

THE LEVEL OF EMOTIONAL INTELLIGENCE OF NURSES PROVIDING CARE FOR OLDER PEOPLE IN RETIREMENT HOMES IN THE CZECH AND SLOVAK REPUBLIC

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ABSTRACT — Introduction: Facilities providing care for older people host more and more people with increasingly complex care needs. Nurses are educated in theory and trained for practice but their workload is high and their attitude often seemingly cold and impersonal. Nurses should be able to use their emotions as their ‘wise guides’ instead of concealing them.

Aim and methods: The aim of this study was to identify the emotional intelligence (EI) of nurses and determine EI differences with regard to age, years of work experience and education. The research sample comprised of 208 nurses working in nursing homes in the Czech Republic and Slovakia. Their average age was 42.82 ($SD \pm 9.17$) and average years of work experience were 19.27 ($SD \pm 9.87$). Their EI was measured using questionnaires representing temporary notions of EI. The STEU (Situational Test of Emotional Understanding) questionnaire determines EI as an ability and provides a sum of correct answers that represents the total EI score. The SEIS (Schutte EI Scale) questionnaire determines the level of EI as a trait. The data was processed by statistical software SPSS 15.0.

Conclusion: Nurses achieved adequate EI scores using both tools. SEIS provided statistically significant differences related to the age and length of work experience (older and more experienced nurses achieved higher scores). STEU provided statistically significant differences related to the level of education (university graduates achieved higher scores $p < 0.05$). Our findings are supported by other evidence which states that the ability of dealing with emotions is a significant part of providing health and social services. EI is an ability which can be influenced by education and is important in the care of older people.

INTRODUCTION

Nurses are indispensable in the lives of older people (people aged 60 years and over) and based on the demographic changes and increasingly complex health needs, their role in influencing wellbeing in old age will increase. The particular needs of older people are acknowledged by many studies [1,2] and nurses need to be equipped to provide good quality individualised care [3]. In old age, the ability to control emotions decreases [4]. The need for a specific approach relating to emotions and interaction with older people is especially emphasized when people are not living in their natural social environment but for, some reason, dwell

in institutions such as nursing homes [1,2]. Nurses and other medical staff must be able to provide emotional support to these older people and their families, whilst managing their own emotions. Indeed, nurses need rational abilities (such as, decision making skills based on logic) as well as abilities that are related to emotional intelligence (EI).

Emotional intelligence is a widely known construct that has received much scientific and lay attention [i.e. 5–7]. According to Schutte et al. [8], “Emotional intelligence consists of adaptive emotional functioning involving inter-related competencies relating to perception, understanding, utilising and managing emotions in the self and others”. Central to emotional

intelligence are specific competencies which should be an indispensable part of medical and other healthcare staff's education. These have been identified as perception, understanding, utilizing and managing emotions effectively in the self and others [9]. Within EI are two conceptualisations which have been identified as measurable through performance tests – trait EI and ability EI. Trait EI refers to self-perceived emotion-related abilities and is therefore measured by self-reported inventories [10]. Ability EI can be observed in action and can be assessed by a performance test [8]. However, trait EI and ability EI are interconnected concepts. Schulze and Roberts [11] write that there is a need for diverse scientific approaches that would more rigorously scrutinize the theoretical fundamentals of EI from several scientific perspectives. This paper seeks to make a contribution to this debate.

For a more comprehensive understanding of EI each component/competency needs to be defined. Competency in the perception of emotion involves recognizing emotion-related facial and voice cues of others and awareness of one's own body states relating to those emotions. Competency in understanding one's own and others' emotions consists of knowing the causes and consequences of different emotions as well as being able to differentiate between varying emotions. Utilizing emotions involves harnessing the effects of emotions, for example by drawing on a positive mood to enhance creative thought. Managing emotions in one's self and others consists of regulating emotions so that they are compatible with the requirements of a situation or the goals of individuals [8].

Nursing studies scrutinize EI in several contexts. Many authors consider EI to be a concept important for the development of nursing relationships [12–14] and also for understanding patients' needs [13,15], moods and emotions [16,17]. EI is important for problem solving and decision making [12,17,18] and for the management of negative emotions from patients [13,19]. EI also has a major impact on the wellbeing of nurses and their perception of working stress [20]. Furthermore, Cherry, Fletcher and O'Sullivan [21] discuss EI and its importance in clinical communication. According to McQueen [13], EI also plays an important part in forming successful human relationships. The Czech and Slovak scientific nursing community [22] have so far discussed EI only in theoretically terms. The reason for this might be that EI is perceived as a general notion and thus an in-depth level of knowledge in this area is not sought. Thus the study of EI is limited but it is nonetheless relevant to all aspects and fields of medical education and, in particular, nursing. For the purposes of this study we sought to understand EI in relation to the care of older people as this is an increasing population and have often received so called "Cinderella" care. Good communication, empathy, the quality of relationship and understanding the needs of older patients are perceived as attributes of good

quality care. These "good quality care factors" are influenced by the EI of individual actors. In our study we focused on the EI of nurses who provide care for older people in retirement homes. We sought to compare EI as a personality trait and EI as a learned behaviour that might be influenced by the different factors of experience, education and practice.

In economically developed countries the functional and health state of the older population is improving [23]. This is due to the increased quality of life and medical/pharmaceutical development resulting in life expectancy rising both in the Czech Republic and Slovakia. As well as self-sufficient older people living independently, there is another group of older people evolving who are dependent on the care of their families who may often refuse to look after them. The care is then transferred to medical/health and social service facilities. In Northern Europe, for instance, more than 90% of older people live independently, according to the Survey of Health, Ageing and Retirement in Europe (SHARE), whereas in Southern Europe (which includes the Czech and Slovak Republics), less than 60% live independently [24]. This means that a high number of older people are in institutions which provide care. Goodman [25] states that community services should incorporate procedures that ensure that older people in community homes receive quality care. Several authors [i.e. 26–28] believe, and we support this view, that in such a community, emotional and psychological support is a key element of nurses' work. According to Gray [29] many care and nursing staff are afraid to admit their emotions and sometimes refuse to address painful feelings that are often a part of care. Nel et al. [30] claim that if professionals who provide personal care, are not able to understand and manage their own emotions or emotions of other people, they tend to show lower vitality and less selflessness. According to several authors [i.e. 12,13,31] the research of EI in the context of nursing is rare and different approaches to the study of EI are necessary.

AIM

The overall aim of this study was to assess the quality of nurses' EI and level of EI displayed during interactions with older patients. This paper aims to answer three research questions using quantitative methods of research (survey):

1. What is the relationship between the STEU construct mapping EI as ability and SEIS construct determining EI as a trait of nurses working in social care facilities (retirement homes) with regard to the specificity of both constructs?
2. What is the level of EI in nurses providing care to older people regarding the notion of EI (i.e. trait, ability)?
3. What are the differences between the individual EI levels regarding social and demographic attributes

of the respondents (age, years of working experience, education)?

METHODS

In this research, EI was assessed through questionnaires with the use of a method based on EI as an ability and a method based on perceiving EI as a trait (a mixed concept). The first research tool – STEU (Situational Test of Emotional Understanding) determines EI as an ability. We used a 26-item questionnaire modified by Baumgartner et al. [32] to reflect the social and cultural environment of respondents from the participating countries (Czech Republic and Slovakia). The respondents chose, from five possibilities, the emotion they considered to be the most adequate in the described situations. For every item there is only one correct answer. The outcome is the total EI score given by the sum of correct answers (max. 26, min. 0).

The second research tool used was SEIS (Schutte Emotional Intelligence Scale) measuring EI as a trait [33]. We used a modified 41-item version [34].

Example of the questions included: optimism/mood regulation (example item: “I have control over my emotions”), appraisal of emotions (example item: “I am aware of my emotions as I experience them”), social skills (example item: “I like to share my emotions with others”) and utilisation of emotions (example item: “When my mood changes, I see new possibilities”) [35, 36]. A 5-point Likert Scale (1 – strongly disagree; 5 – strongly agree) was used. A validation study in South Africa indicated a five factor structure with alpha coefficients ranging from 0.58 to 0.85 [36]. Cronbach’s α coefficient was also high in our research, with a value of $\alpha = 0.734$. Both research groups from each country received the written questionnaire forms in their respective language. Demographic data of the respondents was collected (age, education level, year of professional experience). The questionnaire form was distributed personally in the written form by the researchers during the November and December 2015. Nurses completed them independently during a seminar in their department and returned them anonymously to the researchers sealed in an unmarked envelope.

Ethical aspects

The study was conducted according to the ethical recommendations of the Helsinki declaration (2002). All participants (nurses) were informed of the aims of the study and agreed to take part in it. The nurses were informed that their participation in the survey would be entirely voluntary and any request to be exempted from the project would be respected. Informed consent was required for this survey and all of the collected data were kept confidentially in a locked area. The authors declare that there is no conflict of interest.

Statistical analyses

Statistical analysis was realized with the use of software SPSS 15.0 on the level of statistical significance 0.05 and with the use of these tests: Normality test Kolmogorov-Smirnov, Kruskal Wallis Test, Mann-Whitney U-test and Student T-test.

Sample

Twenty nursing homes were included for the purposes of this study – ten nursing homes in the Czech Republic, the Vysočina Region, and ten Slovak facilities in Trnava and Nitra Regions. (These regions were chosen as they have the highest number of older people). The managers of these facilities consented to the research being undertaken upon request. The research sample comprised of 208 nurses (100 % of nurses invited to participate) of which 96 (46.15%) were from the Czech Republic and 112 (53.85%) from Slovakia. The criteria for selection were: at least one-year employment in the facility, be providing care to older people (60 years and older) and willingness to take part in the research by agreeing to participate by informed consent. The data was collected from August to November 2014. 250 questionnaires containing both STEU and SEIS methods were sent to the nurse participants. The rate of return was 83%. The nurses age ranged from 22 to 63 years (mean age of 42.82 ± 9.17 years). The average period of working experience was 19.27 (SD ± 9.87). Only 30 nurses (14.42%) had a university degree (bachelor, master), 133 nurses (63.94%) had been educated at secondary level and 45 (21.63%) nurses had received a college education (diploma). The total of 52 (25%) nurses had some kind of specialization (not only in community nursing).

There were no significant differences between Czech and Slovak nurses in these areas.

RESULTS

As a first step before verifying the relationship between the two constructs – EI as ability (STEU) and EI as a trait (SEIS), cardinal variables were tested with the use of the normality test (Table 1).

The relationship between the STEU construct determining EI as ability, and the SEIS construct determining EI as a nurses’ trait

The first research question of our study was focused on the verification of the relationship between EI as an ability and EI as a trait via a non-parametric Spearman’s correlation coefficient, as one (EI as ability, STEU) variable shows normal distribution (see Table 2).

TABLE 1. The results of the Kolmogorov-Smirnov Test of normality of cardinal variables

	Statistic	df	Sig.
STEU	0.104	204	0.000
SEIS	0.058	204	0.097
Age	0.056	204	0.200
Working experience	0.069	204	0.021

Note: In Table 1, results of testing the normality of variables included in the research are shown. Normal distribution was verified for the SEIS variable (EI as a trait) and the age of respondents. This test is important in regard to further opportunities for using statistical tests.

There is no statistically significant relationship between EI perceived as a trait (SEIS) and EI perceived as an ability (STEU) - $p > 0.05$. The constructs determine the EI score from two points of view - seeing it as a trait or as an ability. Therefore it is not surprising that their mutual relationship was not verified. EI as a trait is part of an individual's personality which develops over time and it can only partly be influenced by social impacts. On the contrary, EI as an ability is more dependent on genetic prepositions and the chances of developing it by an intentional impact, for instance by means of systematic and focused education, are weaker.

EI levels of nurses providing care to elderly

The descriptive characteristics of variables - methods are shown in Table 3.

The nurses' score achieved in STEU (determining EI as ability) was 12.41 (SD ± 3.13) points, which means that the acquired values find themselves below the centre point of the theoretical interval. In the SEIS questionnaire (determining EI as trait) the nurses achieved the score of 152.19 (SD ± 13.76), which is above the midpoint of the interval in which the acquired values can be found. It can however be assumed from these outcomes that EI scores of the nurses fluctuate somewhere close to the theoretical middle points.

Determination of EI score differences in relation to the age

Before testing the differences in EI scores in relation to the age of the nurses, we determined the normality of the STEU variable in three compared age groups formed from our respondents (early adulthood up to 34 years, middle adulthood from 35 to 45 years and late adulthood over 46 years). Due to non-normal distribution of variables in all groups, non-parametric Kruskal-Wallis Test was chosen for testing (see Table 4).

TABLE 2. Relationship between the constructs studied

		SIES
STEU	Spearman Correlation Coefficient	0.121
	Sig.	0.081
	N	207

Legend: N - absolute count

Based on the outcomes, we consider the determined differences among the groups to be significant ($p > 0.05$). There were no statistically significant differences in the level of EI as ability (STEU) in nurses of different age ($p = 0.962$) but we did find statistically significant differences in the level of EI as trait ($p = 0.011$). The score of EI as trait (SEIS) increases in relation to their ageing.

Determination of EI score differences in relation to the years of working experience

Before we approached testing the differences of EI score in relation to the length of working experience of the nurses, we scrutinized normal distribution of the variable in the individual groups. On the basis of the result of the normality test we used a non-parametric Mann-Whitney U Test (Table 5).

Determination of EI score differences in relation to the level of education

Before testing the differences in EI scores in relation to the achieved level of education, we scrutinized normal distribution of variables in the research groups. Normal distribution was found at the average SEIS value only (assessment of EI as a trait). Upon determination of the STEU difference we therefore used the non-parametric Mann-Whitney U-Test and received results shown in Table 5.

As we can see in Table 5, no statistically significant relationship was confirmed. There is no significant difference in the scores of EI perceived as ability (determined by STEU) between the group of nurses with shorter working experience (up to 11 years) and the group of nurses with longer working experience (11 and more years).

The SEIS variable was distributed equally in both groups. The outcomes of the statistical T-test confirmed significant differences ($p < 0.01$). We verified the difference among nurses based on the years of their working experience. Higher values of EI perceived as a trait (SEIS) are achieved by nurses whose working experience is longer, i.e. eleven years or more (Table 6).

Most of the respondents in the research group achieved secondary level of education or a diploma from a college medical school. University graduates

TABLE 3. Descriptive features of the two EI levels

Research tools	Min	Max	Average	SD	Median	Theoretical midpoint
STEU	3	19	12.41	3.13	13	13
SEIS	117	183	152.19	13.76	153	123

Legend: SD – standard deviation, Min – minimal value achieved; Max – maximum value achieved; theoretical midpoints – midpoints of research tools

TABLE 4. Difference in measuring EI as ability (STEU) and EI as trait (SEIS) related to the age

Research tools	Age of nurses	N	Average order	Kruskal Wallis Test	
STEU	Up to 34 year	21	105.74	Chi-square	0.078
	From 35 to 45 years	110	103.40	df	2
	More than 46 years	77	105.73	Sig.	0.962
	In total	208			
SEIS	Up to 34 year	21	66.45	Chi-square	8.986
	From 35 to 45 years	110	106.08	df	2
	More than 46 years	76	110.78	Sig.	0.011
	In total	207			

Legend: N – absolute count

formed only 14% of the sample which could affect the results of the test because the higher score of EI as an ability (STEU) was achieved by nurses with university degrees (Table 5). Based on the data analysis we confirmed the significant difference between university graduates and nurses with lower levels of education. We suggest that these nurses are able to recognise and classify interpersonal interactions better and subsequently react more appropriately in their interactions with elderly people living in social care facilities. The difference between the scores of EI determined as a trait (SEIS) was verified with the use of the Student T-Test.

We did not find any significant difference in EI scores of nurses with different levels of education when we measured EI with SEIS (EI as trait) questionnaire (Table 6).

DISCUSSION

The aim of the study was based on contemporary EI theory and measurement tools (trait and ability EI) and the assumed differences of EI scores in relation to the age, years of work experience and the level of education of nurses providing care to elderly people living in nursing homes. We selected research instruments on the basis of previous research undertaken in the Czech Republic [32].

Our hypothesis about the existence of a correlation between EI perceived as an ability (STEU) and EI as a trait (SEIS) was not confirmed owing to the specific nature of both constructs ($p > 0.05$). This finding corresponds with current knowledge about EI and confirms the perception of EI from two points of view, where one group of scientists [37, 38] sees EI as an ability whereas other authors [10, 39, 40] define the

conceptual framework of EI as a personality trait. Baumgartner and Karaffová [32] identified a statistically significant correlation ($p < 0.01$) between EI as an ability (STEU) and as a trait (SEIS) but its value is relatively low ($r = 0.197$).

Nurses in our study who provide care to older people living in nursing homes achieved an adequate EI scores in both questionnaires; that is to say, according to the values which are “normal” for this measurement tool.

The STEU score was 12.41 ($SD \pm 3.13$) which is slightly below the theoretical centre of the scale. In SEIS, the achieved score was 152.19 ($SD \pm 13.76$); in this case the outcomes were above the theoretical centre. Results that are similar to ours (where the values oscillate around the centres of the scales) can be found in other studies such as those of authors [41, 42, 43]. We observe that the average score achieved by nurses in our study is a favourable finding. Nurses who provide care for older people in social care nursing facilities could improve their relationships with them, and also with their colleagues because, as we verified, the nurses in this study were not emotionally neutral and demonstrate emotional activity (EI). It can be suggested that they need to improve their competency in perception and understanding of emotion. Some researchers mentioned already above [41, 42, 43].) in various fields have begun to investigate whether it is possible to increase EI and explore the best way to evaluate it. Studies employing a comparison group or other designs, such as use of pre and post intervention measures with no comparison group or a case study method are being used [40]. Our study is descriptive and is one of the first to be undertaken in both countries and we acknowledge its limitations and that we cannot currently provide information regarding the causal impact of training.

TABLE 5. Difference in STEU related to the years of working experience and level of education

Research tools	Years of experience	N	Average order	Mann-Whitney U Test	
STEU	Up to 11 year	45	93.32	U	3164.5
	11 years or more	163	107.59	Z	-1.417
	In total	208		Sig.	0.157
	Level of education	N	Average order	Mann-Whitney U Test	
SEIS	Secondary school and medical college	178	101.08	U	2060.5
	University	30	124.82	Z	-2.012
	In total	208		Sig.	0.044

TABLE 6. Difference in SEIS related to the years of working experience and level of education

Research tools	Years of experience	N	Average	SD	T-test of averages		
SIES	Up to 10 year	44	146.64	12.65			
	Over 11 years	163	153.69	13.70	t	df	Sig.
	In total	207			-3.078	205	0.002
	Level of education	N	Average	SD	T-test of averages		
SEIS	Secondary school and medical college	177	152.23	13.20			
	University	30	151.93	16.96	t	df	Sig.
	In total	207			0.092	35.202	0.927

Legend: N - absolute count, SD - standard deviation

Antonakis et al. [44] indicate in their research that there is a positive link between high levels of EI and high levels of nurses' contentment, engagement and satisfaction with their work. Gignac and Ekermans [45] discovered that nurses with high levels of EI are able to manage their relationships with various people (health and social care staff and also patients and relatives), maintain a healthier attitude towards patient care and form and maintain relationships with patients and co-workers. According to Groves [46], emotions are a manifestation of the authenticity of nurses and it is an unavoidable precondition of a close relationship and communication. Furthermore, King's [47] system interaction theory emphasises the inevitable presence of EI abilities among nurses who are involved in complex care based on establishing relationships between nurses and patients. The American Nurses Association (ANA) suggests that nursing involves much more than technical competence and kind touches. Nursing is also an emotional activity. However, some Slovak authors [48] believe that emotional (affectionate) neutrality is necessary in the nurse's role and that a nurse should provide nursing care without involving her emotions in her relationship with the patient. This feature of a nurse's role - emotional neutrality - is described as the ability to subordinate emotionality to the rational control. This has the potential to lead to stress and burnout in nurses.

One interesting finding in our study is the statistical significance ($p = 0.011$) of EI as a trait (SEIS) in relation to the age. This could mean that there is a difference in the levels of EI in relation to the age of nurses who provide care to older people in nursing homes. Similarly, we found a significant difference ($p < 0.01$) between groups of nurses (young adulthood and middle adulthood) when we assessed EI as a trait. Higher scores of EI, as a trait (SEIS), were achieved by nurses in middle adulthood (35-45 years) in comparison to younger nurses (aged up to 34 years) who also work in nursing. Lachman [49] claims that, in the context of middle adulthood, the quality and intensity of emotions is a concept which is important for people in this age group. Experiencing emotions is still very intense in comparison with those in the older age group and their range is rather similar to the preceding age groups [4]. These findings are partly supported by other authors; for example, Mayer et al. [9] who believe that the EI level rises with ageing and gaining experience and, as a set of abilities, develops by experiencing social interactions. It could be assumed according to Bar-On [6] that EI develops with age, which means that older nurses' emotional reactions could be more mature owing to their experience. However, several other studies [i.e. 50, 51] show no significant difference in EI levels in relation to age. These findings might be associated to the specific research sample

which was formed of students, i.e. people whose professional approach and personal qualities may be seemingly underdeveloped and whose age range and experience is limited. Nevertheless, for people who are preparing for a professional career in healthcare, the issue of EI cannot be underestimated or ignored.

As far as the years of working experience are considered, we did not find any significant difference ($p > 0.05$) in EI perceived as an ability (STEU) but we found a statistically significant difference ($p = 0.002$) in EI perceived as a trait (SEIS) in relation to the years of working experience. Higher EI scores were achieved by nurses with longer working experience (more than 11 years) who provided care to older people living in nursing social care facilities. In another study, Juhásová et al. [43], found no significant difference in EI as an ability, nor EI as a trait, among nurses with differing lengths of work experience (where the difference between a short and long work experience was set at seven years).

Elder and Giele [52] point out that during his or her life, an individual is formed by the institutions and social systems they interact with, as well as the demands on them depending on his or her age. This opinion supports our premise that the level of education makes a difference to the EI scores of the nurses in our study. We noted a significant difference in EI perceived as an ability (STEU) related to their level of education. Higher scores were achieved by university graduates who provide care to older people living in nursing homes. In our view these nurses are more skilled in distinguishing emotions and respond more sensitively in relationships with older people in order to meet individual needs. It is, however, important to point out that the share of university graduates was quite low (14%) in our research sample. In both countries the share of nurses with university diplomas/degrees working in nursing homes is very low. Social workers without a medical education are the dominant workforce in these facilities. No significant difference ($p = 0.157$) was found in the level of EI as a trait (SEIS) in relation to the level of education. Our outcomes correspond with findings of other authors [i.e. 50, 51] who also did not find significant differences in EI as a trait in relation to the educational level of a group of students. A possible explanation of the non-existent difference in EI as a trait is the above mentioned fact that the proportion of university graduates in the research sample is very low. On the other hand we have verified that EI could be influenced by appropriate educational strategies as presented in our previously published study [53]. Slaski and Cartwright [54], Kotsou et al. [55] and Nelis et al. [56] found that EI training increased trait EI, as assessed by self-reports and observer reports. Kirk et al. [57] found that training increased both emotional self-efficacy and trait EI. Of course we should be aware that there are always individual differences in characteristics that are associated

with EI and these could influence the effectiveness of interventions or might suggest different intervention approaches [40]. We can however suggest that neither educational institutions, nor employers, support the development of emotional competences. They seemingly do not see the importance of EI or emotional competences as an indispensable part of effective quality nursing care for older people in nursing homes. Another reason may be that those involved in the education of nurses do not know how to develop emotional skills. A cause for concern in relation to EI and providing quality care in the Czech Republic and Slovakia for older people is that staffing is being reduced. Medical personnel are being replaced by social workers with little knowledge of nursing (they only undertake a three-month education course) and university graduates are very scarce.

CONCLUSION

It is understandable that care provided to older people is coming under the spotlight as its importance rises owing to the changing demographic trends. It is not easy to meet the unique needs of older people without nurses who are prepared both professionally and emotionally. The outcomes of the study demonstrate that in these nursing homes for older people, the care is provided by nurses with adequate global levels of EI. Better scores were achieved by university graduates and by nurses with working experience of longer than 11 years who were aged 35-45 (middle adulthood). We recommend that educational institutions should provide programmes in the Czech and Slovak Republics that would assist nurses with their personal development, guide them in understanding both their own and their patients' emotions, whilst teaching them to use their emotional skills effectively. We also suggest that the management of social care facilities should seek to support nurses in their self-improvement in relation to EI, through training, as we believe this would enhance the quality of care provided to older people and improve their wellbeing.

IMPLICATIONS FOR POLICY AND FUTURE RESEARCH

Continued research on the topic of EI and nursing is needed to build the knowledge base on how to promote positive wellbeing for older people and improve health outcomes. Further research should focus on identifying how nurses and older people evaluate their relationship with both quantitative and qualitative evidence sought.

LIMITATIONS OF RESEARCH

This study has some limitations that must be considered. The study was conducted with employees in a

nursing environment and the results obtained cannot therefore be generalized to other health professions (i.e., medical doctors, physiotherapists, psychologists, etc.) or the public as a whole. The techniques used in our research provide only a partial insight into EI. This should be kept in mind when assessing the outcomes. The validity of statements depends on the quality of self-reflection of nurses in this research group.

THE BULLET POINTS OF THE RESEARCH AND ARTICLE

What is known about the topic:

- ▶ Emotional Intelligence (EI) plays an important role in the nursing care of older people.
- ▶ The ability to control emotions is an important skill for nurses.
- ▶ Lack of studies mapping the emotional intelligence of nurses who care for older people.

What this paper adds:

- ▶ Nurses who provide care in selected nursing homes in the Czech Republic and Slovakia demonstrate an adequate emotional intelligence score.
- ▶ The higher the level of education, the higher the nurses' emotional intelligence score (assessed with STEU; EI is an ability).
- ▶ Older nurses and nurses with a longer working experience demonstrated a higher EI score (assessed with SEIS; EI is a trait).

ETHICAL CONSIDERATIONS

The study complied with the ethical principles for research involving human subjects (in accordance with the Declaration of Helsinki) and was approved by the institutional ethics committees. Participation was entirely voluntary and could be terminated at any time during the survey.

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REFERENCES

- [1] Knight M, Seymour TL, Gaunt JT, Baker C, Nesmith K, Mather M. Aging and goal-directed emotional attention: Distraction reverses emotional biases. *Emotion* 2007; 7: 705-714.
- [2] Nielsen L, Knutson B, Carstensen LL. Affect dynamics, affective forecasting, and aging. *Emotion* 2008; 8: 318-330.
- [3] Knight A, La Placa V, Schofield P. The Wellbeing of Older People. In: Knight A, La Placa V, McNaught A (eds). *Wellbeing: Policy and Practice*. Lantern Publishing: Banbury 2014: 63-73.
- [4] Urry HLJ, Gross JJ. Emotion Regulation in Older Age. *Curr Dir Psychol Sci* 2010; 19(6): 352-357.
- [5] Ashkanasy NM, Daus CS. Rumors of the death of emotional intelligence in organizational behaviour are vastly exaggerated. *J Organ Behav* 2005; 26: 441-452.
- [6] Bar-On R. Emotional intelligence: An integral part of positive psychology. *South Afr J Psychol* 2010; 40: 54-62.
- [7] Goleman D. *Emotional intelligence*. Bantam Books: New York 1995.
- [8] Bester M, Jonker CS, Nel JA. Confirming the factor structure of the 41-item version of the Schutte emotional intelligence scale. *J Psychol Afr* 2013; 23(2): 213-222.
- [9] Mayer J D, Salovey P, Caruso DR. Emotional intelligence: New ability or eclectic traits? *Am Psychol* 2008; 63: 503-517.
- [10] Petrides KV, Pérez-González JC, Furnham A. On the criterion and incremental validity of trait emotional intelligence. *Cogn Emot* 2007; 21: 26-55.
- [11] Schulze R, Roberts RD. Emoční inteligence: přehled základních přístupů a aplikací. [Emotional intelligence: an overview of basic approaches and applications]. Portál: Praha 2007.
- [12] Akerjordet K, Severinsson E. Emotional intelligence: a review of the literature with specific focus on empirical and epistemological perspectives. *J Clin Nurs* 2007; 16(8): 1405-1416.
- [13] McQueen ACH. Emotional intelligence in nursing work. *J Adv Nurs* 2004; 47(1): 101-108.
- [14] O'Connell E. Therapeutic relationships in critical care nursing: a reflection on practice. *Nurs Crit Care* 2008; 13(3): 138-143.
- [15] Kooker BM, Shultz J, Codier EE. Identifying emotional intelligence in professional nursing practice. *J Prof Nurs* 2007; 23(1): 30-36.
- [16] Akerjordet K, Severinsson E. The state of the science of emotional intelligence related to nursing leadership: an integrative review. *J Nurs Man* 2010; 18(4): 363-382.
- [17] Freshwater D, Stickley T. The heart of the art: emotional intelligence in nurse education. *Nurs Inq* 2004; 11(2): 91-98.
- [18] AlMazrouei SAS, Dahalan N, Faiz MH. The impact of emotional intelligence dimensions on employee engagement. *International Journal of Management and Commerce Innovations* 2015; 1(3): 376-387.
- [19] Sandgren A, Thulesius H, Fridlund B, Petersson K. Striving for emotional survival in palliative cancer nursing. *Qual Health Res* 2006; 16(1): 79-96.
- [20] Karimi L, Leggat SG, Donohue L, Farrell G, Couper GE. Emotional rescue: the role of emotional intelligence and emotional labour on well-being and job-stress among community nurses. *J Adv Nurs* 2014; 20(1): 176-186.
- [21] Cherry MG, Fletcher I, O'Sullivan H. Exploring the relationships among attachment, emotional intelligence and communication. *Med Educ* 2013; 47(3): 317-325.
- [22] Ilievová L, Lajdová A, Jakubeková J. Qualifications for exercising the profession of nurse. In: Ryska M (ed). *Assisting Professions in the Context of University Education*. Otto Printing Office: Prague 2010: 11-21.

- [23] United Nations, Department of Economic and Social Affairs. World Population Ageing 2013. ST/ESA/SER.A/348. [On-line] United Nations: New York 2013 [cit. 2016-10-07]. Available at WWW: <http://www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2013.pdf>.
- [24] SHARE. The Survey of Health, Ageing and Retirement in Europe (SHARE) Micro-data files. [On-line] SHARE-ERIC 2011. [cit. 2015-07-28] Available from WWW. <<http://www.share-project.org/>>.
- [25] Goodman C, Robb N, Drennan V, Woolley R. Partnership working by default: district nurses and care home staff providing care for older people. *Health Soc Care Community* 2005; 13: 553-562.
- [26] Burton J, Hope K. An exploration of the decision making processes at the point of referral to an Admiral Nurse team. *J Psych Mental Health Nurs* 2005; 12: 359-364.
- [27] Clarke PJ, Ailshire JA, House JS, Morenoff JD, King K, Melendez R, Langa KM. Cognitive function in the community setting: the neighbourhood as a source of 'cognitive reserve'? *J Epidemiol Community Health* 2012; 66(8): 730-736.
- [28] Pejner MN, Ziegert K, Kihlgren A. Trying to cope with everyday life - Emotional support in municipal elderly care setting. *Int J Qual Stud Health Well-being* 2012; 13: 7: 1-7.
- [29] Gray B. The emotional labour in nursing I: exploring the concept. *Nursing Times* 2009; 8:26-29.
- [30] Nel JA, Cara S, Jonker CS, Rabie T. Emotional intelligence and wellness among employees working in the nursing environment. *J Psychol Afr* 2013; 2: 195-203.
- [31] Bulmer Smith K, Profetto-McGrath J, Cummings GG. Emotional intelligence and nursing: An integrative literature review. *Int J Nurs Studies* 2009; 12: 1624-1636.
- [32] Baumgartner F, Karaffová E. Emoční inteligence a její vztah k zvládání [Emotional intelligence and its coping]. In: Blatný M (ed). *Člověk v kontextech celoživotního vývoje [People in contexts of life-span development]*. Psychologický ústav Akademie věd ČR: Brno 2014: 39-59.
- [33] Schutte NS, Malouff JM, Hall LE, Haggerty DJ, Cooper JT, Golden C, Dornheim L. Development and validation of a measure of emotional intelligence. *Pers Individ Differ* 1998; 25: 167-177.
- [34] Austin EJ, Saklofske DH, Huang SHS, McKenney D. Measurement of trait emotional intelligence: Testing and cross-validating a modified version of Schutte et al.'s (1998) measure. *Pers Individ Differ* 2004; 36: 555-562.
- [35] Petrides KV, Furnham A. Gender differences in measured and self-estimated trait emotional intelligence. *Sex Roles* 2000; 42: 449-461.
- [36] Van der Merwe PR, Coetzee S, De Beer M. X Measuring emotional intelligence (EQ): a construct comparison between the Bar-On EQ-i and the OPQ32i EI report. *Southern African Business Review* 2010; 9: 34-50.
- [37] Mayer JD, Salovey P. What is emotional intelligence? In: Salovey P, Sluyter DJ (eds). *Emotional development and emotional intelligence: Educational implications*. Harper Collins: New York 1997: 3-31.
- [38] Matthews G, Roberts RD, Zeidner M. Seven myths about emotional intelligence. *Psychol Inq* 2004; 15: 179-196.
- [39] Salbot V et al. Črtová emocionálna inteligencia a psychometrické vlastnosti nástrojov na jej meranie [Emotional intelligence and psychometric properties of the instruments to measure it]. Univerzita Mateja Bela, Pedagogická fakulta: Banská Bystrica 2011.
- [40] Schutte N S, Malouff JM, Thorsteinsson EB. Increasing emotional intelligence through training: current status and future directions. *The International Journal of Emotional Intelligence* 2013; 5(1): 56-72.
- [41] Baumgartner F, Molčanová Z, Chylová M. Emočná inteligencia vo vzťahu ku copingu [Emotional intelligence in relation to the coping]. In: Ruisel I, Prokopčáková A (eds). *Kognitívny portrét človeka [Cognitive Portrait of Human]*. Institute of Experimental Psychology, Slovak Academy of Sciences: Bratislava 2010: 186-204.
- [42] Harper MG, Jones-Schenk J. The emotional intelligence profile of successful staff nurses. *J Contin Educ Nurs* 2012; 43(8): 354-362.
- [43] Juhásová I, Ilievová L, Baumgartner F. Emočná inteligencia sestier a jej úloha v ošetrovatelstve [Emotional intelligence of nurses and its role in nursing]. *Ošetrovatelství a porodní asistencie* 2013; 4(2): 589-594.
- [44] Antonakis J, Ashkanasy NM, Dabrough MT. Does leadership need emotional intelligence? *Leadersh Q* 2009; 20: 247-261.
- [45] Gignac G, Ekermans G. Group differences in EI within a sample of black and white South Africans. *Pers Individ Differ* 2010; 49: 639-644.
- [46] Groves W. Professional practice skills for nurses. *Nurs Stand* 2014; 29(1): 51-59.
- [47] King IM. A theory for nursing: Systems, concepts, process. John Wiley and Sons: New York 1981.
- [48] Matulníková L. Ošetrovatelstvo ako veda [Nursing as a Science]. In: Botíková A (ed). *Manuál pre mentorky v ošetrovatelstve [Toolkit for Nurses]*. Trnavská univerzita v Trnave: Trnava, 2011: 16-55.
- [49] Lachman ME. Development in midlife. *Ann Rev Psychol* 2004; 55: 305-331.
- [50] Birks Y, McKendree J, Watt I. Emotional intelligence and perceived stress in healthcare students: a multi-institutional, multi-professional survey. *BMC Med Educ* 2009; 61: 59-61.
- [51] Juhásová I, Ilievová L, Baumgartner F, Rojčková Z. Možnosti uplatnenia emočnej inteligencie v kontexte ošetrovatelstva [The possibilities to use emotional intelligence in the context of nursing]. In: Halama P, Hanák R, Masaryk R (eds). *Sociálne procesy a osobnosť 2012. Ústav experimentálnej psychológie SAV: Bratislava 2012: 313-319.*
- [52] Elder GH Jr, Giele JZ (eds). *The Craft of Life Course Research*. Guilford Press: New York & London 2009.
- [53] Pokorná A, Knight A. Development opportunities of emotional intelligence with reflective strategies using video-based training. *Mefanet J* 2015; 3(2): 43-47.
- [54] Slaski M, Cartwright S. Emotional intelligence training and its implications for stress, health, and performance. *Stress Health* 2003; 19: 233-239.
- [55] Kotsou I, Nelis D, Grégoire J, Mikolajczak M. Emotional plasticity: Conditions and effects of improving emotional competence in adulthood. *J Appl Psychol* 2011; 96: 827-839.
- [56] Nelis I, Kotsou J, Quoidbach M, Hansenne F, Weytens P, Dupuis, Mikolajczak M. Increasing emotional competence improves psychological and physical well-being, social relationships, and employability. *Emotion* 2011; 11(2): 354-366.
- [57] Kirk B A, Schutte N S, Hine DW. The effect of an expressive writing intervention for employees on emotional self-efficacy, emotional intelligence, affect, and workplace incivility. *J Appl Soc Psychol* 2011; 41: 179-195.