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COMPETÊNCIAS GENÉRICAS E ESPECÍFICAS DO PROFESSOR MENTOR: PERCEÇÃO DOS ESTUDANTES DO ENSINO SUPERIOR DA ÁREA DA SAÚDE

GENERIC AND SPECIFIC COMPETENCES OF THE MENTOR TEACHER: HIGHER EDUCATION STUDENTS PERCEPTION IN THE HEALTH AREA

COMPETENCIAS GENÉRICAS Y ESPECÍFICAS DEL PROFESOR MENTOR: PERCEPCIÓN DE LOS ESTUDIANTES DE LA ENSEÑANZA SUPERIOR DEL ÁREA DE LA SALUD

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RESUMO

Introdução: O processo de mentoria é dinâmico, recíproco e reflexivo, daí que as competências enquanto disposição para agir de modo pertinente em relação a uma situação específica (Le Boterf, 2003), carecem de ser monitorizadas no decorrer do processo de mentorado. O mentor remete para um profissional com mais experiência que orienta, ensina, encaminha, apoia e aconselha um estudante com menos prática, desempenhando um papel importante a nível pessoal e profissional (Botti & Rego, 2007, p.368).

Objetivo: Avaliar a perceção dos estudantes do ensino superior sobre as competências de supervisão necessárias ao professor mentor.

Métodos: O estudo descritivo de natureza quantitativa com abordagem transversal foi realizado com uma amostra de 306 estudantes da área da saúde do ensino superior politécnico com uma média de age s de 21,15 anos e um maior percentual de mulheres (81,7%). A recolha de informação foi suportada na aplicação de escalas de *Competências genéricas, especificas e Metacompetências do supervisor* (Cunha, Cruz, Menezes, & Albuquerque, 2017) e de *Core de competências do supervisor* (Cunha & Albuquerque, 2017), via *on-line*, disponível na página da instituição académica.

Resultados: Inferiu-se que para os estudantes do ensino superior as características mais importantes necessárias ao professor mentor, são as Competências Genéricas (média= 4.36 e dp= 0.47), e os fatores pessoais (média= 4.83 e dp= 0.46). O core de competências do professor mentor prediz as suas competências genéricas, específicas e *Metacompetências* e explica 70% da sua variação.

Os resultados evidenciam através de um percentual significativo de 87,5%, que a atribuição de um professor mentor aos estudantes do ensino superior é importante, devendo o acompanhamento ser efetivo do 1º ao 3º/4º ano (60,4%) com sessões diárias (51,6%) a decorrer no local de estágio (52,4%), com duração inferior a uma hora (49,7%).

Conclusões: Emerge do estudo a importância de se monitorizar as competências pedagógicas de supervisão e mentoria e os resultados sugerem que os estudantes do ensino superior, valorizam a existência de um professor mentor, pelo que a sua atribuição é pertinente para consolidar a missão todas as dimensões da ação pedagógica.

Palavras-chave: Estudantes, Competências, Supervisão, Professor Mentor

ABSTRACT

Introduction: The mentoring process is dynamic, reciprocal and reflexive, hence skills as a disposition to act in a relevant way in relation to a specific situation (Le Boterf, 2003), need to be evaluated in the mentoring processes. The mentor refers to a more experienced professional who guides, teaches, directs, supports and advises a student with less practice, playing an important role on a personal and professional level (Botti & Rego, 2007).

Objetive: To evaluate the perception of the college students about the supervisory skills that need to be obtained by the mentor teacher**.**

Methods: The cross-sectional descriptive study was carried out on a sample of 306 college students of the health area, of a polytechnic, with an average age of 21.15 years and a higher percentage of women (81.7%). The gathering of Information was supported by the application of Generic, specific and meta-competences of the supervisor scale (Cunha, Cruz, Menezes & Albuquerque, 2017) and Supervisor Core competencies scale (Cunha & Albuquerque, 2017), available online in the academic institution site.

Results: The study allows us to conclude that the most important characteristics necessary for the mentor teacher, for college students, are the supervisor's generic skills (average = 4.36 and SD = 0.47), and personal factors (averagde = 4.83 and SD = 0.46). The supervisor's core competencies predicts the supervisor's generic, specific and meta-competencies skills, explaining their 70% variation.

The results support the importance of the assignment of a mentor teacher in college (87.5%), and the monitoring should be effective from the 1st to the 3rd / 4th year (60.4%). They also suggest the preference of daily sessions (51.6%) in the training place (52.4%), lasting less than one hour (49.7%).

Conclusions: The importance of monitoring the pedagogical competences of supervision and mentoring emerges from the study and the results suggest that the students of higher education value the existence of a mentor teacher, so their attribution is pertinent to consolidate the mission all dimensions of pedagogical action.

Key words: Students, Skills, Supervision, Mentor Teacher

RESUMEN

Introducción: El proceso de mentor es dinámico, recíproco y reflexivo, de ahí que las competencias como disposición para actuar de modo pertinente en relación a una situación específica (Le Boterf, 2003), carecen de ser monotorizadas en el transcurso del proceso de mentorado. El mentor remite a un profesional con más experiencia que orienta, enseña, encamina,

apoya y aconseja a un estudiante con menos práctica, desempeñando un papel importante a nivel personal y profesional (Botti & Rego, 2007, p.368).
Objetivo: Evaluar la percepción de los estudiantes de enseñanza superior sobre las competencias de supervisión a obtener por lo profesor mentor.
Métodos: El estudio descriptivo de abordaje transversal fue realizado en una muestra de 306 estudiantes del área de la salud de la enseñanza superior politécnica con una media de edades de 21,15 años y un mayor porcentual de mujeres (81,7%). La recogida de información fue apoyada en la aplicación das escalas de *Competencias genéricas, específicas y metacompetencias del supervisor* (Cunha, Cruz, Menezes & Albuquerque, 2017) y de *Core de competencias del supervisor* (Cunha & Albuquerque, 2017), vía on-line, disponible en la página de la institución académica.
Resultados: Se ha inferido que para los estudiantes de enseñanza superior las características más importantes a obtener por lo lo profesor mentor, son las competencias genéricas del supervisor (media = 4.36 y dp = 0.47), y los factores personales (promedio = 4.83 y dp = 0.46). El core de competencias del supervisor predice las competencias genéricas, específicas y metacompetencias del profesor mentor y explica el 70% de su variación.
Los resultados evidencian de forma significativa (87,5%), que la asignación de un profesor mentor a los estudiantes de enseñanza superior es importante, debiendo el acompañamiento ser efectivo del 1º al 3º / 4º año (60,4%) con sesiones diarias (51,6%) en el lugar de prácticas (52,4%), con una duración inferior a una hora (49,7%).
Conclusiones: Emerge del estudio la importancia de monitorear / supervisar las competencias pedagógicas de supervisión y mentoría y los resultados sugieren que los estudiantes de enseñanza superior, valoran la existencia de un profesor mentor, por lo que su atribución es pertinente para consolidar la misión de todas las dimensiones de la acción pedagógica.

Palabras clave: Estudiantes, Competencias, Supervisión, Profesor Mentor

INTRODUCTION

For the effective management of a student's learning, different roles are competing for the teacher to play. None of the roles assume a tight function, on the contrary, their implementation run in symbiosis, emphasizing the dimensions of advisor, mentor and supervisor in the action of Being a Teacher. In this process, the human capital of the teacher-student / student-teacher dyad is of particular relevance and the teacher's competences are modifiable components that ensure the dynamism of academic didactics.
The concept of competence, whose discussion in the literature dates back to the 1970s, is more evident in the context of educational psychology, human resources and vocational training. Jardim (2007) states that although the concept of competence has been present in the field of psychology for more than a century, it is with Chomsky's study (1965, 1986) that the definition of competence gains notoriety and becomes the subject of scientific debate. Chomsky (1965, 1986) establishes the difference at a linguistic level between competence and performance and designates competence as everything that the subject is able to perform taking into account their biological potential. In turn, performance would be observable behavior, which is no more than an imperfect reflection of the individual's global potential (Dolz & Ollagnier 2004, cit. By Jardim, 2007). The specific studies on psychology of education study the concept of competence under the prism of the behaviorist chain, in order to meet the constructivist current (Ramos, 2002). However, it was not until the 1960s that the understanding of competence was linked to the idea of clearly indicating behavioral teaching objectives and observable knowledge, following Skinner's (1968, 1971) Bloom's (1964, 1976), and Mager's (1977) behaviorist line.
At an academic level, the modern movement of competence studies registers as a pioneer MacClelland (1976) cited by Jardim (2007), who argues that traditional exams do not guarantee good performance at work or success in professional life. From this author's perspective, it is important to look for other variables to confirm the existence of the acquisition of competences.
Malglaive (1995) points out that individual capacities are part of a dynamic process and are based on the knowledge that is used in everyday life. In addition, capacities must be understood as actions of thought, which result in new knowledge and which, in turn, determine a material or symbolic action, which is implicated in the construction of new knowledge. In this sense, the knowledge used in practice focuses on theoretical or formalized knowledge, as well as on non-formalized practical knowledge. The author emphasizes that theoretical knowledge is defined within reality itself, and when it is transformed into action, it becomes recognized as technical knowledge (what should be done). From this action arises the need for methodological knowledge (how to do it). The result of this action is the practical knowledge that should be manifested through acts. Malglaive (1995) points out that the notion of competence meets the idea of construction from Piaget's knowledge and, therefore, follows the line of constructivism. In this way, the conception of competence fits into intentional motivation and professional achievement, where the verbs to mobilize, to articulate and to put into action translate operations that can be seen as implicit in comparison with the words values (cultural and personal elements), knowledge (theoretical and practical knowledge) and skills (the result of the basic skills that have been revealed in the know-how).
On the mobilization of knowledge, Le Boterf (2003) considers knowledge and ability as two separate entities. But when these aspects

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are referred to at a competence level, they relate to the capacity that the individual possesses to mobilize them to perform some task. In this line of thought, Perrenoud (2000) adds that the individual mobilizes knowledge that translates into competencies. In other words, the individual's sense of ability to mobilize a set of cognitive resources, such as: knowledge, skills, information and still looking for answers to different situations. In this sense, Jardim (2007) defends that competences are compared to a properly structured set of knowledge and skills, which follow a specific organization potentially transferable to other areas and contexts other than those that are apprehended. Argyris (1991) quoted by Jardim (2007) points out that the basic rule of competent actions refers to acts guided by knowledge validated by an intersubjective construction, so that competence adopts a stable character, but subject to revision. Competence assumes the character of a formal construction of procedures based on action schemes. In other words, the competent individual has the ability to select, organize and apply knowledge, in addition to possessing skills and behaviors in a given situation. Therefore, competence is not something that is already established, on the contrary, it is activated when the situation demands it, arising from the capacities of agglutination of diversified and heterogeneous knowledge, and it is necessary to implement them in carrying out the activities. Conceptualizing competency related to the act of evaluation, remits to the fact that it is presumed that when performing a task the individual will perform it efficiently, considering the qualities it has and the role it should play (Aubret & Gilbert, 2003).

Given the multiplicity of competency conceptions, Jardim (2007) emphasizes that the concept of competence is multidimensional and corresponds to the individual's ability to construct a set of knowledge, attitudes and skills in a real and concrete situation, so that he/she can be successful. The author identified three groups that, in practical terms, involve the operationalization of competence. They are:

- Basic skills: acquired through formal education and training systems, which concern (...) the use of computers and information technology, communication; of the elementary notions of ethics and interpersonal relationships;
- Technical skills: those that are directly related to a profession, and can be acquired, to a certain extent, in the actual exercise of a work activity, besides being related to professional specializations or still related to the scientific and technological area;
- Transversal competences: usual in various activities, they are transferable from function to function, acquired essentially in interaction with the other and fostered in formal and non-formal formation. These are associated with the ability to manage self resources (intrapersonal skills), interpersonal relationships (interpersonal skills), and also relate to the performance of professional activities (professional competencies).

The transversal competences include social competences that, according to Trianes Torres, Muñoz Sanchez e Jiménez Hernandez (2003),, are part of the psychological system of individuals, having internal aspects that are generally related to the ability to put oneself in the other's place (empathy), living and interacting in society, as well as the ability to self-regulate interpersonal relationships and perception about oneself, in order to value oneself.

On this dimension, professional orientation integrates a set of activities that allow people of any age group, at any time in their lives to identify their skills, competencies and interests, make the most important decisions at a school, professional and training/formation level, and manage their life projects. Guidance can be gained in various contexts such as education, training/formation, employment, at a community and private level (Silva, 2010).

The qualities and pedagogical capacities of the advisor must be improved during the formative course in the varied learning situations. In addition to a practice of mentoring, with various behavioral and technical components, being a mentor can become quite dignifying, because when seeing his or her work debated, the advisor needs a posture of self-reflection and a high capacity of observation, with the final objective of a new learning. There are several factors that may hinder the relationship between the student and the counselor, making motivation one of the most important factors in this relationship with multiple impacts, whether in the education of the trainee or in the activity of the counselor (Gaspar, Jesus, & Cruz, 2011).

Regarding to the mentor concept, this refers to a professional with more experience who guides, teaches, directs, supports and advises a student with less practice, playing an important role on a personal and professional level (Botti & Rego, 2007).

In the context of this study and in relation to the educational context, mentoring is assumed as a term used to describe a relationship between a less experienced individual, referred to as the mentored, and a more experienced individual, referred to as the mentor (Packard, 2003, cit. by Karkowska, Cieplik, Krukowska, Tsaroucha, Dimos, Papagiannopoulou, Leire Monterrubio, Iratxe Ruiz, Jaione Santos, Duse, Duse, Chisiu, Gruber, Andron, Creţu, Ventura, Mendonça (2015). In this context, it will be considered as similar to an action of pedagogical supervision.

In order for the relationship to be pedagogically fruitful in educational gains, the mentor should have supervisory competencies, transforming the didactics of the teaching-learning process into academic achievements, transferring them to the daily life of teaching/work contexts and simultaneously of personal development (Cunha, 2017).

About the dimension of supervision it is defined as a process in which a professional, in principle more experienced and more informed, guides another (professional) or candidate to (professional) in their human and professional development (Alarcão & Tavares, 2007). It is related to safety and productive professional relations, as this is an effective way to explore issues related to professional practice, allowing professionals not only to learn from each other, but to provide support, recognize how they see and appreciate them as workmates, and also to control concern and anxiety about the functions they perform (Cruz, 2012).

Finally, the competent professional according to Le Boterf (2003, p.38) is one who knows how to manage complexity. This knowing how to manage can be: knowing how to act with pertinence; knowing how to mobilize knowledge in a professional context; knowing how to integrate or combine multiple and heterogeneous knowledge; knowing how to transpose; knowing how to learn and learning how to learn; knowing how to get involved.

1. METHODS

The descriptive study of a quantitative nature with a transversal approach aims to evaluate the perspective of the students of higher education on the characteristics and competences of the mentor teacher, as an ideal mentor, as well as the most favorable environment for them to be applied in student orientation.
The study is part of the project "Supervision and Mentoring in Higher Education: Dynamics of Success (SuperES)" (Cunha, 2017), with Ref.: PROJ/CI&DETS/CGD 0005) with favourable opinion (Nº 3/2017) from the Ethics Committee and authorization from the institution's manager, which took place in a higher education institution in north central Portugal.
The non-probabilistic sample of convenience consisted of 306 students from the health area of a polytechnic of higher education, with ages between 18 and 42, with the average age of 21.15 years and mostly female (81.7%) (±3.54 dp).

Data collection instruments
The collection of information was carried out through a protocol of questionnaires available on-line on the page of the educational institution, composed by:

- Scale of "Sociodemographic Characterization and Pedagogical Context" (Cunha, 2017), which includes sociodemographic issues (age, gender) and items related to the ideal and real regularity of the pedagogical sessions, place of the pedagogical sessions, time of the pedagogical sessions and the importance of attribution of a mentor teacher in Higher Education students.
- Generic and Specific Competency Scale of the Supervisor (GSSC) "de Cunha, Cruz, Menezes & Albuquerque (2017) with the purpose of assessing the competences of the mentor teacher according to the student's perspective.

The collection of information was done through the protocol of online questionnaires, available on the page of the institution of higher education.
For data collection, an ad hoc questionnaire (Cunha, 2017) was used, consisting of socio-demographic characterization items and questions related to the supervision context (ideal regularity and pedagogical session, place of occurrence of the session, time of the session and the importance attributed to the mentor by the students of higher education).
The Supervisor's Core Competencies Scale (SCoreCS) (Cunha & Albuquerque, 2017) and the Generic, Specific and Metacompetencies of the Supervisor Scale (GSMSS) (Cunha, Cruz, Menezes & Albuquerque, 2017) were also applied in order to assess the perspective of higher education students on this subject.

Supervisor's Core Competencies Scale
The Supervisor's Core Competencies Scale (SCoreCS) (Cunha & Albuquerque, 2017) whose original version comprises 29 items and developed for college students, is a Likert-type construct whose aim was to assess the students' perceptions about the mentor teacher's competences.
The scale features three subscales: Core personal factors; Core interpersonal/Communication factors and core performance factors. The "Core personal Factors" subscale consists of 9 items (1, 2, 3, 4, 5, 6, 7, 8, 9), the "Core interpersonal/Communication factors" subscale presents 10 items (10, 11, 12, 13, 14, 15, 16, 17, 18, 19) and the "Core performance factors" subscale comprises 10 items (20, 21, 22, 23, 24, 25, 26, 27, 28, 29).
The items answers range from 1 to 5: 1 – "Strongly disagree"; 2-"Disagree"; 3 – "Neither agree nor disagree"; 4 – " Agree" and 5 – " Strongly agree".

Generic and Specific Competencies Scale of the Supervisor (GSSC)
The Generic and Specific Competency Scale of the Supervisor (GSSC) of Cunha, Cruz, Menezes & Albuquerque (2017) was developed for the student's population of higher education, with the objective of evaluating their opinion about the competences of the mentor teacher. It is of the Likert type, varying the answers to the items between 1 and 5, being denominated like 1 - "I strongly disagree"; 2 - "I disagree"; 3 - "I do not agree / disagree"; 4 - "I agree" and 5 - "I agree a lot". In the present study the original version was applied, which after the psychometric study of the author was constituted by 24 items created specifically for this purpose. It presents three subscales:

- "Generic competencies" consisting of 14 items (1,2,3,4,5,6,7,8,9,10,11,12,13,14);
- "Specific Competencies" presents 6 items (15, 16, 17, 18, 19, 20);
- "Meta-competencies" includes 4 items (21, 22, 23, 24).

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Internal Consistency of the Supervisor's Generic and Specific Competencies Scale (CGES)

The confirmatory factorial analysis of the GSSC scale using the varimax orthogonal rotation method and for the retention of own values above allowed extracting three factors that together explain 73.71%.
Globally, GSSC Scale of 20 items of Cunha, Cruz, Menezes & Albuquerque (2017) obtained a Cronbach alpha value of 0.967 and the final distribution of the items in the three subscales was the following:

- "Generic competencies" consisting of 11 items (1,2,3,5,7,8,9,10,11,12,13);
- "Specific competencies" presents 5 items (15, 16, 18, 19, 20);
- "Meta-competencies" includes 4 items (21, 22, 23, 24).

2. RESULTS

The majority of the students surveyed, 51.6%, consider that the ideal regularity for mentoring should be done daily, however 52.2% mentioned that the ongoing orientation sessions are held weekly. Regarding the place of sessions, 52% prefer them to be held during the internship, with a duration of less than 1 hour (49.7%). The majority of the students (87.6%) say that the mentor teacher is important, and 60.4% of these say that effective follow-up should be done from the 1st to the 3rd / 4th year.

2.1 Generic and Specific Supervisor Competencies (GSSC) - final version of 21 items from Cunha, Cruz, Menezes & Albuquerque (2017) versus gender and age

The statistical analysis of the scores for the overall value of the Generic and Specific Supervisor Competencies Scale (GSSC) shows that, for the total sample, they fluctuated between the minimum of 2.20 "disagree" and a maximum of 5 "I strongly agree", with an average of 4.44 (± 0.45 SD). In the generic competence subscale, the values ranged from a minimum of 2 to a maximum of 5, with an average of 4.44 (± 0.47 SD). The subscale specific competencies patented responses ranging from minimum 2 to maximum 5, with a mean of 4.36 (± 0.52 SD). For the meta-competencies subscale, the values ranged from a minimum of 2 to a maximum of 5, with an average of 4.42 (± 0.49 SD). (see Table 1).

Table 1 - Results of the Generic and Specific Competency Supervisor Statistics (GSSC)

Generic and Specific Supervisor Competencies	Min	Max	M	SD	CV (%)	Sk/error	K/error
Generic Competencies	2,00	5,00	4.44	0.47	10.58	-3.06	14.58
Specific Competencies	2,00	5,00	4.36	0.52	15.47	-2.39	0.97
Meta-Competencies	2,00	5,00	4.42	0.49	11.08	-3.61	1.81
Score Global Competencies (GSSC)	**2.20**	**5.00**	**4.41**	**0.45**	**10.20**	**-2.53**	**1.59**

The analysis of the Generic and Specific Supervisor Competencies (GSSC) scores regarding gender was performed using the Mann-Whitney U Test (z). It was verified that in the global and in the factors/subscales the mean orderings were smaller in the masculine gender, but without statistical differences which translate that between genders values are equivalent (p> 0.05) (see Table 2).

Table 2 - Mann-Whitney U Test Results for Generic and Specific Supervisor Competencies according to gender

Generic and Specific Supervisor Competencies (GSSC) — Gender	Male n=56 Average Order OM	Female n=250 Average Order OM	z	p
Generic Competencies	143.13	155.82	-0.989	0.323
Specific Competencies	143.71	155.92	-1.061	0.289
Meta-Competencies	133.95	157.88	-1.907	0.057
Score Global Competencies (GSSC)	**138.96**	**156.76**	**-1.375**	**0.169**

One-Way ANOVA analysis was done to evaluate the variability of the scores of generic and specific supervisor competencies according to the age group of the students of higher education. It was found that students up to the age of 19 appear to prefer the generic competencies of the supervisor, while meta-competencies are preferred by students between the ages of 20 and 21 and over the age of 22. Young people aged 20 to 21 years present lower rates than the older ones on all subscales and globally.
The values expressed by F are explanatory demonstrating significant differences in relation to age groups, except for the meta-competences subscale (p = 0.120). Tukey's post hoc test was applied, and this indicated that these differences are

between the ages of less than 19 years and between 20 and 21 years in the subscales of generic and specific competencies and in the global scale of GSSC. For the subscale generic competencies there are still significant differences between the youngest students (<= 19 years) and the older ones (> = 22 years). For the remaining subscales, no statistically significant differences were observed (see Table 3).

Table 3 - Results of analysis of variance of the Generic and Specific Supervisor Competencies (GSSC) by age group

Age Groups	<= 19 years (1) n=101		20-21 years (2) n=120		>=22 years (3) n=85		F	p	Tukey Test (p)		
Generic and Specific Supervisor Competencies (GSSC)	Mean	SD	Mean	SD	Mean	SD			(1)-(2)	(1)-(3)	(2)-(3)
Generic Competencies	4.56	0.43	4.35	0.48	4.40	0.46	5.80	0.003	0.003	0.058	0.712
Specific Competencies	4.49	0.52	4.28	0.50	4.33	0.52	5.09	0.007	0.006	0.079	0.754
Meta-Competencies	4.50	0.46	4.36	0.51	4.42	0.51	2.13	0.120	0.099	0.506	0.698
Score- Global Competencies (GSSC)	4.53	0.42	4.34	0.45	4.39	0.45	5.52	0.004	0.004	0.075	0.681

Supervisor's Core Competencies Scale (SCoreCS) - 21-item final version), versus gender and age

The statistical analysis of the scores obtained for the Supervisor's Core Competencies Scale (SCoreCS) global value reveals that, taking into account the total sample, there was a fluctuation between a minimum of 2.33 "Disagree '" and a maximum of 5 "Strongly agree ", with an average of 4.51 (Table 4).

Table 4 - [Statistics regarding the Supervisor's Core Competencies Scale]

Supervisor's Core Competencies Scale (SCoreCS)	Min	Max	M	S.D.	CV (%)	Sk/error	K/error
Core Personal Factors	2	5	4.62	0.46	9,95	-8.92	7.33
Core Interpersonal Communication Factors	3	5	4.55	0.46	10.10	-3.92	-3.40
Core Performance Factors	2	5	4.40	0.50	11.52	-2.69	1.48
Global SCoreCS	**2.33**	**5**	**4.51**	**0.44**	**9.75**	**-5.00**	**2.44**

The analysis of the Supervisor's Core Competencies Scale (SCoreCS) valuation, influenced by the respondents' gender, was conducted through the Mann-Whitney U test. The analysis shows that the mean values for the global score and for the personal and for the performance factors are higher when the respondents are women. Male respondents grant a higher value to the supervisor's interpersonal and communication factors. Statistically significant differences in relation to gender are found in the core personal factors (P = 0,046) and in the core interpersonal /communication factors (p = 0,044) (table 5).

Table 5 - [Results of the Mann – Whitney U Test of the Supervisor's Core Competencies Scale in relation to gender]

Gender	Male	Female	z	p
Supervisor's Core Competencies Scale (SCoreCS)	Average Ordination OM	Average Ordination OM		
Core Personal Factors	133.54	157.97	-1.997	**0.046**
Core interpersonal/Communication Factors	155.82	132.80	-2.016	**0.044**
Core Performance Factors	139.93	156.54	-1.318	0.187
Global SCoreCS	**134.78**	**157.69**	**-1.780**	**0.075**

The analysis of variance was carried out to verify if the opinion of the students of higher education on the supervisor's core competencies varied according to the age group. It was found that students younger than 19 years of age preferred the core of personal skills (M = 4.75). Students with ages between 20 and 21 years had lower scores than older students on two subscales (core of interpersonal/communicational and performance factors). The F values are explanatory demonstrating significant differences among age groups in the different subscales, except for the core subscale of performance factors (p = 0.071).

Because there were significant differences, Tukey's post hoc test was applied, which indicates that the differences are between students with ages less than 19 years and between 20 and 21 years in the core subscales of personal and interpersonal/communicational factors and in the global score of the scale. There are also differences between younger and older students in the core subscales of personal factors and interpersonal and communicational factors. For the remaining subscales, no statistically significant differences were observed in relation to the age group (see Table 6).

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Table 6 - Results of the Analysis of the Variance of the Supervisor's Core Competencies (SCoreC) by age groups

Supervisor's Core Competencies (SCoreC) / Age groups	<= 19 years (1) n=101		20-21 years (2) n=120		>=22 years (3) n=85		F	p	Tukey Test (p)		
	M	dp	M	dp	M	dp			(1)-(2)	(1)-(3)	(2)-(3)
Core of Personal Factors	4.75	0.37	4.55	0.49	4.55	0.49	6.144	0.002	0.005	0.11	1.00
Core of Interpersonal and Communicational Factors	4.66	0.41	4.48	0.47	4.51	0.47	4.53	0.011	0.11	0.082	0.856
Core of Performance Factors	4.48	0.48	4.33	0.51	4.40	0.48	2.67	0.071	0.056	0.505	0.55
Global SCoreCS	**4.62**	**0.39**	**4.44**	**0.45**	**4.48**	**0.45**	**4.67**	**0.010**	**0.009**	**0.090**	**0.797**

A variance analysis (One-Way ANOVA) was carried out to evaluate the scores variability of the supervisor's core competencies according to the higher education students' age group. It was found that students under the age of 19 valued the supervisor's personal competencies (mean=4.75 ± 0,37). The values of F are explanatory and show that there are statistically significant differences when different age groups are involved. This happens for all subscales, except for the core Performance Factors subscale (p = 0,071). We applied Turkey's post-hoc test and it proved that these differences are evident among students who are under 19 and between 20 and 21 and in the responses, they gave to the Core Interpersonal/communication subscale and when we look at the Scale global score. For the Core Personal Factors and the Core interpersonal/communication Factors subscales, there are still significant differences between the younger students and the older ones. (Table 6)

Table 6 - [Results of the variance analysis of the Supervisor's Core Competencies Scale in relation to age groups]

Supervisor's Core Competencies Scale (SCoreCS) / Age groups	<= 19 years (1) n=101		20-21 years (2) n=120		>=22 years (3) n=85		F	p	Tukey Test (p)		
	M	SD	M	dp	M	dp			(1)-(2)	(1)-(3)	(2)-(3)
Core Personal Factors	4.75	0.37	4.55	0.49	4.55	0.49	6.144	0.002	0.005	0.11	1.00
Core Interp. /Communication Factors	4.66	0.41	4.48	0.47	4.51	0.47	4.53	0.011	0.11	0.082	0.856
Core Performance Factors	4.48	0.48	4.33	0.51	4.40	0.48	2.67	0.071	0.056	0.505	0.55
Global SCoreCS	**4.62**	**0.39**	**4.44**	**0.45**	**4.48**	**0.45**	**4.67**	**0.010**	**0.009**	**0.090**	**0.797**

2.1 Relation between the independent variables: age and Gender and Supervisor's Core Competencies (SCoreC) and Supervisor's Generic and Specific Competencies (SGSC)

2.1.1 Core of Competencies Versus Supervisor's Generic Competencies

The correlation analysis performed for generic competencies, regarding age, gender and Core Competencies of the Supervisor, shows that the indexes that present higher and positive correlations are Core of Personal Factors, Core of Performance Factors. The age establishes positive relationship with the core of performance and negative with the core of personal factors, core factors of interpersonal and communicational factors (see Table 7).

Table 7 - Results of the Pearson correlation matrix between age, gender, the Supervisor´s Core Competencies and the Generic Competencies

	Generic Competencies	Age	Gender	Core Personal Factors	Core Performance Factors
Age	0.001 n.s.	---			
Gender	0.046 n.s.	-0.151**	---		
Core Personal Factors	0.716***	-0.074 n.s.	0.092 n.s.	---	
Core Performance Factors	0.779***	0.025 n.s.	0.066 n.s.	0.718***	---
Core Interpersonal/ communication Factors	0.754***	-0.012 n.s.	0.093 n.s.	0.82 4***	0.788***

n.s. – não significativo; * p < 0.05; ** p < 0.01; *** p < 0.001

The multiple regression model shows three variable predictors (core performance factors, core interpersonal and communicational factors and the core personal factors). In the first step, the first variable to enter the regression model was the Core Performance Factors, which presents the highest coefficient of correlation with the generic competences, explaining 60.7% of its variability. The second step originated the access of Core intrapersonal and communicational factors. These two variables now account for 65.9% of generic competences. In the third and last step we observed that the Core of personal factors was associated, explaining 67.1% of Generic Competencies (see Table 8).

The correlation that these three variables establish with Generic Competencies is high (r = 0.819), and the explained variance percentage is 66.8%. The F test is statistically significant and as presented with statistical significance it is possible to infer that the variables that entered the regression model have explanatory power of the Generic Competences.
By the standardized beta coefficients, we found that the Core performance factors has the highest predictive value, followed by the Core of intrapersonal and communicational factors and lastly the Core of personal factors. All variables establish a direct relationship with generic competences, with the conclusion that students who value the core of personal, intrapersonal/communicational and performance factors also consider relevant for the supervisor to have generic competences.
The Variance Inflation Factor (VIF) was used to diagnose the multicollinearity that fluctuated between FIV = 2,750 in the core of performance factors and FIV = 4,138 in the core of interpersonal and communicational factors, and by the results it was concluded that the factors present in the model are not collinear, since they are inferior to 5.0.
With the constant and with the coefficients B was determined the final model adjusted for the Generic Competencies that is given by the following formula:

Generic Competencies = 0.548 + 0.425 core performance factors + 0.240 core of intrapersonal and communicational factors + 0.200 in the core of personal factors

Tabela 8 - Results of the Multiple linear regression between Supervisor's Generic Competencies and Supervisor´s Core Competencies

Dependent variable: **Supervisor's Generic Competencies**

R=0,819
R²=0,671
Adjusted **R²** =0,668
Standard error of the estimate =0.27153
R² Increment =0.012
F=11.144
p=0.001

Regression Weighting					
Independent Variables	**Coefficient B**	**Coefficient beta**	**p**	**t**	**VIF**
Constant	0.548				
Core Performance Factors	0.425	0.451	0.000	8.253	2.750
Core Interpersonal/ communication Factors	0.240	0.235	0.001	3.507	4.138
Core Personal Factors	0.200	0.198	0.001	3.338	3.236

The graphical output of the explanatory adjusted model of the multiple regression for the Generic Competences, with the standardized coefficients is represented in Figure 1. In this model the coefficient of regression or trajectory of the Core of personal factors is β = 0.20, of interpersonal and communicational factors is β = 0.24 and the performance factors is β = 0.45 in relation to generic competences. The model shows that the different variables explain about 67% of the observed variation in the Generic Competencies.

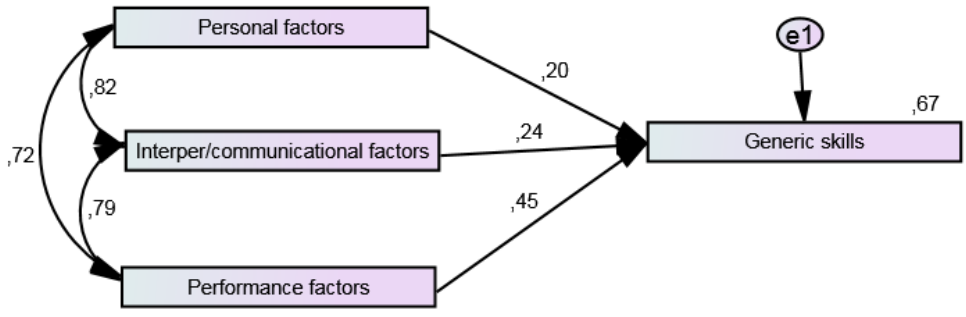

Figure 1 - Adjusted multiple regression graph model for the Supervisor's Generic Competencies

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2.1.2 Core of Competencies Versus Supervisor's Specific Competencies

The correlation analysis performed regarding the specific competencies, relative to Age, Gender and Core Competencies of the Supervisor, shows that the indexes that present higher and positive correlations are Core of Personal Factors, Core of Performance Factors, Supervisor´s Specific Competencies. Age establishes positive relationship with the core of performance factors and negative with the core of personal factors, core factors of interpersonal and communicational factors (see Table 9).

Table 9 - Results of the Pearson correlation matrix between age, gender,the Supervisor´s Core Competencies and the Supervisor's Specific Competencies

	Specific Competencies do Supervisor	Age	Gender	Core Personal Factors	Core Performance Factors
Age	-0.027 n.s.	---			
Gender	0.071 n.s.	-0.151**	---		
Core Personal Factors	0.642***	-0.074 n.s.	0.092 n.s.	---	
Core Performance Factors	0.739***	0.025 n.s.	0.066 n.s.	0.718***	---
Core Interpersonal/ communication Factors	0.659***	-0.012 n.s.	0.093 n.s.	0.824***	0.788***

n.s. – não significativo; * p < 0.05; ** p < 0.01; *** p < 0.001

The multiple regression results presented in Table 10 indicate that the predictor variables of the supervisor's specific competencies are the core of performance factors and the core of personal factors.

The correlation established with the Supervisor's Specific Competencies is good (r = 0.756), accounting for 57.2% of the variation, and its explained adjusted variance is 56.9%. The standard error of the estimation in this regression model is 0.34406, and the VIF <5.0, so it is concluded that they are not collinear. The F test and the t values are statistically significant, so they have an explanatory power in the supervisor's specific competencies.

By the beta coefficients, we noticed that the Core of performance factors is the one with the highest predictive value. The two variables establish a direct relationship with specific competences, suggesting that the more favorable the students' opinion about the supervisor's specific competencies, the more the core of performance and personal factors is valued by the same students.

The analysis was concluded with the presentation of the final model adjusted for the Specific Competencies, which is given by the following formula:

Specific Competencies = 0,960+ 0.601 core of performance factors + 0.2458 in the core of personal factors

Table 10 - Results of the Multiple Regression between the Supervisor's Core Competencies and the Supervisor's Specific Competencies

Dependent variable: Supervisor's *Specific Competencies*					
R=0,756					
R^2=0,572					
Adjusted R^2 = 0,569					
Standard estimation error =0.34406					
Increment of R^2=0.026					
F=18.041					
p=0.000					
Regression Weights					
Independent variables	**Coefficient B**	**Coefficient beta**	**p**	**t**	**VIF**
Constante	0.960				
Core Performance Factors	0.601	0.574	0.000	10.620	2.066
Core Personal Factors	0.258	0.230	0.000	4.247	2.066

Figure 2 represents the graphic output of the multiple regression adjusted model for the Specific Competencies, with the standardized coefficients. In this model the coefficient of regression or trajectory of the personal factors is β = 0.23 and of the performance factors is β = 0.57 in relation to the specific competences. The model clarifies that the different variables explain, as mentioned previously, about 57% of the variation observed in Supervisor's Specific Competencies

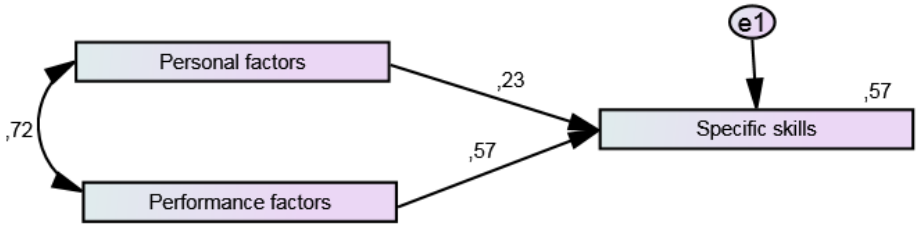

Figure 2 - Adjusted multiple regression graph model for Supervisor's Specific Competencies

2.3.3 Core of Competencies and Supervisor's Metacompetencies

The correlation analysis performed relating to the Supervisor's Metacompetencies, in relation to Age, Gender and the supervisor's Core Competencies, show that the indexes that present the highest and most positive correlations are Core Personal Factors, Core Performance Factors. Age establishes negative relationships with the core of personal factors, core performance factors and core interpersonal and communicational factors (see Table 11).

Table 11 - Results of the Pearson correlation matrix between age, gender, the Supervisor´s Core Competencies and the Supervisor's MetaCompetencies

	Meta-Competencies	Age	Gender	Core Personal Factors	Core Performance Factors
Age	0.018 n.s.	--			
Gender	0.119**	-0.151**	---		
Core Personal Factors	0.631***	-0.074 n.s.	0.092 n.s.	---	
Cor*e Performance Factors	0.637***	-0.025 n.s.	0.066 n.s.	0.718***	---
Core Inerpersonal/ communication Factors	0.660***	-0.012 n.s.	0.093 n.s.	0.824***	0.788***

n.s. – não significativo; * p < 0.05; ** p < 0.01; *** p < 0.001

Through the multiple regression expressed in Table 12, it can be stated that all dimensions of the core competencies of the supervisor were constituted predictors of theSupervisor's Metacompetencies.

The correlation established with Supervisor's Metacompetencies is good (r = 0.697), explaining 48.6% of the variation, and its explained adjusted variance is 48.1%. The standard error of the estimation in this regression model is 0.35889 and the VIF <5.0, so it is concluded that they are not collinear. The test F and the values of t are statistically significant and therefore lead to the rejection of nullity among the variables under study, reason why they have an explanatory power of the Supervisor's Metacompetencies.

The beta coefficients show that the core of interpersonal and communicational factors is the one that shows the highest predictive value, varying ia a direct sense, followed by the core of performance factors and the core of personal factors, which are also directly related to the Supervisor's Metacompetencies. It is therefore accepted that students consider that interpersonal and communicational, performance, and personal factors are significantly associated with the Supervisor's Metacompetencies of the ideal mentor teacher.

The formula of the adjusted final model is given by the following regression equation:

Supervisor's Metacompetencies = 0.857+ 0.294 core of interpersonal and communication factors + 0.268 core of performance factors + 0,229 core of personal factors

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Table 12 - Results of the Multiple Regression between the Supervisor's Core Competencies and the Supervisor's MetaCompetencies

Dependent variable: Supervisor's Metacompetencies					
R=0.697					
R^2=0.486					
Adjusted R^2 = 0.481					
Standard estimation error =0.35889					
Increment of R^2=0.014					
F=8.324					
p=0.004					
Regression Weights					
Independent variables	**Coefficient B**	**Coefficient beta**	**p**	**t**	**VIF**
Constante	0.857				
Core Interpersonal/ communication Factors	0.294	0.272	0.001	3.240	4.138
Core Performance Factors	0.268	0.269	0.000	3.929	2.750
Core Personal Factors	0.229	0.214	0.004	2.885	3.236

The adjusted model of the multiple regression for the Supervisor's Metacompetencies, with the standardized coefficients is represented via graphic output in Figure 3. In this model the coefficient of regression or trajectory of the personal factors is β = 0.21, the interpersonal and communicational factors is β = 0.27 and the performance factors is β = 0.27 in relation to the Supervisor's Metacompetencies. The model explains, as mentioned above, about 49% of the observed variation of the Supervisor's Metacompetencies in the different variables.

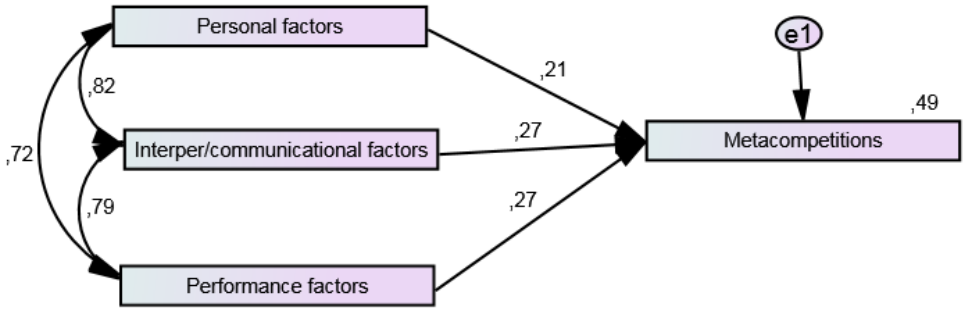

Figure 3 - Adjusted multiple regression graphic model for the Supervisor's Metacompetencies

2.3.4 Core of Competencies Versus Global Competencies

The correlations between age, gender, the Supervisor's Core Competencies and the Supervisor's Global Competencies show that the indexes that present the highest and positive correlations are the Personal and Performance Factors. Age establishes positive relations with the Performance Factors and negative relations with the remaining variables (see Table 13).

Table 13 - Results of the Pearson correlation matrix between age, gender, the Supervisor´s Core Competencies and the Supervisor's Global Competencies

	Global Competencies	Age	Gender	Core Personal Factors	Core Performance Factors
Age	-0.003 n.s.	---			
Gender	0.073***	-0.151**	---		
Core Personal Factors	0.734***	-0.074 n.s.	0.092 n.s.	---	
Core Performance Factors	0.799***	0.025 n.s.	0.066 n.s.	0.718***	---
Core Interpersonal/ communication Factors	0.767***	-0.012 n.s.	0.093 n.s.	0.824***	0.788***

n.s. – não significativo; * p < 0.05; ** p < 0.01; *** p < 0.001

In order to determine the variables that proved to be predictors of the Supervisor's Global Competencies, three regression models were performed, with the first one entering the Core Performance Factors and successively the Core Personal Factors and Core Interpersonal and Communicational Factors (see Table 14).

The value of the correlation that these variables establishes with the Supervisor's Global Competencies is good (r = 0.595) explaining 70.2% of the variation, with an explained adjusted variance of 69.9%. The standard error of the estimation in this regression model was 0.24856. The VIF value indicates that the variables present in the model are not collinear because they are below 5.0, and the F test and the t values when they are statistically significant allow to deduce that the variables that entered the model have explanatory value in the Supervisor's Global Competencies.

By the standardized beta coefficients the higher predictive value in the Core Performance Factors is highlighted. All dimensions establish a positive relationship. In view of the results, it is verified that the appreciation of the Core Performance, Interpersonal, and Communicational and Personal Factors by students also translates into the valuation of the Supervisor's Global Competencies.

We finished the analysis by exposing the formula of the adjusted final model:

Global Competencies = 0.595 + 0.430 in the core of performance factors + 0.211 core of interpersonal and communication factors + 0.210 core of personal factors

Table 14 - Results of the Multiple Regression between the Supervisor's Core Competencies and the Supervisor's Global Competencies

Dependent variable: Supervisor's Global Competencies					
R=0.838					
R^2=0.702					
Adjusted R^2 =0.699					
Standard estimation error =0.24856					
Increment of R^2=0.011					
F=11.316					
p=0.001					
Regression Weights					
Independent variables	**Coefficient B**	**Coefficient beta**	**p**	**t**	**VIF**
Constante	0.595				
Core Performance Factors	0.430	0.475	0.000	9.119	2.750
Core Personal Factors	0.210	0.216	0.000	3.820	3.236
Core Interpersonal/ communication Factors	0.211	0.215	0.000	3.364	4.138

The multiple regression values for the Supervisor's Global Competencies, with the standardized coefficients, are represented by a model adjusted through the graphic output in Figure 4. In this model, the regression or trajectory coefficient in relation to the Supervisor's Global Competencies is β = 0.22 in personal factors, β = 0.21 in interpersonal and communicational factors, and β = 0.47 in performance factors. The model explains as explained above about 70% of the observed variation of the Supervisor's Global Competencies (Generic and Specific Competencies).

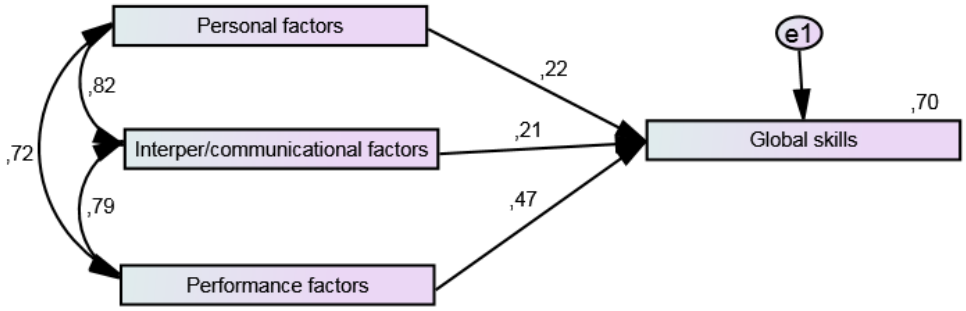

Figure 4 - Adjusted multiple regression graph model for the Supervisor's Global Competencies

Finally, the representation of the adjusted graphic model for the multivariate multiple regression of the Generic Competencies and the Supervisor-specific regression (Figure 5) is presented. The regression coefficients of the manifested variables are presented for the latent variables and the predictive weight of each of these. All the previous graphs were combined, in which can be analyzed that the Supervisor's Generic Competencies are explained in 67% by the core of personal factors, core of interpersonal and communicational factors and the core of performance. As for the specific competencies, they are explained in

Cunha, M., Duarte, J., Marques, J. I., Gomes A. L., Nascimento, D. A., Pereira, J. M., Lopes, J., Murtinheira, M. S., Rosa, R., Gonçalves, S. Aparício, G. & Andrade, A. (2019). Generic and specific competences of the mentor teacher: Higher education students perception in the health area. *Millenium*, 2(ed espec nº3), 31-46. **DOI:** https://doi.org/10.29352/mill0203e.03.00187

57% by the core of personal factors and the core of performance factors. As for the Supervisor's Metacompetencies, these are explained in 48% by the core of personal factors, core of interpersonal and communicational factors and core of performance.

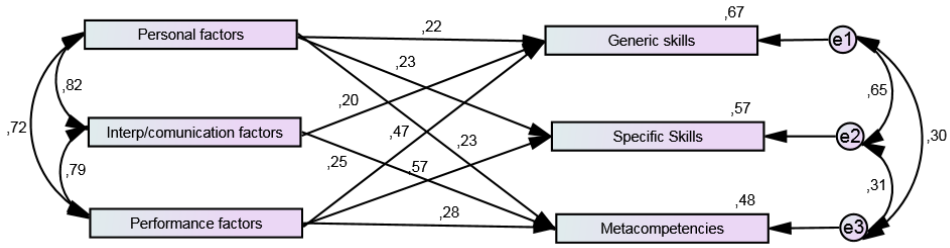

Figure 5 - Adjusted graphical model of the multivariate multiple regression for the Supervisor's Generic Competencies and Specific Competencies

3. DISCUSSION

The results of the study highlight the importance of a mentor teacher in higher education, which is also verified in the study by Botti and Rego (2007, p.368) who mention that "mentors play an important role on a personal and professional level ".

The study reveals that the internship site is preferred by students for mentoring sessions and should be done on a daily basis.

These results are consistent with those of Costa (2012), who point out that mentoring by experienced professionals who are familiar with the internship sites, capable of establishing the relationship between classroom training and what will occur in clinical practice, is decisive for the creation of a harmonious environment, which evokes significant learning and promotes the process of student autonomy. Schön (2000) understands the practice of supervision as a space that gives way to the development of technical and non-technical skills, in a context of constant tensions, so the mentor's follow-up is fundamental.

Higher education students value the Supervisor's Generic Competencies of the mentor tacher, the most. These results are in line with those advocated by Costa (2012) when he emphasizes that the mentor should be gifted with professional and personal characteristics that help students to obtain new knowledge, skills, behaviors and attitudes. They are also in line with Glickman's (1985) postulate quoted by Alarcão & Tavares (2007), who supports that the role of the supervisor should contemplate three preponderant requirements that determine the action and style of the supervisor: knowledge, interpersonal competencies, and technical competencies. Severino (2007) also emphasizes that the supervisor executes an active supervision style, being very concerned with the technical competencies and with the quantity and solidity of the acquired knowledge, suggesting and supporting the actions of the supervised.

Regarding the discussion of the methodological component of the research and although an effort was made to carry out an integrative and comprehensive study, the need to carry out a new study is reinforced in light of the multidimensional and multifactor approaches for replication of the found models, seeking to know if the type of relations found remain.

As limitations of the study, it is underlined that the participants answered about the competencies of the mentor teacher, but the monetary costs associated with the mentoring program were not explored in the study, and as such, it was not possible to analyze the impact that the expense/outlay factor could influence the response of participants. This subject is assumed as a potential focus for future research lines.

CONCLUSIONS

This investigation aimed to answer the objective of evaluating the perception of the students of higher education about the necessary supervision skills for the mentor teacher, with the purpose of informing the academic community and providing this way learning more potentially adapted to the biopsychosocial context of the students, thus contributing to the academic success of higher education students (Rocha, 2013).

In this context, the results of the evaluation of the perspective of students of a higher education in the health area support, in general, the importance of the assignment of a mentor teacher, with follow-ups from the 1st to the 3rd / 4th year of the course, with preference for daily sessions lasting less than one hour. They also show that higher education students selected personal factors and generic competencies as the most important characteristics of the mentor teacher.

It was also found that core competencies and personal, interpersonal and communication factors and performance are predictors and explanatory of generic, specific competencies and metacompetencies.

As a final reflection on the investigation carried out, the concern is to develop a rigorous methodological work. Despite this care, it is assumed that the low number of the sample and the fact that it is geographically circumscribed to the students of a public institution in the central north of the country, constitutes a limitation of the present study, and it is relevant in the future to replicate the study in more geographically diverse samples and in other courses.

One of the difficulties in an empirical study is the collection of the sample. This difficulty emerged due to the great overload of students who are often asked to respond to questionnaires. According to Cunha-Nunes (2006) cited by Cunha, Duarte, Sandre, Sequeira, Castro-Molina, Mota, Pina, Coelho, Figueiredo, Martins, Correia, Monteiro, Moreira, Silva, & Freitas (2017, p. 36), these fragilities inherent to cross-sectional studies could be avoided if the sample was larger and if a longitudinal study was chosen, however, this was not possible due to time constraints for the concretization of the project that received the study.

Regarding the statistical treatment, it is clear that it has evolved to explore the different types of analysis, starting with descriptive analysis and average differences through to the analysis of prediction relations. The use of multiple regression analysis allowed us to simultaneously examine the contribution of each variable to the existence of a certain competency profile that would not be possible through correlations.

The following positive aspects of the study were also highlighted: An explanatory model was tested to assess the contributory and predictive power over the competencies needed by the mentor teacher based on students' perceptions. To our knowledge, this is one of the first Portuguese studies to do so. In this context, this work offers a vision of the complexity of this problem and evidences some of the intervening factors in it.

The multiple regression analysis carried out allowed, as already mentioned, to conclude to be the proposed model supported by empirical and statistical evidences, thus verifying the premises of investigation. In particular, the results obtained are a contribution to clarify the perspective of a group of actors involved in the mentoring process. They also indicate that a uni-factorial study will be too simplistic in understanding this problem. There are, however, some limitations to be pointed out: - Restriction of the models found to the conceptual domain evaluated in the study; - Not including some important variables as evaluation methodologies in a mentoring context; - Validity of the inferences closely associated with the various conceptual dimensions studied.

It is important to emphasize the pertinence of future research on this problem, namely to understand the relationship between mentoring, supervision, evaluation and academic success in higher education students in larger samples, seeking to validate and / or construct new knowledge to support the development of mentoring skills appropriate to successful pedagogical practices, contributing in this way to decrease the rate of failure and abandonment of students of higher education.

To conclude, it is emphasized that the results show that students of higher education value the existence of a mentor teacher, so their attribution is of added importance to the pedagogical practice. The study also highlights the importance of monitoring the mentors' competencies. It is also inferred for the need to fill in the existing formative gap in the training of teachers in the health area, and it is particularly important to integrate in their ongoing training programs contents related to mentoring, pedagogical supervision and training of competencies in an environment of pedagogical practice simulation in the laboratory, as well as to train teachers to supervise the mentoring in real context.

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