22 questions. We gathered basic demographic data, information on employment position, participation in training over the past five years, database access, and other parameters. Participants replied with dichotomous responses (Yes/No). Respondents self-evaluated their knowledge of research, evidence-based work, the English language proficiency and assessed their satisfaction with professional work on a five-point scale (1 – Insufficient; 2 – Sufficient; 3 – Good; 4 – Very good; 5 – Excellent). Respondents also indicated their agreement with the Slovenian translations of English names for the four nursing care provider categories defined by the EFN Matrix.

The second questionnaire section inquired into the understanding of the EFN Matrix. Respondents rated 37 statements on a five-point scale (1 – Strongly disagree; 2 – Disagree; 3 – Neither agree nor disagree; 4 – Agree; 5 – Strongly agree). Participants responded to general descriptions of individual provider categories and specific competences. Provider categories, descriptions, and specific competences were translated from English into Slovenian by a professional translator. Reliability and validity evaluations were used for all sets of statements where data were shown to be useful for future analysis. The general descriptions of four nursing care provider categories through the four statements proved to have good reliability (Cronbach alpha = 0.807).

The instrument’s ability to measure:
- the “specific HCA competences” phenomenon through eight statements turned out to be very reliable (Cronbach alpha = 0.901). Factor analysis explained 55.43 % of the variance (KMO = 0.878, Bartlett p < 0.001). The result is a single factor (FA1 – Specific HCA competences) in which all statements have a factor loading of more than 0.63;
- the “specific GCN competences” phenomenon through eight statements has turned out to be very reliable (Cronbach alpha = 0.938). Factor analysis explained 75.31 % of the variance (KMO = 0.932, Bartlett p < 0.001). The result is a single factor (FA2 – Specific GCN competences) in which all statements have a factor loading of more than 0.77;
- the “specific SN competences” phenomenon through eight statements turned out to be very reliable (Cronbach alpha = 0.966). Factor analysis explained 77.19 % of the variance (KMO = 0.954, Bartlett p < 0.001). The result is a single factor (FA3 – Specific SN competences) in which all statements have a factor loading of more than 0.76;
- the “specific ANP competences” phenomenon through eight statements turned out to be very reliable (Cronbach alpha = 0.933). Factor analysis explained 79.15 % of the variance (KMO = 0.885, Bartlett p < 0.001) with two factors. The first factor explained 68.18% of the variance (Cronbach alpha = 0.939) and the second 10.97 % of the variance (Cronbach alpha = 0.910). The first factor describes collaborative, educational, and development tasks (collectively: FA4 – Collaboration and development), while the second covers responsibility for treatment, clinical decisions, and patient referrals (collectively: FA5 – Responsibility for treatment).

The results of factor analysis (Principal Axis Factoring) are shown in Tables 2 and 3.

Description of the research sample

Purposive sampling was used. In total, 785 people were invited; 569 (72.48 %) agreed to receive the questionnaire and 365 respondents returned the questionnaire, making the response rate 46.15 %. The sample included nursing care teachers and management from secondary health care schools (n = 31), nursing care lecturers and management from health care science colleges and faculties (n = 30), GCNs who are clinical mentors and educators in health care institutions (n = 274), and members of national nursing bodies in Slovenia (Nurses and Midwives Association of Slovenia, Ministry of Health) (n = 30). In terms of gender representation, 315 (86.3 %) respondents were female. On average, the respondents were 43.4 years old (s = 9.4). In terms of educational achievement, participants ranged from GCNs (n = 310) to masters in nursing (n = 55). The average length of employment in nursing was 15.17 years (s = 10.66).

Description of the research procedure and data analysis

The research took place between April and June 2016. Reliability analysis was calculated using Cronbach’s alpha coefficient of internal consistency (< 0.70) (Pallant, 2010). Consistency analysis was validated using exploratory factor analysis (Principal Axis Factoring approach, the Oblimin with Kaiser Normalization rotation method), the Bartlett sphericity test was performed (p < 0.05), and the KMO measure used was (> 0.6) (Pallant, 2010). If a factor has four or more factor loadings exceeding 0.6, the result is reliable regardless of the sample size (Pallant, 2010). In addition, descriptive statistics, paired t-test, variance analysis (ANOVA with post-hoc tests), and correlation analysis were used to process data. Statistical significance was set at p < 0.05. The program SPSS ver. 22 was used to process data.

Results

In terms of training and educational activities, respondents indicated that over the previous five years (2010–2015), only half had received education and training in nursing research (n = 182), followed by evidence-based practice (EBP) in nursing (n = 173). A total of 157 (43 %) reported on having access to information databases (e.g. Cinahl, Web of Science, etc.).