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Work-life interface and intention to stay in the midwifery profession among pre- and post-clinical placement students in Canada

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Abstract

Background: Midwifery students' intention to stay in the profession can be influenced by how the interface of their work and personal life is affected by their clinical placement experience. The purpose of this study is to compare the intention to stay in the midwifery profession and its association with three work/personal life interface constructs among pre- and post-clinical placement midwifery students in Canada. The constructs investigated are work interference with personal life, personal life interference with work, and work/personal life enhancement.

Methods: Quantitative cross-sectional data were collected through two separate online surveys completed by pre- and post-clinical placement students. In total, 456 midwifery students attending six different midwifery education programs responded to the surveys.

Results: Compared to pre-clinical placement students, post-clinical placement students had significantly lower intention to stay in the profession. For pre-clinical placement students, higher personal life interference with work was significantly associated with lower intention to stay in the profession. For post-clinical placement students, higher work interference with personal life was associated with lower intention to stay in the profession. We did not find any significant relationships between work/personal life enhancement and intention to stay in the profession in pre- or post-clinical placement students.

Conclusion: Pre- and post-clinical placement students have different intentions to stay in the profession. For pre-clinical placement students, those who report that their personal lives highly interfere with work are less likely to want to stay in the midwifery profession. Post-clinical placement students reported that when working interfered with their personal lives they were less likely to want to stay in the profession. Our findings highlight the importance of offering students a realistic preview of the required commitment, workload, and personal involvement in the midwifery profession prior to applying or accepting a spot in a midwifery education program. Furthermore, facilitating the development of skills to better manage the expectations in midwifery work and personal lives might help with maintaining positive intentions to stay in the profession.

Keywords: Midwifery, Intention to stay in the profession, Work/life conflict, Work/life enhancement, Work/life balance

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Background

Midwifery, a relatively newly regulated profession in Canada, adopts a model of care in which midwives are autonomous primary care providers, offering continuity of care to their clients during pregnancy, birth, and up to six weeks in the postpartum period [1]. While countries with comparable midwifery practices, such as the Netherlands and New Zealand, have more than 21 (data from 2013) and 49 (data from 2017) professionally active midwives per 1000 live-births, respectively, Canada has less than 5 (data from 2017) [2]. As a result, many provinces and territories in Canada cannot fulfil the maternity care needs of their populations. Countries such as the United Kingdom [3, 4] and Australia [5] are also warning of the severe shortage of midwives. According to the World Health Organization, a shortage of nine million midwives and nurses is anticipated globally through to 2030 [6]. Understanding this workforce shortage and designing potential interventions also require exploring student midwives' intention to stay in the profession throughout their training.

The path towards becoming a midwife in Canada starts with specialized professional training in universities. Compared to the retention rate of university students in general, and students pursuing a career in health professions in particular, midwifery students in Canada have a lower retention rate [7]. Retention in midwifery education is also a concern in other countries such as Australia [8] and the United Kingdom [9]. Ignoring this problem would negatively affect the supply of midwives and effective health human resource planning. This paper focuses on the work/personal life interface and intention to stay in the profession by examining the perspectives of pre- and post-clinical placement midwifery students in Canada. This is particularly motivated by the argument that when students apply to study midwifery, they do not know what being a midwife actually involves until after they enter the clinical placement portion of their studies [10].

Students' intention to stay and clinical placement

For this research, the concept of intention to stay in the profession is defined as an individual's conscious willingness to remain in a certain profession [11]. This study of

the intention to stay is informed by the theory of planned behaviour [12], which assumes that behavioural intention is one of the most immediate predictors of the behaviour. This approach has theoretical and empirical support, suggesting that low intention to stay is a critical mediating variable in the decision process that results in the decision to leave [13, 14].

Currently, there are six active midwifery education programmes in Canada. All six programmes (Table 1) offer students in-class courses and several clinical placements to facilitate the development of required skills.

During clinical placements, students engage in the daily activities of a practising midwife but are being supervised. These activities include "conducting prenatal visits, taking medical histories, and conducting physical exams of clients and their babies" [15]. Midwifery education programmes emphasize that during placements, students will work alongside a preceptor so that "when the midwife is in the clinic, the student is in the clinic. When the midwife's pager goes off at 2 a.m. for a woman in labour, the student's does too. When the midwife is driving out under the stars, or perhaps the northern lights to attend a birth at 4 a.m., the student is also on her way to the birth" [16]. Research has demonstrated that students obtain a preview of their future work environments through these clinical placements [17, 18]. These realistic previews provide students with information about both the positive and negative aspects of work and life as a practising midwife and allow them to make more informed decisions about their careers [19].

For both midwifery and nursing students, clinical placement has been identified as a "tipping point" [20] in students' intentions to stay or leave the programme [10, 21–23]. Empirical evidence confirms that clinical placement affects career decisions [24] including midwifery as a career choice [23] and intention to stay [22, 25, 26].

Negative and positive work/personal life interface

This study is also informed by role theory [27], which suggests that to understand the work attitudes of individuals, such as their intention to stay in a profession, consideration must be given to the differing roles in an individual's life, both at work and outside of work.

Table 1 List of active midwifery education programmes in Canada

School	Degree	Language	Number of accepted students per year
Mount Royal University	Bachelor of Midwifery	English	12
University of British Columbia	Bachelor of Midwifery	English	20
Laurentian University	Bachelor of Health Sciences	English and French	30
McMaster University	Bachelor of Health Sciences	English	30
Ryerson University	Bachelor of Health Sciences	English	30
Université du Québec à Trois-Rivières	Bachelor of Science	French	24

Midwifery is a demanding profession with high expectations of professional performance and levels of responsibility and often requires long, irregular working hours [28–30]. Given that the vast majority of midwives are women, these expectations need to be balanced with traditional gender roles related to familial responsibilities. Therefore, the work–personal life interface is one of the key factors that might influence students' intentions to stay in the profession [31–33], particularly after they are exposed to the realities of the midwifery profession through their clinical placement. The work/personal life interface has both positive and negative sides that can impact intention to stay in the profession differently.

The negative side of work/personal life interface is informed by the scarcity hypothesis [34] and strain theory [35]. The scarcity hypothesis argues that because an individual's time and physical and mental capacity are not unlimited, she makes trade-off decisions about how to allocate these resources across her different roles [34]. When demands of these resources among different roles become incompatible, they will put strain and pressure on the individual [35]. Strain theory, complemented by the demands–resources model, has been applied to understanding the work/personal life interface [36] by arguing that the incompatibility of demands and resources can be studied in two directions: work demands from the resources allocated to one's personal life (work interference with personal life (WIPL)) and personal life demands from the resources allocated to one's work (personal life interference with work (PLIW)).

In addition to organizational and life-related outcomes of the work/personal life interface, career-related outcomes have been of interest to researchers. For example, Peluchette [37] argues that those experiencing higher levels of work/personal life conflict report lower subjective career success. Students in midwifery programs are being trained for a midwifery career, and thus, experiencing work/personal life interference might affect their perception of future career success and intention to stay in the profession.

Despite its work/personal life interface challenges, midwifery is suggested to be a meaningful profession that provides the opportunity to experience a fulfilling career helping women bring life into the world [38]. Student midwives can also potentially experience the positive side of work/personal life interface. For example, a recent review on the reasons that practising midwives stay in the profession [39], while pointing out that the literature on the topic is scarce, suggests that midwives stay in their professions because they “feel proud and privileged to be a midwife, and protect normality in pregnancy and birth” and that their “passion for midwifery” helps them to tolerate the difficulties. Therefore, it is essential to capture the positive work/personal life

interface and its association with intention to stay in the profession in the context of midwifery education. We argue that work or personal life can have enhancing effects on one another, making it easier to participate in one and manage the other. This positive perception can influence individuals' intentions to stay in their professions.

Allen [40] identifies expansion theory [41] as the basis of conceptualizing the positive interface of work and personal life. This theory suggests that, through assuming different roles, an individual might expand time resources, along with their physical and mental capacity. Furthermore, there can be a spillover of happiness and success between work and other domains [42]. Concepts such as positive spillover [43], work/personal life facilitation [44] (where skills learned in one domain foster performance in another), and work/personal life enrichment [45] (where the quality of life is improved due to the transfer of resources from one role to the other) are often used to study this phenomenon. We use the term work/personal life enhancement (WPLE) [40] to generally refer to the positive benefits of work and personal life roles on one another. WPLE was shown to be positively related to family and job satisfaction, physical and mental health, and affective organizational commitment [46].

Previous studies have reflected on encountering reality shock and doubting career choices during initial clinical experiences in similar professions to midwifery, such as nursing [47]. Similarly, we argue that differences in perceptions of the interface of work and personal life in midwifery students at different stages in their professional training are associated with their intention to stay in the profession and this association is moderated by midwifery students' clinical placement experience. The presented theories and literature review then enable us to make the following hypothesis:

The negative effects of work interference with personal life and personal life interference with work, and the positive effect of work/personal life enhancement, on intention to stay in the midwifery profession are negatively moderated by students' participation in clinical placement.

Methods

Study design, recruitment, and enrolment of study participants

This study is based on a cross-sectional design in two times. From 2016 to 2019, two surveys were distributed online to first year and second year midwifery students across Canada: (1) pre-clinical placement survey and (2) post-clinical placement survey, which captured the perspectives of two different cohorts of students at pre- and

post-clinical placement stages of their education throughout the years of data collection. Both surveys included questions on intention to stay in the midwifery programme, work interference with personal life, personal life interference with work, work/personal life enhancement, and some demographic questions. Details on the number of questions for each construct, their wording, response options, and their reliability are provided in the measurement section of this paper. The study and its data collection approach, including all questions, were reviewed and approved by the research ethics boards of universities offering midwifery education programmes and at the co-authors' affiliated universities. Students who participated in the study were entered into an annual draw for one of three \$50 CAD e-gift cards.

Each year, midwifery programmes across Canada admit 146 students. Since the data were collected over a period of 3 years, our target population was a maximum of ($3 \times 146 =$) 438 students for each pre- and post-clinical placement surveys.

Sample

Overall, we received 155 and 213 unique responses for our pre- and post-clinical surveys, respectively. Additionally, 88 students responded to both surveys. This is because study invitations and reminders were sent out to students at different times in their programmes as schools across Canada schedule their placements at different times of the year. In order to keep the surveys' responses unique and avoid possible bias by deleting all these 88 responses, a decision was made to keep one of their responses (either pre- or post-clinical) and to make our two cohort groups equal for statistical analysis. At random, we included the pre-clinical placement survey responses from 73 of these 88 students and post-clinical placement survey responses from 15 of them. Thus, the final sample used in the analysis has $n = 456$ responses, with equal numbers ($n = 228$) in both pre- and post-clinical placement surveys (i.e. for the pre $155 + 73 = 228$ and for the post $213 + 15 = 228$, respectively). This gives us a conservative response rate of ($228/438=$) 52% for each pre- and post-clinical placement surveys.

Participants were asked to answer demographic questions about their age, whether or not they had children, their marital status, prior education, and prior career. We sought this data because age [48, 49], prior education and career [49, 50], marital status, and children can influence one's perception of work/personal life interface and its association with attitudes and intentions.

Measures

The intention to stay in the profession scale was adapted from Lyons' [51] three-item scale and slightly modified

in consultation with the research advisory board of the project. Participants were asked to select their level of agreement with each of the following items on a 5-point Likert scale from 1 = strongly disagree to 5 = strongly agree: (1) If I were completely free to choose, I would prefer to work as a midwife; (2) I would like to stay in the midwifery programme until completed; and (3) If I had to leave the midwifery program for a while (for example because of personal/family reasons), I would return to it. Items were then summed to create a scale (Cronbach's alpha = 0.73).

Fisher's [52] scales were incorporated to capture work/personal life interface (work interference with personal life (WIPL), personal life interference with work (PLIW), and work/personal life enhancement (WPLE)). Some of the items included in the survey were as follows: "My personal life suffers because of studying as a midwife" (WIPL); "My personal life drains me of energy for studying" (PLIW); "My personal life gives me energy for my studies" (WPLE); and "My studies give me energy to pursue personal activities" (WPLE). Participants were asked to select their level of agreement with each statement based on a Likert scale from 1 = strongly disagree to 5 = strongly agree. Work interference with personal life, personal life interference with work, and work/personal life enhancement showed the following Cronbach's alphas respectively, 0.93, 0.80, and 0.69. The descriptive statistics for these key scales and the correlations between all variables are presented in Table 2.

Analysis

Three standardized regression models were estimated using a hierarchical approach to enable model comparisons and more effective testing of our hypothesis. First, in model 1, we tested whether our control variables, such as age (29+), having another university degree, previous career, having children, and marital status (being married, living with a partner, or in a common-law relationship), were associated with intention to stay in the profession. In addition to the variables in model 1, model 2 looked at the association of work interference with personal life, personal life interference with work, and work/personal life enhancement with intention to stay in the profession. Model 3 directly tested our hypothesis about the moderating effect of clinical placement on the relationship between work/personal life interface variables (WIPL, PLIW, WPLE) and intention to stay in the profession. To facilitate an enhanced interpretation of the total effects of the three work/personal life interface variables in pre- and post-clinical placement cohorts, margin analyses were performed enabling predictions of the fitted model at fixed values to be estimated. All analyses were completed using Stata 14.

Table 2 Correlations between variables and intention to stay

	Mean	St. Dev.	1	2	3	4	5	6	7	8	9	10
1. Intention to stay	4.54	0.61	<i>0.73</i>									
2. Work interference with personal life	3.77	0.87	-0.32***	<i>0.93</i>								
3. Personal life interference with work	2.40	0.82	-0.14***	0.27***	<i>0.80</i>							
4. Work-personal life enhancement	3.04	0.69	0.18***	-0.51***	-0.30***	<i>0.69</i>						
5. Age (29 plus) ^a	0.46	0.50	-0.12**	0.24***	0.14***	-0.03						
6. Prior education (undergrad or greater) ^a	0.59	0.49	-0.13***	-0.09**	-0.08*	0.14***	0.18***					
7. Previous career ^a	0.49	0.50	-0.04	0.23***	0.07	0.00	0.55***	0.14***				
8. Has children ^a	0.36	0.48	-0.07	0.19***	0.26***	-0.01	0.59***	0.05	0.44***			
9. Married or living with a partner, or common-law ^a	0.53	0.50	-0.10**	0.12***	0.03	0.06	0.42***	0.16***	0.34***	0.43***		
10. Post-clinical placement ^a	0.50	0.50	-0.21***	0.35***	-0.04	-0.15***	0.10**	0.01	0.01	0.03	0.01	

Cronbach's alphas are presented in italic font. *n* = 456

**p* < .10

***p* < .05

****p* < .01

^aThese variables are binary variables, and as such, their means indicate the percentage of participants with a value equal to 1, where the reference categories of zero are presented in detail in Table 3. For the age variable, we coded 18 to 28 as 0 and 29+ as 1. For prior education, we assumed that having the choice of another career due to having a previous degree might have an impact on how intention to stay in the profession may vary between individuals. Therefore, a completed undergraduate or graduate degree was coded as 1 and all others were coded as 0

Results

In our pre-clinical placement survey, the average age was 29, with 53.9% younger than 28 years old. Furthermore, 58.8% had either an undergraduate or graduate degree and 48.7% had a prior career before starting midwifery education. Moreover, 53.6% of them were married, living with a partner, or in a common-law relationship. In our post-clinical placement survey, the average age was 31, with 49.1% younger than 28 years old. Also, 60.1% at least had an undergraduate degree and 50.0% had another career before starting midwifery education. Finally, 53.9 % were married, living with a partner, or in a common-law relationship. Further details are provided in Table 3.

Model 1 produced an adjusted *R*² = 0.06, *F*(6,449) = 5.55, *p* < 0.01; see Table 4. Among the demographic variables, only education showed a significant negative relationship with intention to stay (*B* = - 0.23, *p* < 0.05). This model showed that post-clinical placement students had a lower intention to stay in the profession (*B* = - 0.40, *p* < 0.01) compared to the pre-clinical students.

Model 2 produced an adjusted *R*² = 0.14, *F*(9,446) = 8.97. Both work interference with personal life and personal life interference with work had significant negative relationships with intention to stay in the profession (WIPL *B* = - 0.27, *p* < 0.01; PLIW *B* = - .08, *p* < 0.10). However, our model did not show a significant relationship between work/personal life enhancement and intention to stay in the profession.

Model 3 showed an adjusted *R*² = 0.16, *F*(17,438) = 6.19, *p* < 0.01). For pre-clinical placement students, there was a significant relationship between personal life interference with work and intention to stay in the profession (*B* = - 0.15, *p* < 0.05), while for post-clinical placement

students, there was a significant relationship between work interference with personal life and intention to stay in the profession (*B* = - 0.42, *p* < 0.01).

We kept age, education, and other control variables in the analysis of the margins (with the base case being age less than 29 years, undergraduate degree, no prior career, no children, and married) and calculated adjusted predictions of intention to stay. Results are presented in graphs 1 and 2 (Fig. 1). The intention to stay in the profession outcomes are substantially lower for post-clinical placement compared to pre-clinical placement students, and this is the case when the three work/personal life interface variables are considered at their average values and for other sensitivity explorations included in the figure. These differences are particularly significant for students who are experiencing high work interference with personal life while experiencing average personal life interference with work and work personal life enhancement or experiencing high work interference with personal life and high personal life interference with work while experiencing average work/personal life enhancement. For post-clinical placement students, there is a significantly lower outcome in the association between work interference with personal life and intention to stay in the profession.

Discussion

The findings of this study suggest that compared to pre-clinical placement midwifery students, post-clinical placement students have a significantly lower intention to stay in the profession. Our data also reveal that in both pre- and post-clinical placement cohorts, midwifery students' perception of the interface of work and personal life

Table 3 Demographic characteristics of participants and coding of binary variables

Demographic characteristic	Full sample (n = 456) % (95%CI)	Pre-clinical placement (n = 228) % (95%CI)	Post-clinical placement (n = 228) % (95%CI)
Age			
18–22	11.4 (8.5–14.3)	14.5 (9.9–19.1)	8.3 (4.7–11.9)
23–28	42.5 (38–47.1)	44.3 (37.8–50.8)	40.8 (34.4–47.2)
29–34	22.1 (18.3–26)	21.5 (16.1–26.9)	22.8 (17.3–28.3)
35–44	19.3 (15.7–22.9)	16.7 (11.8–21.5)	21.9 (16.5–27.3)
45+	4.6 (2.7–6.5)	3.1 (0.8–5.3)	6.1 (3–9.3)
Prior education			
None	6.1 (3.9–8.4)	5.7 (2.7–8.7)	6.6 (3.3–9.8)
Some undergraduate courses	21.1 (17.3–24.8)	22.4 (16.9–27.8)	19.7 (14.5–24.9)
College	13.4 (10.2–16.5)	13.2 (8.7–17.6)	13.6 (9.1–18.1)
Undergraduate degree	46.9 (42.3–51.5)	46.1 (39.5–52.6)	47.8 (41.3–54.3)
Graduate education	12.5 (9.5–15.5)	12.7 (8.4–17.1)	12.3 (8–16.6)
Previous career			
No	50.9		
Yes	49.1 (44.5–53.7)	48.7 (42.1–55.2)	49.6 (43–56.1)
Has children			
No	64.0		
Yes	36 (31.5–40.4)	34.6 (28.4–40.9)	37.3 (31–43.6)
Marital status			
Married or living with a partner/common-law	53.3 (48.7–57.9)	52.6 (46.1–59.2)	53.9 (47.4–60.5)
Single	34.6 (30.3–39)	35.1 (28.8–41.3)	34.2 (28–40.4)
Divorced/separated/widowed	4.2 (2.3–6)	4.8 (2–7.6)	3.5 (1.1–5.9)
Other	7.9 (5.4–10.4)	7.5 (4–10.9)	8.3 (4.7–11.9)

is associated with their intention to stay in the profession. However, the nature of this association is different between the two cohorts. For pre-clinical placement students, personal life interference with work seems to matter, while for post-clinical placement students, it is the interference of work with personal life that significantly influences intention to stay in the profession.

Implications for policy, practice, and research

The differences in intention to stay in the profession between pre- and post-clinical placement students and the effects of work/personal life interface constructs on intention to stay highlight the importance of regular monitoring of these constructs among students. In terms of health human resource planning, understanding the differences in intention to stay in the profession between pre- and post-clinical placement students can provide policymakers with a better estimate of the number of midwifery students who intend to graduate and become registered practising midwives. Furthermore, as work/personal life interface was shown to be associated with intention to stay in the midwifery profession for midwifery students, health human resources policymakers can develop

strategies to support students to maintain a healthy work/personal life interface as midwives.

As this study highlights the lower intention to stay in the profession in post-clinical placement students compared to pre-clinical placement students, we suggest midwifery education programmes consider designing a realistic job preview component in their student recruitment. A realistic preview of the midwifery profession can help students to self-select and have realistic expectations about the midwifery profession. Furthermore, educators can add time-management skills to their programmes' learning objectives to help students effectively manage the interface of their work and personal lives.

Recommendations

In a profession, such as midwifery, where the supply of skilled and competent practitioners is critical for providing effective and equitable healthcare services to the population, intention to stay in the profession and factors associated with it need to be continuously monitored. The insights obtained during this study can guide both health human resource planning as well as decisions regarding

Table 4 Standardized regression coefficient models (ordinary least squares technique)

	Model 1		Model 2		Model 3	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Dependent variable						
Intention to stay						
Independent variables						
Work interference with personal life (WIPL)			-0.27***	0.06	-0.06	0.08
Personal life interference with work (PLIW)			-0.08*	0.05	-0.15**	0.07
Work/personal life enhancement (WPLE)			-0.03	0.05	0.08	0.08
WIPL × post-clinical placement					-0.42***	0.11
PLIW × post-clinical placement					0.13	0.10
WPLE × post-clinical placement					-0.09	0.11
Control variables						
Age (29 plus)	-0.14	0.13	-0.07	0.12	-0.29	0.18
Education (undergrad or greater)	-0.23**	0.95	-0.33***	0.09	-0.10	0.13
Previous career	0.08	0.11	0.16	0.11	0.14	0.15
Has children	-0.01	0.12	0.07	0.12	0.17	0.18
Marital status (being married, living with a partner, or in a common law relationship)	-0.12	0.10	-0.13	0.10	-0.04	0.14
Post-clinical placement	-0.40***	0.09	-0.21**	0.09	-0.03	0.17
Age × post-clinical placement					0.50**	0.25
Education × post-clinical placement					-0.40**	0.18
Previous career × post-clinical placement					-0.08	0.22
Children × post-clinical placement					-0.14	0.24
Marital status × post-clinical placement					-0.17	0.20
Constant	0.43***	0.10	0.30***	0.10	0.25**	0.12
<i>F</i>	5.55***		8.97***		6.19	
Adjusted <i>R</i> -square	0.06		0.14		0.16	

n = 456**p* < .1***p* < .05****p* < .01

the type and timing of the required interventions to maintain a high intention to stay in the profession. In this study, we focused on the interface of work and personal life as a factor associated with pre- and post-clinical placement students' intention to stay in the profession. Preceptors and midwives who mentor and train students during their clinical placements are invaluable allies to ensure that students effectively learn how to manage the interface of their work and personal life as a midwife.

This study has a few limitations. First, while directionality of the negative spill-over effect between work and personal life was explored through two distinct constructs of work interference with personal life and personal life interference with work, the work/personal life enhancement scale did not separately capture work enhancement of personal life and personal life enhancement of work. Second, as the data were cross-sectional, we cannot make causal inferences regarding the effects of clinical placement on student midwives' intention to

stay in the profession. Therefore, we have only been able to explore cohort effects which hint at causality. Third, while the possibility of social desirability bias was reduced through anonymous survey administration, the concern for positive feedback bias remains. Student midwives might consider negative answers to the intention to stay in the profession items as a threat to their self-image and identity as a future midwife.

It is worth noting that midwifery programmes across the world structure the clinical placement of their midwifery education programmes differently. For example, some programmes structure their clinical placements in one or several full-time blocks (e.g. for the duration of 36 weeks) while other programmes might have several weekdays dedicated to in-class courses and others to clinical placement [53]. Therefore, the scheduling of the clinical placement component of midwifery education programmes in Canada should be taken into consideration in interpreting and applying the findings of this study.

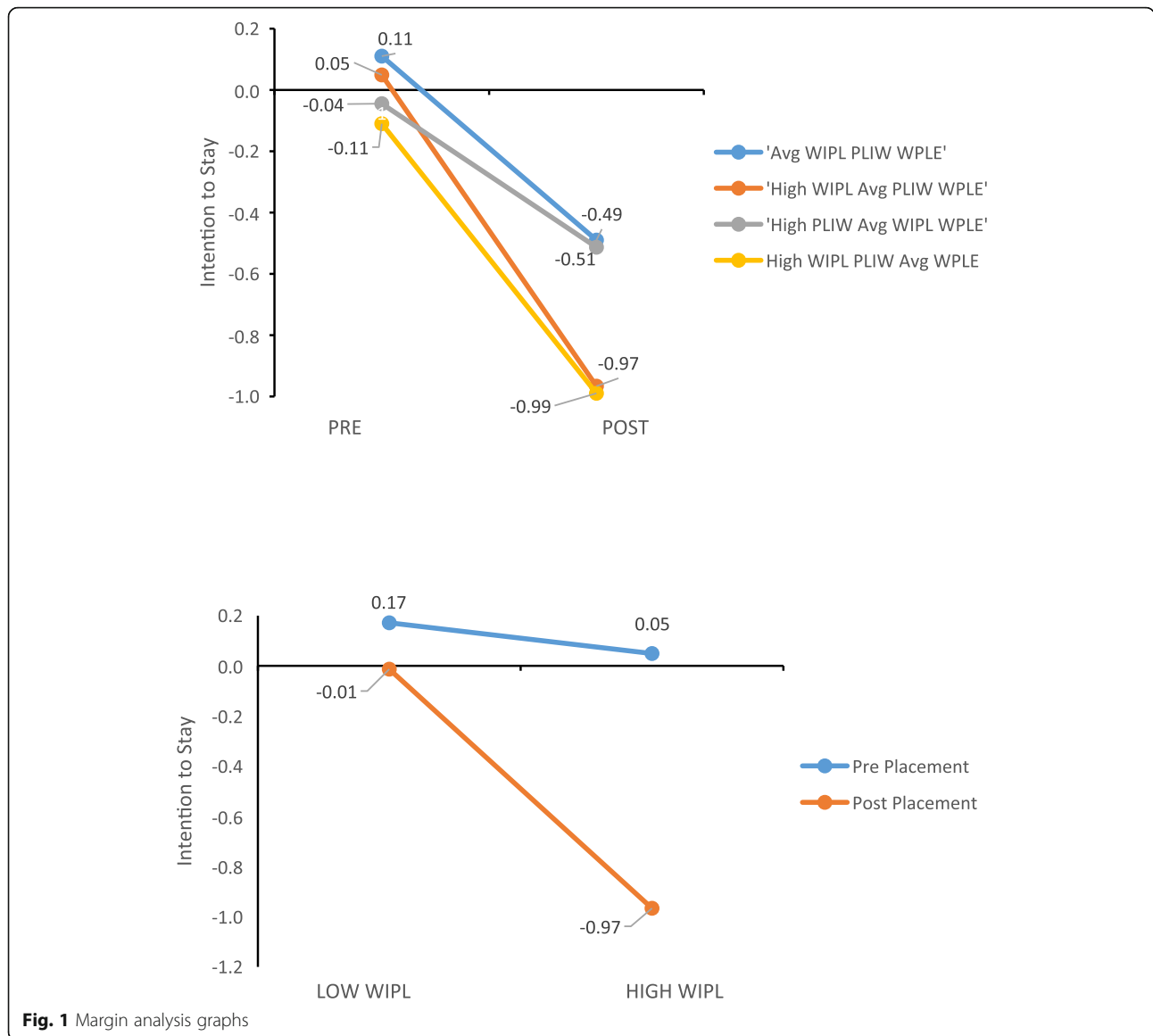


Fig. 1 Margin analysis graphs

Future research with longitudinal data on the changes in career intentions of midwives and other health professionals throughout their career trajectory can better clarify the causal effects of events such as clinical placement on their intention to stay in their professions. Moreover, investigations into characteristics of clinical placements that can positively or negatively affect perceptions of work/personal life interface constructs or intention to stay in the profession can further develop our theoretical and practical insights into this issue.

Conclusion

The analysis of our data from 456 midwifery students in Canada shows that post-clinical placement students have significantly lower intention to stay in the profession compared to pre-clinical placement students. Furthermore, for

pre-clinical placement students, higher interference of personal life with work is significantly associated with lower intention to stay. For post-clinical placement students, it is the higher interference of work with personal life that is associated with lower intention to stay in the profession. Our data further reveal that among post-clinical placement students, those who have completed another degree before entering the midwifery education programme have significantly lower intention to stay in the profession. While age is negatively associated with intention to stay in pre-clinical placement students (although not statistically significant), it is positively associated with intention to stay in post-clinical students.

Abbreviations

WIPL: Work interference with personal life; PLIW: Personal life interference with work; WPLE: Work/personal life enhancement

Acknowledgements

This study is funded by the Canadian Institutes of Health Research (CIHR) (Funding Reference Number: MOP – 142286). CIHR had no role in the conceptualization, execution, or writing of this study.

We would like to thank all of the Canadian midwives and students who took the time to complete our surveys and share their experiences and knowledge with us.

We would also like to thank the research advisory committee (Natalie Beauchamp, Briar Hill Midwives; Barbara Borland, College of Midwives of Ontario; Ivy Bourgeault, University of Ottawa; Naomi Brooks, Rankin Inlet Birthing Centre; Eby Heller, Canadian Association of Midwives; Karyn Kaufman, McMaster University; Melissa Langlais, IWK Community Midwives; Lorna McRae, Access Midwifery; Caroline Paquet, Université du Québec à Trois-Rivières; Kris Robinson, Canadian Midwifery Regulators Council; Kellie Thiessen, University of Manitoba; Rhea Wilson, Burlington & Area Midwives Inc.) for sharing their expertise and knowledge. Lastly, we would like to thank the important role of our site coordinators (Kim Campbell & Blake Dobie, University of British Columbia; Mary Landsiede (past), Deepa Upadhyaya (current), & Mandy McDaniel, Mount Royal University; Lisa Morgan & Brigitte Labelle, Laurentian University; Caroline Paquet & Anne Pelletier, Université du Québec à Trois-Rivières; Kellie Thiessen, University of Manitoba; Karline Wilson-Mitchell & Julie Cabanatan, Ryerson University; Patty McNiven & Aaron Allen, McMaster University) who assisted in the recruitment of our study participants through targeted emails.

Authors' contributions

FHZ conceptualized this paper and drafted the manuscript. IZ, EN, FHZ, JG, and DL conceptualized and designed the research project that this paper is based on, obtained funding for the project, and designed the survey. IZ and DL were responsible of the overall leadership of the study and managed the research activity planning and execution. FHZ, EN, and JG assisted in the research activity planning and execution. JP conducted the survey preparation, ethics applications, and data collection process and cleaned data for use. JC, JP, and FHZ were responsible of data analysis and interpretation of results for this paper. All authors contributed to revisions of various sections of earlier drafts and read and approved the final manuscript.

Availability of data and materials

The dataset this paper uses is the original data collected and owned by Drs. Zeytinoglu, Hakem-Zadeh, Neiterman, and Lobb. This data can be available only after the owners have completed using the data for their submissions (journal articles and other media outputs). The statistical output that this paper is based on can be available for review, from the corresponding author, upon request.

Ethics approval and consent to participate

Ethics approvals were obtained from all Canadian Universities that offer a midwifery education programme to distribute the link to the study surveys to their students. Furthermore, ethics approvals were obtained from co-authors' affiliated universities. A list of all ethics approvals and protocol numbers are provided in the following table.

Site	REB Protocol #	Renewal date
Laurentian	6008466 (formerly 2016-06-05)	30 May 2020
McMaster University	1737	19 Apr 2020
Ryerson University	REB 2016-211	29 Jun 2020
Mount Royal University	2016-47	19 Apr 2020
University of Manitoba	E2016:061	12 May 2020
University British Columbia	H16-01380 CER-17-233-10.01	01 Apr 2020

(Continued)

L'Université du Québec à Trois-Rivières		16 Feb 2020
University of Waterloo	ORE #: 21613	17 Aug 2020
York University	2019-353	03 Oct 2020

Consent for publication

Respondent provided consent prior to completing the online survey. They had the opportunity to review the letter of information and to voluntarily agree or not agree to their participation in the study. Responses from those who answered yes to the following question were included in the data and analysis:

Having read the above, I understand that by clicking the "YES" button below, I agree to take part in this study under the terms and conditions outlined in the accompanied letter of information. (Yes, I agree to participate or No, I do not agree to participate)

The submitted manuscript does not contain any individual person's data in any form.

Competing interests

The authors declare that they have no competing interests.

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Received: 12 December 2019 Accepted: 1 September 2020

Published online: 22 September 2020

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