who experienced the standard facilitated clinical placement block. Nash *et al.* (2009) suggested that those who elected for the ETP tended to be more confident anyway prior to the enhanced placement suggesting that these types of programmes are possibly more suited to a specific type of student.

Indeed, Mooney's (2007) study echoed many of the findings from Nash *et al.*'s (2009) work especially around transitioning students having high personal expectations of what it meant to be a registered nurse. However, Mooney's (2007) grounded theory study certainly highlighted key areas where graduate nurse preparation prior to registration is often overlooked by education providers. The unexpected reality of what it means to be a registered nurse, the presumption by those already registered as to the capabilities of the new graduate and the unanticipated expanse of the registered nurse role are very real issues for the transitioning student nurse. Issues such as exposure to unprofessional workplace behaviour and horizontal violence, the realities of shift work in particular night shift and personal stressors such as confidence in their ability to perform and coping with death and dying (Walker *et al.* 2013). For the new graduate there is often conflict between what has been taught and the reality of professional nursing practice (Kelly 1996, Kamphuis 2004). Mooney (2007) provides numerous examples of this phenomenon, for instance one new graduate commented on their 'very real' lack of orthopaedic nursing experiences but the perceived expectation they should know everything. A number of students felt guilt at having to ask questions and look things up, to the point they would only do so when the nurse manager was not on duty for fear of ridicule; one student was timed by their ward manager while undertaking a medication round to remind them of how long it was taking. These are not isolated incidents.

A number of factors have been identified which contribute to the feelings of stress and inadequacy experienced by new graduates. These primarily focus on professional socialisation (Walker *et al.* 2013, Phillips *et al.* 2015), the realities of ward management (Freeling & Parker 2015) and realisation of professional accountability and responsibility (Oermann & Garvin 2002, Pennbrant *et al.* 2013, Monaghan 2015). Using focus groups, to examine the journey from student to graduate for example, Newton and McKenna (2007) found that many of their participants felt unprepared for the rigors of real world nursing, some commented that they wished they had studied more at university and taken their nursing degree a little more seriously. Conversely, Pennbrant *et al.* (2013) found many of their student respondents observed that nursing academics were out of touch with the realities of 'real-life' clinical practice. As such these new graduates had to re-evaluate their theoretical education against actual clinical experiences as a registered nurse, which many found to be an unnecessary burden. Added to this was the inconsistency within the delivery of the nursing curriculum which some felt did not prepare them adequately for clinical practice. Many stressed the seemingly lack of importance placed on the biosciences in particular, whilst others recognised the need for longer periods of clinical practice which not only taught essential nursing skills, but prepared them to assist with medical procedures (Teoh *et al.* 2013). Despite in all appearances the university system not adequately preparing new graduates for their clinical role as registered nurses, some new graduates felt that after a few months they had enough experience and knowledge to navigate effectively the workplace culture and manage workloads that they were not ordinarily exposed to as students (Newton & McKenna 2007, Parker *et al.* 2014).

Impostorism

Coupled with the prospect of transitioning to the registered nurse role and having achieved a level of success as would be attributed to progression to the final year of a nursing programme may instil in some nursing students an internalised experience of intellectual fraud (Ross *et al.* 2001). Commonly recognised as Imposter Phenomenon (IP), impostorism manifests itself as feelings of self-doubt, fear that one's true abilities will be found out and that other people have an over-inflated perception of an individual's abilities (Jarrett 2010). First developed by Clance and Imes (1978) seminal work on the dynamics of high achieving women, they found that despite having earned higher degrees, scholastic honours and professional recognition, some women in particular, internally considered themselves 'imposters'. Using a 20 item five point Likert scale with scores ranging between 20-100 (<40 normal) they were able to show that this perception of success stems from external factors associated through outside influences such as luck or powerful allies as opposed to actual internal competence (Mattie *et al.* 2008, Sakulku & Alexander 2011). Individuals who experience imposter have a strong belief that they have 'fooled' people into believing they are more intelligent and capable than they really are.

Gender aside, the Clance IP scale has been used extensively to identify impostorism in variety of settings such as university students and medicine (Sonnak & Towell 2001, Ferrari 2005, Legassie *et al.* 2008, Kamarzarrin *et al.* 2013). For example, IP amongst health care professionals is gaining significance especially within medicine and nursing, presumably because of reported higher levels of depression and anxiety in these professions. Whilst relatively new to nursing there is evidence to suggest that nurses at all levels experience IP, at what stage in their career this occurs is difficult to ascertain. Some nursing studies report IP to occur when changing nursing career paths, for example in nurse practitioner or clinical nurse specialist graduates (Huffstatler *et al.* 2006, Arena & Page 2007). Moreover, when assessing the incidence of impostorism in four different student health care professions – medicine, dental, nursing and pharmacy, Henning *et al.* (1998) found that whilst pharmacy students experienced the highest levels of IP, student nurses were ranked second with higher IP scores than medicine and dentistry students. Likewise, Vance's (2002) study of the incidence of impostorism among nurse practitioner students found mild levels of IP among the cohort (mean 46.6). When comparing student demographics she found a weak negative correlation between imposter feelings and being prepared for advanced practice ($r=-.2278$). In addition when the data showed a weak negative relationship between age ($r=-.1463$, $p=.424$) and marital support ($r=-.1915$, $p=.294$) it suggested that younger students and those with less familial support exhibited higher imposter feelings. It is evident that IP manifests itself in times of increased accountability and responsibility as would be seen in becoming a nurse practitioner or a registered nurse and whilst Henning *et al.*'s (1998) and Vance's (2002) studies puts the issue into perspective they also demonstrate that nursing students may not be immune to the feelings of impostorism.

THE STUDY

AIM

The aim of this study is to examine the extent at which imposter phenomenon is evident in four final year nursing student cohorts in Australia, New Zealand and the United Kingdom. Its key objectives were to address the following questions:

- To what extent is imposter syndrome prevalent in final year nursing students'?
- To what extent does clinical practice preparation impact on the manifestation of Imposter Phenomena?
- Is there a difference between the four different student cohorts in terms of their experiences of Imposter Phenomena?

DESIGN

A survey design was utilised using the Clance Imposter Phenomena Scale and the Preparedness for Hospital Placement Questionnaire for Nursing.

SAMPLE/PARTICIPANTS

A sample of 223 final year nursing students undertaking nationally accredited nursing programmes leading to professional registration with an approved regulatory body took part in the study. To find an effect of .25 with .95 power (stringent parameters applied), we would require a total sample of 197. Our sample size of 223 meets these requirements. Data collection took place in three countries – Australia (n= 109), New Zealand (NZ) (n=53) and the United Kingdom (UK) (n=65) – both the UK and NZ samples came from one campus within that institution. The Australian sample came from both a metropolitan and regional campus within that institution. All three countries offer degree level nursing education leading to registration. NZ and the UK offer a 3 year fulltime programme as does Australia with the exception that the Australian programme is modular so as to align with the delivery of other university based programmes of study such as geography or physics. Both the UK and Australian universities are based in metropolitan areas; the Australian university also has a regional campus. The NZ campus is a regionally based Polytechnic. The study was conducted between October 2014 and February 2015

DATA COLLECTION

The UK student cohort was asked to complete the Clance IP Scale and the Preparedness for Hospital Placement Questionnaire for Nursing questionnaire at the end of their programme: the questionnaires were handed out in a final semester teaching session and were self-administered. Completing this scale formed part of a larger battery of questionnaires that students were given to glean exit information at the end of the programme. Likewise the New Zealand students were handed out a self-administered questionnaire. Australian students were contacted through the students email system and provided a link to the online version of the questionnaire. This was done to facilitate difference in logistics between the metropolitan and regional campuses. The questionnaire response rate for the UK students was 86.6%, for New Zealand was 78.4% and for Australia 23.9%. This highlights a much higher response rate when handing out questionnaires as opposed to recruitment via email.

ETHICS APPROVAL

Institutional review board approval was sought and granted in all three countries. In the UK ethical approval was granted by the Faculty of Medicine and Health Science Research Ethics Committee and students were fully aware of their choice not to complete the questionnaire and right to withdraw their data from the study. In both New Zealand and the UK consent was given implicitly through the completion of the questionnaire and like the UK students were made aware of their right to not participate and withdraw from the study. All Australian final year nursing students were sent an email via the student group email system which contained an introductory covering letter inviting them to participate in the study. Attached to the email were a participant information sheet that provided greater detailed information about the study, including confirmation of ethics clearance, and an embedded link to allow direct connection to the survey questionnaire. This detail was provided to the New Zealand and UK students in paper form. Consent was assumed on the basis of the student logging on to and completing the electronic online questionnaire. There were no student identifiers used in the data collection process at any institution.

DATA ANALYSIS

Questionnaire Data were collated from all four sites (Australian metro and regional, UK and NZ) and analysed in SPSS (version 21). Detailed demographic and questionnaire data were kept in separate SPSS files to ensure anonymity of participants with the only identifiable feature being the site that the participant studied at. Descriptive statistics were used ascertain the median and inter-quartile range for the IP and preparedness

scores between each country. We tested differences between impostorism and preparation for practice using the Pearson correlation coefficient. In addition, non-parametric Kruskal-Wallis and Mann-Whitney U were used to test for difference between each cohort; significance was set at $p < 0.05$.

RELIABILITY AND VALIDITY

The Clance IP Scale (CIPS) measured those feelings attributed to fear of evaluation, fear of not being able to repeat success and fear of being less capable than others. The 20 item Likert scale (1=not true at all to 5=very true) with each scale identifying the traits of impostorism by assessing fear of failure, the attribution of external factors in relation to achievement, and purveying false impressions of ability and competence (Figure 1). A score of less than 40 denotes no impostorism, 40-60 mild and >60 moderate impostor feelings. The scale has a high level of consistency with a reported Cronbach's alpha value of 0.84 and demonstrates reliability in identifying imposters from non-imposters (Chrisman *et al.* 1995)

The Preparedness for Hospital Placement Questionnaire for Nursing (PHPQN) measured confidence and levels of preparedness for practice across a variety of clinical scenarios as well as the application of theoretical knowledge into a practical setting. This 23 item Likert scale (1=very unable to 6 very able) has been validated in both clinical and non-clinical environments with an alpha coefficient of between 0.84-0.96 (Sonnak & Towell 2001; Nash *et al.* (2009) (Figure 1). A score greater than 40 identifies the individual as highly prepared for clinical practice.

RESULTS / FINDINGS

The 223 participants were categorised into diagnostic boundaries as described in the CIPS. These diagnostic boundaries state that if the total score is 40 or less, the respondent has few Impostor experiences; if the score is between 41 and 60, the respondent has moderate IP experiences; a score between 61 and 80 means the respondent has frequent Impostor experiences and a score higher than 80 means the respondent has intense IP experiences. Therefore, the higher the score, the more IP impacts on the individual's life. It was established that 45.1 % of participants were classified as having moderate impostor phenomenon experiences, 33.4 % of participants were classified as frequently having Impostor feelings, with a further 8.3% described as often experiencing intense IP experiences. Holmes *et al.* (1993) suggested a cut-off score of 62 on the CIPS to identify imposters versus non-imposters. Eighty-six participants in our sample scored above this cut-off, indicating that 38.5% of the sample in this study would be classified as 'imposters'.

Due to unequal group sizes and data not meeting parametric assumptions a non-parametric analysis was conducted. Kruskal-Wallis tests demonstrated significant differences between the four sites for both Imposter Phenomenon ($H(3) = 12.06, p = .007$) and Preparedness for Practice ($H(3) = 21.21, p < .001$). Follow up Bonferroni adjusted Mann-Whitney U tests (threshold $\alpha = .008$) showed that for Imposter Phenomenon there were reliable differences between New Zealand and Australia regional scores ($p = .005$) and between Australia Metro and Australia regional ($p = .007$). For Preparedness to Practice scores there were reliable differences between New Zealand and Australia regional scores ($p < .001$), New Zealand and UK scores ($p = .004$), and New Zealand and Australia metro scores ($p < .001$). Table 1 presents the medians and interquartile ranges of the four sites.

Post hoc analysis revealed no significant contrasts for Imposter Phenomenon between Australia Regional and the UK ($p = .343$), New Zealand and the UK ($p = .022$), New Zealand and Australia Metro ($p = .551$) and UK and Australia Metro ($p = .050$). For preparedness to practice, no significant contrasts were found between Australia Regional and the UK ($p = .012$), Australia Regional and Australia Metro ($p = .385$) and UK and Australia Metro ($p = .023$).

Utilising Pearson's correlation, a weak but highly reliable relationship was established between Imposter Phenomenon and preparedness for practice ($r=.25$, $p<.001$) replicating Vance's previous findings.

DISCUSSION

The aim of this study was to determine the extent at which imposter phenomenon is evident in four final year nursing student cohorts across three countries. Using the Clance Imposter Phenomena Scale, this study found that each student cohort exhibited imposter phenomena ranging from mild (40-60) to moderate (60-80). In addition, the Readiness for Practice Scale also elicited data that is consistent with the work of Nash *et al.* (2009) inasmuch as the students in this study also felt prepared for the responsibility of registration especially the New Zealand students. The positive correlation between readiness for practice and feelings of impostorism is suggestive of the differences in nursing curriculums across each student cohort especially in the attainment of clinical hours. In the UK for example it is a requirement from the Nursing and Midwifery Council (2010a) that each nursing student successfully complete 2300 hours of clinical placement over the course of the 3 year programme prior to being put forward for registration. In Australia this number is 800 hours (Australian Nursing and Midwifery Accreditation Council 2012) and in New Zealand 1300 hours (New Zealand Nursing Council 2014). There is little discussion within the literature of why the amount of hours is requisite to registration, though it has been suggested that ensuring competence is key (Mallebar & Turner 2006). Indeed, McGrath *et al.* (2006) argued strongly that competency needs to be the foundation of assessment of clinical practice. However, it is evident from this data that the number of clinical hours does not necessarily mean final year nursing students feel more or less prepared for registration. Indeed, while UK students undertake nearly three times as many hours than their Australian counterparts and nearly twice that of NZ students, the UK students report moderate feelings of imposter phenomena. When both the UK and Australian students were compared with the New Zealand cohort, the NZ students fared better than either Australia or the UK in terms of readiness for practice and feelings of impostorism (Table 1).

From our data it is difficult to establish specific factors which contribute to IP. One thought is that curriculum structure and delivery may have some impact here. An overview of each countries preregistration nursing curriculums identified some distinct differences in the way that the nursing curriculum is delivered. Both the UK and NZ have a non-modularised curriculum that follows a fulltime three year delivery plan, one in which student X enters the programme at point A and exits the programme at point B while following a very structured pathway of theory and clinical practice. The Australian model follows a similar plan, but instead the structure of the programme is modularised in its delivery. While the programme does allow for fulltime study, the effects of a modular system allow students to pick and choose units of study that fit within their study plan, employment or family life (Trowler 1996, Gass *et al.* 2004). For example, it is not uncommon for Australian students to have completed the majority of their theory units before undertaking the clinical practice units. Therefore, in some cases students are able to progress through nearly half the nursing programme with little or no clinical experience (Australian Nursing and Midwifery Accreditation Council 2012). The NZ model, in comparison, is based around an apprenticeship type model where nursing theory units, bioscience units and clinical practice are all intertwined. For instance, where students are undertaking an obstetric placement for example, the delivery of nursing theory around maternal and child health is in conjunction with the requisite bioscience content to support the clinical experience (New Zealand Nursing Council 2014). The UK model is also reflective of NZ with the only difference being that in most cases the bioscience subjects are often taught wholly in the 1st year of the programme and then are themes within the nursing theory units across the remainder of the course (Nursing and Midwifery Council 2010a).

Given the NZ apprenticeship style model of nursing education it would appear to provide students with the confidence and a more favourable ability both theoretically and clinically to meet the requirements of registration (Table 1). Whilst the UK does the most clinical hours, it does not necessarily mean that students are any better prepared for the responsibility that comes with being a registered nurse. In fact there have

been calls to revisit 'novice to expert' as a means of improving preceptorship and practice-based clinical education (Tanda & Denham 2009). Clearly mastery of clinical skills is essential for student nurses to make more explicit those practice-theory links. However, there is little evidence to suggest that any specific number of clinical hours actually constitutes readiness for registration. Evidence does suggest that the role of the university and schools of nursing is to prepare the students to a minimum safe level and it is therefore up to the profession to support and develop its novice registrants (Lauder *et al.* 2006) through 12 month preceptorship style programmes similar to that of medicine. While this seems an attractive alternative, these types of programmes have been in place for some time (Whitehead *et al.* 2013) and so it follows that the requirements for registration should mean that student nurses are ideally fit for practice and in some circles fit for purpose (Benton 2011). It may well be beyond the scope of this study, yet discussion around clinical practice experiences and clinical placement hours may well contribute to the feelings of imposterism and the stress associated with preparedness for registration (Edwards *et al.* 2015) especially among the Australian and UK cohorts.

STUDY LIMITATIONS

One aspect of this study that has clearly not been identified was perhaps the link between existing mental health issues, personality traits and imposter phenomena. Indeed, Bernard *et al.* (2002) and McGregor *et al.* (2008) found pre-existing anxiety and depression were strong predictors associated with IP. Using the DSM-111-R and the Harvey Imposter Phenomenon Scale, Ross and Krukowski (2003) proposed that in most cases of IP the person demonstrates behaviours suggestive of an avoidant, detached, dependent and entitled personality. In some instances this can extend to schizotypal and passive-aggressive type behaviours. Likewise, Gibson-Beverly and Schwartz (2008) also found that attachment and entitlement figure highly in female graduate students. Therefore one of the limitations of this study was to ascertain any previous or existing mental health issues and perhaps in future work using scales such as the State Trait Anxiety Scale for example may put the findings of this study into more perspective. In addition we were prevented from reporting demographic data due to the requirements of the ethics committee from one of the study institutions. We acknowledge that the omission of this data, is a limitation of this study in reporting differences between age, gender and other social demographics for example.

IMPLICATIONS FOR FURTHER RESEARCH & NURSING EDUCATION

The results from the CIPS questionnaire imply that students in this study have internalised this view of imposterism and regard themselves to a greater or lesser extent, as fraudulent within their profession at the point of registration. It is anticipated that the anonymity of the questionnaire may have allowed them to express their internalised view and one which belongs in the private rather than public arena. Therefore, areas of future nursing educational research could include:

- Does self-reported preparedness mediate experiences of IP?
- Does grade point average contribute to the internalised feelings of IP?
- Do feelings of anxiety predispose final year nursing students to experiencing IP?
- Do social demographics contribute to experiences of IP?
- In what way does clinical practice contribute to the experiences/feelings of IP?

In addition, we believe that perhaps a mixed method approach might be worthwhile to glean a more in-depth understanding of students' experiences of IP. This would greatly enhance our understanding of student experiences of IP and provide us with the potential to set measures into place to buffer this. This is of upmost importance as in the long term, individuals may find themselves experiencing anxiety, depression, and fear (Chrisman *et al.* 1995, Fried-Buchalter 1997) which could ultimately result in personal dissatisfaction in their working life and a struggle in fulfilling their career potential.

CONCLUSION

This study appears to be the first to use a psychometrically validated measure of its kind in determining feelings of imposterism and readiness for practice among final year nursing students. While it has been difficult to ascertain with any degree of certainty the main factors associated with IP, the fact remains nursing students report internalised feelings which suggest their performance and competence once qualified may be compromised. There is some speculation that the respective curriculums may have some bearing on preparing students for registration and beyond. Further longitudinal study is required to assess the outcome of the participants' experience as students and the longer term impact for some of graduating with a sense of self-doubt and fraudulence. It is recommended that educational programmes designed for this student cohort should be mindful of this internal conflict and potential external hostility.

Author Contributions:

All authors have agreed on the final version and meet at least one of the following criteria (recommended by the ICMJE*):

- 1) substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
- 2) drafting the article or revising it critically for important intellectual content.

* <http://www.icmje.org/recommendations/>

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Table 1: Median (IQR) scores on Clance Imposter Phenomenon Scale and Readiness to Practice scale.

	Australia Regional	Australia Metro	New Zealand	UK	Total Group
Imposter Phenomenon	64 (13.00)	55 (18.00)	53 (17.50)	62 (19.50)	57 (18.75)
Readiness to Practice	47 (15.00)	44 (16.50)	35 (12.75)	40 (10.00)	41 (15.00)