

Practicum structures and nursing student retention/achievement rates in a United Kingdom university: a quantitative analysis

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Introduction

Exposing nursing students to varied practice learning experiences enables them to apply classroom learning to care delivery (Dimitriadou et al., 2014) and facilitates professional identity and socialization (Msiska et al., 2014). To date, however, limited evidence has been available to assist curricular planners in selecting the most appropriate practicum structures for nursing education (Rohatinsky et al., 2017), and it has been claimed that placement frameworks employed within many health care programs are often the product of little more than received wisdom and tradition (Sheepway et al., 2014).

Clinical staff are commonly assigned to provide learning support for students on placements (Ohaja, 2010). Terminology describing the role of a nurse with responsibility for providing practicum support to nursing students varies across nations, with a nurse in this role being referred to as a “facilitator” (Jayasekara et al., 2018), “instructor” (Abuosi et al., 2022), “mentor” (Humphries et al., 2020), “practice assessor” (NHS Education for Scotland, 2019), “preceptor” (Hooper et al., 2020), or “supervisor” (Markowski et al., 2021). These titles are often used interchangeably (Sandy, 2014). Many practice learning models identified within the nursing literature—for example, the “clinical education unit” (Williams et al., 2021), “clinical partnership” (MacLean et al., 2018), “collaborative learning unit” (Marcellus et al., 2022), and “dedicated education unit” (Hooper et al., 2020) models, however, tend to concentrate on the nature of student supervision rather than addressing the potential effect of placement structure on learning. Since practicum design may significantly affect clinical learning experiences (Stephenson, 2016), however, it is arguably just as important to examine the scheduling structure to which students are exposed as it is to look at the model of supervisory support.

Uys and Gwele (2005) asserted that only two core scheduling designs are employed to structure clinical learning experiences throughout pre-registration nursing programs—namely, the block approach and the integrated approaches. The block design structure is also referred to as “consecutive” (Van Nuland et al., 2021), “contiguous” (California State University San Bernardino, 2022), “daily” (Wu & Lai, 2009), “full-time” (Shiverick, 2012), “intensive” (Jasper & Kavichelvi, 2021), “inter-semester” (Kwashie, 2019), or “uninterrupted” (Gao et al., 2021). It provides exclusive placement episodes within a program (University of Southern Queensland, 2021), which commonly last several weeks or months (Humphries et al., 2020). It is described as a design that offers continual and coherent learning (Meyer-Smith & Mitchell, 2005), gives the student in-depth experience of a workplace (Newcastle University, 2022), and provides greater opportunity for learners to witness and participate in the entire sequence of a service user journey (Radey et al., 2019).

The integrated design placement is also termed a “blended” (Amponsah et al., 2022), “concurrent” (Bogo et al., 2017), “continuous” (Antonio, 2012), “day release” (Malaysian Qualifications Agency, 2015), “distributed” (Arnott et al., 2022), “divided” (Tyndale University, 2022) “integrative” (Rasheed, 2017), “interspersed” (Cavaye & Watts, 2014), “intra-semester” (Adjei et al., 2018), “non-block” (Perry et al., 2016), “non-consecutive” (Radey et al., 2019), “non-intensive” (Northwestern University, 2014), “parallel” (Hall et al., 2022), “part-time” (Sheffield Hallam University, 2020), “protracted” (Boardman et al., 2019), “simultaneous” (Pearson & Hensley, 2019), “split” (University of Nottingham, 2022), or “weekly” (Kevin et al., 2010). Students exposed to an integrated practicum design experience both academic and practice learning in the same program week (Arnott et al., 2022). To provide a meaningful experience, an integrated placement often lasts several months or longer (Jagadish, 2015).

In recent years, increasing student numbers in pre-registration programs within health professions have intensified international demand for placements (Kessler et al., 2021; Markowski et al., 2021), leading to concerns regarding the negative impact of such demand on placement quality (Kaliyangile & Ngoma, 2020; Salifu et al., 2022; Vanson & Bidey, 2019). Optimizing practicum capacity has therefore become a key consideration in pre-registration nursing curriculum design. Nonetheless, there remains limited empirical evidence evaluating the comparative effect of scheduling structures that offer different duration and intensity of practice learning experiences.

Background

Among the modest number of studies that have examined the influence of integrated and block practicum structures within different health care disciplines, results appear inconclusive. Some recent research highlights a preference for and the advantages of a block design (Adjei et al., 2018; Amertil et al., 2020; Reinke, 2018; Saifan et al., 2021), and other studies support the use and the benefits of an integrated design (Boardman et al., 2019; Mensah et al., 2021; Salifu et al., 2022; Vanson & Bidey, 2019). Other investigations have identified no consistent preference for or advantage of either structural placement design (Birks et al., 2017; Boardman et al., 2018; Perry et al., 2016; Rohatinsky et al., 2018; Sheepway et al., 2014). None of these studies, however, have sought to compare the impact of both practicum designs on student retention and achievement.

In contrast to some academic institutions based in other nations, United Kingdom (UK) universities have traditionally offered undergraduates clinical learning experience based only on a block practicum design (Humphries et al., 2020). It should also be highlighted that most physical and mental health nursing care for adults in the UK is provided by two practitioner groups who receive different pre-registration education and who ultimately hold distinct qualifications located on separate parts of the professional register. The recent introduction of employment-based programs in the UK, termed *nursing degree apprenticeships*, for all branches of nursing, which enable learners to study a pre-registration nursing program as part of their employment within a health care organization and without bearing the cost of tuition fees, however, has created an additional challenge for higher education providers—namely, addressing the requirement for 20% of an apprentice's time to be regularly set aside for off-the-job learning (Department for Education, 2019). In recent years, some UK-based nursing curriculum designers have therefore been compelled to consider complementary use of alternative scheduling structures to optimize available placement capacity and accommodate nursing degree apprenticeship needs, and in turn ensure that supply continues to meet demand.

This study sought to identify whether nursing undergraduates at a UK university who had exclusively experienced either a block or an integrated scheduling structure throughout their program displayed any statistically significant difference in their rates of withdrawal, or for those successfully completing it, the degree classification they received. The following, therefore, was the research question: “What effect does an employer's decision to adopt a block or integrated practice learning scheduling structure for those pre-registration nursing program students whom they employ as non-registrant carers have on student retention/achievement?”

Note that UK bachelor's degree classification is different from that which is employed in Canada. Equivalence is detailed in Table 1.

Table 1*UK and Canada Bachelor's Degree Equivalence*

UK classification	Canadian classification
First class	A
Upper second class (2.1)	B
Lower second class (2.2)	C
Third	D
Fail	Fail

Source: University of Leicester (2022)

Methods**Context**

The university in which this study was carried out is atypical in several key respects. It concentrates on providing distance learning courses, is one of the biggest universities in Europe, and is the only academic institution to have a significant presence in all four UK nations. Since launching its pre-registration nursing programs in 2002, this delivery has been available only to non-registrant carers who are supported by the health care organization in which they are employed, and such development has therefore been a means for these organizations to retain and upskill their existing workforce. Moreover, these programs include placement experiences based on either a block or an integrated structural design, which vary in their duration and intensity, and it is the non-registrant carer's employer who chooses this design. Despite the accommodation of both scheduling structures within its pre-registration nursing programs for two decades, the university had not undertaken any evaluation to establish whether a specific placement design affected levels of student retention or achievement.

Sample

To examine whether a statistical relationship exists between the scheduling structure experienced by nursing undergraduates in the identified programs and the recorded levels of retention or achievement, all students registered in the part-time BSc (Hons) Adult Nursing or Mental Health Nursing programs (each four years long) within the university anywhere in the UK were selected. Both programs include three stages, each approximately equivalent to one year of a conventional three-year, full-time, UK pre-registration nursing program. Two student cohorts were included, those commencing in the academic years of 2015/16 or 2016/17, since students in these cohorts were expected to complete their studies during the academic year 2019/20 or 2020/21. A further inclusion criterion was that students in these cohorts must have been assigned exclusively block or integrated placements throughout their program. The nature of placement experiences and total number of practice learning hours assigned to a specific placement were common to all students, irrespective of the structural design they experienced. Similarly, the design of a placement did not affect the types of shifts a student was required to complete.

Data Collection

The nationwide parameters of inclusion meant that data related to student recruitment/registration and employing organizations needed to be drawn from university records located on 12 different university servers used by nursing teams in locations across the UK. Permission to access these folders needed to be sought and obtained in all instances except one, where the researcher already had permission arising from his academic role in the faculty team serving North-East England and Cumbria.

While placement records were held for every nursing student in these cohorts, no single record existed that stipulated whether a block or an integrated placement design had been used consistently throughout the student's practice learning experiences (such a document had never been deemed necessary). Determining practicum arrangements would therefore have necessitated manual scrutiny of records pertaining to the 11 placements (the number in both programs) each student had completed. Given that the selected cohorts included 656 students, such scrutiny would have been impractical. Efforts therefore focused instead on identifying those employers who consistently chose a block or an integrated practicum for all the staff they supported as nursing students in the programs.

Once again, however, the university does not require any formal record to be kept in respect to the scheduling structure chosen by an employer for those staff it supports on these pre-registration nursing programs. As a result, data regarding which undergraduates in these cohorts had exclusively been assigned either block or integrated placements throughout their studies had to be acquired from local university staff responsible for liaising with these employers and approving individual student practicum plans. Inevitably, some staff responsible for local students in these cohorts had left the university's employment during the period between these learners commencing their studies and data collection being undertaken, and so it was impossible to readily ascertain the scheduling structure chosen by every employer for nursing students within both cohorts in all geographical areas.

Three key exclusion criteria were therefore applied to the data collected in respect of pre-registration nursing undergraduates within the identified cohorts:

- All nursing students in UK locations where university staffing changes meant it was now impossible to readily ascertain the scheduling structure chosen by specific employers for those non-registrant carers whom they supported on the pre-registration nursing programs
- All nursing students employed with health care provider organisations that were reported to have used both block and integrated scheduling structures (either in a blended way for an individual student's placements or varied within the entire body of nursing undergraduates employed by the organization)
- All nursing students who, because of study deferral or re-sit/resubmission, had not completed their program by the point of data collation (March 2021)

Ethical Approval

Approval to undertake the study was sought and obtained from the academic institution's Human Research Ethics Committee.

Data Analysis

Data were initially analyzed by application of cross-tabulation and subsequently by multinomial logistic regression analysis, in both instances employing SPSS software (version 27). The latter analytical tool was selected since it is designed to predict a nominal dependent variable associated with three or more independent variables (Laerd Statistics, 2018). In this instance, these analyses sought to identify whether a scheduling structure might, in combination with other potential independent variables (including student age, student sex, and program type), provide a more sensitive tool to robustly predict student attrition or degree classification (dependent variables) in the nursing programs. While degree classification can be deemed ordinal data, multinomial logistic regression may also be used for such analysis (Ellis, 2021). For consistency and, given the size of the data set and its ability to address the research question, this tool was therefore employed in the analysis of both dependent variables.

Results

The identified sampling parameters meant that data associated with 460 nursing students employed by 116 different health care organisations were included in the quantitative analyses. The 2015/16 cohort accounted for 215 (out of 298) students and the 2016/17 cohort for 245 (out of 358) undergraduates in the data set. Of these 460 students, 202 had exclusively experienced block placements and 258 had been assigned only integrated practice learning. All students were based in one of the following UK locations: the East of England, East Midlands, London, North-East England and Cumbria, Northern Ireland, Scotland, South-East England, Southern England, Yorkshire, and the West Midlands. No data were included from North-West England (there were no remaining staff able to comment on the use of scheduling structures selected by local employers during this period), South-West England (there was a reported mixed use of both scheduling structures within all health care provider organizations supporting students during this period), or Wales (the university's pre-registration nursing programs did not commence in the principality until 2018).

Once recruitment and employer information located on the university's servers had been used to acquire initial student personal identifier numbers for those learners meeting the inclusion criteria, individual student records were searched via VOICE (a UK-wide university database) to capture details including sex, age, program type, withdrawal, or degree classification on completion. Student age ranges are detailed in Table 2.

Table 2*Student Age Ranges Within the Quantitative Analysis Sample*

Age categories (March 2021)	Number of students in data set	Percentage of sample (to one decimal place)
21–25 years	6	1.3
26–30 years	130	28.3
31–35 years	102	22.2
36–40 years	71	15.4
41–45 years	57	12.4
46–50 years	53	11.5
51–55 years	35	7.6
56–60 years	5	1.1
61–65 years	1	0.2

Definitions of the term *mature student* vary, but in the UK the descriptor is commonly used to identify learners who are 21 years or older on course commencement (James & Beck, 2016). In this instance, 6 students in the data set were 25 years or younger as of March 2021 (the point at which VOICE records were accessed), of which only 5 were younger than 21 years when they commenced their program in 2016/17. Hence, 455 of the 460 students (98.9% of the sample) can be deemed mature learners throughout the entirety of their program studies.

In the data set, 386 students (83.9% of the sample) were registered in the BSc (Hons) Adult Nursing course and 74 students (16.1% of the sample) in the BSc (Hons) Mental Health Nursing program. In total, there were 396 female undergraduates, 346 of whom were registered in the Adult Nursing degree (89.6% of program registrations) and 50 on the Mental Health Nursing degree (67.6% of program registrations). Male students totalled 64, of whom 40 were completing Adult Nursing studies (10.4% of program registrations) and 24 were undertaking Mental Health Nursing studies (32.4% of program registrations). Given that estimates suggest 89.3% of UK adult nurses (Royal College of Nursing, 2018) and between 62% (Health Education England, 2015) and 80% (National Audit Office, 2020) of mental health nurses in England are female, this sample largely corresponds with the disciplines' male/female composition within both specialties across the nation. Data suggest that most employers (at least 70.1%) of the 656 students in the two cohorts consistently used either a block or an integrated structure for the placements experienced by all the staff they supported on the programs, which implies that an individualized approach was not being routinely applied to placement scheduling.

Of the 460 students in the sample, 426 (92.6%) graduated and 34 (7.4%) failed to successfully complete their studies (19 of whom had experienced block practice learning and 15 integrated placements). Of the students who did not successfully complete their program, 10 left during Stage 1, 19 withdrew in Stage 2, and 5 departed at Stage 3 of the program. An attrition rate of 7.4% compares very favourably with a UK average pre-registration nursing program value of 24% (Health Foundation, 2019). The specific attrition rate among all students only experiencing

block placements was 9.4%, and for those students exclusively assigned integrated placements, it was 5.8%.

Inferential statistical analysis of pre-registration nursing program attrition in relation to the scheduling structure experienced, however, indicated no significant difference between the two conditions. Two-sided asymptotic significance of the chi-square statistic applied to this data was greater than 0.10 and so is not significant.

Within the total sample of students who graduated, 15.5% achieved First Class Honours (Canadian classification A), 28.4% Upper Second-Class Honours (Canadian classification B), 37.6% Lower Second-Class Honours (Canadian classification C) and 18.5% Third Class Honours (Canadian classification D). Of those students successfully completing their program who experienced only block placements, 16.9% gained their degree with First Class Honours (A), 30.1% with Upper Second-Class Honours (B), 35.5% with Lower Second-Class Honours (C), and 17.5% with Third Class Honours (D). Among those students exclusively assigned integrated placements, 14.4% achieved a degree with First Class Honours (A), 27.2% with Upper Second-Class Honours (B), 39.1% with Lower Second-Class Honours (C) and 19.3% with Third Class Honours (D). See Table 3.

Table 3

Numerical Presentation of Degree Classification of Students Undertaking Block or Integrated Placements within the Sample: Block (1) or integrated (2) and degree classification cross-tabulation

		First Class Honours	Upper Second Class Honours	Lower Second Class Honours	Third Class Honours	Total
Block (1) or integrated (2)	1	31 (16.9%)	55 (30.1%)	65 (35.5%)	32 (17.5%)	183
	2	35 (14.4%)	66 (27.2%)	95 (39.1%)	47 (19.3%)	243
Total		66 (15.5%)	121 (28.4%)	160 (37.6%)	79 (18.5%)	426

Once again, the two-sided asymptotic significance of the chi-square statistic applied to this data was greater than 0.10.

Having identified no statistically significant relationship between pre-registration nursing program student exposure to placements based exclusively on one scheduling structure and retention rates, stage of withdrawal or degree classification using cross-tabulation, multinomial logistic regression analyses were subsequently undertaken. Regarding pre-registration nursing program student attrition in relation to the scheduling structure experienced, program type, age, and sex, analysis suggests that the variables added (i.e., scheduling structure experienced, program type, age, and sex) do not improve the structure compared to the intercept alone (i.e., with no variables added) in any statistically significant way. See Table 4.

Table 4

Model-Fitting Information: Student Attrition in Relation to the Placement Structure Experienced, Program Type, Age, and Sex

Model	Model-fitting criteria		Likelihood ratio tests	
	-2 log likelihood	Chi-square	df	Sig.
Intercept only	157.413			
Final	154.257	3.156	4	.532

The *likelihood ratio*, deemed most “useful for nominal independent variables because it is the only table that considers the overall effect of a nominal variable” (Marquier, 2018, p. 6), also indicates that the scheduling structure experienced, program type, student age, and student sex are not statistically significant independent variables since none have a value of $p < .05$. See Table 5.

Table 5

Likelihood Ratio Tests: Student Attrition in Relation to the Scheduling Structure Experienced, Program Type, Age, and Sex

Effect	Model-fitting criteria		Likelihood ratio tests	
	-2 log likelihood of reduced model	Chi-square	df	Sig.
Intercept	154.257 ^a	.000	0	
Age (May 2021)	154.257	.000	1	.987
Block (1) or integrated (2)	156.182	1.924	1	.165
Adult (1) or MH (2)	154.258	.001	1	.980
Sex: F (1), M (2)	155.252	.994	1	.319

Note. The chi-square statistic is the difference in -2 log likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0. Adult = Adult Nursing program, MH = or Mental Health Nursing program, F = female, M = male.

^a This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

Once again, degree classification does not appear to be affected by the scheduling structure experienced even when the variables of program type, student age, and sex are added ($p = .763$). See Table 6.

Table 6

Model-Fitting Information: Degree Classification in Relation to the Placement Model Experienced, Program Type, Student Age, and Student Sex

Model	Model-fitting criteria		Likelihood ratio tests	
	-2 log likelihood	Chi-square	df	Sig.
Intercept only	826.715			
Final	814.997	11.718	16	.763

Similarly, the likelihood ratio tests also indicate that the scheduling structure experienced, program type, student age, and student sex are not statistically significant independent variables since none have a value of $p < .05$. See Table 7.

Table 7

Likelihood Ratio Tests: Degree Classification in Relation to the Scheduling Structure Experienced, Program Type, Student Age, and Student Sex

Effect	Model-fitting criteria		Likelihood ratio tests	
	-2 log likelihood of reduced model	Chi-square	df	Sig.
Intercept	814.997 ^a	.000	0	
Age (May 2021)	815.617	.620	4	.961
Block (1) or integrated (2)	818.089	3.092	4	.543
Adult (1) or MH (2)	819.015	4.018	4	.404
Sex: F (1), M (2)	818.099	3.102	4	.541

Note. The chi-square statistic is the difference in -2 log likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0. Adult = Adult Nursing program, MH = or Mental Health Nursing program, F = female, M = male.

^a This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

In summary, neither analysis of the acquired quantitative data using cross-tabulation nor multinomial logistic regression indicates any statistically significant relationship between the scheduling structure experienced (and, in the case of multinomial logistic regression analyses, other independent variables, including program type, student age, and student sex) and attrition rates/degree classifications.

Discussion

Results of these quantitative analyses, using both chi-square and multinomial logistic regression tests, suggest neither scheduling structure appears to have any beneficial, or indeed adverse, effect on learner attrition rates and degree classifications. Since clinical learning is such a substantial and fundamental component of a pre-registration nursing program, it seems

reasonable to assume that a practicum design that has underpinned all learning experiences within such a program might have a statistically significant effect on student retention and achievement.

Clearly, adverse practice learning experiences may occur within either block or integrated practicum structures. Nevertheless, research suggests that, within a program exclusively involving placements based on the block design, there may be a greater disconnect between academic and practice learning, students may feel more pressured to be a clinical team member and get the job done rather than concentrating on their achievement of relevant learning outcomes, and they may not acquire as rich an understanding of the workplace culture (Gilmour et al., 2013; Kevin et al., 2010; Salifu et al., 2022). In contrast, those having practice learning only within an integrated design may be more likely to feel detached from the core team or routine of a service in which the placement is based, be deprioritized by clinicians, or even be treated as itinerant nursing care providers and used to address staffing shortfalls (Adjei et al., 2018; Coghill, 2018; Peters et al., 2013). Negative experiences within both scheduling structures therefore display the potential to adversely affect student progression and success. After considering the implications of this quantitative analysis, it seems appropriate, therefore, to briefly explore those factors that might account for the lack of any statistically significant effect of a practicum design upon the identified performance measures.

The growing difficulty faced by many universities in securing sufficient high-quality practicum experiences for students in pre-registration nursing programs, which in the UK have been exacerbated by the launch of nursing degree apprenticeships, has compelled some curriculum designers to consider complementary use of alternative scheduling structures to optimize available placement capacity. As a result, more UK higher education institutions now appear to be using, or planning to use, integrated placements within their nurse education curricula.

Nonetheless, consideration and implementation of structural changes to practice learning experiences have so far been undertaken with little empirical evidence available to indicate whether student exposure to an alternative practicum design might have an impact on retention and achievement (Jack et al., 2018; Vance & Burford, 2018). Additionally, the development of undergraduate apprenticeship provision within other health and social care disciplines in the UK, including dietetics (British Dietetic Association, 2022), medicine (Health Education England, 2021), occupational therapy (Royal College of Occupational Therapists, 2022), physiotherapy (NHS Careers, 2022), podiatry (Royal College of Podiatry, 2022), radiography (Health and Care Professions Council, 2022), and social work (Skills for Care, 2022), is likely to increase the wider level of interest in such work. The results of these quantitative analyses suggest that neither rates of program withdrawal nor degree classifications are significantly affected by the use of block or integrated placements, and so, at least in terms of these output measures, curriculum designers need not be concerned about employing either scheduling structure.

Unlike many pre-registration nursing program undergraduates in the UK, those studying with this university are also employed as non-registrant carers who undertake their academic studies with the support of their employer. Concurrent practice as a non-registrant carer may offer complementary, and potentially compensatory, opportunities. For example, an individual might use the scope for informal learning afforded by the setting where they work as a non-registrant carer to offset any shortcomings of a less effective placement experienced within their nursing student role. Moreover, these learners may be more confident than conventional pre-registration nursing program undergraduates to challenge ineffective clinical learning experiences or express concern about support that they deem inadequate or poor. Such confidence may be attributable to

not only their maturity but also an enhanced understanding of what a nursing student should reasonably expect, derived from non-registrant carer experience via, for example, observation of clinician–nursing student interaction in their regular workplace.

Limitations

The absence of individual student records identifying exposure to the two forms of structural placement design and university staff turnover during the period between the commencement of the pre-registration nursing programs and the point of data analysis unavoidably prevented inclusion of some learners from these cohorts. Similarly, it is recognized that the exclusion from the sample of nursing students who, because of study deferral or re-sit/resubmission, had not completed their program by the point of data collation prevented any examination of the potential for experience of a specific scheduling structure to have affected these conditions. Of course, within such analysis, specific cultural variables associated with different health care services in which student placements occur cannot be captured, although they may clearly impact the learning experience and, potentially, affect student retention and achievement.

It is also feasible that other factors might account for the identified outcomes. Arguably, the atypical student population of the university's pre-registration nursing programs compared to those historically enrolled in nursing degrees delivered by most UK universities may mitigate, and therefore obscure, any adverse effects associated with learning experiences based on a specific scheduling structure. For example, such undergraduates are almost exclusively mature learners and so may have stronger emotional resilience and forbearance acquired through greater and more diverse life experience, thereby perhaps enabling them to weather the storm in relation to a practicum that may be less effective in facilitating clinical learning because of its design.

Conclusion

The absence of any statistically significant effect of a practicum design on the identified performance measures may be reassuring to those UK academic institutions and health care providers who have recently introduced nursing degree apprenticeships or have sought ways to increase practicum capacity and, as a result, are now using or planning to use integrated placements within their nursing programs. These findings are based only on data derived from two nursing programs provided by one UK university. Nevertheless, they make a meaningful contribution to the current and very modest international knowledge base on this subject, in which there appears to have been no previous specific work to identify whether rates of program withdrawal or degree results may be affected by the practicum design to which students have been consistently exposed during their program.

The possibility that these findings might be affected by the atypical nature of the university's pre-registration nursing programs and the non-registrant carer experience of the nursing students for which they are provided, however, cannot be ignored. It would therefore be interesting to determine if similar findings are evident among cohorts of more conventional open-entry nursing students based in other universities in the UK or within academic institutions further afield that have exclusively exposed students to either block or integrated placement designs throughout their programs. There may be additional value in examining whether, combined with student exposure to a block or an integrated practicum, other variables such as ethnicity and socioeconomic status might affect student retention and achievement. The author hopes that this study will encourage others to contribute to this important, yet under-researched, field of nurse education.

Finally, it is apparent that investigation within this subject area may be impaired by varied the use of different terms describing the same structural placement designs. For example, within this paper, 7 alternative terms were identified for a block design and 18 for an integrated structure. Consistent application of language regarding practicum designs is therefore crucial if the international knowledge base associated with the application of such frameworks is to be effectively consolidated.

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