

# Self-rated professional competence and well-being at work after obtaining a Swedish nursing license: A longitudinal mixed-methods study of internationally and domestically educated nurses

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## ABSTRACT

**Background:** An inclusive workplace is where everyone is supported to thrive and succeed regardless of their background. Supportive working conditions and general self-efficacy have been found to be important for nurses' perceived competence and well-being at work, however, in the context of being a nurse in a new country, research is limited. Moreover, knowledge is lacking about whether different paths to a nursing license are related to nurses' perceived competence and well-being when working.

**Objective:** To examine determinants and experiences of nursing competence and well-being at work (thriving and stress) among internationally and domestically educated nurses.

**Design:** A longitudinal descriptive and correlational design with a mixed-methods convergent approach was used.

**Methods:** A longitudinal study was conducted between January 2019 and June 2022 with two groups of internationally educated nurses who had completed a bridging program or validation to obtain a Swedish nursing license and one group of domestically newly educated nurses. Data were collected on three occasions: Time1 at the end of the nursing licensure process ( $n = 402$ ), Time2 after three months ( $n = 188$ ), and Time3 after 12 months ( $n = 195$ ). At Time3, 14 internationally educated nurses were also interviewed. Data were analyzed separately and then interpreted together.

**Results:** Multiple regression models showed that greater access to structural empowerment ( $B = 0.70$ , 95 % CI [0.31; 1.08]), better cooperation ( $B = 3.76$ , 95 % CI [1.44; 6.08]), and less criticism ( $B = 3.63$ , 95 % CI [1.29; 5.96]) were associated with higher self-rated competence at Time3, whereas the variable path to a nursing license was non-significant ( $R^2 = 49.2\%$ ). For well-being, greater access to structural empowerment ( $B = 0.07$ , 95 % CI [0.02; 0.12]), better cooperation ( $B = 0.36$ , 95 % CI [0.07; 0.66]) and being domestically educated ( $B = 0.53$ , 95 % CI [0.14; 0.92]) were associated with higher thriving at work ( $R^2 = 25.8\%$ ). For stress, greater access to structural empowerment ( $B = -0.06$ , 95 % CI [-0.09; -0.02]), better cooperation ( $B = -0.30$ , 95 % CI [-0.51; -0.10]), and less criticism ( $B = -0.28$ , 95 % CI [-0.46; -0.05]) were associated with having symptoms less frequently while being domestically educated was associated with having stress symptoms more often ( $B = 0.44$ , 95 % CI [0.07; 0.81]) ( $R^2 = 43.3\%$ ). Higher general self-efficacy at Time1 was associated with higher self-rated competence at Time2 ( $B = 4.76$ , 95 % CI [1.94; 7.59]). Quantitative findings concurred with findings from interviews with internationally educated nurses. However, qualitative findings also highlighted the importance of previous education, working experience, the new context, and communication abilities.

**Conclusions:** Both quantitative and qualitative data showed that working conditions were important for nurses' self-rated competence and well-being at work. Although communication difficulties, previous education, and working experience were not statistically significant in the multiple regression models, in the interviews these factors emerged as important for internationally educated nurses' competence and well-being.

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## What is already known

- Both internationally and domestically educated nurses can face loneliness, lack of support, and role uncertainty upon entering working life as nurses.

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- Working conditions and general self-efficacy have been shown to be related to nurses' competence and well-being at work, but research focusing on internationally educated nurses is limited.

### What this paper adds

- Both quantitative and qualitative data showed that working conditions, including structural empowerment and cooperation, are important to nurses' self-rated competence and well-being at work.
- Holding other factors constant, the path to a nursing license did not predict internationally and domestically educated nurses' self-rated competence at follow-up, while being domestically educated was related to higher levels of thriving and perceiving stress more frequently.
- Qualitative data complemented quantitative data by showing that previous education, working experience from other countries, the new context, and communication difficulties played a role in internationally educated nurses' competence and well-being at work.

## 1. Introduction

In an inclusive workplace, everyone is supported to thrive and succeed, regardless of background, identity, or circumstance (Green and Young, 2019). However, previous research has shown that, upon entering working life in a new country, internationally educated nurses may experience loneliness, lack of support, loss of control, role uncertainty, being undervalued, and feeling overwhelmed by the “shocking reality” (Viken et al., 2018). Similar challenges have been described in research on domestically newly graduated nurses (Hawkins et al., 2019; Willman et al., 2021). For internationally educated nurses, the path to becoming registered in a new country varies worldwide. Usually, nurses are required to validate their competence through nursing exams and attend some additional training, e.g., courses or bridging programs. In Sweden, two paths exist to obtaining nursing license for internationally educated nurses: a one-year bridging program and a validation process. Currently, there is a lack of knowledge about whether different paths to becoming registered in a new country and being internationally or domestically educated are related to nurses' perceived professional competence and well-being once they are working.

## 2. Background

According to the World Health Organization (WHO, 2020), the global movement of nurses is increasing. A challenge in this global movement of nurses is that nursing education and the role of a nurse vary worldwide, which means that internationally educated nurses may struggle to learn and adapt to the new country's nursing role and healthcare system (Ghazal et al., 2019; Viken et al., 2018). Research has shown that internationally educated nurses, despite years of professional experience, can experience uncertainty about the nursing role and their own competence (Kurup et al., 2023). Furthermore, these nurses can experience discrimination, racism, exclusion, and isolation at work, which can lead to reduced well-being and sometimes to nurses leaving the country (Zulfiqar et al., 2023). Therefore, gaining more knowledge about perceived competence and well-being at work is essential in the context of the global movement of nurses. Nursing competence is described in the literature as “a complex integration of knowledge including professional judgment, skills, values, and attitude” (Fukada, 2018, p. 1). In research, not specifically focused on internationally educated nurses, nursing competence has been found to be related to structural conditions at work, e.g., access to resources and support (Lejonqvist and Kajander-Unkuri, 2021). According to Kanter's (1993) theory of structural empowerment, work environments that provide access to resources, support, information, and opportunities to learn and grow are empowering. When employees feel empowered, they experience positive feelings about their work. Another factor associated with nurses' perceived competence is general self-efficacy (Falk-

Brynildsen et al., 2019; Kim and Sim, 2020), which is “general beliefs in one's ability to respond to and control environmental demands and challenges” (Schwarzer and Jerusalem, 1995, p. 35). General self-efficacy and working conditions have also been reported to be important for healthcare professionals' ability to thrive at work (Dames, 2019; Silén et al., 2019; Yi-Feng Chen et al., 2021). Thriving at work is a psychological positive state that occurs when employees – due to social contextual factors at work (decision-making discretion, broad information sharing, and a climate of trust and respect) and agentic behaviors (task focus, exploration, and heedful relating) – experience both vitality and learning, which in turn lead to well-being (Spreitzer et al., 2005). Therefore, thriving at work was chosen as one aspect of well-being in the present study. The other aspect of well-being at work, chosen for the study, is perceived stress, which has also been shown to be associated with empowerment (Gardiner and Sheen, 2016) and other types of working conditions, such as criticism and cooperation (Engström et al., 2006). Lastly, the communication ability has been shown to be related to well-being (Khamisa et al., 2015) and perceived competence (Kim and Sim, 2020) among nurses in general, and extensive research has revealed communication difficulties among nurses practicing in a new country (Abuliezi et al., 2021; Lin et al., 2018; Safari et al., 2022), and this factor was also considered to be of interest to examine.

To summarize, previous research has clearly indicated that working conditions (including structural empowerment, criticism, and cooperation), communication difficulties, and general self-efficacy are important factors for nurses' competence and well-being at work. Less is known whether different paths to becoming a registered nurse in a new country, and whether being internationally or domestically educated are important for nurses' competence and well-being at work during the first year. As previous research has shown that internationally educated as well as domestically newly educated nurses can experience role uncertainty, loneliness, and being undervalued (Hawkins et al., 2019; Viken et al., 2018; Willman et al., 2021), it is crucial to examine factors related to nurses' perceived competence and well-being. In addition, as previous research on internationally educated nurses has mostly been qualitative or, when quantitative, mostly cross-sectional, there is a need for more longitudinal research. Furthermore, as both self-rated competence and well-being at work are concepts that are complex, multidimensional, and context-related (Fisher, 2014; Fukada, 2018), it is meaningful to examine these aspects using a mix of both quantitative and qualitative approaches to gain a broader and deeper understanding (Creswell and Plano Clark, 2018). Thus, by using a longitudinal study, the aim was (1) to examine determinants of self-rated competence and well-being (thriving and stress) among internationally and domestically educated nurses. In addition, by using a mixed-methods design, the aim was also (2) to examine internationally educated nurses' perceived competence and well-being during the first year working as nurses in a new country, and (3) to examine whether and how interview descriptions concur with factors found to be related to self-rated competence and well-being in the survey. The following research questions were examined.

Question 1: Are the path to a nursing license<sup>1</sup>, level of general self-efficacy at the end of the licensure process, current working conditions, and communication difficulties related to nurses' self-rated (a) professional competence, (b) thriving, and (c) perceived stress, 3 and 12 months after obtaining a nursing license?

Question 2: How do internationally educated nurses describe their competence and well-being at work one year after obtaining a nursing license in a new country?

Question 3: Do the factors associated with self-rated competence and well-being at work identified in the longitudinal survey concur with those described by the internationally educated nurses in the interviews?

<sup>1</sup> A bridging program, validation process, or domestic nursing program.

### 3. Methods

#### 3.1. Design

A longitudinal descriptive and correlational design (Polit and Beck, 2017) with a mixed-methods convergent approach (Creswell and Plano Clark, 2018) was used. A mixed-methods convergent approach can provide different and complementary results and insights and has become increasingly common within healthcare research (Lee et al., 2022; Östlund et al., 2011). Qualitative data can provide knowledge grounded in nurses' own stories and experiences and an understanding of the context, whereas quantitative data can provide knowledge about factors statistically related to nurses' competence and well-being. Thus, combining qualitative and quantitative data enables a greater understanding of what is important for internationally educated nurses' self-rated competence and well-being at work (Creswell and Plano Clark, 2018).

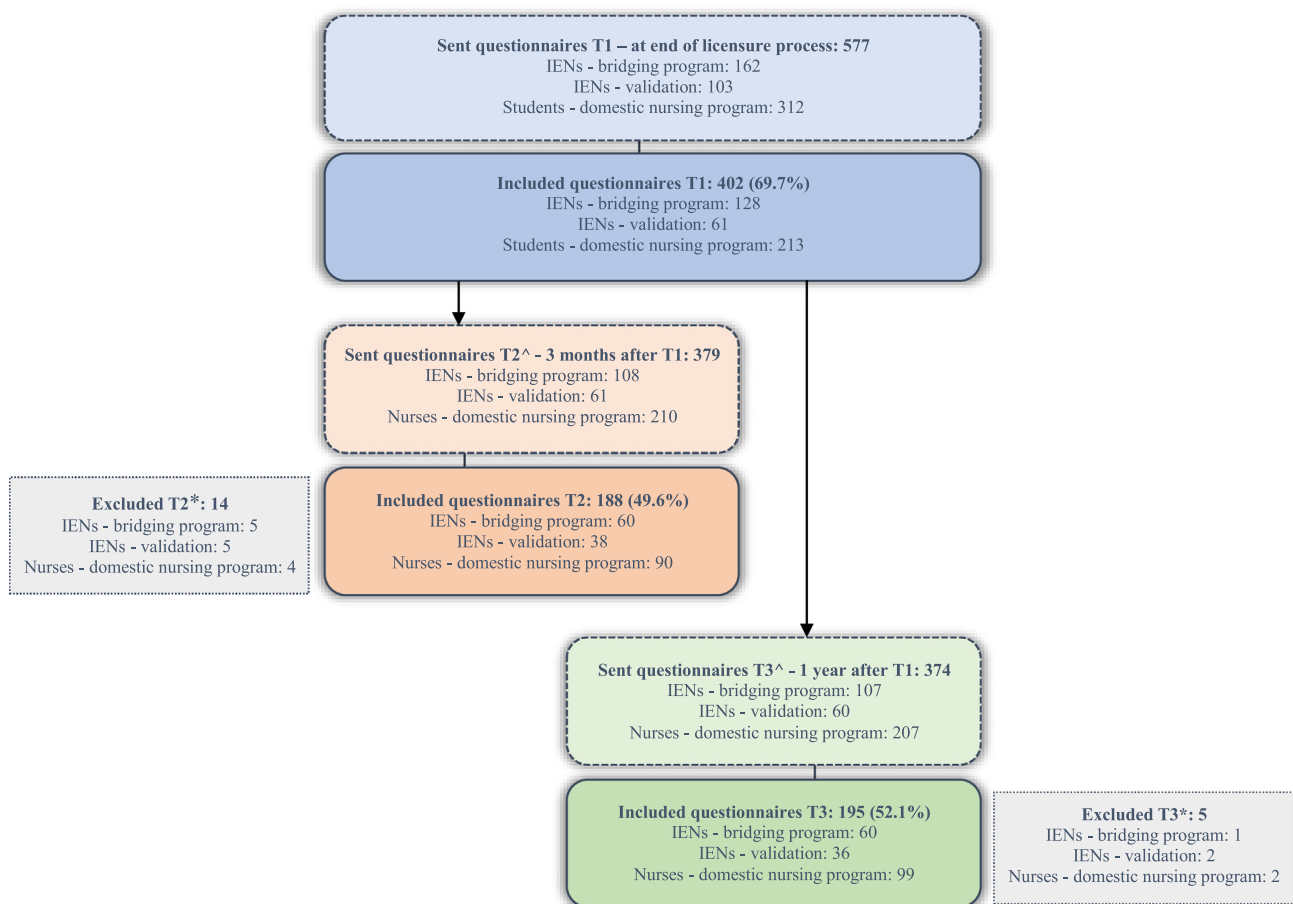
#### 3.2. Setting

In Sweden, a nursing license is obtained after a 3-year bachelor's-level nursing program. Internationally educated nurses trained in countries outside the EU/EEA and Switzerland can, after approval from the Swedish Board of Health and Welfare, choose to either complete a 1-year full-time university bridging program or complete a validation process to obtain a Swedish nursing license. The bridging program comprises 1-year full-time studies (40 weeks, 60 credits), including theoretical and practical education. The validation process consists of a series of examinations: a proficiency test, a 3-month clinical examination, and a Swedish laws

and regulations course. This process usually takes around 2–4 years for nurses to complete. During the past five years, around 140 internationally educated nurses per year have obtained a nursing license after completing the bridging program or validation. According to statistics from the OECD, 3.5 % of all nurses working in Sweden have obtained their first nursing degree in another country (OECD, 2023).

#### 3.3. Sample

For the longitudinal survey, a national total sampling of all internationally educated nurses who were at the end of the bridging program ( $n = 162$ ) and validation process ( $n = 103$ ) were invited to participate. All five universities offering the bridging program in Sweden were included in the study. In addition, from two of the included universities, domestic nursing students at the point of graduation were invited to participate ( $n = 312$ ). The inclusion criteria at Time1 for internationally educated nurses were: a) nurse education from a country outside the EU/EEA and Switzerland and b) being at the end of a bridging program or validation process to obtain a Swedish nursing license. For domestic nursing students, the inclusion criterion at Time1 was: being at the point of graduation. At Time2 and Time3 (three and 12 months after obtaining a Swedish nursing license, respectively), the inclusion criteria were having a Swedish nursing license and having begun work as a nurse in any healthcare setting. In total, 402 participants were included at Time1, 188 at Time2, and 195 at Time3 (see Fig. 1 and Table 1 for details). Results from the survey at Time1 have been published in a cross-sectional study (Högstedt et al., 2022), whereas the longitudinal results are presented in the present study.



**Fig. 1.** Overview of data collection and number of respondents. IENs = internationally educated nurses; T1 = Time1; T2 = Time2; T3 = Time3; \* = answered the questionnaire but excluded if had not started working as a nurse at Time2 and/or Time3; ^ = questionnaire was not sent if participant had not completed the licensure process, or if had not started working as a nurse, or if contact information was missing.

**Table 1**  
Characteristics of participants included in the survey (questionnaires Time1–Time3).

Variables	Internationally educated nurses – bridging program	Internationally educated nurses – validation	Domestically educated nurses	Total	p-Value
n = Time1	128	61	213	402	
Gender <sup>a</sup> [Time1], n = 402					.371
Female, n (%)	101 (78.9)	53 (86.9)	181 (85.0)	335 (83.3)	
Education level <sup>a</sup> [Time1], n = 394					<b>&lt;.001</b>
Diploma, n (%)	49 (40.5)	9 (15.0)	0 (0.0)	58 (14.7)	
Bachelor, n (%)	63 (52.1)	48 (80.0)	213 (100.0)	324 (82.2)	
Master, n (%)	9 (7.4)	3 (5.0)	0 (0.0)	12 (3.0)	
Working experience in Swedish healthcare <sup>b</sup> [Time1], n = 402					.303
Yes, n (%)	114 (89.1)	57 (93.4)	184 (86.4)	355 (88.3)	
Age <sup>c</sup> Time1, n = 402					<b>&lt;.001</b>
Mean; SD	37.5; 6.96	32.5; 5.16	29.6; 7.09	32.6; 7.65	
Median (Q1; Q3)	37.0 (32.0; 40.8)	31.0 (30.0; 34.5)	27.0 (24.0; 33.5)	31.0 (26.0; 37.0)	
Prior working experience as RN (years) <sup>d</sup> [Time1], n = 184					.180
Mean; SD	6.1; 5.27	4.5; 3.07	–	5.6; 4.72	
Median (Q1; Q3)	4.5 (2.0; 9.0)	4.5 (2.0; 6.0)	–	4.5 (2.0; 7.8)	
Working experience as a nurse in Sweden (months) <sup>c</sup> [Time3], n = 195					<b>.001</b>
Mean; SD	10.3; 2.48	11.1; 2.70	11.3; 2.22	11.0; 2.42	
Median (Q1; Q3)	11.0 (10.0; 12.0)	11.0 (10.0; 12.0)	12.0 (11.0; 12.0)	12.0 (11.0; 12.0)	

SD = standard deviation; Q = quartiles.

Values in boldface type indicate statistically significant values ( $p < .05$ ).

<sup>a</sup> Fisher–Freeman–Halton exact test.

<sup>b</sup> Pearson Chi-Square.

<sup>c</sup> Kruskal–Wallis test.

<sup>d</sup> Mann–Whitney *U* test.

For the interviews, a convenience sample of internationally educated nurses interviewed in another part of the project focusing on the bridging program and validation (Högstedt et al., 2021a, 2021b) was invited to participate in new interviews at Time3 if they had started working as nurses in Sweden. Therefore, 17 from bridging programs and 13 from validation were invited by e-mail or phone to participate. Two declined because of illness, and 14 did not respond. In total, 14 nurses from 11 countries participated in interviews one year after completing a bridging program ( $n = 8$ ) or validation ( $n = 6$ ) to obtain a Swedish nursing license (Table 2). After these 14 interviews had been conducted, an assessment was made – based on the study aim, the variation among participants, and the quality of the interviews – and it was determined that information power had been achieved (Malterud et al., 2016).

### 3.4. Data collection

Quantitative data were collected using coded questionnaires between January 2019 and June 2022. At Time1, internationally educated nurses and domestic nursing students were recruited from the universities in connection with graduation. Study information and questionnaires were either handed out at the university or sent by mail or e-mail, depending

**Table 2**  
Characteristics of participants included in interviews at Time3.

Variables	Internationally educated nurses (n = 14)
Gender, n = female (%)	8 (57.1 %)
Age, range (median)	26–41 (36.0)
Years in Sweden, range (median)	3.5–12 (5.2)
Prior working experience in Swedish healthcare, n = yes (%)	12 (85.7 %)
Years of working experience as RN <sup>a</sup> , range (median)	0–12.5 (3.5)
Path to Swedish nursing license, n = bridging program/validation	8/6
Country of education (n)	Armenia (1), Eritrea (1), India (1), Iraq (1), Malaysia (1), Philippines (4), Serbia (1), Syria (1), Uganda (1), Vietnam (1), Zimbabwe (1)
Years since nurse education, range (median)	4–20 (11.0)
Type of degree, n = diploma/bachelor's	3/11

<sup>a</sup> Working experience as a registered nurse in other countries.

on the preference of the participating universities and the ongoing COVID-19 pandemic. Internationally educated nurses undergoing the validation process can be found nationwide and can complete the process anytime during the year. To recruit them, study information was distributed when they conducted the proficiency test, and approximately four months later (estimated time to complete the final steps of the process) they received the questionnaires by mail or e-mail. At Time2 and Time3, the questionnaires were sent by mail or e-mail. Two reminders were sent to non-responders about one to three weeks apart. Questionnaires included the following instruments: The 35-item Nurse Professional Competence Scale short form (Nilsson et al., 2018), The Thriving scale (Porath et al., 2012), three factors (stress, cooperation, criticism) from The Satisfaction with Work Questionnaires (Engström et al., 2006), The Conditions of Work Effectiveness Questionnaire–II (Laschinger et al., 2001), The 10-item Generalized Self-Efficacy Scale (Schwarzer and Jerusalem, 1995), and study-specific questions about communication difficulties. Instruments are described in Table 5 (Supplementary material). Outcome variables were self-rated professional competence, thriving at work, and perceived stress at Time2 and Time3. Independent variables were paths to a nursing license and general self-efficacy at Time1 and current structural empowerment, cooperation, criticism, and communication difficulties at Time2 and Time3. In addition, because age, gender, working experience, and education level have been shown to correlate with competence (Flinkman et al., 2017) and well-being at work (Jarden et al., 2021; Zhu et al., 2021), these were included as control variables.

Qualitative data were collected through semi-structured interviews at Time3 (March 2020 to February 2022) via telephone ( $n = 13$ ) and Zoom ( $n = 1$ ) by the first author, who is a PhD student and nurse. The interviews lasted between 39 and 83 min (mean 63 min). An interview guide, created by the authors, was used to cover background questions and questions about participants' working experiences during their first year as a nurse in Sweden (e.g., overall experiences of working as a nurse in Sweden, competence as a nurse, well-being at work, career opportunities). The interviews were audio-recorded, and short notes were also taken.

### 3.5. Data analyses

Questionnaire data were analyzed in IBM SPSS Statistics version 27. The statistical significance level for the analyses was set to  $p < .05$ . Multiple linear regression analyses were used to study relationships.

Prior to this, preliminary analyses were performed with scatterplots between dependent and independent variables to check the assumption of linearity. Moreover, Spearman's Rho tests were used to rule out multicollinearity between the independent variables (Table 6 in Supplementary material). Univariate linear regression analyses were conducted to identify which independent and control variables to include in the multiple linear regression models (Tables 7–8 in Supplementary material), with cut-off  $p < .1$ . When the number of independent variables was decided for each dependent variable, the sample size assumption for multiple regression models was checked using the formula  $N = 50 + 8 \times n$  ( $n$  = number of independent variables) suggested by Tabachnick and Fidell (2013). The remaining assumptions for multiple regression were checked by inspecting the histogram of standardized residuals, scatterplots of regression studentized residuals and predicted values, and scatterplots of Cook's leverage against codes, which indicated normality, homoscedasticity, and no major problems with outliers. An imputation of an individual's mean was used for variables with  $\leq 50\%$  missing values. If missing values  $> 50\%$  in one instrument or for one factor, participants were excluded from that variable. Comparisons, using Mann–Whitney  $U$  tests and Chi-Square tests, between those who only responded at Time1 and those who also responded at Time2 and/or Time3 showed statistically significant differences in gender, general self-efficacy, and thriving at Time1.

Interview data were transcribed verbatim into a Word document and then analyzed using inductive content analysis (Graneheim and Lundman, 2004). Credibility, dependability, and transferability (Graneheim and Lundman, 2004) were discussed during the analysis to achieve trustworthiness. The transcribed interviews were read through several times to get a sense of the whole. Subsequently, the texts were divided into meaning units based on the study aim. Then, meaning units were condensed, coded, and sorted into six categories based on similarities

and differences. The first author conducted the initial analysis, then the first and last authors discussed the analysis to ensure that judgments about similarities and differences of codes in the categories were consistent over time, i.e., ensuring credibility and dependability. They subsequently formulated a theme. Lastly, all authors discussed and reached a consensus regarding the theme and categories to further strengthen credibility. Descriptions of each category with representative quotations and participants' characteristics are presented to facilitate transferability.

The mixed-methods analysis was conducted using a convergent approach, as described by Creswell and Plano Clark (2018). After the quantitative and qualitative data had been analyzed separately, the first author merged and interpreted the results. This integration is central to gaining insights beyond the results provided by quantitative and qualitative analyses alone. During the interpretation, similarities and differences in the results were looked for. Identified similarities indicated that results from the two approaches concurred, whereas differences or unique results indicated that the results from one method extended the results from the other. During this stage, the question of whether qualitative findings could explain and exemplify quantitative findings was also examined. Thereafter, a summary of the integration was written with quantitative and qualitative results side by side to show how the results concurred or differed (Creswell and Plano Clark, 2018). Lastly, all authors discussed and reached a consensus regarding the synergy.

### 3.6. Ethics

The study was approved by the Regional Ethical Review Board in Uppsala (reg. no. 2018/470 [2019-02420]). All participants gave their informed consent. Written study information – stating that their participation was strictly voluntary, that they could withdraw at any point without explanation, and that participating or not would not affect their education and licensure process – was given to all prior to

**Table 3**  
Multiple linear regression analysis of nurse professional competence, thriving at work, and perceived stress at Time2.

Included variables <sup>a</sup>	Nurse professional competence (possible score 14–100)		Thriving at work (possible score 1–7)		Perceived stress (possible score 1–5)	
	B (95 % CI)	p-Value	B (95 % CI)	p-Value	B (95 % CI)	p-Value
<i>Independent variables</i>						
Path to Swedish nursing license						
Bridging program <sup>b</sup>	Reference					
Validation	−0.26 (−3.75; 3.23)	.884	–	–	0.15 (−0.19; 0.48)	.386
Regular nursing program	−2.99 (−7.18; 1.20)	.160	–	–	0.32 (−0.11; 0.75)	.142
General self-efficacy (Time1)	4.76 (1.94; 7.59)	<b>.001</b>	0.26 (−0.02; 0.54)	.069	−0.13 (−0.40; 0.14)	.356
Structural empowerment	0.88 (0.40; 1.35)	<b>&lt;.001</b>	0.12 (0.07; 0.17)	<b>&lt;.001</b>	−0.06 (−0.10; −0.01)	<b>.016</b>
Cooperation	−0.51 (−3.30; 2.28)	.720	0.12 (−0.18; 0.42)	.439	−0.13 (−0.40; 0.14)	.342
Criticism	2.67 (0.40; 4.94)	<b>.022</b>	0.03 (−0.22; 0.28)	.823	−0.22 (−0.43; −0.00)	<b>.049</b>
Communication difficulties	–	–	0.20 (−0.01; 0.40)	.058	−0.17 (−0.37; 0.03)	.095
<i>Control variables</i>						
Age	−0.04 (−0.22; 0.16)	.719	–	–	−0.01 (−0.03; 0.01)	.244
Gender						
Female	Reference					
Male	–	–	–	–	−0.41 (−0.70; −0.13)	<b>.005</b>
Education level						
Bachelor's	Reference					
Master's	−2.75 (−9.02; 3.51)	.387	–	–	−0.01 (−0.62; 0.59)	.973
Diploma	1.10 (−2.68; 4.88)	.565	–	–	−0.06 (−0.44; 0.33)	.776
Prior work experience in Swedish healthcare						
No	Reference					
Yes	–	–	–	–	–	–
Previous working experience as RN (years)	0.26 (−0.15; 0.68)	.206	–	–	−0.00 (−0.04; 0.04)	.891

CI = confidence interval; RN = registered nurse; nurse professional competence: higher score indicates higher competence; thriving at work: higher score indicates higher thriving; perceived stress: higher score indicates experiencing stress more often such as 'worry about health risks at work', 'strain caused by work', and 'headache or stomach pain caused by work'; general self-efficacy (1–4): higher score indicates higher general self-efficacy; structural empowerment (6–30): higher score indicates having greater access to structural empowerment; criticism (1–5): higher score indicates being exposed to criticism less often; cooperation (1–5): higher score indicates better cooperation; communication difficulties (1–5): higher score indicates difficulties happen less frequently.

Values in boldface type indicate statistically significant values ( $p < .05$ ).

<sup>a</sup>  $p$ -Value  $< .1$  in univariate linear regression.

<sup>b</sup> Bridging program was chosen as a reference to examine differences between internationally educated nurses' paths, also, as this path includes one-year full-time studies in Sweden, and to examine differences with regular nursing program.

participation. In the information, the researchers' roles within the project were described. The researcher conducting the interviews had interviewed all but two participants at Time1; no other relationships were established.

## 4. Results

### 4.1. Nurse-rated professional competence

In the multiple regression model for competence about three months (Time2) after obtaining a Swedish nursing license, higher general self-efficacy at the end of the licensure process ( $B = 4.76$ , 95 % CI [1.94; 7.59],  $p = .001$ ), higher levels of current perceived access to structural empowerment ( $B = 0.88$ , 95 % CI [0.40; 1.35],  $p < .001$ ) and being exposed to criticism less often at work ( $B = 2.67$ , 95 % CI [0.40; 4.94],  $p = .022$ ) were statistically significant for higher nurse-rated competence (Table 3). About 12 months (Time3) after obtaining a Swedish nursing license, higher levels of perceived access to structural empowerment ( $B = 0.70$ , 95 % CI [0.31; 1.08],  $p < .001$ ) and being exposed to criticism less often ( $B = 3.63$ , 95 % CI [1.29; 5.96],  $p = .003$ ) remained, however, better cooperation ( $B = 3.76$ , 95 % CI [1.44; 6.08],  $p = .002$ ) was also statistically significant for higher competence (Table 4). The variable 'path to a Swedish nursing license' was non-significant at both Time2 and Time3 in the models when the other variables were held constant. Variables in the multiple regression models accounted for 38.8 % of the variance at Time2 and 49.2 % at Time3.

### 4.2. Nurse-rated thriving at work

In the multiple regression model for thriving at work at Time2, only higher levels of perceived access to structural empowerment ( $B =$

0.12, 95 % CI [0.07; 0.17],  $p < .001$ ) were statistically significant for higher nurse-rated thriving at work (Table 3). At Time3, higher levels of perceived access to structural empowerment ( $B = 0.07$ , 95 % CI [0.02; 0.12],  $p = .008$ ) remained. However, better cooperation ( $B = 0.36$ , 95 % CI [0.07; 0.66],  $p = .017$ ) was also statistically significant for higher thriving at work (Table 4). At Time3, domestically educated nurses had scores that were, on average, 0.5 points higher on thriving at work than internationally educated nurses from bridging programs ( $B = 0.53$ , 95 % CI [0.14; 0.92],  $p = .009$ ). Comparing nurses from bridging programs and validation, the results were non-significant. Variables in multiple linear regression models of thriving at work accounted for 25.5 % of the variance at Time2 and 25.8 % at Time3.

### 4.3. Nurse-rated stress

In the multiple regression model for stress at Time2, higher levels of perceived access to structural empowerment ( $B = -0.06$ , 95 % CI [-0.10; -0.01],  $p = .016$ ) and being exposed to criticism less often ( $B = -0.22$ , 95 % CI [-0.43; -0.00],  $p = .049$ ) were statistically significant for perceiving stress less often (Table 3). At Time3, higher levels of perceived access to structural empowerment ( $B = -0.06$ , 95 % CI [-0.09; -0.02],  $p < .001$ ) and being criticized less often ( $B = -0.28$ , 95 % CI [-0.49; -0.08],  $p = .007$ ) remained, however, better cooperation ( $B = -0.30$ , 95 % CI [-0.51; -0.10],  $p = .004$ ) was also statistically significant for perceiving stress less often (Table 4). At both Time2 and Time3, male nurses had scores that were, on average, 0.4 points lower on perceived stress than female nurses (Time2: 95 % CI [-0.70; -0.13],  $p = .005$ ; Time3: 95 % CI [-0.60; -0.10],  $p = .006$ ). At Time3, domestically educated nurses had scores that were, on average, 0.4 points higher on perceived stress than internationally educated nurses from bridging programs (95 % CI [0.07; 0.81],  $p = .020$ ).

**Table 4**

Multiple linear regression analysis of nurse professional competence, thriving at work, and perceived stress at Time3.

Included variables <sup>a</sup>	Nurse professional competence (possible score 14–100)		Thriving at work (possible score 1–7)		Perceived stress (possible score 1–5)	
	B (95 % CI)	p-Value	B (95 % CI)	p-Value	B (95 % CI)	p-Value
<i>Independent variables</i>						
Path to Swedish nursing license						
Bridging program <sup>b</sup>	Reference					
Validation	2.39 (-1.22; 6.00)	.194	0.33 (-0.09; 0.76)	.124	0.07 (-0.25; 0.39)	.663
Regular nursing program	-0.86 (-5.08; 3.36)	.688	0.53 (0.14; 0.92)	<b>.009</b>	0.44 (0.07; 0.81)	<b>.020</b>
General self-efficacy (Time1)	1.88 (-0.60; 4.36)	.137	0.25 (-0.06; 0.55)	.110	0.03 (-0.18; 0.23)	.799
Structural empowerment	0.70 (0.31; 1.08)	<b>&lt;.001</b>	0.07 (0.02; 0.12)	<b>.008</b>	-0.06 (-0.09; -0.02)	<b>&lt;.001</b>
Cooperation	3.76 (1.44; 6.08)	<b>.002</b>	0.36 (0.07; 0.66)	<b>.017</b>	-0.30 (-0.51; -0.10)	<b>.004</b>
Criticism	3.63 (1.29; 5.96)	<b>.003</b>	0.01 (-0.29; 0.31)	.953	-0.28 (-0.49; -0.08)	<b>.007</b>
Communication difficulties	0.50 (-1.32; 2.31)	.588	-0.09 (-0.32; 0.14)	.459	-0.07 (-0.23; 0.09)	.373
<i>Control variables</i>						
Age	0.05 (-0.12; 0.22)	.554	-	-	-0.01 (-0.02; 0.00)	.199
Gender						
Female	Reference					
Male	-	-	-	-	-0.35 (-0.60; -0.10)	<b>.006</b>
Education level						
Bachelor's	Reference					
Master's	3.50 (-2.39; 9.38)	.242	-	-	0.02 (-0.48; 0.52)	.941
Diploma	0.29 (-3.59; 4.17)	.883	-	-	-0.02 (-0.37; 0.33)	.917
Prior work experience in Swedish healthcare						
No	Reference					
Yes	-	-	0.37 (-0.08; 0.83)	.106	-	-
Previous working experience as RN (years)	0.30 (-0.08; 0.68)	.127	-	-	0.01 (-0.03; 0.04)	.747
Working experience as RN in Sweden (months)	0.76 (0.17; 1.35)	<b>.012</b>	0.10 (0.03; 0.18)	<b>.007</b>	-	-

CI = confidence interval; RN = registered nurse; nurse professional competence: higher score indicates higher competence; thriving at work: higher score indicates higher thriving; perceived stress: higher score indicates experiencing stress more often such as 'worry about health risks at work', 'strain caused by work', and 'headache or stomach pain caused by work'; general self-efficacy (1–4): higher scores indicates higher general self-efficacy; structural empowerment (6–30): higher score indicates having greater access to structural empowerment; criticism (1–5): higher score indicates being exposed to criticism less often; cooperation (1–5): higher score indicates better cooperation; communication difficulties (1–5): higher score indicates difficulties happens less frequently.

Values in boldface type indicate statistically significant values ( $p < .05$ ).

<sup>a</sup> p-Value < .1 in univariate linear regression.

<sup>b</sup> Bridging program was chosen as a reference to examine differences between internationally educated nurses' paths, also, as this path includes one-year full-time studies in Sweden, and to examine differences with regular nursing program.

Comparing nurses from bridging programs and validation, the results were non-significant. Variables in multiple linear regression models of perceived stress accounted for 31.5 % of the variance at Time2 and 43.3 % at Time3.

#### 4.4. Internationally educated nurses' descriptions of their competence and well-being

A rigorous analysis of interviews with internationally educated nurses one year after obtaining a Swedish nursing license resulted in the following theme: 'Competence and Well-being – challenged but strengthened in the long run.' The first year of working as a nurse in Sweden had been both challenging and edifying. Adapting one's previously gained knowledge to the new context had been challenging and time-consuming. However, the nurses' knowledge and previous experiences provided confidence and made the initial period easier. Besides the new context, poor working conditions and psychosocial work environments challenged the nurses' perceived competence and well-being. However, together with learning opportunities, support, cooperation, and a sense of belonging, the new context had contributed to competence development and thriving at work. Thus, the nurses' competence and well-being had been tested but ultimately strengthened. The theme consists of six categories (Fig. 2), which are presented below.

##### 4.4.1. Demanding and time-consuming to learn and understand the new context

The internationally educated nurses reported that it had been demanding and time-consuming to learn and adapt their knowledge to the new context, i.e., the culture, healthcare system, nurse role, and language. Some described feeling a bit scared and nervous, which could lead to worrying about making mistakes or not being able to perform the tasks expected of a Swedish nurse. For example, one nurse said: "My biggest challenge is recognizing how Swedish healthcare works. I couldn't really understand how it goes.. this care planning and.../.. I was really nervous then and I was a bit scared they would ask something about the patient that I couldn't answer" [validation no. 9]. Communication difficulties could cause nurses to feel like they were new graduates or insecure in the nursing role, despite their previous knowledge and working experience: "I felt like a new graduate, I did. That I'm not used to... I don't mean that I spoke English, but in my brain I talked quietly to myself and tried to translate. So in that way I was like a new graduate" [bridging program no. 5].

##### 4.4.2. Being able to rely on previously gained knowledge and experiences

Although new to the context, the nurses described how they had felt confident in their competence from previous education and working experiences when entering working life in Sweden as registered nurses. The nurses reported that they had, compared to newly graduated nurses, felt confident in their competence and had been able to handle

patient situations without becoming stressed. One nurse said: "X of us were new... all were considered new graduates. But I know actually I was not new graduate and they needed a bit more support. You could notice there was a difference" [bridging program no. 5]. Another nurse said: "I don't feel like stress at work... I feel like that I can deal with all situations. I feel secure" [bridging program no. 4]. Most nurses reported that their confidence in their own competence was based on their previous education and working experience as a nurse in other countries, but also because they had worked in Swedish healthcare as nurse assistants before obtaining a Swedish nursing license. In addition, the licensure process had also given the nurses confidence. One nurse from validation explained: "because I worked before as a nurse assistant. So it was much, much easier for me to jump to nurse.../.. and during this period [3-months clinical examination] then I learned a lot that I could stand on my feet, my own feet, and work independently" [validation no. 10].

##### 4.4.3. When one's well-being is negatively affected by poor working conditions

The nurses mentioned several factors in their working conditions that they felt were detrimental to their competence and well-being at work. On an organizational level, one factor was insufficient prerequisites at the workplace, for example, high workload and staff shortage, which led to not being able to provide the care they had the competence and willingness to provide; this was described as very demanding: "There was a period on the ward, that there was so much to do. And you feel like... I mean, most of the time, that you feel inadequate and you get really tired" [validation no. 11]. The high workload and demands were described as contributing factors to stress symptoms such as fatigue, exhaustion, anxiety about work, reduced appetite, and poor sleep, which had caused some to want to leave the profession. One of the nurses who considered quitting described it in the following way: "You learn something all the time.. But it's a lot of work and nobody wants to keep working there, because the workload is always too high, all the time.../.. in the beginning.. I had a stomachache before work. I felt so bad... I had no appetite... It was too much for me" [validation no. 12]. For most of the participating nurses, their first year as a nurse in Sweden was during the COVID-19 pandemic, which had led to an increased workload and changed routines; this, in turn, had made it hard for the nurses to provide the care they wanted to provide. One nurse described how this affected the well-being at work: "Now when it's COVID.. I'm not satisfied with the care now.. it's not what I want to give the patient. And I can't manage with it. I feel depressed, I cry.. I don't feel good at all.." [bridging program no. 8].

##### 4.4.4. Feeling uncertain and uneasy because of a deficient psychosocial work environment

Other factors related to poor working conditions, but on an individual level, were having one's competence questioned by colleagues, not being accepted as a nurse, or being treated badly or differently by colleagues, managers, or patients, which generated uncertainty and

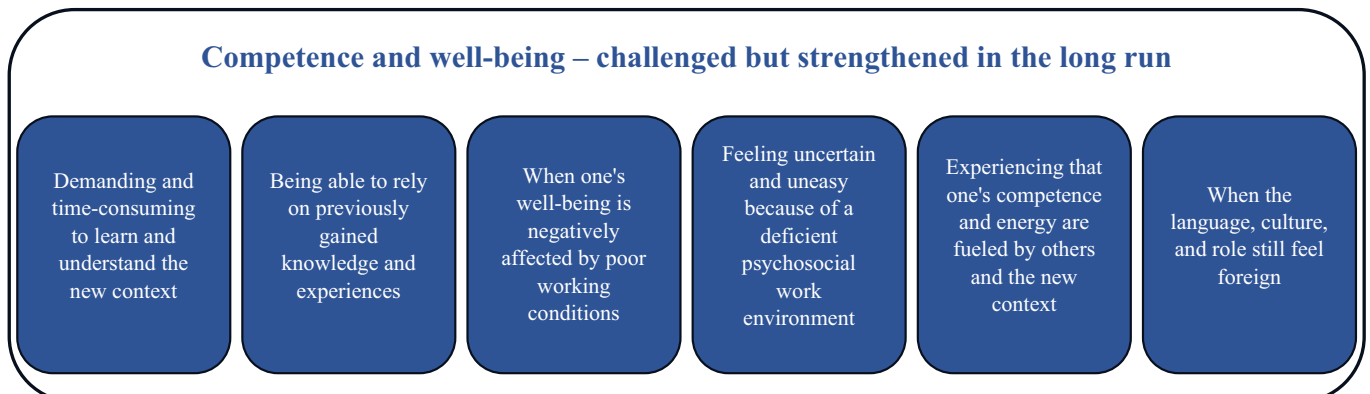


Fig. 2. Overview of the theme and six categories.

doubt about their competence as well as reduced well-being at work. One nurse said: *"I was like discriminated.. I come from other culture so they treat Swedish nurse it's different for me. They think well, okay, that person has studied in Sweden still it happens this problem, maybe the person doesn't know, doesn't have the training, doesn't have... like that. I felt stressed really... I've had very much tough"* [bridging program no. 3]. Moreover, some nurses had experienced lack of support, poor cooperation, and even exclusion: *"I'm not in their group... you have to speak good Swedish.. otherwise you're not in the Swedish grouping.. maybe I'm not competence, they don't have so much to ask or discuss... I didn't get that relationship"* [validation no. 14].

#### 4.4.5. Experiencing that one's competence and energy are fueled by others and the new context

There were also descriptions of the nurses' competence being confirmed and strengthened by colleagues and managers who showed trust and asked for their help. Being asked for help from colleagues and getting positive feedback from colleagues and managers had led to increased confidence and a good feeling. One nurse said: *"my work-mates.. and they usually come to me and ask help like with complicated situations... they show respect and ask for help.. I feel maybe I have competence.. I have good competence and that they trust me."* [bridging program no. 4]. The internationally educated nurses also described gaining energy and enthusiasm from patient encounters and the work itself because it felt exciting, fun, meaningful, and challenging. The nurses also described the importance of feeling included, such as receiving support, having good cooperation, and a sense of belonging to feel confident and happy at work. One nurse said: *"I'm part of the group, I'm welcome, can influence my work, that gives me power, I'm feeling great, both at work and in my private life"* [bridging program no. 6]. Most nurses had learned and developed a great deal by being in the new context, which boosted their confidence in competence and well-being at work. The possibility for development and learning, together with the high pace and great responsibility in Swedish healthcare, stimulated and helped nurses thrive at work. One nurse reported: *"There are great opportunities so you can make development of your skills... There's a lot complicated that you have to learn and discuss with occupational and physical therapists and doctors... And I know the environment, the work environment, you know, so I'm thriving there really"* [bridging program no. 7].

#### 4.4.6. When the language, culture, and role still feel foreign

Although the nurses' competence had increased and they had experienced thriving during the year, some nurses reported still having some language difficulties or that the culture still felt unfamiliar, which led to feelings of uncertainty or sadness. One nurse described how these difficulties affected confidence at work: *"I don't know how I should meet relatives or what I should say to patients who are dying. I know in my country... But I don't know here in Sweden... it's that I'm missing.. and.. what makes me a bit worried at work"* [validation no. 12]. Another nurse described how it affected well-being at work: *"It makes me sad... I'm not good enough yet to confront a doctor"* [bridging program no. 8].

#### 4.5. Factors of significance for self-rated competence and well-being at work in the longitudinal survey were confirmed, explained, and expanded in interviews with the internationally educated nurses

Combining and interpreting quantitative and qualitative results revealed that factors of statistical significance for competence and well-being in the multiple regression models were mainly confirmed and exemplified in the interviews. In the interviews, internationally educated nurses described how aspects of structural empowerment (cf.  $p$ -values < .001–.008 in regression models), cooperation (cf.  $p$ -values .002–.017), and criticism (cf.  $p$ -values .022–.049) could both strengthen and inhibit their perceived competence and well-

being. For example, having the opportunity to develop and use one's competence, having enough resources, getting support, trust, and feedback, and experiencing good cooperation and inclusion at the workplace were described as important factors for their perceived competence and thriving at work. In contrast, the nurses reported that insufficient structural conditions had contributed to stress symptoms and difficulties in providing the care they wanted to provide to their patients, which negatively affected their well-being at work. In addition, being criticized or questioned made them feel anxious, lonely, and excluded and made some question their competence. General self-efficacy at the end of the licensure process, which was statistically significant for competence at Time2 ( $p = .001$ ) but not at Time3, was in a way confirmed and exemplified in qualitative findings. From the interviews, it emerged that the internationally educated nurses had, from the outset, felt confident in their abilities and their role as a nurse. Moreover, the internationally educated nurses felt that they, in contrast to the newly graduated nurses were less likely to become stressed when a patient's condition worsened. This could be an example of the quantitative results showing that internationally educated nurses from the bridging program (reference group) perceived stress less often ( $p = .020$ ) than domestically educated nurses at Time3, while there was no difference between the two groups of internationally educated nurses. The quantitative findings also showed that the number of months working as a nurse in Sweden was statistically significant for self-rated competence ( $p = .012$ ) and thriving at work ( $p = .007$ ) at Time3. This was confirmed in the interviews, where the nurses reported having experienced a great deal of learning during their first year as nurses in Sweden, which had led to development, increased confidence in the profession, and increased well-being at work.

The qualitative results also added knowledge about factors not captured in the quantitative results. Communication difficulties (not significant for either competence or well-being in the multiple regression models) were described by the internationally educated nurses as something that could lead to uncertainty in the nursing role. In addition, previous education, working experience as a nurse in other countries, and work in Swedish healthcare appeared in the qualitative results as important factors for feeling confident in one's competence upon entering working life as a nurse in a new country. Furthermore, the new context was also highlighted as a factor affecting their perceived well-being and confidence in their nursing role. Another factor that was not captured in the quantitative results was how the ongoing COVID-19 pandemic had led to higher workloads, different routines, etc., which had further increased the difficulty of using one's competence and providing the care one wanted to provide; this, in turn, led to reduced well-being.

## 5. Discussion

In the present study, we aimed to examine determinants and experiences of perceived competence and well-being at work among internationally and domestically educated nurses. More specifically, we were interested in whether different paths to becoming registered in a new country and being internationally or domestically educated are related to nurses' perceived professional competence and well-being at work. Results from the multiple regression models indicate that the choice of path to a nursing license, educational level, or previous working experience as a nurse do not predict nurses' perceived level of competence once they are practicing their profession. This was somewhat surprising, considering that most internationally educated nurses had working experience as nurses in other countries. In addition, in previous research, internationally educated nurses at the end of the licensure process have rated their competence and general self-efficacy higher than graduating nursing students (Högstedt et al., 2022). On the other hand, it emerged in the interviews that the new context had played a role for the internationally educated nurses, as it had created anxiety and uncertainty about their competence. These results are consistent with previous research on internationally educated nurses (Viken

et al., 2018). Moreover, because nursing competence is related to context (Lejonqvist and Kajander-Unkuri, 2021), a nurse who has worked for a long time and has reached a level of expertise may feel like a novice once again when working in a context where the nursing practice is unfamiliar (Benner, 1993; Viken et al., 2018). However, in our study, most internationally educated nurses, in both the quantitative and qualitative data, had worked in Swedish healthcare before obtaining a Swedish nursing license. Therefore, the context was not entirely new for them. Although having worked previously in Swedish healthcare was not statistically significant in the multiple regression models, the qualitative results showed that this was one factor that made the nurses more confident upon starting work as nurses in Sweden. Another factor highlighted in interviews as being important to nurses' perceived competence was their language and communication skills, which have previously been shown to be a common obstacle for internationally educated nurses, leading to isolation, exclusion, and difficulties in career advancement (Abuliezi et al., 2021; Safari et al., 2022). Interestingly, communication difficulties were not statistically significant in our multiple regression models when controlling for working conditions, including cooperation and criticism. In contrast to the quantitative results, which were based on 'here-and-now' ratings, interviews provided insight into how nurses' language and communication development had been a process during the year. It may be that, when nurses experience supportive working conditions with well-functioning cooperation, the communication ability no longer affects their confidence in their own competence. However, during their first time in practice, internationally educated nurses might need a different type of support than domestically newly educated nurses. For example, internationally educated nurses may need colleagues who support them in their language development and help them feel included. Better language skills among internationally educated nurses have been shown to be related to lower levels of perceived burnout climate and workload, as well as a better work-life balance (Roth et al., 2021). Furthermore, previous research has indicated that because internationally educated nurses are a heterogeneous group, they might have different needs regarding preparation and education before entering working life as a nurse in a new country (Högstedt et al., 2022; Philip et al., 2019). Therefore, we believe that being able to choose between two different paths to obtaining a nursing license may be helpful for nurses who want to practice nursing in a new country. However, given that the new context and language have been shown to be challenging for internationally educated nurses, more attention may need to be paid to these factors, both in the bridging program and in the validation process (Högstedt et al., 2021a, 2021b).

Regarding well-being at work, domestically educated nurses had, on average, higher levels of thriving than internationally educated nurses from the bridging program (reference group) one year after obtaining a nursing license. Thriving at work occurs when people experience both learning and vitality (Spreitzer et al., 2005), and because the group of domestically educated nurses was new to the nursing profession, they probably had experienced a great deal of learning during their first year as nurses. However, when we controlled for previous experience and education level in the multiple regression models, the factors that became statistically significant for thriving at work and stress were those measuring working conditions. This may mean that current conditions at the workplace, such as resources, support, inclusion, and well-functioning cooperation, have more impact on nurses' well-being at work than do, e.g., educational background and previous knowledge and experiences. According to the socially embedded model of thriving at work (Spreitzer et al., 2005), with the right enabling conditions and resources at work, everyone can thrive, even if the work itself is onerous. In addition, Kanter's (1993) theory of structural empowerment emphasizes that working in an environment that provides access to resources, support, information, and opportunities to develop is essential if workers are to feel empowered and positive about their jobs. It was clearly shown in our qualitative results that having too high a workload and not being

able to provide the 'right' care had compromised the internationally educated nurses' well-being at work, something that has also been shown in previous research on nurses in general (Engström et al., 2022). However, it should also be noted that the world was hit by the COVID-19 pandemic when the present study was ongoing. Because the pandemic hit the healthcare system particularly hard, it may have contributed to the fact that poor working conditions came to be so prominent in relation to competence and well-being in our findings.

Interestingly, domestically educated nurses perceived stress more frequently than internationally educated nurses. Our qualitative results showed that the internationally educated nurses, because of their previous working experience as nurses in other counties, had felt confident in their nursing practice and did not become stressed in patient-related situations, which may partly explain these results. Another aspect is that leaving one's hometown to live and work in another country can be an 'uprooting experience' and one of the most stressful life events (Pung and Goh, 2017). In previous studies, internationally educated nurses have demonstrated great resilience and strength through the transition process and reported feeling stronger and more independent afterward (Iheduru-Anderson and Wahi, 2018; Zhou, 2014). In a cross-sectional study conducted in Germany, internationally educated nurses reported a lower work-related burnout climate and workload burden than nurses educated in Germany (Roth et al., 2021). In fact, it may be that internationally educated nurses, due to their experiences of moving to a new country and going through a recertification process, have developed a type of resilience against stress in their daily work.

### 5.1. Limitations

One weakness is the low response rates for questionnaires at Time2 and Time3. Differences in gender, general self-efficacy, and thriving were found between those who only responded at Time1 and those who also responded at Time2 and/or Time3, indicating non-responder bias. However, based on sample size requirements for multiple regression models suggested by Tabachnick and Fidell (2013), our sample sizes in the models exceeded the minimum of required cases. In addition, all internationally educated nurses who completed recertification during data collection were invited to participate in the quantitative part, strengthening the generalizability. The instrument used to measure communication difficulties was not validated, though it did show good reliability. Another limitation is that the COVID-19 pandemic broke out when the study had been running for about a year and continued for most of the remaining data collection period, which might have affected data collection and the results. For example, it was difficult and took time to recruit participants for the interviews, resulting in us inviting all eligible nurses to participate. Another limitation was that participants were not given the opportunity to give feedback on the transcripts and findings. Due to the strained situation in healthcare at the time, we did not want to burden the nurses further. However, during interviews the interviewer was careful to continuously confirm what the participants were saying.

## 6. Conclusions

In the multiple regression models, current access to structural empowerment, good cooperation, and not being criticized were factors related to higher levels of self-rated competence and well-being at work for all three groups. These factors were supported and exemplified in interviews with internationally educated nurses. In addition, the qualitative findings added specific and deepened knowledge about factors that may be important for nurses who have been educated in another country. In the interviews, it emerged that the new context, including the language, had played a role in the nurses' perceived competence and well-being during their first year as a nurse in a new country, as did the nurses' previous education and working experiences and the ongoing COVID-19 pandemic. Based on the multiple regression analyses,

we can conclude that, for the internationally educated nurses, their choice of path to a nursing license did not predict their perceived level of competence and well-being once they were working as nurses in the new country. Altogether, the results from the present mixed-methods study provide a picture of a larger context, showing that, regardless of whether a nurse is internationally or domestically educated, having access to structural empowerment, good cooperation, and not being criticized are important factors for nurses' perceived competence and well-being. In addition, the results also provide a more specific and deeper picture of what factors can be important for internationally educated nurses' perceived competence and well-being during their first year as a nurse in a new country and in what way these factors are important. We believe that having a more comprehensive picture is important for healthcare managers and other healthcare professionals working with internationally educated nurses as regards creating supportive and inclusive working conditions and environments. In addition, we believe these results could be useful for policymakers and those working with bridging programs and validation processes, as they illustrate what kind of support may need to be further developed during the licensure process to support nurses who are about to practice their profession in a new country.

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University of Gävle.

## CRedit authorship contribution statement

**Denice Högstedt:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Conceptualization. **Elisabet Eriksson:** Writing – review & editing, Methodology, Conceptualization. **Inger Jansson:** Writing – review & editing, Methodology, Conceptualization. **Maria Engström:** Writing – review & editing, Supervision, Methodology, Conceptualization.

## Data availability

Data are not available: Due to the sensitive nature of the questions asked in this study, participants were assured raw data would not be shared with unauthorized people.

## Declaration of Competing Interest

The authors are employed at universities that offer bridging programs, and one of the authors is employed at a university involved in validation. However, the authors have no commercial associations or conflicts of interest.

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## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ijnurstu.2024.104812>.

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