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INFLUENCE OF LEARNING MENTORING ON MENTOR EFFECTIVENESS: CASE OF NURSING STUDIES

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Abstract

Despite many arguments for the influence of effective mentoring on training professionals, in practice, the problem of effective mentoring still remains a relevant issue. Based on the theoretical understanding that mentoring can be learnt, the article raises the following problem question: "what is the influence of learning mentoring on mentor effectiveness"? Having selected the case of nursing studies, an anonymous written survey of nursing students and their mentors was conducted in 2014. Statistical data analysis of 441 pairs (of a student and his or her mentor) showed that mentor effectiveness in the case of nursing studies depends on learning mentoring.

Keywords: *learning mentoring, mentoring effectiveness, training of nurses.*

Introduction

Nowadays, the importance of mentoring is no longer questionable, and it is considered a key factor in training professionals (Smith, & Evans, 2008; Zellers, Howard, & Barcic, 2008; Allan, 2010; Sambunjak, Straus, & Marusic, 2010). A special emphasis is placed on the role of mentoring during practical training (Kondratavičienė & Sajienė, 2007; George & Mampilly, 2012), when students are learning to perform professional functions in real-life situations of professional practice under a guidance of a competent assistant – a professional mentor. Research works show that the quality of student learning is higher when they have effective mentors (Lee, Cholowski, & Williams, 2002; Allison-Jones, & Hirt, 2004; Kelly, 2007; Heshati-Nabavi, & Vanaki, 2010; Ali, 2012). Despite the acknowledgement of the importance of mentoring, the problem of professional mentoring still remains a relevant issue. For example, in Lithuania, neither the status and functions of mentors have been defined at the national level, nor the system of training of mentors has been prepared (Rimkienė, Grūnovienė, & Dovydaitis, 2012). A mentor, who is not ready for mentoring and feels uncertain about his or her activities, as assumed by Ploeg, Witt, Hutchision, Hayward, & Grayson (2008), does harm not only to students, but also to himself or herself: when teaching, he or she experiences greater

workload, emotional stress and the feeling of inadequacy. And, on the contrary, for a properly trained mentor, the mentoring activity ensures better cognition and comprehension of social relations and improvement of communicative skills, as well as guarantees self-satisfaction and emotional well-being. Scholars acknowledge that mentoring is a life-long learning process (Hansford, Tennet, & Enrich, 2003; Pehkonen, Arola, Zvyagina, & Grouev, 2010), and therefore, it is appropriate to search for the roots of effective mentoring in learning mentoring, and to raise the following **research question:** *what is the influence of learning mentoring on mentor effectiveness?* To answer this question, the article focuses on the case of nursing studies. Academic works show that the effectiveness of a nursing students' mentor is important for improving the quality of practical training, for linking practical and theoretical teaching/learning experience of students (Webb, Shakespeare, 2008), for personal and professional development (Myall, Levett-Jones, & Lathlean, 2008). Moreover, an effective mentor of nursing students helps students to acquire professional competencies (Jokelainen, Turunen, Tossavainen, & Jamookeeah, 2011; Smedley, 2008; Webb & Shakespeare, 2008), enhances students' sense of security during the practical training period (Allan, 2010), improves the level of students' academic performance (Anderson, 2011; George & Mampilly, 2012) and students' socialisation in professional activity (Allan, 2010; Jokelainen et al. 2011; Anderson, 2011), reduces the 'wastage' of students as future professionals (George & Mampilly, 2012). Professional nurses become mentors of nursing students in personal health care institutions. However, according to Hansford et al. (2003), Hudson, Spooner-Lane, & Murray (2012), Abiddin (2012), Anderson (2011), it does not necessarily mean that a good specialist, who is an expert in his or her field, will also be an effective mentor. We can agree with Hilli, Melender, Salmu, & Jonsen (2014), Omansky (2010) that mentors of nursing students spend very little time teaching a student, because their main activity is to properly perform the functions of a nurse, meanwhile, mentoring is only an additional activity. As assumed by Myall et al. (2008), Nettleton & Bray (2008), a majority of nursing students' mentors have not been trained during their nursing studies to effectively supervise student practical training. The mentor training programmes are often a mere "formality", and therefore, mentors do not acquire proper teaching/learning competencies (Rogers, Dunn, & Lautar, 2008; Wang & Odell, 2002). According to Huybrecht, Loeckx, Quaeyhaegens, De Tobel, & Mistiaen (2011), Hilli et al. (2014), scientific literature emphasises the importance of teaching/learning of mentors, however, there is a lack of research works that analyse mentors' teaching/learning; it is still uncertain how effective mentoring is learnt (Kelly, 2007; Chandan &Watts, 2012). Therefore, we can assume that the research question raised is relevant practically and significant theoretically. The answer to this question, deepening the understanding about the relationship between learning mentoring and effective mentoring, would enrich the concept of effective mentoring in general as well as in the specific case of nursing studies.

Conceptualisation of Mentor Effectiveness. As assumed by Hudson et al. (2012) etc., the amounts of information and research works on mentoring and its nature, process, results, relationships are increasing, however, the issue of effective mentoring still remains relevant. The analysis of this issue is rather fragmentary, revealing its processuality, form, organisational principles (Sambunjak et al., 2010), exploring the effectiveness of mentoring programmes (Zellers et al., 2008; Smith & Evans, 2008), highlighting the conditions leading to effective mentoring (Grassinger, Porath, & Ziegler, 2010; Jokelainen, Tossavainen, Jamookeeah, & Turunen, 2013), providing models of effective mentoring (Jacobs, 2008), analysing personal

qualities, skills and motivation of the protégé (Sambunjak et al., 2010; Hamlin & Sage, 2011; Abbidin, 2012; Jokelainen et al., 2013; Sanfey, Hollands, & Gantt, 2013). No matter which approach is taken for the analysis of effective mentoring, it is related to the characteristic features that define effectiveness. Scientific literature analysis allows distinguishing several groups of mentor effectiveness characteristics: 1) comprehensive knowledge of mentoring and teaching/learning process (Viale &Tischler, 2009; Stenfors-Hayes, Hult, & Dahlgren, 2011; Anderson, 2011; Abiddin, 2012; Jokelainen et al., 2013); 2) *qualities, skills and motivation necessary for* mentoring (Sambunjak et al., 2010; Hamlin & Sage, 2011; Anderson, 2011; Stenfors-Hayes et al., 2011; Abiddin, 2012; Ali, 2012; Hudson et al., 2012; Jokelainen et al., 2013); 3) positive relationships with the protégé (Sutkin, Wagner, Harris, & Schiffer, 2008; Viale &Tischler, 2009; Crisp & Cruz, 2009; Anderson, 2011; Eller, Lev, & Feurer, 2014); 4) organisation of mentoring (Ousey, 2009; Anderson, 2011; Ali, 2012; Jokelainen et al., 2013); 5) the process of personal and career development (Monkevičienė & Schoroškienė, 2008; Grassinger et al., 2010; Anderson, 2011), 6) experience of mentoring and professionalism (Sutkin et al., 2008; Huggett, Warrier, & Maio, 2008; Jokelainen et al., 2013). We can agree with Urbanovič (2011) that in order to conceptualise the effectiveness of mentoring, it is important to answer the following questions: what characteristic features, whose characteristic features, effective to whom, defined by what/whom, how to measure or assess, when to measure or assess, and under what circumstances, because there are no standardised elements which would be coordinated among all the interested groups. Thus, the concept of mentor effectiveness depends on the context, and in order to describe the effectiveness of a mentor, different characteristic features and their groups have to be used. Hence, in order to explore the effectiveness of a mentor, it is important to choose an instrument which measures mentor's effectiveness according to certain characteristic features. On the basis of specific features of effectiveness of nursing students' mentors, several instruments have been developed and applied in scientific research: *Clinical Teacher Characteristics Instruments* (Brown, 1981), *The Nursing Clinical Teacher Effectiveness Inventory* (Knox & Mogan, 1985), *Whitehead Characteristics of Effective Clinical Instructors Rating Scale* (1997), a *Questionnaire of Effective Clinical Teaching Behaviours* developed by Westfall (1988), and other instruments (Nelson, 2011). The current research is based on the *Nursing Clinical Teacher Effectiveness Inventory* developed by Knox & Mogan (1985), which, despite of being relatively old, is still widely applied in different parts of the world in order to assess the characteristics of effectiveness of a nursing students' mentor in the points of view of students, nurses, and mentors (Nelson, 2011), and which, in the opinion of the co-authors of the article, best reflects the entirety of the characteristics of mentor effectiveness as described above, as well as the case of nursing studies.

Conceptualisation of Learning Mentoring. Mentoring is something that is learnt; and we can agree with Hansford et al. (2003), Zachary (2000), Pehkonen et al. (2010) that this is a life-long learning process. However, there is no unequivocal answer to the questions what is learning mentoring and what is learning in general. According to Foley (2007), to interpret learning on the basis of a unified theory of learning is impossible and inexpedient because one teaching/learning perspective restricts rather than enriches the teaching/learning opportunities of learners. Despite the abundance of interpretations of learning, several groups of theories are usually distinguished in scientific literature: behaviouristic, cognitive, humanistic, constructivist, social learning theory (Torre, Daley, Sebasthian, & Elnicki, 2006). Illeris (2007) points out that each theory deals only with one or several aspects of learning, for example, the traditional behaviouristic theory and the cognitive theory analyse

only the internal psychological process, while certain modern social learning theories pay more attention to the external interaction process. However, according to Illeris (2009), traditional theories of learning, which put emphasis only on cognitive learning or only on social dimensions of learning, provide little help in understanding and solving the change and problems of learning of adults as life-long learners. Therefore, in the opinion of the scholar, it is important to have a complex concept of learning, which would combine both processes of learning: the external interaction process and the internal psychological process (Illeris, 2007). According to Illeris (2007), the structure of learning process consists of two processes: the external interaction process is a constant process between the learner and his or her social and cultural environment; and the internal learning process is the knowledge acquisition process that combines management of the learning content and a directing, stimulating function related to mental energy that runs the process of learning. Moreover, knowledge acquisition processes are constantly integrating the cognitive (knowledge and skills) area as well as the emotional area, also including other psychodynamic areas, such as motivation and attitudes. Cognitive learning is always connected to the emotional component, the relevance of which depends on the emotional situation related to the process of learning, i.e. whether learning was voluntary, motivated, or compulsory. According to Illeris (2007), the process of learning consists of three dimensions: interaction, content and incentive. The dimension of *content* includes everything what can be learnt. Typically, this includes knowledge, skills, attitudes, insights, values, ways of behaviour, methods, strategies, etc. The learner individually constructs meanings and thus deals with the challenges that arise in practice. Thereby, a personal functionality is developed, i.e. the ability to adapt to the changing environment. The dimension of *incentive* generates and directs the mental energy that is necessary for the learning process to take place. It includes the following elements: feelings, emotions, motivation, volition. An adult learner consciously decides what and how he or she wants or does not want to learn. The ultimate function of incentive is to secure the continuous mental balance of the learner and thereby to develop a personal sensitivity. These two dimensions are initiated by impulses from the process of interaction and integrated in the inner process of acquisition. Therefore, the learning content is always related to the learning incentive, for example, learning is driven by desire, interest, necessity or even compulsion, and in the presence of incentive, a learner is learning. The dimensions of content and incentive depend on the process of interaction between a learner and the social, public, cultural, material environment. The interaction with the environment and other learners stimulates impulses that initiate the process of learning, and therefore, the dimension of *interaction* fosters personal integration in communities and society. The process of interaction is of socio-cultural nature, it depends on the fact how and at what period it takes place, because the opportunities of interaction are different in different communities and in different circumstances. Thus, as assumed by Illeris (2007), such learning is of a more constructivist nature, because the learner, using his or her mental structures, actively constructs meanings which can be named as functionality, sensitivity and sociality. In the opinion of the researcher, the provided concept of learning is complex (including cognitive, emotional and social dimensions), because one dimension can be understood only if other dimensions are also understood. Actually, such a concept of learning, according to Illeris (2007), corresponds to the modern concept of learning. Due to the stringency of this Illeris' argumentation, his concept of learning was selected for the analysis of learning mentoring.

Methodology

Sample. Since the research is based on the case of nursing students' mentors, two populations have been selected for the survey: 1) mentors of nursing students (because they were able to give most accurate information about their personal experience of learning mentoring and to evaluate their own mentoring effectiveness); 2) nursing students (because, in order to group mentors according to their effectiveness, it is important to refer not only to the mentors' self-evaluation data, but also to the evaluation data of their students). The above-mentioned research populations were additionally restricted according to the cycle of studies, narrowing the population to the first cycle studies, because at the time of research (in 2014), professional practice was not included in the Master's degree studies, thus there were no mentors either. Moreover, the restriction was also based on the form of studies, narrowing the population to full-time students and their mentors, because at the time of research, the study plans of full-time studies and the study plans of other forms of studies, as well as the place of practical training within these plans, differed, thus, in order to assess those differences, a separate research would be necessary. Due to this reason, populations were restricted according to the type of a higher education institution, selecting only the population of students of applied sciences universities, as well as their mentors. According to the data of AIKOS (in 2013), at the time of research, general practice nurses were trained in Lithuania in six universities of applied sciences (in Vilnius, Kaunas, Klaipėda, Panevėžys, Šiauliai and Utena), including 1 224 full-time students. However, the situation with the population size of mentors of these students was more complicated, because the record of such mentors was not kept. It was decided to hypothetically calculate the "ideal" number of nursing students' mentors, assuming that during one practice, one mentor supervises one nursing student, and that professional practices are not based on the principle of rotation. Thus, the calculated "ideal" number of mentors was 3 517. In order to ensure the representativeness of the sample according to the size, and tolerating a margin of error of 5 percent, 359 mentors should be selected for the research from the latter population. The number of questionnaires delivered was higher – 630 for both mentors and their students (pairing them so that when grouping mentors according to effectiveness, the data provided by a mentor and his or her trainee would be taken into consideration). Prior to the student survey, a written or verbal permission to conduct a survey was obtained from the administration representatives of the faculties of respective applied sciences universities, and to conduct a survey of nursing students' mentors – a written or verbal permission was obtained from the administration of personal health care institutions and care homes. Questionnaires were delivered to students and mentors prior to the professional practice, informing students about the questionnaire procedure. The questionnaires designed for mentors were put in separate envelopes. Each student had to personally deliver a questionnaire to the mentor who directly taught them during practical training and to ask them to return the filled in questionnaire in a sealed envelope. That same student, filling in his or her questionnaire, had to evaluate the effectiveness of the mentor to whom a questionnaire had been delivered. After the accomplishment of professional practice, students returned the questionnaires filled in by themselves and by their mentors to the practice supervisor. During the research, each pair was assigned an individual number, thus forming pairs of the research respondents and ensuring their anonymity. Questionnaires of 462 pairs have been returned, 7 of which were declared invalid and rejected. Separately, based on the assessment of mentors and students, summing up the two total scores of mentor effectiveness have been calculated. It turned out that mentors rated their effectiveness higher than students: according to students' data, the mean of mentor

effectiveness is 213.76 points (Mo=222, SD=36.68, *n*=455, min – 71 points, max – 302 points); according to mentors' data, the mean of mentor effectiveness is 221.60 points (Mo=220, SD=29.96, *n*=455, min – 49 points, max – 282 points). It was decided to rely on students' assessment, but also taking into consideration the self-evaluations of mentors: in the cases when the evaluations of students and mentors were opposing, it was decided to reject the data of such pairs. Thus, 14 respondent pairs have been rejected, and in searching for the answer to the research questions, the data of the remaining 441 pairs was used. The sample of students included 96.6 percent of girls and 3.4 percent of boys. According to the age, the major group included students of the age group of 17-24 (83 percent). Students of the age groups from 25 to 39 and from 40 to 65 have distributed almost evenly – 8.9 percent and 8.2 percent respectively (the mean of age is 23.5, Mo=20; SD=7.056). The sample of mentors comprised 98.9 percent of females and 1.1 percent of males. According to the age, the major group included mentors whose age ranged from 40 to 65 – 76.4 percent of respondents, the smallest – from 17 to 24 – 1.6 percent of respondents. The age group of 25–39-year-olds comprised 22.0 percent of mentors (the mean of age is 44.8 years, Mo=45; SD=8.581). Based on students' assessment, it was decided to divide mentors into 3 groups according to the characteristics of effectiveness. It was decided that the first group (mentors of low effectiveness) included mentors, whose characteristics of effectiveness had been evaluated according to the questionnaire's 47-item points sum amounting to 96 (on average, evaluated by students from 1 to 2 points), the third group (very effective mentors) included mentors, who have been evaluated by students only by 5 or 6 points. The remaining mentors have been attributed to the second group (moderately effective mentors). The calculated total scale score was normed dividing this score by number of items in the scale. Finally, the distribution of mentors according to their effectiveness was as follows: the group of mentors featuring low effectiveness comprised 79 mentors, moderately effective mentors – 295, very effective mentors – 67 (SD=0.575). Thus, the major research group comprised moderately effective mentors.

Learning Mentoring Scale. The learning mentoring scale was developed on the basis of the theory of learning by Illeris (2007; 2009). Simona Paulikienė, the co-author of this article, under the supervision of Liudmila Rupšienė, another co-author, following the ideas of the above mentioned theory, has distinguished the categories and subcategories of learning, modifying the latter for the analysis of the learning process of mentoring. To validate thus formed scale of learning mentoring, using the method of principal components analysis and the *Varimax* rotation of vectors to perform a factor analysis, seven factors have been extracted which explain 58.44 percent of the dispersion of variables. The consistency coefficients of each subscale range from 0.655 to 0.920. The latter subscales reflect a tri-componential model of learning presented by Illeris. The model consists of three dimensions of learning (see Table 1).

Table 1. The Model of Learning Mentoring Obtained through Factor Analysis

Dimensions of Learning / Subscales / Items	Weights of Items (L)
Learning through Interaction	
Subscale 1. *Collaborative Learning* (6 items). *Explained dispersion: 35.605 percent*	
I am interested in the experience of other mentors regarding supervision of student practice, and share my own experience	0.745
I cooperate with other colleagues in supervising student practice	0.710
I learn mentoring while working in team with colleagues	0.669

Continued Table 1

The support and assistance of colleagues is important for me in learning how to supervise student practice	0.659
I am interested in the latest information on nursing, obtained from students, colleagues, mentors, and share information available to me	0.620
I cooperate with patients in order to improve the supervision of student practice	0.617
Subscale 2. *Learning by Observing Activities of Another Mentor* (4 items). *Explained dispersion: 2.755 percent*	
I observe how another mentor is evaluating student achievements, and apply this in teaching a student	0.805
I observe how another mentor is communicating with a student, and apply this in teaching a student	0.787
I observe how another mentor is demonstrating a student the performance of procedures, and apply this in teaching a student	0.776
I observe how another mentor is explaining a student the performance of procedures, and apply this in teaching a student	0.775
Subscale 3. *Learning from an Effective Mentor during Studies* (4 items). *Explained dispersion: 4.780 percent*	
During my studies, the way my mentor used to demonstrate procedures was acceptable for me, and I apply this in teaching students	0.811
During my studies, the way my mentor used to communicate with me was acceptable for me, and I apply this in teaching students	0.798
During my studies, the way my mentor used to explain the technique of procedures was acceptable for me, and I apply this in teaching students	0.772
During my studies, the way my mentor used to assess my achievements was acceptable for me, and I apply this in teaching students	0.730
The Learning Content	
Subscale 4. *Mentor's Attitudes* (5 items). *Explained dispersion: 3.140 percent*	
A higher education institution has to inform mentors about the purpose and content of practical training	0.733
A higher education institution has to discuss with mentors how to organise practical training more effectively	0.718
It would be beneficial for mentors to learn mentoring in courses (seminars)	0.675
A mentor has to feel responsibility for his her activity as a practice supervisor	0.667
A good mentor helps a trainee to better acquire the profession	0.621
Subscale 5. *Mentor's Knowledge and Skills* (4 items). *Explained dispersion: 3.589 percent*	
I am learning to assess student skills	0.744
I am learning to convey the acquired knowledge to students	0.714
I am learning to plan student learning process	0.681
Learning mentoring is a continuous process	0.620
Learning Incentives	
Subscale 6. *External Learning Motives* (4 items). *Explained dispersion: 2.387 percent*	
I am learning mentoring because I feel competition for student practice supervision	0.718
I am learning mentoring because there are formal requirements for a mentor (a course completion certificate is required)	0.651
I am learning mentoring because of financial benefit	0.605
Subscale 7. *Internal Learning Motives* (4 items). *Explained dispersion: 6.180 percent*	
I feel happiness, "inner satisfaction" teaching a student	0.702
I desire to become a more effective mentor	0.666
I wish to learn to teach students to the best of my ability	0.642
I wish to make the most of my knowledge not only in nursing but also in mentoring activities	0.604

Mentor Effectiveness Scale. As mentioned above, to analyse the effectiveness of nursing students' mentors, *The Nursing Clinical Teacher Effectiveness Inventory* developed by Knox & Mogan (1985) was selected. Upon the permission obtained from Mogan's representative Tait from the University of British Columbia (Vancouver*)* to use the instrument, the instrument was translated into Lithuanian and adapted culturally. The instrument was modified, replacing the original 7-point ranging system of items by 6-point ranging system, assuming that such a system will allow a more precise grouping of mentors according to their effectiveness. The reliability analysis showed that the scale is a reliable measuring instrument (Cronbach's alpha 0.982) (see Table 2).

Table 2. The Reliability Characteristics of the Subscales of *The Nursing Clinical Teacher Effectiveness Inventory* Scale

Subscales /Items	*r/itt*	Subscales / Items	*r/itt*
Subscale 1. Teaching Ability *(Cronbach alfa 0.955)*		(*continuation of Subscale 2*) takes responsibility of own actions	0.574
explains clearly	0.695	is a good role model	0.752
emphasizes what is most important	0.710	***Subscale 3. Evaluation*** *(Cronbach alfa 0.916)*	
stimulates student interest in the subject	0.773	provides frequent feedback on students' performance	0.747
remains accessible to students	0.709	identifies students' strengths and limitations objectively	0.761
demonstrates clinical procedures and techniques	0.706	makes specific suggestions for improvement	0.747
guides students' development of clinical skills	0.772	communicates expectations of students	0.704
provides specific practice opportunity	0.744	observes students' performance frequently	0.682
offers special help when difficulties arise	0.700	gives students positive reinforcement for good contributions, observations or performance	0.756
is well prepared for teaching	0.785	does not criticize students in front of others	0.634
enjoys teaching	0.750	corrects students' mistakes without belittling them	0.766
gears instruction to students level of readiness	0.782	***Subscale 4. Interpersonal Relations*** *(Cronbach alfa 0.911)*	
encourages active participation in discussion	0.738	provides support and encouragement to students	0.759
quickly grasps what students are asking or telling	0.674	is approachable	0.795
answers carefully and precisely questions raised by students	0.708	encourages a climate of mutual respect	0.795
questions students to elicit underlying reasoning	0.737	listens attentively	0.789
helps students organise their thoughts about patient problems	0.754	demonstrates empathy	0.731
promotes student independence	0.640	shows a personal interest in students	0.807
Subscale 2. Nursing Competence *(Cronbach alfa 0.905)*		***Subscale 5. Personality*** *(Cronbach alfa 0.927)*	
demonstrates clinical skill and judgement	0.716	demonstrates enthusiasm	0.814

Continued Table 2

demonstrates communication skills	0.743	is a dynamic and energetic person	0.843
reveals broad reading in his/her area of interest	0.644	self-confidence	0.655
discusses current development in his/her field	0.774	is self-critical	0.749
directs students to useful literature in nursing	0.585	is open-minded and non-judgemental	0.784
demonstrates a breadth of knowledge in nursing	0.525	has a good sense of humour	0.774
recognises own limitations	0.751	appears organised	0.781

Results

Differences of Learning Mentoring according to Mentor Effectiveness. The analysis of ANOVA results (Table 3) shows that in all cases (except for one – the case of External Learning Motives) there are statistically significant differences of learning mentoring according to mentor effectiveness: the lowest means of learning mentoring subscales are found in the group of mentors who demonstrate low effectiveness, moderate – in the moderately effective mentor group, the largest – in the very effective mentor group. Hence, there is evidence for the assumption that very effective mentors, compared to less effective mentors, are distinguished by the fact that they have stronger attitudes for learning mentoring, knowledge and skills, a stronger intrinsic motivation to learn mentoring, are learning mentoring in cooperation with others, by observing the work of other mentors, had good experience of learning from other mentors during their studies. In the case of external learning motives, statistically significant differences occur only between the groups of little effective mentors and moderately effective mentors. Meanwhile, the difference of a very effective mentor group from the little and moderately effective mentor groups is statistically insignificant. In addition, the means of the subscale of external mentoring learning motives are the highest in the moderately effective mentor group, and the lowest – in the little effective mentor group. Thus, we can assume that very effective mentors do not distinguish from other mentors by stronger external mentoring learning motives.

Table 3. Differences of Learning Mentoring according to Mentor Effectiveness (ANOVA results)

Subscales of Learning Mentoring	Means	SD	Mentor Group (n)	LMT	p	F	p (ANOVA)
Mentor's attitudes to learning	21.37	5.343	I (79)	II	0.000	67.268	0.000
				III	0.000		
	25.99	3.595	II (295)	I	0.000		
				III	0.000		
	28.31	2.203	III (67)	I	0.000		
				II	0.000		
Mentor's knowledge and skills	16.19	4.831	I (79)	II	0.000	74.642	0.000
				III	0.000		
	20.26	2.972	II (295)	I	0.000		
				III	0.000		
	22.61	2.243	III (67)	I	0.000		
				II	0.000		

Continued Table 3

External learning motives	7.48	2.908	I (79)	II	0.001	5.164	0.006
				III	0.871		
	8.86	3.341	II (295)	I	0.001		
				III	0.261		
	8.49	4.139	III (67)	I	0.871		
				II	0.261		
Internal learning motives	14.61	4.727	I (79)	II	0.000	91.167	0.000
				III	0.000		
	19.01	3.431	II (295)	I	0.000		
				III	0.000		
	22.40	1.939	III (67)	I	0.000		
				II	0.000		
Collaborative learning	25.44	8.236	I (79)	II	0.000	121.562	0.000
				III	0.000		
	33.81	5.554	II (295)	I	0.000		
				III	0.000		
	40.28	2.610	III (67)	I	0.000		
				II	0.000		
Learning by observing activities of another mentor	13.22	4.875	I (79)	II	0.000	48.941	0.000
				III	0.000		
	17.20	4.619	II (295)	I	0.000		
				III	0.000		
	20.88	4.769	III (67)	I	0.000		
				II	0.000		
Learning from another mentor during studies	14.04	4.556	I (79)	II	0.000	67.452	0.000
				III	0.000		
	18.40	4.394	II (295)	I	0.000		
				III	0.000		
	22.10	2.753	III (67)	I	0.000		
				II	0.000		

Note. LMT – the compared groups of mentors, I – a little effective mentor group, II – a moderately effective mentor group, III – a very effective mentor group, n – a number of mentors

The Effect of Learning Mentoring on Mentor Effectiveness. Application of a multinomial logistic regression model allowed the probability estimation of how learning of a nursing students' mentor effects mentor effectiveness. Modelling was performed to analyse the dependence of the variable "Nursing students' mentor effectiveness groups", which acquired several category meanings, on the total scores of the following subscales: "Collaborative learning", "Learning by observing activities of another mentor", "Learning from an effective mentor during studies", "Mentor's attitudes to learning", "Mentor's knowledge and skills", "External learning motives", "Internal learning motives". A logistic regression model was formed, which evaluated the effect of all the subscales of "Learning mentoring" scale, classifying mentors to a specific mentor group. The data provided in Table 4 shows that a probability that little effective mentors (Group I) will become moderately effective mentors (Group II): 1) would increase by 1.142 times if the independent variable "Mentor's attitudes to learning" increased; 2) would increase by 1.144 times if the independent variable "Mentor's knowledge and skills" increased; 3) would increase by 1.172 times if the independent variable

"External learning motives" increased; 4) would increase by 1.088 times if the independent variable "Internal learning motives" increased; 5) would increase by 1.166 times if the independent variable "Collaborative learning" increased; 6) would increase by 1.016 times if the independent variable "Learning by observing activities of another mentor" increased; 7) would increase by 1.077 times if the independent variable "Learning from an effective mentor during studies" increased.

Moreover, the data provided in Table 4 shows that a probability that little effective mentors (Group I) will become very effective mentors (Group III): 1) would increase by 1.182 times if the independent variable "Mentor's attitudes to learning" increased; 2) would increase by 1.353 times if the independent variable "Mentor's knowledge and skills" increased; 3) would increase by 1.224 times if the independent variable "External learning motives" increased; 4) would increase by 1.279 times if the independent variable "Internal learning motives" increased; 5) would increase by 1.443 times if the independent variable "Collaborative learning" increased; 6) would increase by 1.181 times if the independent variable "Learning by observing activities of another mentor" increased; 7) would increase by 1.228 times if the independent variable "Learning from an effective mentor during studies" increased.

Table 4. The Characteristics of the Learning Mentoring Model (comparative group – little effective mentors)

Learning Mentoring Subscales	Coeffi-cient B	SD	*Wald* Coeffi-cient	df	p	Exp (B)	95% Confidence Interval	
							Lower Limit	Upper Limit
Moderately Effective Mentors								
Mentor's attitudes to learning	0.132	0.045	8.768	1.000	0.003	1.142	1.046	1.246
Mentor's knowledge and skills	0.134	0.054	6.299	1.000	0.012	1.144	1.030	1.271
External learning motives	0.159	0.062	6.508	1.000	0.011	1.172	1.037	1.324
Internal learning motives	0.085	0.052	2.620	1.000	0.106	1.088	0.982	1.206
Collaborative learning	0.154	0.034	20.505	1.000	0.000	1.166	1.091	1.247
Learning by observing activities of another mentor	0.016	0.045	0.128	1.000	0.720	1.016	0.930	1.110
Learning from an effective mentor during studies	0.074	0.048	2.439	1.000	0.118	1.077	0.981	1.183
Very Effective Mentors								
Mentor's attitudes to learning	0.168	0.089	3.516	1.000	0.061	1.182	0.992	1.409
Mentor's knowledge and skills	0.302	0.094	10.368	1.000	0.001	1.353	1.126	1.626
External learning motives	0.202	0.077	6.957	1.000	0.008	1.224	1.053	1.422
Internal learning motives	0.246	0.096	6.525	1.000	0.011	1.279	1.059	1.545
Collaborative learning	0.366	0.070	27.195	1.000	0.000	1.443	1.257	1.656
Learning by observing activities of another mentor	0.167	0.070	5.701	1.000	0.017	1.181	1.030	1.354
Learning from an effective mentor during studies	0.205	0.080	6.532	1.000	0.011	1.228	1.049	1.437

Conclusions

Based on the analysis of nursing studies, it can be assumed that students' mentor effectiveness depends on learning mentoring. The stronger the attitudes for learning mentoring and the better knowledge and skills of mentoring are acquired by mentors, the stronger their motivation for learning mentoring, collaborative learning of mentoring, observing the work of other mentors, and the better learning experience they have gained from other mentors during their studies, the more effective mentors they can become.

References

Abbidin, N. Z. (2012). A Review of Effective Mentoring Practices for Mentees Development. *Journal of Studies in Education, 2* (1)*,* 72-89.

Ali, W. G. (2012). Caring and Effective Teaching Behavior of Clinical Nursing Instructors in Clinical Area as Perceived by Their Students. *Journal of Education and Practice, 3* (7), 15-26.

Allan, H. (2010). Mentoring overseas nurses: barriers to effective and non-discriminatory mentoring practice. *Nursing Ethics, 17* (5), 603-613.

Allison-Jones, L. L., & Hirt, J. B. (2004). Comparing of teaching effectiveness of part-time & full-time clinical nurse faculty. *Nursing Education Perspectives*, *22*, 238-243.

Anderson, L. (2011). A learning resource for developing effective mentorship in practice. *Nursing Standard, 25* (51), 48-56.

Chandan, M., & Watts, C. (2012). Mentoring and pre-registration nurse education. Retrieved from http://www.williscommission.org.uk/_data/assets/pdf_file/0009/479934/Mentoring_and_preregistration_nurse_education.pdf

Crisp, G., & Cruz, I. (2009). Mentoring College Students: A Critical Review of the Literature between 1990 and 2007. *Research in Higher Education, 50*, 525-545.

Eller, L. S., Lev, E. L., & Feurer, A. (2014). Key components of an effective mentoring relationship: A qualitative study. *Nurse Education Today, 34*, 815-820.

Foley, G. (2007). Suaugusiųjų švietimas ir mokymas šiandien. In G. Foley (Ed.), *Suaugusiųjų mokymosi metmenys. Suaugusiųjų švietimas globalizacijos laikais* (pp. 21-34). Vilnius: Kronta.

George, M. P., & Mampilly, R. (2012). A Model for Student Mentoring in Business Schools. *International Journal of Mentoring and Coaching in Education, 1* (2)*,* 136-154.

Grassinger, R., Porath, M., & Ziegler, A. (2010). Mentoring the gifted: a conceptual analysis. *High Ability Studies, 21(*1*),* 27-46.

Hamlin, R. G., & Sage, L. (2011). Behavioural criteria of perceived mentoring effectiveness. An empirical study of effective and ineffective mentor and mentee behaviour within formal mentoring relationships. *Journal of European Industrial Training, 35* (8), 752-778.

Hansford, B. C., Tennet, L., & Enrich, L. C. (2003). Educational mentoring: Is it worth the effort? *Education Research and Perspectives, 39* (1)*,* 42-75.

Heshati-Nabavi, F., & Vanaki, Z. (2010). Professional approach: the key feature of effective clinical educator in Iran. *Nurse Education Today, 30*, 163-168.

Hilli, Y., Melender, H. L., Salmu, M., & Jonsen, E. (2014). Being a preceptor – A Nordic qualitative study. *Nurse Education Today, 34* (12), 1420-1424.

Hudson, P., Spooner-Lane, R., & Murray, M. (2013). Making mentoring explicit: articulating pedagogical knowledge practices. *School Leadership & Management, 33* (3)*,* 284-301.

Huggett, K. N., Warrier, R., & Maio, A. (2008). Early learner perception of the attributes of effective preceptors. *Advances in Health Sciences Education, 13*, 649-658.

Huybrecht, S., Loeckx, W., Quaeyhaegens, Y., De Tobel, D., & Mistiaen, W. (2011). Mentoring in nursing education: Perceived characteristics of mentors and the consequences of mentorship. *Nurse Education Today, 31*, 274-278.

Illeris, K. (2007). *How we learn. Learning and non-learning in school and beyond.* London: Routledge.

Illeris, K. (2009). A comprehensive understanding of human learning. In K. Illeris (Ed.), *Contemporary Theories of Learning* (p. 7-20)*.* London: Routledge.

Jacobs, J. N. (2008). Constructing a Model for the Effective Mentoring of Music Educators. *Journal of Music Teacher Education, 17* (2)*,* 60-68.

Jokelainen, M., Turunen, H., Tossavainen, K., & Jamookeeah, D. (2011). A systematic review of mentoring nursing students in clinical placements. *Journal of Clinical Nursing, 20,* 2854-2867.

Jokelainen, M., Tossavainen, K., Jamookeeah, D., & Turunen, H. (2013). Seamless and committed collaboration as an essential factor in effective mentorship for nursing students: Conceptions of Finnish and British mentors. *Nurse Education Today, 33*, 437-443.

Kelly, C. (2007). Student's perceptions of effective clinical teaching revisited. *Nurse Education Today, 27*, 885-892.

Knox, J. E., & Mogan, J. (1985). Important clinical teacher behaviors' as perceived by university nursing faculty, students and graduates. *Journal Advanced Nursing, 10*, 25-30.

Kondratavičienė V., & Sajienė, L. (2007). Praktinio mokymo realioje darbo vietoje modernizavimo vertinimas: studentų požiūrio tyrimas. *Profesinis rengimas: tyrimai ir realijos, 13*, 102-113.

Lee, W. S. C, Cholowski, K., & Williams, A. K. (2002). Nursing students' and clinical educators' perceptions of characteristics of effective clinical educators in an Australian university school of nursing. *Journal of Advanced Nursing, 39* (5), 412-420.

Monkevičienė, O., & Schoroškienė, V. (Eds.) (2008). *Mentoriaus veikla ir kompetencijos. Mentoriaus rengimo vadovėlis*. Kaunas: Technologija.

Myall, M., Levett-Jones, T., & Lathlean, J. (2008). Mentorship in contemporary practice: the experiences of nursing students and practice mentors. *Journal of clinical nursing, 17*, 1834-1842.

Nelson, N. (2011). *Beginning Nursing Students' Perceptions of the Effective Characteristics and Caring Behaviors of their Clinical Instructor.* Retrieved from ProQuest Digital Dissertations (UMI 3449130).

Nettleton, P., & Bray, L. (2008). Current mentorship schemes might be doing our students a disservice. *Nurse Education in Practice, 8*, 205-212.

Omansky, G. L. (2010). Staff nurses' experiences as preceptors and mentors: an integrative review. *Journal of Nursing Management, 18*, 697-703.

Ousey, K. (2009). Socialization of student nurses: the role of the mentor. *Learning in Health and Social Care, 8*, 175-184.

Pehkonen, A., Arola, M., Zvyagina, O., & Grouev, A. M. (2010). *Mentoring and Social Work*: *Mentoring Handbook*. Helsinki: University Print.

Ploeg, J., Witt, L., Hutchison, B., Hayward, L., & Grayson, K. (2008). Evaluation of research mentorship program in community care. *Evaluation and Program Planning, 31* (1)*,* 22-23.

Rimkienė, R., Grūnovienė, D., & Dovydaitis, J. (2012). Praktikos vadovo (mentoriaus) parama studentams realizuojant baigiamąją praktiką: studentų požiūrio analizė. *Sveikatos mokslai, 22* (5), 180-187.

Rogers, J. L., Dunn, L. R., & Lautar, C. J. (2008). Training health care providers to be educators. *The Health Care Manager, 27* (1), 40-44.

Sambunjak, D., Straus, S. E., & Marusic, A. (2010). A Systematic Review of Qualitative Research on the Meaning and Characteristics of Mentoring in Academic Medicine. *Journal of General Internal Medicine, 25* (1), 72-78.

Sanfey, H., Hollands, C., & Gantt, N. L. (2013). Strategies for building an effective mentoring relationship. *The American Journal of Surgery, 206*, 714-718.

Smedley, A. M. (2008). Becoming and being a preceptor: a phenomenological study. *The Journal of Continuing Education in Nursing, 39* (4), 185-191.

Smith, E. R., & Evans, C. (2008). Providing Effective Mentoring for Alternate Rout Beginning Teachers. *The Teacher Educator, 43* (4), 249-278.

Stenfors-Hayes, T., Hult, H., & Dahlgren, L. O. (2011). What does it mean to be a mentor in medical education? *Medical Teacher, 33*, 423-428.

Sutkin, G., Wagner, E., Harris, I., & Schiffer, R. (2008). What Makes a Good Clinical Teacher in Medicine? A Review of the Literature. *Academic Medicine, 83*, 452-466.

Torre, D. M., Daley, B. J., Sebasthian, J. L., & Elnicki, D. M. (2006). Overview of Current Learning Theories for Medical Educators. *The American Journal of Medicine, 119* (10), 903-907.

Urbanovič, J. (2011). *Mokyklos autonomijos valdymo modelis*. (PhD thesis, Mykolas Romeris University).
Viale, W., & Tischler, K. (2009). Gifted students perception of the characteristics of effective teacher. In D. Wood (Ed.), *The Gifted Challenge: Challenging the Gifted* (pp. 115-124). Merrylands, Australia: NSWAGTC Inc.
Wang, J., & Odell, S. I. (2002). Mentored Learning to Teach According to Standards-Based Reform: A Critical Review. *Review of educational research, 72* (3), 481-546.
Webb, C., & Shakespeare, P. (2008). Judgments about mentoring relationships in nurse education. *Nurse Education Today, 28* (5)*,* 563-571.
Zachary, L. J. (2000). *The mentor's guide*. San Francisco: Jossey-Bass.
Zellers, D. F., Howard, V. M., & Barcic, M. A. (2008). Faculty Mentoring Programs: Reenvisioning Rather Than Reinventing the Wheel. *Review of Educational Research, 78* (3), 552-588.

INFLUENCE OF LEARNING MENTORING ON MENTOR EFFECTIVENESS: CASE OF NURSING STUDIES

Summary

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Scholars acknowledge that mentoring is a life-long learning process (Hansford et al., 2003; Pehkonen et al., 2010), and therefore, it is appropriate to search for the roots of effective mentoring in learning mentoring, and to raise the following **research question:** *what is the influence of learning mentoring on mentor effectiveness?* To answer this question, the article focuses on the case of nursing studies. Scientific literature, as specified by Huybrecht et al. (2011), Hilli et al. (2014), emphasises the importance of teaching/learning of mentors, however, there is a lack of research works that analyse mentors' teaching/learning; it is still uncertain how effective mentoring is learnt (Kelly, 2007; Chandan & Watts, 2012). Therefore, we can assume that the research question raised is relevant practically and significant theoretically.

Since the research is based on the case of nursing students' mentors, two populations have been selected for the survey: 1) mentors of nursing students; and 2) nursing students. The survey, which was conducted in 2014, included 462 students and their mentors selected by applying a probability sampling method. After the verification of questionnaires, data of 441 pairs have been selected for the research. According to the characteristics of effectiveness, mentors were divided into 3 groups. The first group (little effective mentors) included mentors, whose effectiveness was evaluated by students by 1 or 2 points, the third group (very effective mentors) included mentors, who have been evaluated by students only by 5 or 6 points. The remaining mentors have been attributed to the second group (moderately effective mentors). The calculated total scale score was normed dividing this score by number of items in the scale. Finally, the distribution of mentors according to their effectiveness was as follows: the group of mentors featuring low effectiveness comprised 79 mentors, moderately effective mentors – 295, very effective mentors – 67.

Two instruments have been used in the survey: 1) Learning Mentoring Scale; 2) Mentor Effectiveness Scale. The learning mentoring scale was developed on the basis of the theory of learning by Illeris (2007; 2009). Simona Paulikienė, the co-author of this article, under the supervision of Liudmila Rupšienė, another co-author, following the ideas of the above mentioned theory, has distinguished the

categories and subcategories of learning, modifying the latter for the analysis of the learning process of mentoring. To validate thus formed scale of learning mentoring, seven factors have been extracted in the factor analysis; the consistency coefficients of each subscale range from 0.655 to 0.920. The latter subscales reflect a tri-componential model of learning presented by Illeris, which consists of three dimensions of learning: learning content, learning incentives and learning through interaction. To analyse the effectiveness of nursing students' mentors, *The Nursing Clinical Teacher Effectiveness Inventory* developed by Knox & Mogan (1985) was selected. The inventory was modified, replacing the original 7-point ranging system of items by 6-point ranging system, assuming that such a system will allow a more precise grouping of mentors according to their effectiveness. The reliability analysis showed that the scale is a reliable measuring instrument (Cronbach's alpha 0.982).

The analysis of ANOVA results allows the assumption that very effective mentors, compared to less effective mentors, are distinguished by the fact that they have stronger attitudes for learning mentoring, knowledge and skills, a stronger intrinsic motivation to learn mentoring, are learning mentoring in cooperation with others, by observing the work of other mentors, had good experience of learning from other mentors during their studies. Very effective mentors do not distinguish from other mentors in terms of stronger external motives of learning mentoring. Application of a multinomial logistic regression model allowed the probability estimation of how learning of a nursing students' mentor effects mentor effectiveness. A logistic regression model was formed, which evaluated the effect of all the subscales of "Learning mentoring" scale, classifying mentors to a specific mentor group. Statistical data shows that a probability that little effective mentors will become moderately effective mentors: 1) would increase by 1.142 times if the independent variable "Mentor's attitudes to learning" increased; 2) would increase by 1.144 times if the independent variable "Mentor's knowledge and skills" increased; 3) would increase by 1.172 times if the independent variable "External learning motives" increased; 4) would increase by 1.088 times if the independent variable "Internal learning motives" increased; 5) would increase by 1.166 times if the independent variable "Collaborative learning" increased; 6) would increase by 1.016 times if the independent variable "Learning by observing activities of another mentor" increased; 7) would increase by 1.077 times if the independent variable "Learning from an effective mentor during studies" increased. Moreover, a probability that little effective mentors will become very effective mentors: 1) would increase by 1.182 times if the independent variable "Mentor's attitudes to learning" increased; 2) would increase by 1.353 times if the independent variable "Mentor's knowledge and skills" increased; 3) would increase by 1.224 times if the independent variable "External learning motives" increased; 4) would increase by 1.279 times if the independent variable "Internal learning motives" increased; 5) would increase by 1.443 times if the independent variable "Collaborative learning" increased; 6) would increase by 1.181 times if the independent variable "Learning by observing activities of another mentor" increased; 7) would increase by 1.228 times if the independent variable "Learning from an effective mentor during studies" increased.

The obtained results lead to the conclusion that in the case of nursing studies, the students' mentor effectiveness depends on learning mentoring. The stronger the attitudes for learning mentoring and the better knowledge and skills of mentoring are acquired by mentors, the stronger their motivation for learning mentoring, collaborative learning of mentoring, observing the work of other mentors, and the better learning experience they have gained from other mentors during their studies, the more effective mentors they can become.