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Educação Education Educación	B2			C	C
Filosofia/Tecnologia: Subcomissão de Filosofia Philosophy/Theology: Philosophy Subcommittee Filosofia/Teología: Filosofía subcomité	B5				
Interdisciplinar Interdisciplinary Interdisciplinaria	B2	B3		B3	B3
Literatura / Lingüística Literature/Linguistics Literatura / Lingüística	B4		B1		
Ciências Agrícolas Agricultural Sciences Ciências Agrícolas		B5			
Medicina III Medicine III Medicina III			C	B5	
Enfermagem Nursing Enfermería					B4
Engenharias I Engineering I Ingenierías I				B5	B5
Letras/Linguística Literature/Linguistics Letras/Linguística				B5	B5
Psicologia Psychology Psicología					B3
Ciências Agrárias I Agricultural Sciences I Ciencias Agrarias I				B5	
Comunicação e Informação Communication and Information Comunicación e Información				B5	
História History Historia				B5	
Odontologia Dentistry Odontología				B4	
Saúde Coletiva Collective Health Salud Pública				B4	

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Editorial | Editorial | Editorial

A revista Millenium – Journal of Education, Technologies and Health, neste segundo número do ano de 2019, número 9, da série 2, mantém a regularidade da publicação com nove artigos que reforçam a sua matriz de difusão da multidisciplinariedade e transdisciplinaridade do conhecimento, evidenciado pela diversidade de temáticas que compõem este número, organizadas em três secções: Engenharias, Tecnologia, Gestão e Turismo; Educação e Desenvolvimento Social; Ciências da Vida e da Saúde.

Na secção Engenharias, Tecnologia, Gestão e Turismo, o primeiro artigo "Tensão de adesão de revestimentos cerâmicos obtidos por projeção robótica à chama", apresenta e discute os resultados obtidos a partir de testes de projeção robótica à chama, com o objetivo de quantificar a influência de vários fatores da projeção à chama na tensão de adesão de revestimentos de Níquel-Alumínio-Molibdênio e Óxido de Zircónia, como resposta à questão da possibilidade de aplicações de barreiras térmicas cerâmicas no revestimento de moldes permanentes para fundição. No segundo artigo, "Um estudo sobre a viabilidade da implementação de um sistema de gestão de qualidade, baseado no modelo European for Quality Management (EFQM) numa escola de engenharia", discute-se de forma crítica a aplicabilidade de um SIGQ no desempenho organizacional de uma Instituição de Ensino Superior, baseado no modelo EFQM e implementado numa IES pública, concluindo que esta se revelou proveitosa, devido a um conjunto de vantagens percecionadas, entre as quais, o aumento da eficiência organizacional.

A secção Educação e Desenvolvimento Social apresenta-se constituída pelo artigo "Segunda língua estrangeira e empregabilidade na Catalunha do SXXI", onde se discute a necessidade de formação numa segunda língua estrangeira na Catalunha, como resposta às necessidades do mercado de trabalho, considerando como ponto de partida o facto de a língua inglesa já ser uma língua franca. No trabalho seguinte "Aprender (n)uma língua estrangeira no ensino superior: Perceções de empregadores e alunos", discute-se sobre o ensino e aprendizagem de Línguas Estrangeiras no ensino superior explorando-se modos de aprender e conjugando perspetivas sobre o estado da arte com perceções de empregadores e alunos. Segue-se, "Um Estudo Comparativo, entre a China e Portugal, da Formação Profissionalizante do Mestrado em Tradução" onde se analisa com base no modelo teórico de Nord (2006) a formação de tradutores através de um estudo comparativo entre o curso de mestrado em tradução na China e um em Portugal. O artigo "Cantores líricos: Duetos com a ansiedade" descreve e analisa os resultados parciais de um estudo qualitativo alargado que pretendeu verificar de que forma a ansiedade de desempenho está presente no quotidiano do cantor lírico. Por último, o artigo "Competências linguísticas requeridas pelos empregadores portugueses nos últimos 40 anos: O caso dos profissionais de secretariado", caracteriza o perfil do profissional de secretariado/apoio à gestão procurado pelos empregadores entre 1978 e 2018, com especial realce dado ao facto de os requisitos em termos do domínio de línguas terem aumentado cada vez mais com o passar dos anos.

A secção Ciências da Vida e da Saúde integra três artigos. O primeiro, "A pessoa com doença pulmonar obstrutiva crónica: como promovem os enfermeiros de reabilitação o autocuidado" que consiste numa revisão sistemática da literatura tendo por objetivo sistematizar intervenções de enfermagem de reabilitação promotoras do autocuidado na pessoa com DPOC. No segundo, "Morte em neonatologia: Vivências dos profissionais de saúde na prestação de cuidados paliativos neonatais" pretende-se compreender as vivências dos profissionais de saúde relativamente aos cuidados paliativos neonatais, concluindo que a formação contínua e específica, o apoio e acompanhamento psicológico dos profissionais e das famílias devem constituir o pilar dos cuidados paliativos neonatais. Por último, "Condições sanitárias dos serviços de atenção primária à saúde na perspectiva da vigilância sanitária" tem como objetivo analisar a perceção dos profissionais da Vigilância Sanitária sobre as condições sanitárias nos serviços da Atenção Primária à Saúde.

A Equipa Editorial
Madalena Cunha, José Luís Abrantes, Maria João Amante, Paula Correia, Paula Santos

The journal Millenium - Journal of Education, Technologies and Health, in this second issue of 2019, number 9, series 2, ensures its regular publication with nine articles that reinforce its matrix for the dissemination of multidisciplinarity and transdisciplinarity of knowledge, highlighted by the diversity of themes that comprise this issue, organised into three sections: Engineering, Technology, Management and Tourism; Education and Social Development; Life and Health Sciences.

In the Engineering, Technology, Management and Tourism section, the first article "Adhesion strength of flame sprayed ceramic coatings obtained by robotic projection", presents and discusses the results obtained from robotic flame projection tests, with the aim of quantifying the influence of various flame projection factors on the bond strength of Nickel-Aluminium-Molybdenum and Zirconium Oxide coatings, as an answer to the question of the possibility of applications of ceramic thermal barriers in casting permanent moulds. In the second article, "A study on the feasibility of implementing a quality management system, based on the EFQM model in a School of Engineering," the applicability of an SIGQ (Internal Quality Assurance System) to the organisational performance of a Higher Education Institution, based on the EFQM model and implemented in a public HEI, is critically discussed. It comes to the conclusion that it proved beneficial due to a number of perceived advantages, among which the increase of organisational efficiency is notable.

The Education and Social Development section is comprised of the article "Second foreign languages and employability in the Catalonia of the SXXI," which discusses the need for training in a second foreign language in Catalonia, as a response to the needs of the labour market, taking as a starting point the fact that the English language is already a lingua franca. The article that follows, "Learning a /through a Foreign Language in Higher Education: Employers and Students' Perceptions," is engaged in a discussion about the teaching and learning of Foreign Languages in higher education, examining learning approaches and combining state-of-the-art perspectives with the views and perceptions of employers and students. This is followed by "A Comparative Study between China and Portugal of the Professional Training of the Master's Degree in Translation," in which the training of translators is analysed on the basis of Nord's theoretical framework (2006) by means of a comparative study between the Master's Degree in Translation in China and a similar one in Portugal. The article of "Lyrical singers: duets with anxiety" describes and analyses the partial results of a broad qualitative study aimed at ascertaining how performance anxiety is present in the daily life of a lyrical singer. Finally, the article "Linguistic skills required by portuguese employers in the past 40 years: The case of office management professionals", characterize the profile of the secretariat/management support professionals sought by employers between 1978 and 2018, giving special emphasis to the fact that languages mastery requirements have been continuously increasing over the years.

The Life and Health Sciences section presents three articles. The first one, "Living with chronic obstructive pulmonary disease: how do rehabilitation nurses promote self-care?", consists of a systematic literature review aimed at systematising rehabilitation nursing interventions that promote self-care in patients with COPD. The second, entitled "Death in neonatology: experiences of health professionals in the provision of neonatal palliative care," aims to understand the experiences of health professionals working in neonatal palliative care, concluding that lifelong and specific training, as well as support and psychological monitoring of professionals and families should be the mainstay of neonatal palliative care. Finally, "Sanitary Conditions of Primary Health Care Services from the perspective of Sanitary Surveillance" aims to analyse the perception of Health Surveillance professionals on the health conditions in Primary Health Care services.

The Editorial Board
Madalena Cunha, José Luís Abrantes, Maria João Amante, Paula Correia, Paula Santos

La revista Millenium - Revista de Educación, Tecnologías y Salud, en este segundo número de 2019, número 9, serie 2, asegura su publicación periódica con nueve artículos que refuerzan su matriz para la difusión de la multidisciplinariedad y la transdisciplinariedad del conocimiento, destacada por la diversidad de temas que conforman este tema, organizados en tres secciones: Ingeniería, Tecnología, Gestión y Turismo; Educación y Desarrollo Social; Ciencias de la vida y de la salud.

En la sección de Ingeniería, Tecnología, Gestión y Turismo, el primer artículo "Fuerza de adherencia de los recubrimientos cerámicos rociados con llama obtenidos por proyección robótica", presenta y analiza los resultados obtenidos de las pruebas de proyección de llama robóticas, con el objetivo de cuantificar la influencia de varias llamas. Factores de proyección sobre la resistencia de la unión de los recubrimientos de níquel-aluminio-molibdeno y óxido de circonio, como respuesta a la pregunta sobre la posibilidad de aplicaciones de barreras térmicas cerámicas en moldes de fundición permanente. En el segundo artículo, "Un estudio sobre la viabilidad de implementar un sistema de gestión de la calidad, basado en el modelo EFQM en una Escuela de Ingeniería", se discute de forma crítica la aplicabilidad de un SIGQ (Sistema de Garantía de Calidad Interna) al desempeño organizacional de una Institución de Educación Superior, basado en el modelo EFQM y implementado en una IES pública. A continuación se llega a la conclusión de que resultó ser beneficioso debido a una serie de ventajas percibidas, entre las que destaca el aumento de la eficiencia organizativa.

La sección de Educación y Desarrollo Social comprende el artículo "Segunda lengua extranjera y empleabilidad en la Cataluña del SXXI", que analiza la necesidad de formación en una segunda lengua extranjera en Cataluña, como respuesta a las necesidades del mercado laboral, tomando como punto de partida el hecho de que el idioma inglés ya es una lengua franca. El artículo que sigue, "Aprendizaje de una lengua extranjera en la educación superior: Percepciones de empleadores y estudiantes", participa en una discusión sobre la enseñanza y el aprendizaje de las lenguas extranjeras en la educación superior, examinando los enfoques de aprendizaje y combinando el estado de la enseñanza. Perspectivas del arte con las opiniones y percepciones de empleadores y estudiantes. A esto le sigue un "Estudio comparativo entre China y Portugal de la Formación Profesional del Máster en Traducción", en el que se analiza la formación de traductores sobre la base del marco teórico de Nord (2006) mediante un estudio comparativo entre Máster en Traducción en China y otro similar en Portugal. El artículo "Cantantes líricos: duetos con ansiedad" describe y analiza los resultados parciales de un amplio estudio cualitativo destinado a determinar cómo la ansiedad de rendimiento está presente en la vida diaria de un cantante lírico. Finalmente, el artículo "Competencias lingüísticas requeridas por los empleadores portugueses en los últimos 40 años: El caso de los profesionales de secretariado" caracteriza el perfil de la ayuda de secretaría/ gestión profesional que buscan los empleadores entre 1978 y 2018, com especial énfasis en el hecho de que los requisitos en términos de habilidades lingüísticas han aumentado cada vez más con el paso de los años.

La sección de Ciencias de la Vida y de la Salud presenta tres artículos. El primero, "Vivir con enfermedad pulmonar obstructiva crónica: ¿cómo promueven las enfermeras de rehabilitación el autocuidado?", Consiste en una revisión sistemática de la literatura dirigida a sistematizar las intervenciones de enfermería de rehabilitación que promueven el autocuidado en pacientes con EPOC. El segundo, titulado "Muerte en neonatología: experiencias de los profesionales de la salud en la provisión de cuidados paliativos neonatales", tiene como objetivo comprender las experiencias de los profesionales de la salud que trabajan en cuidados paliativos neonatales, concluyendo que se ofrecerá capacitación permanente y específica, así como apoyo y monitoreo psicológico. Los profesionales y las familias deben ser el pilar de los cuidados paliativos neonatales. Finalmente, "Condiciones sanitarias de los servicios de atención primaria de salud desde la perspectiva de la vigilancia sanitaria" tiene como objetivo analizar la percepción de los profesionales de la vigilancia de la salud sobre las condiciones de salud en los servicios de atención primaria de salud.

El Equipo Editorial
Madalena Cunha, José Luís Abrantes, Maria João Amante, Paula Correia, Paula Santos

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Journal of Education, Technologies, and Health

Sumário | Summary | Resumen

ENGINEERING, TECHNOLOGY, MANAGEMENT AND TOURISM

EDUCATION AND SOCIAL DEVELOPMENT

LIFE AND HEALTH SCIENCES

Autores | Authors | Autores

ENGENHARIAS, TECNOLOGIA, GESTÃO E TURISMO

ENGINEERING, TECHNOLOGY, MANAGEMENT AND TOURISM

INGENIERÍA, TECNOLOGÍA, ADMINISTRACIÓN Y TURISMO

TENSÃO DE ADESÃO DE REVESTIMENTOS CERÂMICOS OBTIDOS POR PROJEÇÃO ROBÓTICA À CHAMA
ADHESION STRENGTH OF FLAME SPRAYED CERAMIC COATINGS OBTAINED BY ROBOTIC PROJECTION
TENSIÓN DE ADHESIÓN DE REVESTIMIENTOS CERÁMICOS OBTENIDOS POR PROYECCIÓN ROBÓTICA A LLAMA

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RESUMO

Introdução: Uma das possíveis aplicações de barreiras térmicas cerâmicas é no revestimento de moldes permanentes para fundição. A capacidade do molde suportar temperaturas muito elevadas (até 1600 °C), devido ao estado líquido do ferro fundido, desempenha um papel crucial na seleção de materiais.

Objetivos: Este artigo apresenta e discute os resultados obtidos a partir de testes de projeção robótica à chama, com o objetivo de quantificar a influência de vários fatores da projeção à chama na tensão de adesão de revestimentos de Níquel-Alumínio-Molibdênio e Óxido de Zircónia. Na literatura não foi encontrada uma tensão mínima de adesão requerida para a aplicação de barreiras térmicas cerâmicas no revestimento de moldes permanentes para fundição, assim, no trabalho apresentado neste artigo, pretende-se obter seus valores considerando várias combinações de parâmetros de projeção e substratos.

Métodos: A determinação da tensão de adesão foi realizada de acordo com a norma ASTM C633-79 em que os provetes revestidos foram colados a contra-provetes de aço CK45 grenalhados, com uma cola à base de cianoacrilatos (LOCTITE 415). De seguida aplicou-se um peso de 100 N durante 3 minutos para a força de compressão promover o início da reação de polimerização dos cianoacrilatos e aguardou-se 24 horas para que a junta colada tivesse tempo de adquirir a resistência máxima (o suficiente para arrancar o revestimento do provete). Realizaram-se depois ensaios de tração à velocidade de 1 mm/min.

Resultados: Os principais parâmetros estudados foram o material do substrato, o ângulo de projeção e a temperatura de pré-aquecimento do substrato. A maior força de adesão para a projeção a 90° (média de 6,2 MPa) foi obtida com os provetes de ferro fundido com grafite esferoidal (SGCI) com uma temperatura de pré-aquecimento de 120 ° C. Para o pré-aquecimento de 90 °C e ângulo de projeção de 90°, foram os provetes de duralumínio (AlCu) e de latão que obtiveram as maiores forças de adesão (média de 4,5 MPa). A projeção a 65 ° origina a maior tensão de adesão em todos os materiais utilizados para o substrato, sendo o maior valor (média de 8,3 MPa) obtido pelo ferro fundido de grafite esferoidal.

Conclusões: Os resultados obtidos sugerem claramente que o material do substrato e a temperatura de pré-aquecimento influenciam fortemente a tensão de adesão. A análise das microestruturas dos revestimentos, utilizando microscopia ótica, comprova esta observação.

Palavras-chaves: Projeção térmica; Adesão de revestimentos; Caracterização morfológica; Robótica

ABSTRACT

Introduction: One of the possible applications of ceramic thermal barriers is in shells (permanent moulds – die casting). The moulds` capacity to support very high temperatures (up to 1600 °C) plays a crucial role in the selection of materials due to the liquid state of the cast iron.

Objectives: This paper presents and discusses the obtained results from robotic flame projection tests, carried out with the purpose to quantify the influence of several factors of flame sprayed in the adhesion strength of coatings of Nickel-Aluminium-Molybdenum and Zirconium Oxide. In literature a minimum adhesion strength was not found for the application of thermal ceramic barriers in the coating of permanent casting moulds, so in this work it is intended to obtain its values considering several combinations of projection parameters and substrates.

Methods: The determination of the adhesion strength was performed according to the standard ASTM C633-79 where the coated test specimens were glued to CK45 steel against-specimens with a cyanoacrylate glue (LOCTITE 415). A weight of 100 N was then applied for 3 minutes to promote the initiation of the polymerization reaction of the cyanoacrylates and a period of 24 hours was needed so the bonded glue could acquire its maximum strength (sufficient enough to tear off the coating of the specimen). Finally tensile tests were carried out at the speed of 1 mm/min.

Results: The main parameters studied are the material of the substrate, the projection angle and the substrate preheating temperature. The higher adhesion strength for the sprayed to 90° (average value of 6.2 MPa) was obtained by the specimens of spheroidal graphite cast iron (SGCI) with a preheating temperature of 120 °C. For the preheating of 90 °C and spray angle of 90° the aluminum-copper (AlCu) and brass specimens were the ones that obtained the higher adhesion strengths (average value of 4.5 MPa). The sprayed of 65° originates the higher adhesion strength in all the materials used for the substrate, being the highest value (average value of 8.3 MPa) obtained by the spheroidal graphite cast iron.

Conclusions: The results obtained clearly suggest that the substrate material and the preheating temperature strongly influence the adhesion strength. The analysis of the coatings microstructures, using optical microscopy, supports this observation.

Keywords: Thermal spray; Adhesion coatings; Morphologic characterization; Robotics

RESUMEN

Introducción: Una de las posibles aplicaciones de barreras térmicas cerámicas es en el revestimiento de moldes permanentes para fundición. La capacidad del molde para soportar temperaturas muy altas (hasta 1600 °C), debido al estado líquido del hierro fundido, desempeña un papel crucial en la selección de materiales.

Objetivos: Este artículo presenta y discute los resultados obtenidos a partir de pruebas de proyección robótica a la llama, con el objetivo de cuantificar la influencia de varios factores de la proyección a la llama en la resistencia a la adhesión de revestimientos de Niquel-Aluminio-Molibdeno y Óxido de Zirconia. En la literatura no se encontró una tensión mínima de adhesión requerida para la aplicación de barreras térmicas cerámicas en el revestimiento de moldes permanentes para fundición, así en el trabajo presentado en este artículo, se pretende obtener sus valores considerando varias combinaciones de parámetros de proyección y sustratos.

Métodos: La determinación de la tensión de adhesión se realizó de acuerdo con la norma ASTM C633-79 en la que se probaron las probetas revestidas a contra-probetas de acero CK45 gralladas, con un pegamento a base de cianoacrilatos (LOCTITE 415). A continuación se aplicó un peso de 100 N durante 3 minutos para la fuerza de compresión promover el inicio de la reacción de polimerización de los cianoacrilatos y se aguardó 24 horas, para que la junta adhesiva tuviera tiempo de adquirir la resistencia máxima (suficiente para arrancar el revestimiento de la probeta). Se realizaron después los ensayos de tracción a velocidad de 1 mm/min**.**

Resultados: Los principales parámetros estudiados son el material del sustrato, el ángulo de proyección y la temperatura de precalentamiento del sustrato. La mayor fuerza de adhesión para la proyección a 90° (media de 6,2 MPa) fue obtenida con las probetas de hierro fundido con grafito esferoidal (SGCI) con una temperatura de precalentamiento de 120 °C. Para el precalentamiento de 90 °C y ángulo de proyección de 90°, fueron las probetas de duraluminio (AlCu) y de latón que obtuvieron las mayores fuerzas de adhesión (media de 4,5 MPa). La proyección a 65° origina la mayor tensión de adhesión en todos los materiales utilizados para el sustrato, siendo el mayor valor (media de 8,3 MPa) obtenido por el hierro fundido de grafito esferoidal.

Conclusiones: Los resultados obtenidos sugieren claramente que el material del sustrato y la temperatura de precalentamiento influyen fuertemente en la fuerza de adhesión. El análisis de las microestructuras de los revestimientos, utilizando microscopia óptica, comprueba esta observación.

Palabras Clave: Proyección térmica; Adhesión de revestimientos; Caracterización morfológica; robótica

INTRODUCTION

In order to ensure a high performance of composite moulds, with ceramic coatings (permanent moulds – die casting), it is essential to optimize the robotic flame projection parameters to assure a coating with appropriate thickness and a good adhesion to the metallic substrate of the mould.

Thermal spraying using the heat from a chemical combustion is known as flame spraying. The spraying material, initially in the form of powder, rod, cord or wire, is heated by a flame spray gun (figure 1) that can be adapted to use several types of combustible gases, such as, acetylene, hydrogen, propane and natural gas. As the materials are heated, they change to a plastic or molten state, and are accelerated by a compressed gas. The sprayed particles impinge upon the substrate, they cool and build up, particle by particle, into a lamellar structure forming a coating (Mahood, 1990; Clare & Crawmer, 1987).

1 - Oxygen
2 - Fuel gas
3 - Gun
4 - Powder
5 - Nozzle
6 - Flame
7 - Spray stream
8 - Coating
9 - Substrate (material to coating)
10 - Spraying distance: 102-254 mm
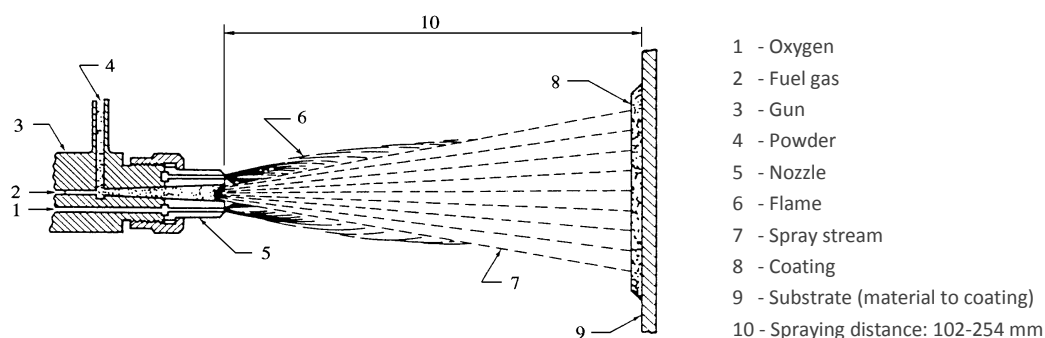
Figure 1 - Cross section of a powder flame spray gun (Mahood, 1990)

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The thickness proposed for the coating will be an important factor in the selection of the appropriate coating type, because the materials present distinguish properties to different thickness. Usually the properties intended for a coating that works as thermal barrier are (Vaßen et al., 2010; Vuoristo, 2014; Vijay & Balasubramanian, 2016; Dapkunas, 1997):

- Good adhesion to the substrate in order to support the residual stresses involved that can cause fissures and the destruction by lifting of the coating;
- Low thermal conductivity (to avoid the transfer of heat for the substrate);
- Proximity of the thermal expansion coefficients among the ceramic or metallic elements of the coating and the substrate material;
- Appropriate stability of the crystalline structure to the service temperatures;
- High reflectivity, and
- To be possible to repair the coating after it has been deteriorated in service.

The ceramic materials used in thermal barriers should be porous, not only to strongly reduce heat transfer (the air is bad conductor of heat), but also to improve the thermal shock resistance of the coating. These materials are based on oxides, cermets, nitrates, silicates, intermetallic compounds, some organic plastics and certain glasses. One of the materials commonly used in thermal barriers is the zirconium oxide (ZrO_2).

1. METHODS

ROBOTIC FLAME SPRAYING TESTS

The objective of the tests was to quantify the effect of several spraying parameters on the adhesion strength of ceramic coatings on metallic substrates typically used in moulds manufacture for cast iron foundry (permanent moulds – die casting). To achieve this objective, adequate substrate metallic alloys were selected to build permanent moulds; Nickel-Aluminum-Molybdenum was used for the bond coating and the Zirconium oxide for the coating, which can support very high temperatures (1600 °C) and its most appropriate to process cast iron. Using these materials several spraying flame tests were carried out and different coatings adhesions were obtained using the following variables:

- Material of the substrate - aluminum-copper (AlCu), spheroidal graphite cast iron (SGCI), brass, copper-chromium (CuCr) and ferritic grey cast iron (FGCI);
- Spray angle of 65° and 90°;
- Preheating temperature of 90 °C and 120 °C.

Thus, several spray flame tests were performed to cover specimens (prepared for adhesion strength tests of coatings whose drawing is shown in the figure 2) with bond coating and zirconium oxide. The area of the testing specimen to be coated corresponds to the diameter of 25 mm.

The flame spraying was made using a flame thermal spray robot type METCO AIR 2000 (trademark Mitsubishi), which has an articulate construction of six rotation axes with the intent to guarantee precision and repeatability of the displacement and positioning of the spray gun. The coated specimens were jointed to other identical specimens of steel, using cyanoacrylate glue. Later these assemblies were submitted to traction tests to determine the adhesion strength of the obtained coatings.
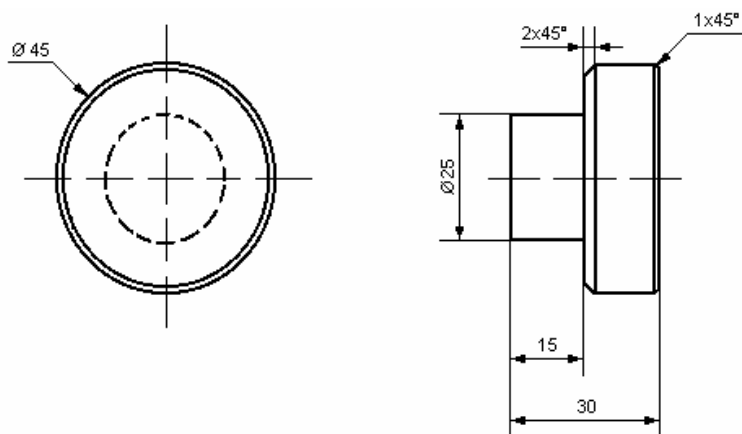
Figure 2 - Specimen used in the traction tests for the determination of the coating adhesion strength

Tables 1 and 2 list the main characteristics of the materials of the specimens (substrate) and of the sprayed powders, respectively.

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Table 1 – Mechanical, chemical and physical properties of the five materials used as the substrate
(Clarke & Phillpot, 2005; ASM, 1990a; ASM, 1990b, AMPCO, 1994)

Mechanical, chemistries and physics properties	AlCu	SGCI	Brass	CuCr	FGCI
Tensile strength [MPa]	427	600 - 800	414	494	300 - 400
Elastic tensile strength [MPa]	290	-----	138	446	-----
Elongation [%]	20	7 - 2	30	18	18 - 6
Macro hardness [HB10]	105	170 - 350	110	136	140 - 160
Thermal conductivity [W/mK]	134	50	123	322	46
Coefficient of thermal expansion [µm/mK]	65,1	13,6 (20-500°C)	20,9 (20-300°C)	17	13 (0-500°C)
Typical composition	Cu – 4,4% Si – 0,8% Mn – 0,8% Mg – 0,5% Remaining Al	--------	Cu - 57% Zn - 40% Pb - 3%	Cu –98,5% Cr – 1,1% others 0,5% Max.	$C \leq 2,3\%$ $5,5\% \leq Si \leq 7\%$ $0,5\% \leq Mg \leq 0,8\%$
Density [kg/m^3]	2700	7100	8200	8870	7300
Melting point [°C]	638	1120-1160	890	1230	1200

The experimental spraying tests were performed according to the following six phases:

1st Phase - Abrasive blasting of the specimen's surface
To obtain a coating with the required mechanical adhesion it is necessary to create a certain roughness in the substrate surface (Ra = 5 ± 1 µm) so the melted sprayed particles can adhere strongly. The increase of the roughness enhances the coating adhesion due to the following reasons (Mahood, 1990):

- Originates compressive tensions in the coating;
- Promotes the connection between the layers of the coating;
- Increases the connection surface;
- Decontaminate the surface.

Table 2 - Physical and chemical properties and respective spraying parameters of the used powders (AMPCO, 1982)

Spraying parameters and powders properties	Spraying powders			
	METCO 447NS	(Mo-Ni-Al)	METCO 201NS	(zirconium oxide)
Nozzle type of the Spray gun	K		K	
Acetylene flow [l/min]	26,5		22	
Oxygen flow [l/min]	42		30	
Nitrogen flow[l/min]	6,9		6,9	
Acetylene pressure [bar]	1,5		1,5	
Oxygen pressure [bar]	4,5		4,5	
Nitrogen pressure [bar]	5,5		5,5	
Rotation speed of the powder feeder [rpm]	9,8		11,6	
Spray rate [g/min]	34		30	
Spray distance [mm]	140		75	
Typical composition	Ni – 89,5% Al – 5,5% Mo - 5%		ZrO2 - 93% ; CaO - 5% Al2O3 – 0,5% ; SiO2 – 0,4% others – 1,1 %	
Melting point [°C]	660		2535	
Typical size range [µm]	+45 -88		+10 -53	
Density [kg/m^3]	7200		5200	
Porosity [%]	< 2		10	
Powder weight per area of coating thickness of 0,1 mm [kg/m^2]	0,8		1,04	
Coating weight per area of coating thickness of 0,1 mm [kg/m^2]	0,72		0,52	
Deposition efficiency [%]	90		50	

Spray gun velocity [m/min]	20	20

2nd Phase - Specimen's assembly in the spraying plate
Figure 3 depicts the assembly of the specimens in the spraying plate, showing also the relative positioning between the specimens of different materials.

3rd Phase - Robotic preheating with oxyacetylene flame
It is used with the purpose to reduce the residual stresses of the coatings obtained by flame spraying, due to the expansion that causes in the substrate. In addition, the preheating of the substrate does not allow that the water vapor product of the oxyacetylene combustion condenses in the surface, which can originate decreasing of the coating adhesion. The temperature used to preheat the substrate is about 100 °C (more precisely between 90 °C and 120°C) to guarantee that the surface will be always dry.

4th Phase - Robotic spraying of the bond coating (Nickel-Aluminum-Molybdenum)
This type of materials based in Nickel-Aluminum creates coatings with good adhesion because during flame spraying an exothermic reaction occurs among the aluminum and the nickel that brings additional heat to the process. Therefore it could be observed some local welding which increases the adhesion between the sprayed particles and the substrate (Vaßen, et al., 2010). Figure 3 also shows a phase of the robotic spraying of the bond coating.

Figure 3 - Specimen's assembly in the spraying plate (on the left) and robotic spraying of the bond coating with a spray angle of 90° (on the right)

5th Phase - Robotic spraying of the zirconium oxide coating
The objective of the zirconium oxide spraying was to use a material that for its properties is considered a thermal barrier (Clarke & Phillpot, 2005). Figure 4 shows a phase of the robotic zirconium oxide spraying and the final appearance of the coating, composed by the bond coating and the zirconium oxide.

6th Phase - Adhesion strength according to the standard ASTM C633-79 (ASTM, 1989)
The coated specimens were joined using cyanoacrylate glue LOCTITE 415 (LOCTITE, 2010) to other identical specimens of steel CK45 (ASM, 1990a), whose contact surface was previously submitted to abrasive blasting to create a certain roughness to improve the glue adhesion.
To promote the beginning of the polymerization reaction of the cyanoacrylates it was necessary to apply a compressive force of 100 N in the assembly for a period of 3 minutes. Figure 5 shows, for each one of the five tested materials used for the substrate, four specimens assemblies that were submitted to tensile strength tests.

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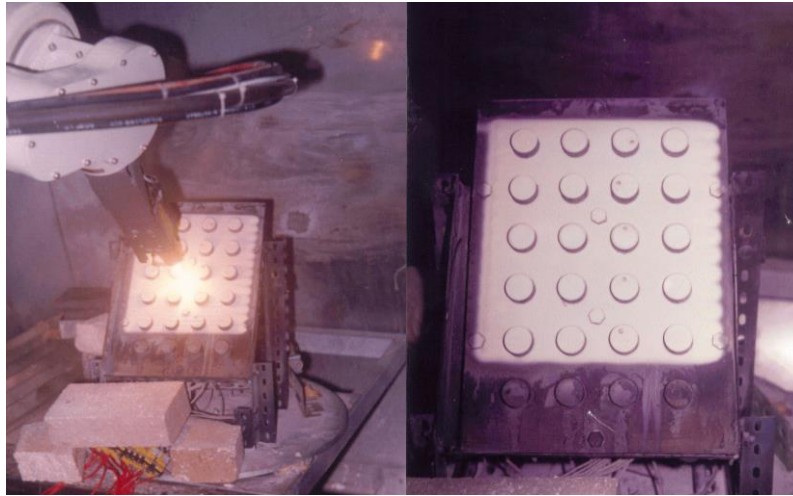
Figure 4 - Robotic spraying of the zirconium oxide coating with a spray angle of 90° (on the left) and final appearance of the coating (on the right)

Figure 5 - Agglutinated assemblies of coated specimens with against-specimens (specimens on top)

After 24 hours, so that the agglutinated joint had time enough to achieve its maximum resistance (enough to pull the coating of the specimen), the traction tests were carried out using a testing speed of 1 mm/min (ASTM, 1989) to obtain the adhesion strength of the coating.

2. RESULTS AND DISCUSSION

Figure 6 shows the coating adhesion strength as a function of the material of the substrate for identical spraying parameters, namely spray angle and preheating temperature.

Figures 6a and 6b highlight the results for the robotic flame spraying tests carried out with a spray angle of 90°; they just differ in the preheating temperature, respectively, 120 °C and 90 °C. It can be concluded that for the spray angle of 90° the higher coating strength adhesion was obtained for the spheroidal graphite cast iron (SGCI) and copper-chromium (CuCr) specimens for the preheating temperature of 120 °C, while for preheating of 90 °C the aluminum-copper (AlCu) and brass specimens were the ones with an higher coating strength adhesion. Nevertheless it was not possible to formulate any conclusion for the ferritic grey cast iron (FGCI) specimens, because no spray flame tests were carried out with a preheating temperature of 120 °C.

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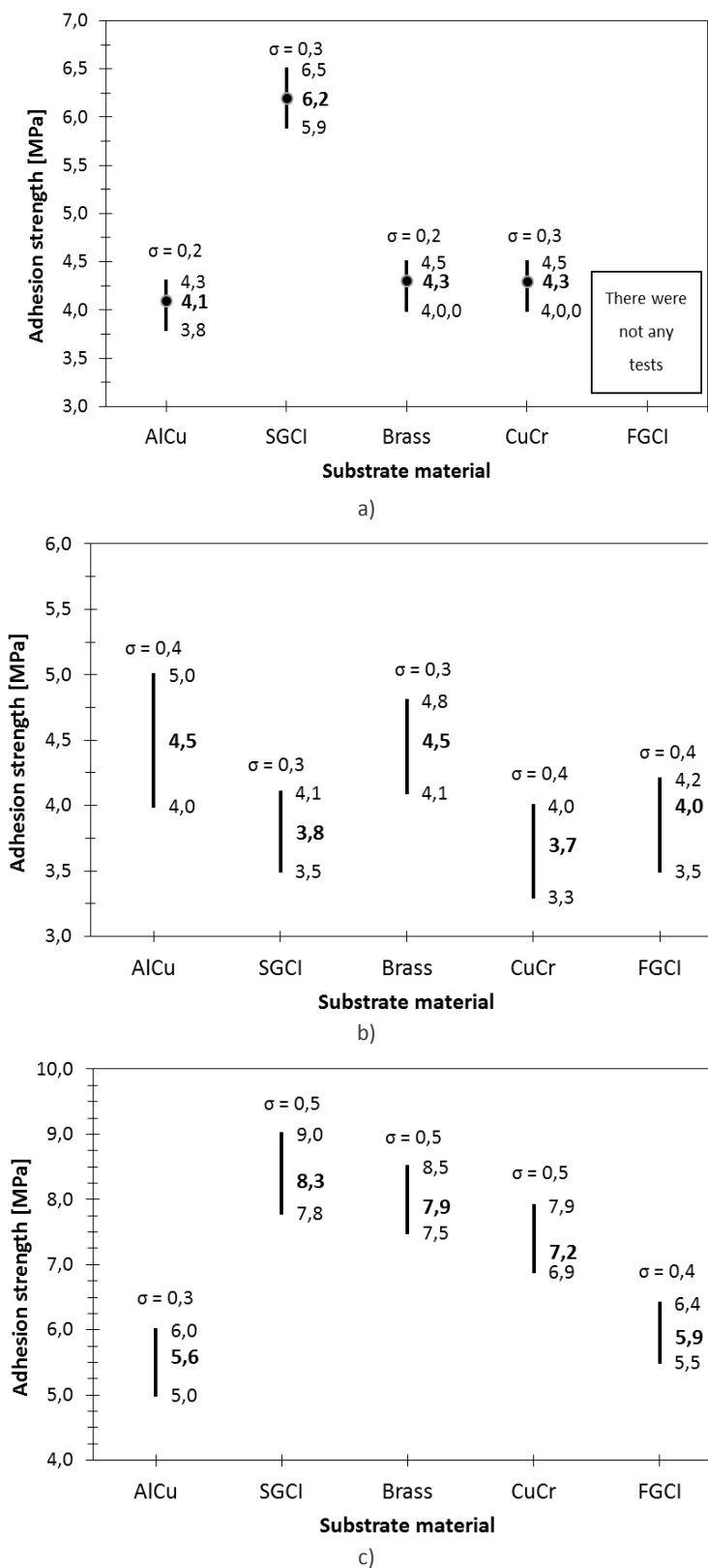
Figure 6 - Influence of the substrate material in the coating adhesion strength (maximum, minimum, average and standard deviation values): a) Spray angle of 90° and preheating temperature of 120 °C; b) Spray angle of 90° and preheating temperature of 90 °C and c) Spray angle of 65° and preheating temperature of 90 °C.

According to figures 6a and 6b, the higher adhesion strength for the spray angle of 90° was obtained for the specimens of spheroidal graphite cast iron (SGCI) with a preheating temperature of 120 °C (average of 6,2 MPa). For the preheating of 90 °C and a spray angle of 90°, the aluminum-copper (AlCu) and brass specimens were the ones that obtained the higher adhesion strengths (with an average of 4,5 MPa). Considering the spray angle of 90° and a preheating temperature of 120 °C, the aluminum-copper specimens obtained a smaller adhesion strength (average of 4,1 MPa) comparatively to the flame spray tests performed at 90 °C (average of 4,5 MPa). This can be caused by the fast oxidation of the hot aluminum-copper. The use of a low preheating temperature promotes a better adhesion of the coating because the surface will be less oxidized.

Considering figure 6c, which corresponds to a spray angle of 65° and to a preheating temperature of 90 °C, it is possible to observe that the spheroidal graphite cast iron (SGCI) and brass specimens obtained the highest values for adhesion strength (with an average of, respectively, 8,3 MPa and 7,9 MPa).

The differences determined for the adhesion strength of all the specimen materials considered can be justified by the predominant mechanical nature of the coating adhesion to the substrate. The spraying particles melt, flatten and conform to the roughness of the surface and they adhere mechanically amongst themselves and to the roughness of the substrate, implying that the coating presents an higher adhesion strength in substrates with better mechanical properties, namely, with an higher tensile strength.

Taking into consideration the adhesion strength values shown in the figure 6a (for a spray angle of 90° and a preheating temperature of 120 °C), it is observed that the spheroidal graphite cast iron (SGCI) presents the highest value (an average of 6,2 MPa), since it's the material that have the higher tensile strength (see table 1).

Considering the adhesion strength values shown in the figure 6b (for a spray angle of 90° and a preheating temperature of 90 °C), it is not clear why the spheroidal graphite cast iron does not present the highest adhesion strength value. Nevertheless it may occur due to the fact that the preheating temperature of 90 °C might not to be the most adequate for this material. However, this hypothesis is contradicted by the results presented in the figure 6c (for a spray angle of 65° and a preheating temperature of 90 °C), because it presents once again the higher adhesion strength (with an average value of 8,3 MPa); this fact led to the conclusion that something anomalous happened in the adhesion traction test of the spheroidal graphite cast iron specimens sprayed at 90° with a preheating temperature of 90 °C.

The spray angle of 65° shown in figure 6c originates the higher adhesion strength in all the materials used for the substrate, being the highest value (average of 8,3 MPa) obtained for the spheroidal graphite cast iron, proving to be the best material. It can also be concluded that the worst materials for the substrate are the ferritic grey cast iron (with an average value of 5,9 MPa) and the aluminum-copper (with an average value of 5,6 MPa), due to their low tensile strength.

To explain why the spray angle of 65° has an higher adhesion strength than the spray angle of 90°, these obtained coatings were analyzed using an optical microscope.

Figure 7 shows the bond coating (Nickel-Aluminum-Molybdenum) and the zirconium oxide in a brass substrate sprayed at 90°.
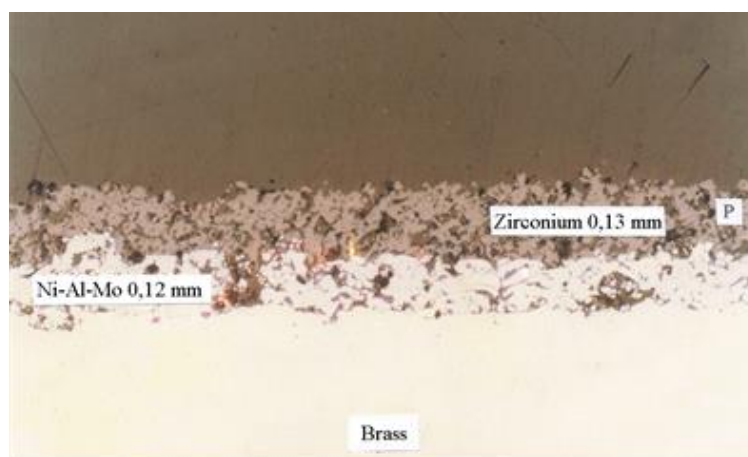
Figure 7 - Nickel-Aluminum-Molybdenum and zirconium oxide sprayed at 90° to a brass substrate (magnification: 100x)

According to figure 7, it can be concluded that the connection between the coating layers seems to be good because no fissures are observed. The bond coating as well as the zirconium oxide present little porosity (the darker points indicated by P in figure 7), however the zirconium oxide coating presents more porosity than the connection layer, since the zirconium oxide does not melt like the Nickel-Aluminum-Molybdenum. According to literature it is expected 10% of porosities in the zirconium oxide and less than 2% in the bond coating. On the other hand figure 8 shows the bond coating (Nickel-Aluminum-Molybdenum) and the zirconium oxide in a brass substrate sprayed at 65°.
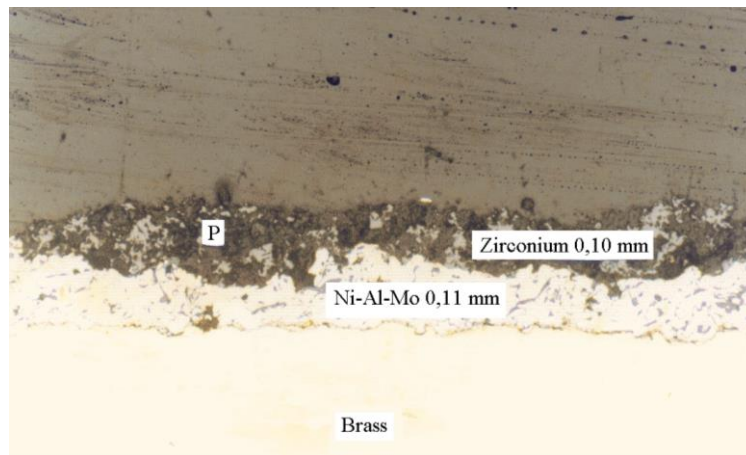
Figure 8 - Nickel-Aluminum-Molybdenum and zirconium oxide sprayed at 65° to a brass substrate (magnification: 100x)

Analyzing figure 8 it can also be concluded that the connection between the coating layers is again very good because no fissures are observed. The bond coating presents very little porosity (less than 2%) and the zirconium oxide coating presents again many darker points (indicated by P in figure 8). Nevertheless not all these darker points are due to porosity; many were created when polishing the sample for microscopic observation. The porosities were evaluated considering two different calculation methods: the first one was based on the calculation of the coating weight using the specific masses and characteristic porosities of its materials, and, the second one, using the microscopic observation of the coating. The porosity of the coatings obtained by the two tested spray angles (90° and 65°) are similar and correspond to the values stated by the manufacturer of the spraying materials, such as, bond coating (<2%) and zirconium oxide (10%).

The coatings produced with a spray angle of 65° obtained a less coating thickness than the ones sprayed at 90°. This is due to the smaller deposition efficiency of the spray at an angle of 65°. This fact was more evident in the zirconium oxide coating (with a decrease from 0,13 mm to 0,10 mm) than the one determined for the bond coating Ni-Al-Mo (with a decrease from 0,12 mm to 0,11 mm). Due to the thickness of the coatings in all substrates, the coatings sprayed at 65° produced larger adhesion strengths than the coatings sprayed at 90°.

As in other types of deposits, the coatings obtained by flame spraying contain residual stresses, which result from the contraction that occur during cooling and solidification of the sprayed materials (Gu et al., 2012; Karaoglanli, Dikici, & Kucuk, 2013; Xueling, Rong, & Wang, 2014). Those stresses are due to the individual contraction of the particles when they solidify in the substrate and its magnitude is proportional to the thickness of the coating. Due to this fact, the interface coating/substrate is submitted to shear tensions and only normal tensions are tolerated in the bond to obtain a good coating adhesion.

In addition, independently of the substrate used with different thermal conductivity and coefficient of thermal expansion, the coatings sprayed at 65° obtained higher adhesion strengths than the ones sprayed at 90°, because they are less thick and consequently have smaller residual stresses.

CONCLUSIONS

In this paper a study of the adhesion strength of flame sprayed ceramic coatings obtained by robotic projection is presented and discussed.

The deposition efficiency for all the sprayed materials reaches the maximum value with the spray angle of 90°, which enables the production of the largest coating thickness for the same processing time and spraying rate. The powders ceramics sprayed at 65° and 90° have similar porosities.

The coatings sprayed at 65° (with smaller thickness and with smaller residual stresses than the ones sprayed at 90°) have better adhesion strengths. The preheating temperature that promotes the best adhesion of the coating depends on the material of the substrate.

The coatings produced in less oxidized substrate materials present better adhesion strengths with higher preheating temperatures.

The use of substrates with good mechanical properties, such as tensile strength, is a major aspect that positively influences the value of the adhesion strength of coatings.

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UM ESTUDO SOBRE A VIABILIDADE DA IMPLEMENTAÇÃO DE UM SISTEMA DE GESTÃO DE QUALIDADE, BASEADO NO MODELO EUROPEAN FOR QUALITY MANAGEMENT (EFQM) NUMA ESCOLA DE ENGENHARIA

A STUDY ON THE FEASIBILITY OF IMPLEMENTING A QUALITY MANAGEMENT SYSTEM, BASED ON THE EUROPEAN FOR QUALITY MANAGEMENT (EFQM) MODEL IN A SCHOOL OF ENGINEERING

UN ESTUDIO SOBRE LA VIABILIDAD DE LA IMPLEMENTACIÓN DE UN SISTEMA DE GESTIÓN DE CALIDAD SOBRE EL MODELO EUROPEAN FOR QUALITY MANAGEMENT (EFQM) EN UNA ESCUELA DE INGENIERIA

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RESUMO

Introdução: Atualmente, e num contexto competitivo, as Instituições de Ensino Superior (IES) dependem cada vez mais da qualidade dos seus serviços prestados, não só para satisfazer os seus diferentes *stakeholders*, como também, para atrair financiamento.

Deste modo, as IES tendem a incorporar na sua estratégia, Sistemas Internos de Gestão da Qualidade (SIGQ), com vista a uma melhoria continua do seu desempenho.

Este trabalho pretende analisar a aplicabilidade de uma IES, baseada no modelo da *European Foundation for Quality Management* (EFQM), através da sua implementação numa IES publica Portuguesa.

Objetivos: Contribuir com uma análise critica da aplicabilidade de um SIGQ no desempenho organizacional de uma IES, baseado no modelo EFQM, e implementado numa IES publica.

Métodos: Revisão bibliográfica da aplicabilidade de SIGQ's em IES, incluindo o modelo EFQM. Recurso a ao caso de estudo, análise documental e entrevistas com elementos intervenientes no estudo.

Resultados: Foram obtidos um conjunto de vantagens e dificuldades. Para as dificuldades obtidas, foi proposto um conjunto de sugestões para a sua superação.

Conclusões: A aplicação do SIGQ na IES em estudo, revelou-se proveitosa, devido a um conjunto de vantagens percepcionadas, entre as quais, o aumento da eficiência organizacional.

Para cada uma das desvantagens identificadas no estudo, foi proposto um conjunto de soluções para a sua mitigação, permitindo deste modo, reforçar o potêncial de aplicaçao do modelo EFQM numa IES.

Palavras Chave: TQM, Melhoria Continua, Autoavaliação, EFQM, Ensino Superior

ABSTRACT

Introduction: Currently, and in a competitive context, Higher Education Institutions (HEIs) increasingly depend on the quality of their services, not only to satisfy their different stakeholders, but also to attract funding.

In this way, HEIs tend to incorporate Internal Quality Management Systems (IQMS) into their strategy with a view to the continuous improvement of their performance.

This work intends to analyze the applicability of an HEI, based on the European Foundation for Quality Management (EFQM) model, through its implementation in a public Portuguese HEI.

Objectives: Contribute to a critical analysis of the applicability of an IQMS in the organizational performance of an HEI, based on the EFQM model, and implemented in a published HEI.

Methods: A number of advantages and difficulties were obtained. For the difficulties obtained, it was proposed a set of suggestions for its overcoming.

Results: A number of advantages and difficulties were obtained. For the difficulties obtained, it was proposed a set of suggestions for its overcoming.

Conclusions: The application of the SIGQ in the HEI under study, proved to be beneficial, due to a set of perceived advantages, among them, the increase of the organizational efficiency. For each one of the disadvantages identified in the study, a set of solutions was proposed for its mitigation, thus allowing to reinforce the potential of applying the EFQM model in an HEI.

Key Words: TQM, Continuous improvement, Self-assessment, EFQM, High Education

RESUMEN

Introducción: Actualmente, y en un contexto competitivo, las Instituciones de Educación Superior (IES) dependen cada vez más de la calidad de sus servicios prestados, no sólo para satisfacer a sus diferentes *stakeholders*, sino también para atraer financiamiento.

IES tienden a incorporar en su estrategia, Sistemas Internos de Gestión de la Calidad (SIGC), para una mejora continua de su desempeño.

Este estudio tiene como objetivo examinar la aplicabilidad en una IES, del modelo de la Fundación Europea para la Gestión de la Calidad (EFQM), a través de su aplicación en el IES publica.

Objetivos: Contribuir con un análisis de la aplicabilidad de un SIGC en el desempeño organizacional de una IES, basado en el modelo EFQM, e implementado en una IES pública.

Métodos: Revisión bibliográfica de la aplicabilidad de SIGC's en IES, incluyendo el modelo EFQM. Recurso al caso de estudio, análisis documental y entrevistas con elementos intervinientes en el estudio.

Resultados: Se obtuvieron un conjunto de ventajas y dificultades. Para las dificultades obtenidas, fue propuesto un conjunto de sugerencias para superación.

Conclusiones: La aplicación del SIGC en la IES en estudio, resultó provechosa, debido a un conjunto de ventajas percibidas, entre las cuales, el aumento de la eficiencia organizacional.
Para cada una de las desventajas identificadas, se propuso un conjunto de soluciones para su mitigación, permitiendo de este modo reforzar el potencial de aplicación del modelo EFQM en una IES.

Palabras Clave: TQM, Mejora Continua, Autoevaluación, EFQM, Enseñanza Superior

INTRODUCTION

In the last years, most European governments have been confronted, with a series of structural problems regarding a "heavy" and inefficient public administration (Twizeyimana & Andersson, 2019), in a way that public institutions, and in particular, Higher Education Institutions (HEIs), have begun to adopt even more quality management models from the private sector (Simões, 2011). Currently, there is a tendency for HEIs to adopt management techniques, usually applied to the private sector, in order to respond to the efficiency and effectiveness requirements, increasingly imposed by the current governments, and in particular, by the Portuguese government, which has provided greater administrative autonomy for HEIs. In this context, the need to have more quality management systems certified in HEIs has become even more important in recent years (Saraiva et al, 2017).
Despite the vast literature on "Quality", it is not easy to define it as a concept, mainly when applied to an HEI (Osseo-Asare & Longbottom (2002) and Overberg *et al* (2019)).
This is due, in part, to the fact that HEIs needs to serve various stakeholders, namely, the government, students, teachers, researchers, etc.. In this context, HEIs have tried to follow the good examples practiced by other organizations, by adopting Internal Quality Management Systems (IQMS). This concern was already a constant of HEIs, a little throughout the world, and in Portugal, these themes began to assume special relevance, due to the emergence of an institution mandated by the Portuguese Government, and within the framework of European directives, namely the Agency and Accreditation of Higher Education (A3ES). In addition, HEIs increasingly provide services to their stakeholders, mainly through their laboratories and Research and Development (R & D) centers, which leads to a higher requirement in the scope of the quality provided into their services. In this context, HEIs need to find effective and efficient ways to respond to A3ES certification requirements (Sa *et al*, 2011) by promoting quality through increased resource efficiency and at the same time improving the quality of the service provided (Hall et al ,2012). It is known, that many HEIs, have adopted lately, several quality models, however, there are no certainties about the results of their implementation (CRE Project, 2001 and Yingqiang & Yongjian, 2016). According to Rosa & Amaral (2012) and McCowan (2018), the adopted internal quality management system (IQMS), have a set of techniques based on theories, sometimes incompatible with the management policy of HEIs. Authors such as Sa et al (2010) and Munastiwi (2015) argue that HEIs should promote self-assessment of their performance in a logic of continuous improvement. The use of models such as EFQM (European For Quality Management), could be a solution to consider.
The present research aims therefore, to study the feasibility of the implementation of an EFQM model into a public HEI's IQMS, by studying it, in a School of Engineering in Portugal. To pursue this end, it will be analyzed, among other aspects, any difficulties encountered with the model implementation, namely the compatibility with other management procedures, already existed in the institution, as well as with legislation and other Portuguese entities, associated with the organization, namely QUAR[1], A3ES[2] and the Professional Engineering Society.

Initial Problem

Through previous findings, the central question that defines the problem, created around this study, has arisen:
How can the EFQM model be implemented into an organization with the characteristics of a public HEI?
In order to contribute with answers to the main question, it was evaluated an EFQM model implementation into a Portuguese HEI.
In this sense, several questions have arisen, which will enable us to answer the main question, mentioned above, namely:

- What are the difficulties found on designing an IQMS into an HEI, regarding the EFQM model framework, in order to satisfy its different stakeholders, and given the different perceptions about the concept of "quality"?
- How can EFQM frame, as an IQMS, the strategic guidelines to be defined (or existed already) by the organization, as well as any existing evaluation systems / requirements to which the organization is subject (e.g. A3ES, Portuguese Professional Engineering Society, etc.)?

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[1] Evaluation and Accountability Framework – A Portuguese management tool
[2] Agency for evaluation and accreditation in higher education - A Portuguese agency to promote quality assurance on HEIs

- What are the advantages, that the different stakeholders can achieve with the implementation of an IQMS within the framework of the EFQM?

Research objectives
The research objectives to be carried out, are as follows:

- Analysis of possible advantages with the implementation of an IQMS according to the EFQM model, given its own organizational structure, as HEI;
- Analysis of any difficulties faced with the implementation of an IQMS, according to the EFQM model, seeking to provide alternatives for overcoming them;
- Contribution to the study and analysis of the feasibility, regarding the application of the EFQM model into a HEI;

1. CONTEXT AND LITERATURE REVIEW

1.1. Quality management on Higher Education Institutions (HEI)

Despite quality in higher education, being a subject, that has raised concern about HEIs around the world, and over time, it is however in the last decades, that this subject has assumed a greater importance (Sá *et al* (2009) and Hall *et al* (2012)).

Factors, such as the growth and exponential appearance of HEIs, as well as the changes in the scope of their supervision, whether private or public, have contributed to the government having a supervisory role, rather than control, resulting therefore in an increasing of the autonomy of these institutions (Rosa &Amaral (2012) and Eryılmaz *et al* (2016)).

However, quality as a concept, particularly in HEIs, is not easy to define. In fact, the various debates concerning the quality of higher education (e.g. EUA (2007), Yingqiang & Yongjian (2016) and Leeuwenkamp *et al* (2017)) have revealed some difficulties in obtaining some consensus, not only on the definition of quality itself, but mainly on its implications for higher education (Sarrico *et al*, 2010).

According to Munastiwi (2015), one of the main factors for the lack of consensus in its definition, is the multidimensionality of HEIs. This characteristic is reflected in the wide variety of missions, usually associated with the various stakeholders, which have enabled the HEI to create even greater dynamics than it did a few years ago. The dynamics created, although positive in many respects, have contributed in part to an erosion of confidence in the higher education system (Sa *et al* (2009), Yingqiang & Yongjian (2016) and Guglieri *et al* (2017)).

This "erosion" has been studied in most countries, mainly due to a large extent, enabled to promote the expansion of the discussion around the concept, as well as the quality assurance activities in higher education institutions and systems (Massy (2003), Yingqiang & Yongjian (2016), Leeuwenkamp *et al* (2017)).

In this context, countries such as Netherlands, Flanders and Portugal, whose HEIs were in charge of the national evaluation system, have seen their governments turn to independent accreditation agencies of HEIs, recognizing that they would provide the necessary results, free of any interest or internal pressure.

According to the A3ES, Quality in higher education can be defined as follows: "Multidimensional concept, multilevel and dynamic, related to the context of an educational model, with the institutional mission and objectives, as well as with the specific rules and terms of reference of a particular system, institution, course, program or disciplinary unit "(A3ES, 2018).

Also, according to A3ES (2018), quality can take on different meanings (sometimes conflicting with each other), and which depends essentially on:

- Perspective of different stakeholders in higher education (e.g. students, teachers, industry, investors, society, government);
- Internal references (e.g. inputs, processes, outputs, missions, objectives, etc.);
- Attributes or characteristics of the academic world to be evaluated;
- Historical period in the development of higher education;

In addition, the promotion of Quality systems in HEIs, through the evaluation of their performance, implies the creation of organizational structures, models and indicators, which supports a culture and dynamics of their own. Although they're not rooted in HEIs, this issue is essential for the promotion of evaluation cycles, helping institutions to take responsibility to their stakeholders (Maslow *et al*, 2006).

The importance of quality is thus seen, as one of the most relevant aspects of higher education reform around the world, in a time when the reduction of public funding to HEIs is becoming more and more evident (Rosa & Amaral, 2012).

In this sense, the European Union (EU), through the European Association for Quality Assurance in Higher Education (ENQA), has established directives for each Member State to adopt measures for the promotion and accreditation of quality in higher education, a challenge to which Portugal has responded, by creating the A3ES (Sá *et al*, 2010).

In this context, the importance of accreditation in the field of HEIs, can be seen through the definition of the EUA (European University Association) group, where accreditation is a formal statement published regarding the quality of an institution or program, following a cyclical assessment based on agreed standards (CRE Project, 2001).

Furthermore, it is important, at the first view, to emphasize the role of evaluation in HEIs.

According to A3ES (2019), the evaluation of higher education can be defined, as: "Systematic and critical analysis process for the issuance of judgments and recommendations on the quality of a higher education institution or a study cycle". The key concepts implicit in this definition were obtained by the Agency, based on the work of UNESCO-CEPES (2007) and later adjusted to the Portuguese context of HEIs.

Several studies have been developed in this scope, (e.g. Munastiwi (2015), Eryılmaz (2016), Shin (2017), Liu & Liu (2017), Tserendagva & Jamts (2017)).

The evaluation generates learning, promotes professional and personal change, so it takes a prominent place in the policy discussions and the management of the HEIs themselves.

 The evaluation, being internal and/or external, serves the organization in the sense that, the evaluated ones are also evaluators. Internal evaluations should take place in the HEIs, by specifying the obtained results in a report, which shall serve as a basis for the external evaluation (Sobrinho,2003). It is in this context, that A3ES takes on special relevance, contributing to the improvement of the quality of higher education in Portugal through the evaluation and accreditation of HEIs and their study cycles, within the scope of their mission.

Still in relation to the internal evaluation, the process of self-evaluation will only succeed after all the participants understand and share the same theoretical framework.

Benavent & Giner (2011), as well as Guglieri *et al* (2017), reinforces the importance of internal evaluation, by recommending that organizations should seek to implement the IQMS, in order to improve quality, regardless the external quality assurance systems, to which they may be subject.

In the last years, there were proposed several models, to meet these requirements, as well as to develop some consensus around the practice of quality assessment (e.g. Benchmarking Exercises (Jackson &Lund (2000), Munastiwi (2015) and Tserendagva *et al* (2017)), the EFQM model (Rosa &Amaral (2012), Guglieri *et al* (2017)), and the US Institutional Evaluation Program (Amaral *et al*, 2008))).

From all the studies, that can be found, some of them are related with the EFQM model, which is based on Total Quality Management (TQM) approach. Given the success regarding its implementation on industry and based on what was referred before, this model has been gradually applied in the management of HEIs, all over the world (e.g. Sheffield (2003), Munastiwi (2015) and Yingqiang & Yongjian (2016)).

1.2. Internal Quality Management Systems (IQMS)on HEI: The Portuguese context

As it referred before, the A3ES agency, comes from the initiative of the Portuguese government, on behalf of the new legal regime for the quality of higher education, approved in 2007, which is based on European recommendations, published by the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)[3]. This agency has the objective of evaluation and accreditation of HEIs and their study cycles.

This legislation sought to provide the HEIs with some autonomy regarding the responsibility for quality assurance in their institutions (in part ensured by the freedom to choose the adopted IQMSs), while ensuring that the Government maintains the power to demand the responsibility of HEIs quality.

The certification of the IQMS, regarding each Portuguese HEI, is also a competence of the A3ES, although, the agency has developed earlier, a strategy to make the quality assessment and accreditation system for study cycles more flexible. The main objective is to enable HEIs in general, through their audited and certified IQMSs, to be addressed in a lighter manner, supported by institutional audits and accreditation of HEIs and their study cycles. This legislation sought to provide the HEIs with some autonomy regarding the responsibility for quality assurance in their institutions (in part ensured by the freedom to choose the adopted IQMSs), while ensuring that the Government maintains the power to demand the HEIs accountability in terms of quality. The certification of the IQMS of Portuguese HEIs is also a competence of the A3ES, and lately this agency has developed a strategy to make the quality assessment and accreditation system for study cycles more flexible. The main objective is to enable HEIs in general, through their audited and certified IQMSs, to be addressed in a lighter manner, supported by institutional audits and accreditation of only a sample of study cycles (Rosa *et al*, 2015).

For the implementation of the IQMSs, the A3ES has developed a set of ten references, which acts as recommendations for the implementation of the IQMSs in Portuguese HEIs. The use of these benchmarks by HEIs, and subsequently the accreditation of their IQMS, constitutes a powerful instrument for consumer protection, in a way that is pretended to be increasingly international, in order to effectively consolidate the principles of the Bologna Process (Sá *et al,* 2009). In the audit process carried out by the A3ES, it is assumed as a fundamental assumption, respect for the autonomy of HEIs, with the main objective of this process, being essentially the strategic institutional evaluation for the quality and the way it translates into an effective and efficient IQMS.

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[3] Elaborated by the European Network for Quality Assurance in Higher Education (ENQA) in collaboration with the European University Association (EUA), the European Association of Institutions in Higher Education (EURASHE) and the National Unions of Students in Europe (ESIB).

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In a benchmarking perspective with the present case study, and in order to provide a broadest possible view of the different IQMS developed by Portuguese HEIs, an analysis of the Quality Manuals from various institutions was carried out. The Quality Manual translates into a document that aims to describe the IQMS of an HEI, defining its organization functioning, the stakeholders (teachers, staff, students, etc.), as well as the Institution's Quality Policy. For this purpose, we chose three HEIs manuals, namely the Polytechnic Institute of Guarda, Instituto Superior Técnico and Minho University, with a view to identify common aspects in both publications.

Regarding all the quality manuals analyzed, organization chart is presented, and on each institution, there is a team responsible for the monitoring of the IQMS. In the same monitoring area, three common axes were identified in the three manuals, namely: teaching, research and external relations. For each of them, the same institutions present a set of methodologies described in their respective quality manuals (**Table 1**).

Table 1 - Procedures and methodologies referred in the Quality Manuals

Research	Teaching	External Relationships
• Evaluation process carried out by the Foundation for Science and Technology (FCT) • Self-assessment reports from R & D centers • Indicator monitoring	• Student and faculty surveys, performed at each course • Course reports • Indicator monitoring	• Indicator monitoring

It should also be noted that in all the three manuals, the roles and responsibilities associated with the various stakeholders, are described, according to everyone, i.e.: teachers, students, personal staff, *alumni*, employers and other external entities. It is fundamental for each one of these stakeholders, to monitor their satisfaction degree.

1.3. Main models used in HEIs

The accumulated experience in industry, regarding the development of the "Quality Management" with its products/services, has served as a reference for some HEIs, to feel that they need to rely on quality management models to certify their services (Sa *et al*, 2011).

From the models universally accepted and considering that HEIs have to implement reference models for their IQMSs, we could mention some of them, namely the European Foundation for Quality Model (already referred above), the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), from the European Association for Quality Assurance in Higher Education (ENQA) (Leeuwenkamp, 2017), the Balanced Score Card (BSC) (Munastiwi, 2015) and the International Organization for Standardization (ISO) standards (Yingqiang & Yongjian, 2016).

The last and the first models mentioned here, were adopted from the industry. In the last years, these models were mainly focused on TQM[4] approaches, with some of them, also based on continuous improvement and assuming therefore a greater relevance in the universe of HEIs (Galvão *et al*, 2011).

Given the complexity of the HEIs, due to the service provided and the stakeholders involved, it is not easy to adopt and implement a system based on TQM approach, although it can be a feasible option (Sheffield (2003), Benavent & Giner (2011) and Tserendagva & Jamts (2017)), whereby HEIs can pursue to improve the quality of the service provided (Rosa & Amaral, 2012), which is in line with the TQM philosophy, and the EFQM[5] model.

1.4. Advantages & Difficulties found in the literature with its implementation

In addition to the diversity of stakeholders with different perceptions and requirements in terms of quality, other difficulties in the implementation of IQMS, can be pointed out, namely the fact that the organization's employees are the ones who knows its work (and therefore its procedures) better, although they rarely share it, causing barriers in improving the process (Campatelli *et al*, 2011), demonstrating therefore, the difficulties felt in HEIs, especially the public ones, given the frequent mobility of the workers, from public administration.

Other difficulties are pointed out in literature, such as the lack of experience in process improvement, coupled with a small number of Human Resources (HR) dedicated to quality and improvement (Soeiro, 2011), or even the compatibility of the implemented IQMS, with the requirements of other existing systems, such as A3ES, associated to the Portuguese context (Sa *et al*, 2011).

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[4] Total Quality Management
[5] European for Quality Management

One of the advantages, associated with the use of the EFQM model in HEIs is its own nature, where, according to Maslow *et al* (2006), it can focus on the organization's "key clients", while meeting the current and future needs of its stakeholders.

In order to do this, the model uses a series of appropriate indicators to monitor the performance of the organization through its various processes, accounting as well the improvement to be performed through benchmarking actions, whether internal, either externally.

Another advantage is its certification, where, according to Soeiro (2011), it allows to attest the quality of the management practiced in the HEI, increasing the levels of efficiency and effectiveness, through the allocation of resources, allowing at the same time the increase in the recognition, both nationally and internationally, between HEIs and the societies with which they are integrated as partners[6].

1.5 The EFQM model

The EFQM model was created in 1992 to support organizations in Europe and aims to establish a quality management system, that allows the evaluation of organizations with the objective of continuously improving their performance, aiming the attribution of the European Quality Award (EQA).

Currently, the model is used by many organizations from different economic sectors, namely banks, insurance companies, oil companies, energy companies, health, schools, universities, etc.

The evaluation of the organization is performed according to a set of criteria and sub criteria, which are assigned a pre-established score (APQ, 2019a).

The principles of the model, are based on 8 fundamental concepts, which allows any organization to reach "Excellence" in a sustained way, and to establish a common language among managers (APQ,2019b):

- Add value to Clients;
- Building a sustainable Future;
- Develop organizational Capacity;
- Take advantage of Creativity and Innovation;
- Leading with Vision, Inspiration and Integrity;
- Manage with Agility;
- Succeed Through Talent of People;
- Maintain Outstanding Results.

Based on these concepts, the model proposes to the organizations the use of nine criteria, in order to analyze the relations of cause and effect, namely what the organization "does" through the means that it has, and what they "obtain" in matter of results (APQ,2019a), defining the EFQM model as a whole (Fig. 1).
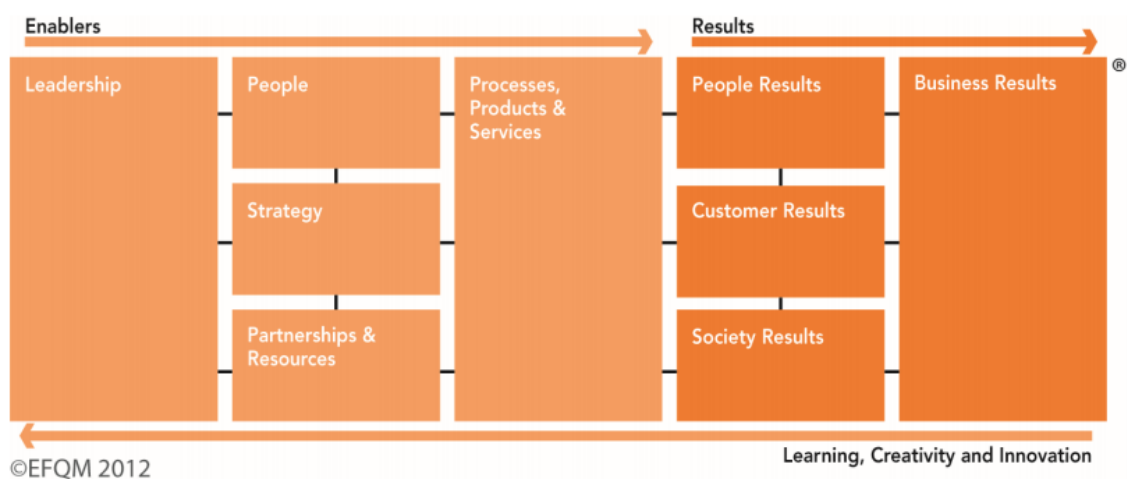
Fig. 1 – The 9 criteria of the EFQM 2013 Model (EFQM, 2019)

2.6 Examples of the EFQM model in HEIs, found in the literature

Besides the examples, already mentioned before, other studies regarding EQM application, can be found on literature, with some of them still in progress, while others, have been already completed. While some of these model applications, have been partially

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[6] See example on International Association of Continuing Engineering Education Society

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implemented in services (e.g. Tari *et al* (2006) and Sofia *et al*, 2015), others have been fully implemented, such as the DAETE project of the University of Porto (Soeiro, 2011).

The last one is a project financed by the European Commission and by the USA, under the Atlantis program, which aims to develop several tools based on the EFQM model and applied in the context of HEIs. To this end, several self-assessment tests were carried out, covering 42 HIEs in Europe, the USA and China, and the process was later adopted by the Association of Continuing Engineering Education as a tool for assessing the quality of management at a global level (Soeiro, 2011).

Other studies have been developed, namely the adaptation of the EFQM model by the University of Sheffield in Hallam (Pupius,2003), the study of Campatelli *et al* (2011), regarding the implementation of the EFQM model in the analysis and improvement of processes at the University of Firenze in Italy, the work of Fooladvand *et al* (2015) by combined EFQM with Balance Score Card approach, the work of Overberg *et al* (2019), applied in a Laboratory associated to a HEI, among others.

2. METHODS

2.1. Data

Regarding the techniques, used for collecting information, these are based on the following:

- Documentary analysis.
- Observation throughout the process of implementing the IQMS in the HEI.

The first one was based on the documentary analysis of several documents assigned to the different functional areas, and regarding the HEI under study, namely Departmental Areas assigned to the different courses taught, services (e.g. Financial, Human Resources, Procurement), complementary units (e.g. Library, Informatics), offices (e.g. Audit and Quality, Communication, Accounting & Assets), Laboratories and R & D Centers.

The documentary analysis also focused on the following documents addressed to the management, as well as the entire HEI in general, namely:

- Various regulations, associated with the governing bodies of the institution (e.g. Supervisory Board, Technical-Scientific Council, Management Council, among others)
- School Strategic Plan (SSP)
- Annual Activity Report (AAR)
- Annual Financial Reports (AFR)
- Annual Budget Report (ABR)
- Evaluation and Accountability Framework (QUAR)[7] of the HEI under study

The second one was based on data collection from the Office of Audit and Quality, responsible for the proposal for the implementation of the IQMS in the HEI under study, as well as the consultation of the different human resources, regarding the several functional areas mentioned above, as well as other elements belonging to the institution's government bodies.

2.2. Procedures

In order to try to answer the above questions, the case study methodology will be used, since it is the most appropriate strategy in answering the research questions posed in the "how" or "why" (Yin, 2003). According to the same author, the indicated methodology allows us to define an empirical approach that seeks to investigate a current phenomenon inserted in real context, particularly appropriate when the boundaries between the phenomenon and the context are not clearly evident, still allowing the construction of a theory, not only from the literature review, but also as a result of empirical observations or actual experiences that may result in both qualitative and quantitative research.

In this sense, this research is based on an inductive logic, since the possible confirmation of the applicability of the EFQM model in the HIEs under study, does not constitute evidence by itself, to be applicable into other HEI, but may contribute to the analysis and discussion of its viability (Lakatos & Marconi, 1992).

2.3. Case study

The case study presented here, refers to a HEI, more specifically to a School of Engineering in Portugal, which aims to satisfy a diversity of stakeholders that are part of it (**Fig. 2**).

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[7] *Tableau de board* (mission) regarding the strategic objectives, targets to be achieved, performance indicators, available resources (human and financial) and identification of possible deviations and their reported causes.
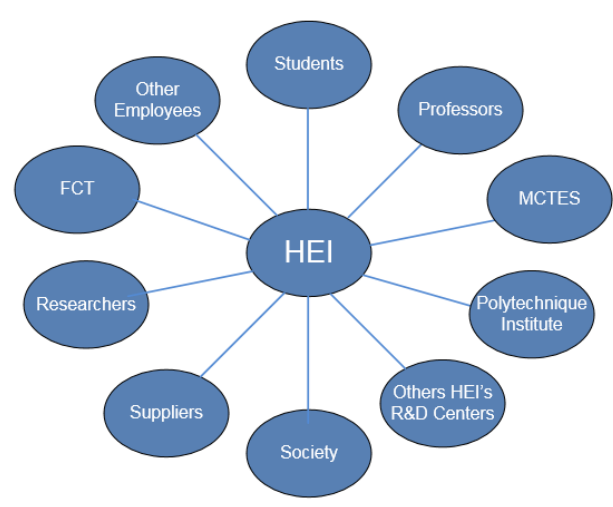
Fig. 2 –*Stakeholders* diversity regarding the HEI studied

By making a correspondence between the different functional areas and the correspondent stakeholders, there is a diversity of stakeholders with different perceptions and quality requirements, which varies according to the functional area to which they relate (**Fig. 3**).
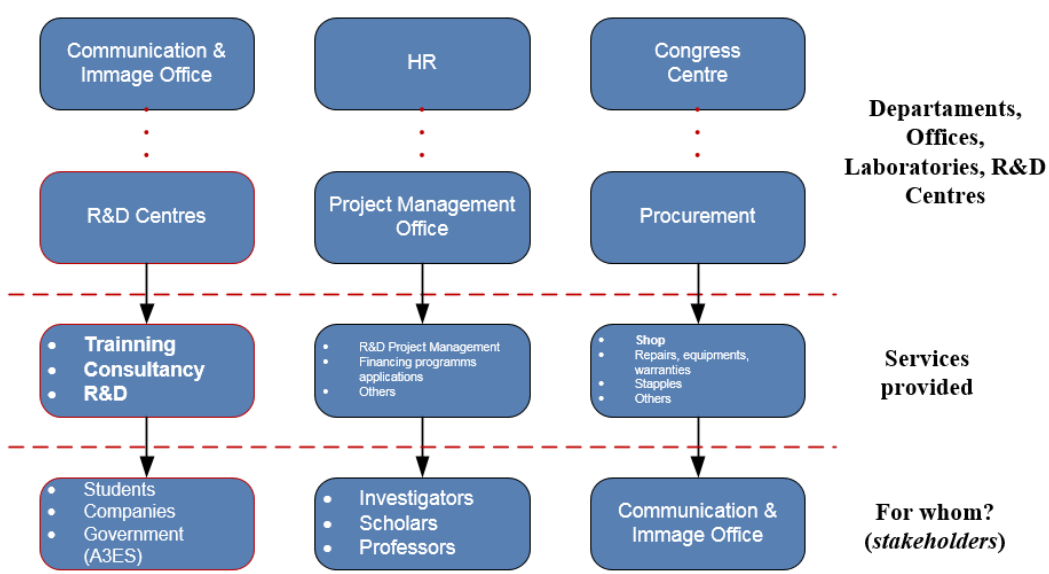
Fig. 3 – Example of relationship between functional areas and the stakeholder's diversity regarding an HEI

Observing **Fig. 3**, the organization can be subdivided into small models of self-assessment, which corresponds to subdividing the IQMS into parts according to their functional area, although related to each other.

According to Tari *et al* (2011), an HEI can be evaluated in three broad areas: teaching, research and services.

It will be in the context of the services, where it will be studied the feasibility of implementing an IQMS within the framework of the EFQM model in a HEI.

3. RESULTS

From all the evidences obtained during the EFQM implementation phase in the HEI, only a few, considered as the more relevant ones, will be presented. These evidences are related to the advantages, difficulties and ways of overcoming the difficulties encountered during the EFQM implementation. The purpose is to contribute for the discussion of the problem raised initially, ending the same with the respective conclusions.

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4.1. Advantages obtained during model implementation

- Compatibility between the implemented IQMS, the Strategic Plan and the Assessment and Accountability Framework (QUAR) of the organization.

One of the advantages, regarding the EFQM model implementation, and shown in the School Strategic Plan (SSP), is the focus of the model on the obtained results, resulting from the processes developed / managed, allowing the realization of an appropriate alignment between the school SSP's framework and the EFQM model, as well as the organization's QUAR, due to the unfolding of its criteria and sub criteria in "means" and "results".
This evidence is clear in the institution's SSP, by deploying the strategy developed into "strategic axes", by establishing the "operational objectives" (as a way of implementing the axis) and finalizing the "actions" and "expected results", which are monitored and validated through indicators associated with predefined objectives and in accordance with QUAR.
As an example of the alignment mentioned above, the Strategic Axis E5 (Efficiency and sustainability), presented in the SSP, meets one of the purposes of the EFQM model, as well as the recommendations of the A3ES, presented in A3ES (2018a), namely to ensure the efficiency and the sustainability of the actions developed in the organization, in this case the HEI under study.
Therefore, the recommendations of the A3ES, mentioned on literature review, results from a set of ten references, which acts as recommendations for the implementation of the IQMS in the Portuguese HEIs, and whose use, constitutes a powerful instrument of consumer protection, in accordance with the principles governing the Bologna Process (Sá *et al*, 2011).

- Creation of "quality groups" for the continuous improvement of the processes

The EFQM model allows the creation of quality groups in each functional area (also often referred in literature as the "improvement commissions") in order to develop / reshape their processes under continuous improvement and according to the EFQM principles. In the case of this school, the commissions have covered each functional area within the framework of a TQM approach, and it is also planned to create regular meetings between functional areas with a view to promoting internal benchmarking of the organization, to disseminate best practices between functional areas. Consequently, it is expected that employees will be more involved in the continuous improvement of the processes, together with the further development of industrial relations.

- Operational efficiency

It was noticed, that during the first few months when EFQM implementation took place, that was achieved some operational efficiency, namely through the cost' reduction with consumables (e.g. paper, printer toners, folders, etc.) to some existing functional units, namely human resources department, procurement, project office, quality office, technical maintenance services, among others. Such reduction represents about 6.7% compared to the previous year (2017) at the beginning of the model implementation. Notice that, there were no signs of "interference" of the EFQM model in scientific production. To prove this statement, is the increase of the scientific production volume of 8.13% in scientific papers between 2017 and 2018.
Also, and at the level of the number of partnerships with companies, there were no signs of "interference", just as there were no services provided to students in general, the latter being observed, evidenced by the degree of satisfaction. The latter was measured by student survey, in relation to services provided (overall), with a slight increase from 81.1% to 81.8% in the period between 2017-2018. The above-mentioned operational efficiency meets the needs, previously mentioned by Maslow *et al* (2006), since it is possible to promote Quality in HEIs by evaluating their performance through the creation of models and indicators (e.g. the EFQM model), which support a very specific culture and dynamics, helping the institutions to assume their responsibility to their stakeholders, already mentioned here. Such needs arise in the context identified by Rosa *et al*. (2015), where, at a time of reduction of public funding to HEIs, is notorious worldwide, the same authors emphasize the importance of quality as one of the most relevant aspects, related to the reform of higher education, particularly in what concerns the promotion of efficiency and funding of private financing. According to Pupius (2003) and Fooladvand *et al* (2015), the operational efficiency identified here, allows us to attest to the quality of the management practiced in the HEI studied, which is materialized by the certification under the EFQM model.

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4.2. Difficulties occurred during model implementation

- Lack of management tools that act as an EFQM support models

    This school, like all HEIs, does not have plans, supported by management techniques, that are enough evidence to satisfy certain sub criteria within the framework of the EFQM model. This happens (mainly), given the differences regarding the management and procedures, between public and private sectors, with the last one, being the initial purpose of the EFQM model existence.

    Nowadays, on behalf of a greater administrative autonomy of HEIs, in relation to the Government, and in response to the Government's higher requirements in terms of efficiency and effectiveness, a new "transition phase" begins in the reduction of the dependence of the HEI management, regarding the public administration, through the increase on adoption of new management techniques, from the private administration (Balance Score Card, SWOT Analysis, among others).

    In this sense, and since many HEIs are still in this "transition phase", this absence constitutes a barrier in the implementation of an IQMS under the EFQM model.

- Resistance to the change by the employees

    This difficulty is strongly related to the previous one, since it is essentially related with the use of models, supported by private management techniques.

    Since the training and experience of many employees in the public HEIs, is based on public administration procedures, the assimilation of new skills, when implementing the EFQM, it will change some of these procedures. In this case, the new skills, were related with the use of the Balance Score Card as well as, with the management of the Social Responsibility, recently implemented in the organization.

    Thus, and regarding the training of new competencies, there is some inertia within its adoption, which causes some delay in the EFQM implementation process, namely at the level of self-evaluation process.

    Another aspect is the assimilation of skills by the employees of the organization, with a view to a broader understanding of the model, thus allowing more effective self-evaluation. It is a difficulty, partly pointed out in the literature by some authors such as Campatelli *et al* (2011), when mentioning, among other aspects, the lack of experience in process improvement, and the lack of training in the scope of adopting private management techniques, favoring in this way, a certain resistance to change, as previously reported, through Campatelli *et al* (2011) and Leeuwenkamp *et al* (2017).

4.3. Ways to overcome difficulties encountered

As a way of solving the difficulties mentioned above, some solutions are presented to overcome the difficulties encountered, namely:

- A better planning (time and resources allocation) of EFQM implementation

    As with the case, regarding the model implementation in private organizations, also in public organizations, it is relevant an adequate planning, which prevents in a timely way, the team, responsible for the IQMS implementation, about the possible requirements for the elaboration of the IQMS.

    A team consisting of external and internal elements with technical skills from private management, as well as with experience in the EFQM implementation, is also required, in order to work with elements with public administration skills, together with Quality Managers and other representative elements of the organization.

- Dissemination and provision of EFQM training to employees, and holding regular meetings to monitor their implementation

    The previous disclosure of the intention by the leadership, would allow a first approximation of the employees with the EFQM model and its specificities.

    In that sense, and at a later stage, the employees would be given an introductory training course, followed by a training plan, appropriated to each functional area.

    This would be done, to assimilate the skills developed in the management techniques used in the organizational framework at the level of the EFQM model.

    Such solution, would reduce the time adaptation of the employees to the new procedures, ensuring a better execution of the model, after its implementation.

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CONCLUSIONS

This work has shown that like the most public HEIs, this school didn't have plans initially supported by private management techniques, to satisfy certain EFQM's sub criteria, making it difficult, the model application, since EFQM, was originally developed for industries and companies, normally supported by private management techniques.

However, and based on what was discussed in this paper, this difficulty can be surpassed if there is a greater organization and planning, regarding EFQM implementation, therefore anticipating, the difficulties associated with the EFQM implementation, by employing the necessary private management techniques, as well as the training actions for the organization's employees. Both measures, will be performed within the framework of the general concepts inherent to the EFQM model and in the scope of management techniques, related to each organization's functional area.

These measures also make it possible to reduce the effect of resistance to change, related with the employees, which was another difficulty found, during the course of the implementation process.

The second question, regards the way in which the EFQM model, can be framed within the strategic guidelines of the HEIs under study. Regarding this issue, and based on the perceived advantages in this work, it was possible to verify, that there was compatibility between the implemented IQMS, the Strategic Plan and the organization's QUAR. Given the nature of the EFQM model, there is some correspondence between its criteria and sub criteria, and the framework of the School Strategic Plan, as well as the organizational QUAR. This correspondence occurs, mainly due to the unfolding of the strategy developed into "strategic objectives", "operational objectives", "actions" and "expected results", which are latter monitored and validated, by using indicators associated to the objectives pre-established, and in accordance with QUAR.

The final question regards to the advantages that different stakeholders could obtain with the employment of an IQMS based on EFQM model. The EFQM model with the different school management tools (Strategic Plan, Activity Report, Budget, etc.), allows the HEI to have gains in terms of efficiency and effectiveness, through the reduction of operational costs, without change the needs of the different stakeholders involved.

Based on what was referred before, it was concluded that there was a (previous) success, regarding the implementation of the proposed IQMS, due to the framing of the specificities of HEI within the scope of the nine criteria associated with the EFQM.

Briefly, this study has contributed with some answers to the problem initially raised, about the feasibility of the implementation of the EFQM model in an HEI, through the obtained results.

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EDUCAÇÃO E DESENVOLVIMENTO SOCIAL

EDUCATION AND SOCIAL DEVELOPMENT

EDUCACIÓN Y DESAROLLO SOCIAL

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SEGUNDA LÍNGUA ESTRANGEIRA E EMPREGABILIDADE NA CATALUNHA DO SXXI

SECOND FOREIGN LANGUAGES AND EMPLOYABILITY IN THE CATALONIA OF THE SXXI

SEGUNDAS LENGUAS EXTRANJERAS Y EMPLEABILIDAD EN LA CATALUÑA DEL SXXI

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m9

RESUMO

Introdução: Apesar de considerar o idioma Inglês, Língua Franca por excelência, empresas catalãs, devido à sua crescente globalização econômica cada vez mais profissionais com conhecimentos de línguas estrangeiras associadas a habilidades e atitudes relacionadas à empregabilidade. Estas características refletem as necessidades do mercado de trabalho, a qual coisa implica uma forte sinergia entre universidades e empresas para fornecer aos futuros licenciados habilidades mais adequadas para uma inserção trabalhista de qualidade.
Métodos: Nossa análise é baseada no estudo de dois perfis diferentes de graduados, por um lado, estudantes da Faculdade de Tradução e Interpretação da Universidade Autónoma de Barcelona e os outros alunos do grau de Turismo Euroaula- Universitat de Girona, duas áreas em que o conhecimento de segundas línguas é inevitável para a sua posterior incorporação no mercado de trabalho. Vamos nos concentrar em segunda línguas estrangeiras (francês, alemão, italiano, etc.) que fazem parte das necessidades crescentes do setor empresarial catalão.
Conclusões: Os estudantes que podem acreditar conhecimentos linguísticos em duas línguas estrangeiras, com competências transversais associadas à empregabilidade, são futuros profissionais muito cobiçados pelo mundo trabalhista. Nessa perspectiva, o mundo formativo deve se esforçar para reconsiderar um ensino de línguas estrangeiras mais alinhado com as necessidades de conhecimento, know-how e saber como ser.

Palavras-chave: Graduados, empregabilidade, línguas estrangeiras, Tradução, Turismo

ABSTRACT

Introduction: Despite considering the English language, Lingua Franca par excellence, Catalan companies, due to their growing economic internationalization, demand more and more professionals with skills in foreign languages associated with skills and attitudes linked to employability. These characteristics reflect the needs of the labour market, which implies a strong synergy between universities and companies in order to provide future graduates with the most suitable skills for a quality labour market insertion.
Methods: Our analysis is based on the study of two different profiles of graduates, on the one hand, students of the Faculty of Translation and Interpretation of the Autonomous University of Barcelona and on the other hand, students of the Degree in Tourism of Euroaula-University of Girona, two areas in which knowledge of second languages is unavoidable for their subsequent incorporation into the labour market. We will focus on second foreign languages (French, German, Italian, etc.) which are part of the growing needs of the Catalan business sector.
Conclusions: The graduates who can accredit linguistic knowledge in two foreign languages, associated with transversal skills linked to employability, are future professionals highly coveted by the world of work. From this perspective, the world of education must try to reconsider the teaching of foreign languages that is more in line with the needs of knowledge, know-how and know how to be.

Keywords: Graduates, employability, foreign languages, Translation, Tourism

RESUMEN

Introducción: A pesar de considerar la lengua inglesa, Lingua Franca por excelencia, las empresas catalanas debido a su creciente internacionalización económica demandan cada vez más profesionales con competencias en lenguas extranjeras asociadas a habilidades y actitudes ligadas a la empleabilidad. Estas características son el reflejo de las necesidades del mercado laboral, lo que implica une fuerte sinergia entre universidades y empresas para proporcionar a los futuros egresados competencias más idóneas para una inserción laboral de calidad.
Métodos: Nuestro análisis se fundamenta en el estudio de dos perfiles distintos de egresados, por una parte, alumnos de la facultad de traducción e Interpretación de la Universitat Autònoma de Barcelona y por otra parte alumnos del Grado de Turismo de Euroaula- Universitat de Girona, dos ámbitos en los que el conocimiento de segundas lenguas es ineludible para su posterior incorporación al mercado laboral. Nos centraremos en segundas lenguas extranjeras (francés, alemán, italiano, etc.) que forman parte de unas necesidades crecientes del sector empresarial catalán.
Conclusiones: Los egresados pudiendo acreditar conocimientos lingüísticos en dos lenguas extranjeras, asociados a competencias transversales ligadas a la empleabilidad son futuros profesionales muy codiciados por el mundo laboral. Desde esta perspectiva, el mundo formativo debe esforzarse en reconsiderar una enseñanza de las lenguas extranjeras más alineada con las necesidades de del saber, saber hacer y saber estar.

Palabras claves: Egresados, empleabilidad, lenguas extranjeras, Traducción, Turismo

m_9

INTRODUCTION

Language acquisition, whether it is L0, L1 or L2, has always occupied a privileged position in Catalonia. On the one hand, because of the linguistic situation itself, since this community is characterised by its bilingual citizens due to the coexistence of two co-official languages, Catalan and Castilian Spanish. According to the IDESCAT report (2014), by the Government of Catalonia, 94.3% of the population over 15 years of age understands Catalan and 80.4% is able to speak it, while data concerning Castilian Spanish reach approximately 100%. This sociolinguistic situation that fosters high-level linguistic skills in Spanish and Catalan is the result of a policy of linguistic immersion promoted in 1983, whose objective was that students, at the end of compulsory schooling, had similar linguistic competencies in both co-official languages. In addition to the importance given to native languages, the willingness of training institutions to promote the teaching of other languages is added, taking advantage of the predisposition of some students who are bilingual and, therefore, who find it easier to learn other languages. This priority for the promotion of an L2 is reinforced within the framework of Higher Education; to obtain a degree title, the students need to accredit a B1 level in a second language, particularly English.

The importance given to other languages in Catalonia also depends on other geo-economic variables:

1. The privileged geographical situation of Catalonia, which, on the one hand, shares the border with France and, therefore, enjoys privileged access to the European Union and, on the other hand, the presence of the Port of Barcelona, which has become widely accepted as one of the most important at both national and international levels, due to the increase in its volume of transactions.
2. Catalonia and above all Barcelona have become an increasingly important centre of tourist attraction, the latter being the third best city in Europe and eighth in the world, according to Hosteltur, a leading magazine in Spanish tourism.
3. Recently, Barcelona has also become a centre of excellence for congresses, start-ups and European technology.
4. Catalonia welcomes a high percentage of immigrants. According to data from the Barcelona City Council, more than 221 different languages coexist in the city, which forces the agents in charge of linguistic and cultural mediation to know the languages spoken in the surrounding areas.

These socio-economic circumstances explain the reason why nowadays, and particularly in Catalonia, the labour market is increasingly in need of people with excellent foreign language skills. In Spain, according to the CIS barometer (December 2016), command of foreign languages is the second most important factor in finding a job nowadays, even more important than professional experience or computer skills. According to Adecco (the main human resources company in Spain), English is still the most requested language, as almost 9 out of 10 job positions require language skills. However, even if there are those who think that English is, par excellence, the only international language of prestige, other languages are also necessary when choosing a job, as is the case of French or German, which represent – each of them – more than 7% of the vacancies.

1. EMPLOYABILITY

Considering the different demands of the labour market, higher education is in the position of training future graduates in competences necessarily related to the notion of employability, besides having to teach them the contents that are intrinsically linked to their academic curriculum. Traditionally, the employability of future graduates has usually been associated with just two indicators:

- U-Ranking (Synthetic Indicators of the Spanish University System) that analyses Teaching, Research and Innovation and Technological Development of Spanish universities, offering a classification of institutions.
- Ranking of university careers with more professional opportunities. This ranking is usually the most used by future students to choose their career often to the detriment of their natural vocation.

Without entering into the dynamics of whether the rankings are actually reliable or not, these two types of indicators only focus on the quality of teaching, whether it is, for example, related to innovation or the extent to which professional insertion is undertaken. The truth is that the labour market recognises the importance of the training quality of future staff members, while also drawing attention to their competences, such as attitudes, know-how and know-how-to-be, characteristics that are associated with employability.

In fact, the very term "employability" implies many more variables related to the world of work. According to Hillage and Pollard (1998), employability is defined as "the ability to get a job, maintain it and get a new job if needed", and that implies a whole battery of "skills" and "attitudes" that make up certain transversal competences, different from the actual competences of the training curriculum and that are applicable to any professional or training profile. York (2004) updates the concept: "A set of achievements – skills, understandings and personal attributes – that makes graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy". Employability should, therefore, be part of the training framework from the beginning of the training to at least graduation as

m9

stated by Galán (2017), with the centres being responsible for suggesting a training programme that is capable of improving it, adding insertion knowledge, job search techniques and other skills.

In 2014, the report on the employability of the Agència per a la Qualitat del Sistema Universitari de Catalunya[1] indicated that both companies and students felt that, for a good job placement, some skills and attitudes were essential: responsibility at work, being able to work as part of a team, learning skills, communication skills, autonomous work, ability to generate new ideas, problem-solving, decision-making skills, negotiation skills, leadership and finally command of foreign languages. Some of these competences of the first group are acquired in the education system (or they are integrated into other more general competences), but others must be acquired or developed on purpose. Ultimately, to a large extent, they meet the expectations of companies about their future workforce and reaffirm the need to take into account two relevant aspects: on the one hand, the commitment of the university with the employability of graduates and, on the other hand, the need not to lose sight of the perspective that a degree is a way to guarantee the acquisition of knowledge and of the know-how that is necessary for successful integration in the workplace.

1.1. Employability and foreign languages

The internationalisation of companies, as is the case in Catalonia, implies individuals with a high level of knowledge of foreign languages, a trend that contributes to the idea of English as a *Lingua Franca* par excellence. The phenomenon of globalisation, which entails, among other things, large amounts of commercial transactions, financial services, as well as manpower services, directly influences the choice of a practical language, a merely instrumental language, a *Lingua Franca* that promotes optimal communication to counteract, to a certain extent, the effects of a growing linguistic diversity, product of exchange flows that could hinder an efficient linguistic exchange. This *Lingua Franca*, recognised as an international language, is usually chosen based on certain verifiable variables that determine its weight within linguistic diversity. To determine this weight, we can use different variables (Calvet, 2010):

- Number of speakers of a language.
- Status of official language,
- Number of articles found in Wikipedia,
- Number of Nobel prizes in literature,
- Human Development Index,
- Internet penetration index
- Number of forward or back translations.

Taking into account all these variables, according to the Baromètre Calvet des langues du monde, the English language stands in the first position. The conclusion can't be more explicit: the English language is the one with the most influence (with 328 million Anglophone speakers) and, thus, the status of an international language ascribed to it is fair. In this light, it is not a coincidence that both primary and secondary education and higher education centres use so much effort in teaching that language to the detriment of others.

But, within the transversal competences that are part of the abilities and attitudes that foster employability, the oral and written communication skills in two foreign languages, at a professional level, are especially relevant (Cifuentes Pérez, 2017). This professional level poses a serious problem, as both companies and graduates themselves say they notice a significant gap between the real level of training and the level required by the labour market, an asymmetry reflected in the various surveys conducted on the labour market (AQU, 2016). According to these reports, knowledge of foreign languages represents one of the competences with the highest training deficit. On a scale of 10, students are placed at 3.7 in terms of their own skills and 5.8 in terms of the importance of L2 to qualify for good job placement. On the part of the companies, the assessment as to the importance of second languages seems more positive. In fact, employers value the usefulness of second languages with a score that would be around 7.6, although they recognise a training deficit, placing the level of graduates at 6.7. This gap between training and need can be explained considering two perspectives:

1. Students show a lower level in L2 than that required by the labour market, because of their total lack of knowledge of such language and because they give more importance to other skills.
2. Training in a highly philological L2 does not respond to the demands of the companies.

This finding is paradoxical, especially knowing the desire of the different university institutions to promote foreign languages skills, requiring an accredited level of B1 in English (mainly) at the end of the students' degree studies, to complete their graduation, and their efforts to offer Erasmus exchange opportunities in Europe to reinforce not only the intrinsic competences of the curriculum but also the communicative skills in an L2, so appreciated for a better employability. This difference between the perspective of the graduates and the needs of the companies diagnoses a lack of communication between the companies and the training institutions on the specific demands of the market.

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[1] Report on the employability and skills of new graduates: the opinion of companies and institutions, Agència per a la Qualitat del Sistema Universitari de Catalunya (2014)

1.2. Employability and the other foreign languages

If we rely solely on the prestige of languages, we notice that the privileged position of English leaves no room for any other language. As Hagège (2006) states,

> "… if a language, at a certain moment in its history, is no longer adapted to our needs, we may, without qualms, replace it with a different one that seems more appropriate" (Hagège, 2006: 7)

However, concerning the prestige of second foreign languages, the French and German languages are not insignificant. According to the report of the OIF (2014), French counts with more than 212 million French speakers worldwide (people who use French daily) and with 125 million students (L2), while German counts more than 90 million speakers and 15.4 million students who have chosen it as a foreign language. If we refer exclusively to the European Union, English is still the most studied foreign language in the first level of secondary school, with 96.7% of students, but followed by French with 34.1%, German with 22.1% and Spanish with 12.2%; in terms of international student mobility, the teaching languages besides English (the vast majority) include French, German and even Russian. The data gathered refer to the current socioeconomic reality and this is reflected in the numbers: French is considered the third business language in the world, after English and Chinese, according to a study by Bloomberg (2011), and it is the second business language in Europe after English and ahead of German, Russian, Portuguese, Italian and Spanish; it is the second most useful language for economic exchanges, after German and before Spanish, Arabic and Chinese for British companies and, finally, it is first place followed by German, Italian, Portuguese and Russian as necessary languages for culture, education, diplomacy and defence, according to the British Council.

Which languages -- other than English -- are most useful for conducting business around the world?

LANGUAGE	SCORE*	NUMBER OF COUNTRIES WHERE LANGUAGE IS OFFICIAL	NUMBER OF SPEAKERS, MILLIONS	POPULATION IN COUNTRIES WHERE OFFICIAL, MILLIONS	2011 GDP, USD, BILLIONS	GDP GROWTH %, 2011-2016	EXPORTS + IMPORTS AS % GDP	SCHOOL LIFE EXPECTANCY, YEARS	WEIGHTED AVERAGE LITERACY RATE FOR ALL COUNTRIES WHERE LANGUAGE IS OFFICIAL	NUMBER OF INTERNET USERS, MILLIONS	INTERNET PENETRATION, % OF SPEAKERS	GEOGRAPHIC CONTINUITY (KM², MILLIONS)	TOURISM RECEIPTS AS % OF GDP
Mandarin	57.0	1.0	845.0	1,331.5	6,515.9	57.4	49.1	11.6	94.0	444.9	52.7	·	0.8
French	51.7	27.0	67.8	341.5	4,115.9	11.1	70.0	10.1	65.3	59.8	88.2	9.5	2.1
Arabic	50.1	23.0	221.0	361.7	2,662.5	25.7	91.3	10.5	71.5	65.4	29.6	13.9	2.9
Spanish	49.2	20.0	329.0	410.4	4,558.6	16.5	50.9	14.1	92.9	153.3	46.6	11.8	2.3
Russian	44.6	4.0	144.0	172.7	2,134.9	23.9	52.9	14.2	99.6	59.7	41.5	20.2	0.8
Portuguese	37.7	8.0	178.0	249.2	2,783.1	21.8	30.6	13.2	85.1	82.5	46.4	·	0.8
Japanese	34.1	1.0	122.0	127.6	5,821.9	8.0	24.8	15.1	99.0	99.1	81.3	·	0.2
German	24.0	6.0	90.3	109.3	5,079.5	9.2	89.1	15.9	98.9	75.2	83.2	0.5	1.7
Italian	19.6	4.0	61.7	68.4	2,784.6	7.6	56.9	16.2	98.8	36.7	59.5	0.3	2.1
Korean	16.0	1.0	48.8	48.7	1,126.5	22.2	95.9	16.9	97.9	39.4	80.8	·	1.1
Turkish	13.7	1.0	50.8	75.7	822.6	22.1	49.7	11.8	90.9	30.1	59.3	·	3.7

Table 1 - The languages of Business, Bloomberg Ranking

Therefore, in terms of employability, without denying the superiority of the English language but in accordance with the guidelines of the European Council in Barcelona (2002) that recommended the learning of at least two foreign languages to adapt to a labour market demanding ever higher levels of internationalisation, the inclusion of second foreign languages in our students' curriculum is essential, not only to enrich it but also to give them some training advantage over their competitors when entering the job market.

2. METHODS

A CASE STUDY OF STUDENTS ATTENDING THE FACULTY OF TRANSLATION AND INTERPRETING OF THE AUTONOMOUS UNIVERSITY OF BARCELONA AND STUDENTS OF THE DEGREE IN TOURISM OF EUROAULA – UNIVERSITY OF GIRONA

To assess the importance of second foreign languages leading to successful employability, within the framework of the course unit of Professional Practice and the Faculty of Translation and Interpreting of the Autonomous University of Barcelona and the Euroaula University School affiliated with the University of Girona, a study was conducted on the comments of companies and students regarding the importance of an L2 and taking into account the future graduates' professional profile. The students belong to two different fields, as far as the use of foreign languages is concerned. In the Faculty of Translation and Interpreting, foreign languages are the main instrument of professional action and thus the competences are much more based on philological knowledge, the in-depth knowledge of the language that is essential for the development of professional activities in translation and interpreting. The students of this faculty have as their first foreign language (known as Language B) English, French or German,

m9

commencing their degree with a minimum level corresponding to B1 (for French and German) or B2 (for English). As for the second foreign language, known as Language C, they can choose between French, German, Portuguese, Italian, Arabic, Chinese, Japanese and Russian. Regarding the world of tourism, foreign languages are necessary to develop professional activity in tourism, a field that needs workers with a high linguistic and extralinguistic knowledge that allows them to work in different contexts, mainly involving oral communication, such as in negotiation or conflict resolution. In Euroaula, students have the possibility to choose between French and German as a second foreign language.

3. RESULTS

3.1 Faculty of Translation and Interpreting – AUB

In order to assess the importance of second foreign languages for the Translation and Interpreting job market, information concerning the evaluation of the optional course unit "Work Placement", which is part of the curriculum for fourth-year students completing a degree in Translation and Interpreting, has been used. This involves the completion of tasks related to translation, interpreting or other possible modalities such as foreign languages teaching, linguistic mediation in companies, entities or public institutions outside the AUB or in centres and entities of the same university. The objective is to provide the students with first-hand exposure to placements related to their training. The students' evaluation is carried out through online surveys by an external tutor (of the collaborating company) and an internal tutor (professor of the FTI-AUB).

3.1.1. Items evaluated by the company (external Tutor):
- Level of the student's native language
- The student's foreign language level (in this case, the second language)
- The student's level of extra-linguistic competence
- The student's level of instrumental competence

60% of the grade

- Level of Problem Solving — 30 % of the grade
- Level of responsibility — 10% of the grade

In the evaluation carried out by the company, aspects related to the students' "knowledge" are evaluated taking into account not only their linguistic competences, but also transversal competences specific to their professional development.

3.1.2. Items evaluated by the Faculty of Translation and Interpreting teaching staff (Internal Tutor)

Evaluation is carried out bearing in mind different components and it includes what we call a "professional portfolio" that comprises transversal themes in a straight connection with the workplace. These topics have been the subject of training sessions aimed at showing the diversity of professional opportunities in the translation and interpreting market, exploring the main job search strategies, as well as identifying the accounting and tax responsibilities that the translator or the autonomous interpreter must face.

- Presentation letter
- Curriculum Vitae
- Samples of completed tasks
- Table showing fictitious pricing
- Fictitious invoice

During the 2017-2018 academic year, 90 companies collaborating in the field of translation, publishing, official institutions, international companies, research centres, NGOs and language schools, among others, collaborated with the Faculty. Among all these companies, the number of places offered for professional internships in foreign languages was 155, with linguistic profiles that included 9 foreign languages other than Spanish and Catalan.

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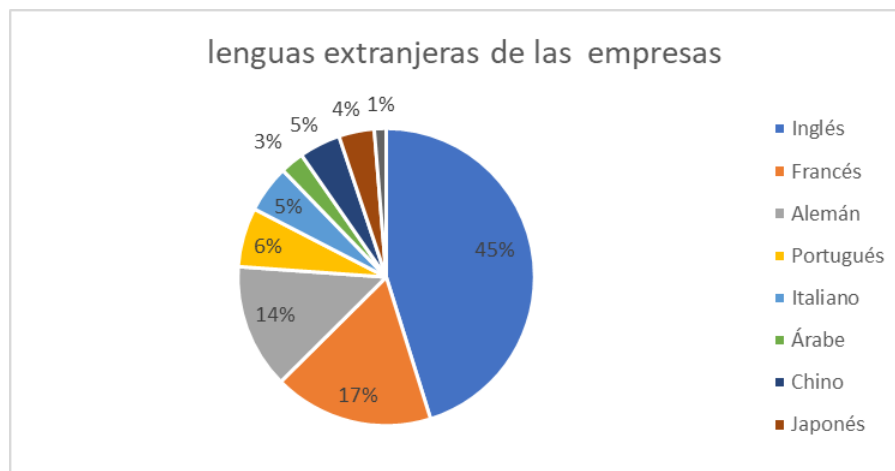
Table 2 - Foreign languages suggested by the collaborating companies

The total number of students enrolled in this course was 78. From the list of companies, students could choose up to 3 options depending on the type of companies and the working languages. The assignment of the traineeships was based on the working language required by the company and the linguistic combinations of the student, trying to privilege, as far as possible, the student's C language (second foreign language) with the aim of forcing the student to work in his/her second language to improve his/her skills and especially his/her fluency, a situation that would not occur if language B was the one to be used.
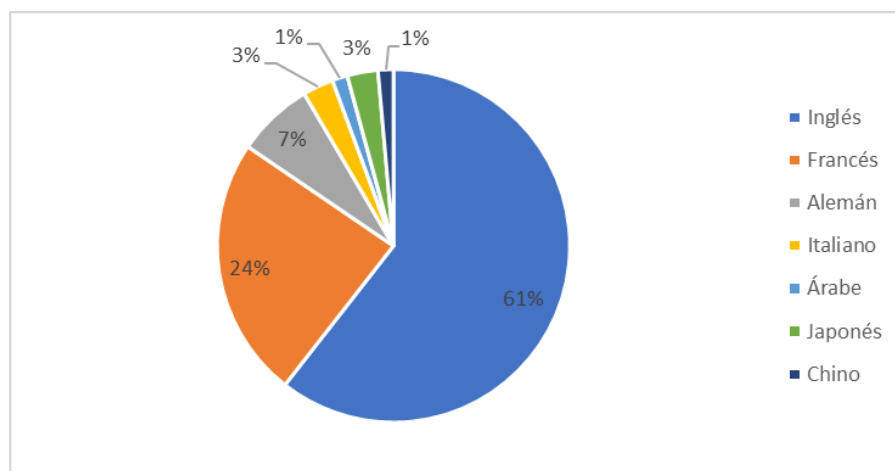
Table 3 - Languages used in professional practice (UAB)

The languages used during practice reflect, to a large extent, the needs of the labour market and they are the ones shown in the table. It is true that English is still the most used language (it corresponds to more than 60% of the sample) and it occupies the first place, while French is in the second position with 24%, German with 7%, Italian and Japanese with 3%, Arabic and Chinese with 1.5%. Regarding Japanese and Chinese, there is the need to minimise the impact of the numbers. In this study, Oriental languages (Chinese and Japanese) have only been evaluated as C languages. In the faculty, there is another degree named "Degree in Oriental Studies" whose professional practice is carried out in companies that ask for linguistic competences that do not correspond to those of our students of C language due to the great complexity of Oriental languages.

At the end of the internship, the evaluation carried out by the companies shows a very positive perspective on the students' language skills (command of one's native language, foreign language, extra-linguistic competence and instrumental competence) on the one hand and, on the other, transversal skills in straight connection with the competences that are necessary for successful employability, namely problem solving in an autonomous way, organisation of tasks and ability to work in groups. 85% of the grades awarded by the companies exceed 7 out of 10, which confirms the companies' appreciation of the students' level of linguistic and transversal competences. Regarding the students' opinion, this has been more than positive since, on the one hand, students value real work experience, namely working with their second foreign language, and, on the other hand, they realise the importance of incorporating

a second foreign language in their *Curriculum Vitae*, which allows them a vantage point over others in a workplace where the English language prevails and is considered as the only facilitator of employability, to a large extent.

It should be noted that the percentage of labour insertion of students who complete this university degree is very high (Galán, 2014). According to the report of the AQU on labour insertion of the graduates of Catalan universities of 2017, 65.8% of the students of the Faculty of Translation and Interpreting at the Autonomous University of Barcelona find a job in less than 3 months and evaluate with a 7.3 their degree of satisfaction with their current job and with 8.5 their instrumental language skills in both languages.

3.2. Euroaula-University of Girona

Another market in which foreign languages are particularly important is tourism, a significant economic sector for Catalonia. The autonomous community received more than 18 million international tourists in 2017, which accounts for 10.5% of GDP, and whose countries of origin are Germany, France, Italy, Russia, the Netherlands and the United Kingdom. According to the Barcelona City Council report on the main needs of the Tourism and Hospitality sector (2015), due to the growing diversity of the clients' origin associated with the need to offer a more personalised service, the labour market needs more and more workers in the sector who are proficient in several foreign languages.

To assess the prestige of second foreign languages in this sector, the students of the Tourism degree attending the Euroaula university school, affiliated with the University of Girona, also took part in the study. This degree incorporates into its study plan two foreign languages and professional practice, as mandatory conditions. The objective is that, at the end of the course, students can demonstrate excellent linguistic skills in English and in a second foreign language of their choice. Within the range of second foreign language possibilities, there is French and German, but there is also the possibility for students to choose a third language as an optional course unit, such as Italian, Russian and Chinese. As a second foreign language, French occupies the first position, chosen by 60% of the students over the four academic years. The compulsory study of a second foreign language arises from the needs of the tourism sector that has experienced remarkable growth in recent years, in part due to its internationalisation as an origin or destination country. Whether relating to customer care or to the use of new technologies, foreign languages are essential and Euroaula students recognise this, in part due to compulsory professional practice. Businessmen in the sector look for staff capable of communicating professionally in the language of its users, aiming at providing a more personalised service and ensuring the loyalty of the final client. In the commercial sector, tourism marketing and the state-of-the-art digital communication tools need to count on contents in several languages, privileging not only English but also other languages to contribute to greater visibility at the international level.

During the 2017-2018 academic year, 97 companies collaborated with our school and 92 internships were offered to 3rd-year students and 43 to 4th-year students.
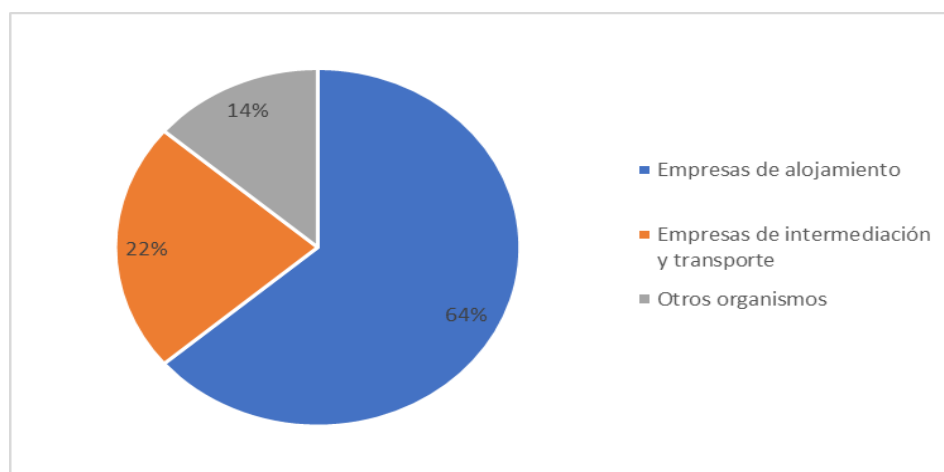
Table 4 - Type of tourism companies- Euroaula

As far as foreign languages are concerned, companies have similar needs to those described for Translation and Interpreting, according to the students' survey results. There is a hegemony of the English language, but also the need of French and German, followed by Italian, due to the increasing growth of business tourism, on the one hand, and of familiar tourism, on the other, largely coming from Europe (firstly, France, then Germany and Italy). After collecting students' views on employability through class discussions, Tourism students recognise the need for second foreign languages (especially within the quality accommodation sector), although they continue to favour the use of English in their professional practice. Regarding foreign languages, to improve the employability of future graduates, there was the decision to develop not only linguistic and extra-linguistic skills in the classroom, but

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also all transversal skills that foster such employability (*Curriculum Vitae*, cover letters, oral presentations of ideas and projects, negotiation techniques and conflict resolution that may be needed on a daily basis), competences that will enable them to opt for a good job placement within the world of tourism, to get access to an appropriate job related to their training, with an income that is consistent with their academic level, and facilitate a more international career. From our point of view and taking into consideration the desiderata of the students, this implies changing the focus of foreign language teaching to encourage the use of foreign languages in a real working context in need of skills that are more related to employability and with more specific and more professional contents to improve the competitiveness of future workers.

CONCLUSIONS

With the universities' admission to the European Higher Education Area, the concern for the employability of future graduates has become a focus of much attention in the teaching plans of the different Catalan universities and the transversal competences are usually developed in L0 and in compulsory training sessions held by workers in the field. However, in the context of foreign languages, these skills are not usually part of the evaluative objectives, as the spotlight has been exclusively on linguistic competences. The presence of the working world in the classroom is real, but, in a very succinct way, associated with merely philological skills (vocabulary, standard sentences, etc.) without strengthening language use to improve know-how-to-be and know-how-to-act skills. For example, the increasingly growing trend to conduct job interviews in L2 and in real-life scenarios (in person, by phone or by Skype), to be able to see first-hand how the future worker handles difficult situations, indicates that the labour market needs staff with linguistic and extralinguistic skills, capable of using them in diverse, intense professional contexts, with some fluency and communicative ability in L2. These are the ones that will allow them to develop their professional life, their competitiveness as if they were using their L0.

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APRENDER (N)UMA LÍNGUA ESTRANGEIRA NO ENSINO SUPERIOR: PERCEÇÕES DE EMPREGADORES E ALUNOS

LEARNING A /THROUGH A FOREIGN LANGUAGE IN HIGHER EDUCATION: EMPLOYERS' AND STUDENTS' PERCEPTIONS

APRENDER UNA/ EN UNA LENGUA EXTRANJERA: PERCEPCIONES DE EMPLEADORES Y ALUMNOS

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RESUMO

Introdução: As instituições de ensino superior (IES) devem preparar os alunos para o mercado de trabalho globalizado onde se espera que eles saibam comunicar de forma eficaz numa ou mais línguas estrangeiras (LE) em ambientes de trabalho internacionais, o que coloca uma enorme pressão de expectativa sobre o ensino e aprendizagem de LE no ensino superior (ES).
Métodos: O presente artigo explora modos de aprender (n)a LE nas IES, conjugando perspetivas sobre o estado da arte com perceções de empregadores e alunos. Usa-se uma abordagem de estudos de caso que combina resultados de questionários e entrevistas para descrever as perceções de como a LE deve ser aprendida e ensinada.
Conclusões: Fazem-se recomendações sobre como melhorar a empregabilidade dos alunos; sobre boas práticas de desenvolvimento da competência comunicativa intercultural e de LE para comunicar com eficácia em ambientes de trabalho internacionais e/ou virtuais; e sobre a preparação do corpo docente para tendências emergentes que incluem o uso da LE como meio de instrução ou o uso de CLIL, de integração da aprendizagem de língua e conteúdo em simultâneo, que testemunham a importância de aprender (n)uma LE e de combinar esta aprendizagem com o desenvolvimento de outras competências e capacidades transversais.

Palavras-chaves: Línguas estrangeiras no ensino superior; competência comunicativa intercultural; perceções de empregadores; perceções de alunos; CLIL.

ABSTRACT

Introduction: Higher Education Institutions (HEI) are allegedly preparing students for a globalized working area where people will need to be ready to communicate effectively in one or more foreign languages in international working environments, which puts a lot of pressure on how foreign languages (FL) are learned in Higher Education (HE).
Methods: This article explores how a FL or learning through a FL could be approached in HEI, focusing mainly on what employers claim in terms of skills of recent graduates or on-the-job workers. Case studies are used, combining interviews to employers and questionnaires to HE students to find out their perceptions on FL learning requirements for greater employability.
Conclusions: A series of recommendations are made for HEI on how to promote students' employability skills; on the best practices for the development of intercultural communicative competence and FL skills to communicate effectively in international or digitally-mediated working environments; as well as on how to prepare the teaching staff for emerging trends that involve using a FL as medium of instruction or CLIL, a content and language integrated approach. These testify to the importance of learning a FL or through a FL, as well as the need to combine transversal skills development in connection to FL learning.

Keywords: Foreign languages in Higher Education; intercultural communicative competence; employers' perceptions; students' perceptions; CLIL.

RESUMEN

Introducción: Las instituciones de educación superior (IES) deben preparar a los alumnos para el actual mercado de trabajo globalizado, donde se espera que sepan comunicar eficazmente en una o más lenguas extranjeras (LE) en entornos de trabajo internacionales, lo cual supone una enorme expectativa sobre cómo debe ser encarada la enseñanza y el aprendizaje de lenguas extranjeras en las IES.
Métodos: Este artículo explora cómo se puede abordar el aprendizaje y la enseñanza de una LE, o a través de una LE, en la educación superior, centrándose principalmente en lo que los empleadores necesitan, en términos de competencias, de los recién graduados y de los trabajadores en activo. Se analizan varios estudios de caso, que combinan resultados de cuestionarios y entrevistas a empleadores y a estudiantes de IES, para conocer sus percepciones sobre los requerimientos en el aprendizaje de lenguas extranjeras que aumenten la empleabilidad.
Conclusiones: Se presentan una serie de recomendaciones a las IES, acerca de cómo aumentar la empleabilidad de sus estudiantes, así como sobre buenas prácticas de desarrollo de la competencia comunicativa intercultural (ICC) y de otras competencias en LE para comunicar con eficacia en entornos de trabajo internacionales y / o virtuales. También se exponen consejos referidos a cómo preparar a los docentes de las IES ante las emergentes tendencias que implican el uso de LE como medio de instrucción o AICLE/ CLIL, esto es, el enfoque integrado de contenido e idioma. Enfoques estos que evidencian la importancia de aprender una LE, o a través de una LE, así como la necesidad de vincular el desarrollo de competencias transversales con el aprendizaje de lenguas.

Palabras clave: Lenguas extranjeras en la educación superior; competencia comunicativa intercultural; percepciones de los estudiantes; percepciones de los empleadores; AICLE / CLIL

53

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INTRODUCTION

In the prevailing narrative on the fourth industrial revolution (Schwab, 2016), emerging digital technologies shape contemporary social, economic and learning cultures, requiring positive mental attitudes towards learning and work, new educational systems of production and consumption, as well as calling forth a bold transformation of the way in which we work, learn, communicate and promote and consume entertainment.

What is important for education in general and for Higher Education Institutions (HEI) in particular is to understand how technology, in its interaction with people, transforms their lives, and to use these new trends as an educational opportunity. The fourth industrial revolution can either destroy the human in favour of the machine or empower multiple groups of individuals, for example, through globally connected virtual collaboration. Never before have there been so many opportunities for interconnected, individualised and non-linear learning; besides this, the need to know how to live with the global and the diverse both in physical and virtual space has never been so evident. The 'super-diversity' (Vertovec, 2006) in which we live today is both cultural and linguistic, dictating a new, central, but almost invisible place for foreign languages (FL) and for individual learning paths of students.

Dunford, Muir, Teran, and Grimwood (2015) examine six key areas that could potentially influence the way we think about education and which we adopt here to refer to FL teaching and learning: (1) intercultural dialogue and the need to gain access to multiple perspectives and different assumptions; (2) the construction of a global citizenship or towards a globalised world; (3) the role of the teacher as guiding increasingly individualised learning pathways; (4) the design of study plans and of types of assessment that respond to the international diversity of students; (5) as well as international collaboration and (6) international communication.

In light of the reasons mentioned above, we have tried to cross-check these new global trends in education with a set of local (international) responses, trying to find out what employers think about FLs and the labour market in the face of the fourth industrial revolution in the hospitality sector; and what students think about initial training courses in HE in four European countries that have new approaches to the teaching and learning of a FL and through a FL. Our objective is to suggest recommendations for the reconfiguration of the role of FLs in HEIs in order to respond to the challenges of employability and competitiveness in a globalised world.

1. CHANGING CONTEXTS IN FOREIGN LANGUAGES

We have been witnessing several changes involving FLs in Portuguese and in foreign HEIs, without the chance for us to take a critical stance to improve or even intervene, as expert instructors in FLs, in the training of those who use FLs to teach whole curricula, but who are not qualified in language teaching; in deciding upon academic writing requirements in a FL for those who carry out their studies in their native language (NL); in bilingual study programmes; in groups of ERASMUS and international students forced to learn in a FL or in non-maternal languages; in the use of different varieties of the same language in the same context of HE without making adjustments in evaluation; in demands of communicative and professional fluency in a FL upon completion of HE, to mention just a few of the most obvious.

As an example, in the Italian context, Catanaccio and Giglioni (2016, p. 207) warned about the need for teacher training institutions to rethink basic initial training in order to include the areas that are required for future teachers to understand the foreign language taught in basic education – English and the second language learning methodologies, as well as the content and language integrated learning methodologies, even if, as in the Portuguese case, they will not be English teachers in basic education - 1st cycle. For example, the CLIL approach – *Content and Language Integrated Learning* – involves the whole team of teachers at a school and it is essential that everyone is able to participate in an informed way. The same will apply to contemporary HEI contexts.

On the other hand, HEIs are increasingly diverse in linguistic and cultural terms, not only due to the presence of international students and teachers, but also due to international study programmes shared with other HEIs in the global space that affect the intercultural relationship among teachers, - among these and the students and the educational paradigms themselves – values, attitudes, content and pedagogy – requiring new action norms and availability leading to truly intercultural encounters (Dunford et al., 2015).

Several efforts have been made within the framework of FL education to deal with these new trends. In the framework of an EU-funded Erasmus + project for the period 2015-2017, a number of HEIs have explored how to develop intercultural communicative competence (ICC) in the context of higher education in the ICCAGE project, *Intercultural Communicative Competence: The Competitive Advantage for Global Employability* (http://iccageproject.wixsite.com/presentation), having conducted a survey amongst FL and intercultural communication employers and trainers in the four countries of the consortium (Czech Republic, Hungary, Spain and Portugal) on how to teach a FL more effectively to promote ICC, having subsequently designed teaching pedagogical units that conform to some common basic principles that guide this article.

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One of the principles common to all pedagogical units designed was that a FL course unit, at any level of proficiency, should promote intercultural understanding and include interactive situations (even if simulated), so that intercultural understanding can be applied to concrete problems that students will face in their professional life.

This key learning objective is subdivided into more specific steps, such as collaborative knowledge building in international teams through telecollaboration methodology (also included in most of the designed units). Telecollaboration or 'virtual exchange' aims to place students from diverse contexts in interaction, in a collaborative and guided way, to get to know each other, compare certain aspects of their culture and possibly create a joint product (O'Dowd, 2014, O'Dowd & Lewis, 2016; O'Dowd & Ware, 2006). Virtual interaction with students from other cultural environments over a significant period of time has the potential to develop attitudes of acceptance and appreciation of diversity in a positive way, as well as of critical skills to judge the perceptions and intentions of others beyond the surface culture, especially when there is the need to work together at a distance and use virtual means only. The negotiation of common goals favours the ability to work in teams, the familiarisation with active and open learning environments focused on specific tasks to be performed and builds cross-border networks among colleagues.

ReCLes.pt, a network association of Language Centres in Higher Education, carried out an exploratory study introducing CLIL modules in several polytechnic institutions (Morgado et al., 2015) while creating a training booklet to support on-campus and blended training courses offered to CLIL trainers. This course joins FL teachers with content-based instruction teachers in the design and operationalisation of FL and content-based integrated modules (Morgado et al., 2015), with interesting results on the HEI teachers' participation rates and on the positive perceptions of students. The report of this experience of collaboration between HE Professors (a Professor of English as a FL and a Professor of Industrial Engineering) (Gaspar, Reggio, & Morgado, 2017; Morgado, Régio, & Gaspar, 2017; Reggio, Gaspar, & Morgado, 2018) is rich in suggestions on how to integrate the academic, intercultural and on-the-job training dimensions.

According to Valcke and Wilkinson (2017, p. 17), FLs can be taken to develop intercultural and international communicative competence. Date and Tanner (2012) recommend making the pedagogical frameworks and practices explicit for the teachers themselves. Weinberg and Symon (2017, p.145) advocate that the intercultural pedagogical training of teachers should be a priority if they are already proficient in a FL and they recommend that HEIs establish FL centres supporting writing and self-study, as an awareness-raising infrastructure for both students and teachers to methodologies prone to FL learning, and collaboration between FL teachers and teachers from other disciplinary areas (Weinberg & Symon, 2017, pp. 146-7).

However, in order to complete this discussion, we need to understand what employers and students think about what can make a FL effective in the labour market and how FL should be learned to help develop working skills in multicultural, international and globalised spaces. The two case studies below, although not representative, may help us to validate some of the recommendations made.

2. METHODS

CASE STUDIES: PERCEPTIONS OF EMPLOYERS AND STUDENTS
A case study methodology using interviews/questionnaires was adopted and the responses were qualitatively analysed in order to identify recommendations for FL teaching and learning in HEIs. Each case study is presented sequentially, and it will include characterisation, results and discussion.

2.1 ICCAGE Hospitality Case Study
2.1.1 Presentation/Characterisation

In the scope of the *Intercultural Communicative Competence: A Competitive Advantage for Global Employability* (ICCAGE) project, co-financed by the EU's Erasmus+ programme (Morgado, Gómez, & Arau Ribeiro, 2019), four European Tourism and Hospitality managers were interviewed in the Iberian zone (two hotel general directors, a hotel local director and a manager of an international hostel) working with a total of 125 employees. The purpose of these interviews was to collect data that would allow a needs analysis in terms of identification and development of the skills currently required to work in the Hospitality and Tourism industry.

The interview guide for the semi-structured interviews was developed following the methodology of groups of discussion, between nine specialists in FL for specific purposes and in intercultural communication, from Hungary, Spain, Portugal and the Czech Republic. To this end, five meetings were held through video conferencing, with the final version of the interview being conducted with eight international employers, which improved the clarity and appropriateness of the questions. The four open questions asked to the tourism unit managers interviewed in this case study were:

1. How do you assess intercultural diversity in your organisation?
2. What do you consider to be the necessary skills for the hospitality and tourism sector?
3. Are new graduates well prepared to work in multicultural environments?
4. Recommendations/suggestions for dealing with clients' intercultural diversity.

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5. With the first two questions, we attempt to answer the first objective of this exploratory research: to determine the basic requirements, in terms of competences, that Hospitality and Tourism managers consider essential for new graduates in this field. In turn, with questions 3 and 4 we intend to find out which training is most suitable for future workers in Tourism and Hospitality, regarding the activation and development of competencies to cope with the requirements of the new industry 4.0 paradigm.

2.1.2 Results and discussion

1. DETERMINING THE BASIC REQUIREMENTS, IN TERMS OF COMPETENCES, THAT HOSPITALITY AND TOURISM MANAGERS CONSIDER TO BE NECESSARY FOR NEW GRADUATES IN THIS FIELD

We noticed convergence in the interviewed managers' description of the contexts and situations that currently characterise the industry 4.0 area in Hospitality and Tourism. The four managers responded that, in their sector, interaction with people from other countries and with world cultures happens on a daily basis. They added that customer service with other cultural identities occurs both face-to-face and online, and it is customary that the first contact with the client is made through e-mail or through social networks.

The managers that were interviewed also stated that they receive customers from all over the world and, to illustrate it, they mentioned countries as far away as Vietnam, Japan, Thailand, Azerbaijan and India in Asia; Canada, Brazil, Argentina, Mexico, and Ecuador in America; and Australia and New Zealand in Oceania, which shows the marked cultural diversity of situations in which interaction between visitors and service providers currently takes place.

Given the consensus in the answers to the first question in the interview, we can conclude, on the one hand, that professional activity in the area of Tourism and Hospitality takes place in transnational contexts of intercultural, international communication on a global scale and, on the other hand, that the use of various electronic means is carried out on a daily basis to establish the synchronous and asynchronous interaction between employees and visitors.

Regarding the answers to the second interview question, all competences that the managers consider essential for new graduates to be successfully incorporated into their Tourism and Hospitality units were ranked according to frequency and classified into thematic areas, resulting in the following four groups. Firstly, we can include a set of skills known as 'soft skills' in reference literature. They are, in other words, the workers' personal features, namely positive attitudes towards the other and the will to embrace change. Among them, empathy was the one mentioned more often, as all the managers that were interviewed highlighted the importance of their workers developing this competence, which they consider essential to effective customer service. The other interpersonal skills or 'soft skills' mentioned were, from the most frequent to the least frequent: resilience, pro-activity, teamwork, coping with change, moderation, and acceptance of new challenges. It should be noted that this set of interpersonal skills was not only the most frequently mentioned but also the first to be mentioned by the four managers when they were asked the second open question.

Secondly, regarding the frequency of allusion, we find linguistic and communicative competences. Among them is the need for their employees to fluently speak English and Spanish, as mentioned by three of the four managers. However, according to the four managers interviewed, good linguistic competence is not enough for the service provider to ensure effective customer care unless some communication skills that facilitate adaptation to the needs of the client are also activated. Among these competences, the two most frequently mentioned were: communicative fluency and communicative effectiveness, depending on the context in which customer service takes place (adaptation to the contexts of the interlocutor's culture, direct and indirect communication and use of different styles of communication).

Specialised knowledge in the tourism sector was also mentioned by the interviewed managers as a determining factor for successful integration in their Hospitality units. Thus, the managers mentioned some competences related to the need for students to acquire specific knowledge within this industry, both globally, in the case of specialised terminology in Tourism and Hospitality, and locally, concerning the organisation and key services within the organisation they manage.

In the fourth and last group of skills that the interviewed managers believed to be fundamental in the current environment of the industry 4.0 area in Hospitality and Tourism, there are the techno-digital skills. Two of the managers underlined the importance of their employees effectively using a wide variety of technological resources for intercultural and interlinguistic communication, which, in the opinion of these managers, greatly facilitates effective assistance to clients with different linguistic and cultural references. In turn, the other two managers have given special relevance to the fact that their employees effectively use various techno-digital tools, which will allow them, from their point of view, quick access to information about customers' cultural specificities.

2. FINDING OUT THE MOST SUITABLE TRAINING FOR FUTURE WORKERS IN TOURISM AND HOSPITALITY, REGARDING THE ACTIVATION AND DEVELOPMENT OF COMPETENCES TO COPE WITH THE REQUIREMENTS OF THE NEW INDUSTRY 4.0 PARADIGM.

When questioned about the preparation of new graduates to meet the most recent demands in their professional area, a consensus was achieved, since the four managers reported experiences that, in their opinion, evidence that HE does not provide

the students with appropriate training to work effectively in the transnational contexts of intercultural communication that characterise today's Hospitality and Tourism industry.

We then tried to find out the reasons for such deficient training. We asked the managers about the skills that they believe new graduates lack when they start working in the hotel units they operate. Two of them answered that, during their HE training, students do not acquire soft skills, that is, the personal skills considered fundamental to work effectively in their sector, as mentioned in the answer to the second survey question. The two other managers stated that the new graduates who had begun working in their Hospitality units had not been prepared in two areas that they felt were essential in order to adapt to the needs of the clients: how to deal with diverse cultures and how to approach a specific culture.

To sum up, the interviewed managers agree that, although new graduates can communicate in foreign languages with some fluency, they lack intercultural sensitivity skills, as well as skills in intercultural communicative interaction, which explains the reason why they do not reach an effective professional performance to cope with the demands of the authentic, multilingual and multicultural contexts of today's industry 4.0 in Hospitality and Tourism.

As a solution to these shortcomings, three of the four interviewed managers pointed to the need for future employees in this area to acquire real personal experiences involving cultural diversity, which would allow them to effectively develop the competencies required for successful integration into the new working paradigm of industry 4.0 in Hospitality and Tourism.

The managers participating in this exploratory study offered advice for their employees to deal with the cultural diversity of the clients with whom, as we have seen, they interact on a daily basis. These recommendations were also classified according to the number of times they were mentioned. First of all, we must emphasise the consensus of the managers that were interviewed in two respects: on the one hand, the workers must have a good command of the clients' language/culture; on the other hand, this command is not enough to achieve effective assistance, thus being necessary to highlight once again the need to complement the linguistic competence with the development of personal skills of assistance and response to one's cultural/communicative needs.

Three other suggestions were provided by the interviewed managers. The first has to do with the activation and development, by future workers in this globalised sector, of the intercultural competences that are required to evaluate the client's culture, especially those competences that help to identify the habits and customs of the visitor, which, in the opinion of two of the managers consulted, will allow the service providers to comply with the client's cultural comfort.

Another recommendation aiming at better responding to this cultural diversity, and agreed upon by two of the managers participating in the study, is the appropriateness of cultural and historical knowledge acquisition about the visitors' home countries. Finally, it is worth emphasising that the four managers insist that, whatever cultural interaction takes place within the scope of professional activity in this sector, it is essential that workers demonstrate flexibility to adequately manage the cultural diversity of the clients they receive.

2.2 Case study on the perceptions of Higher Education students
2.2.1 Introduction/Characterisation

As part of the application of a European project, INCOLLAB - *Innovative interdisciplinary collaborative approaches to learning and teaching*, to the EU's Erasmus + programme in 2018, the proponents developed an online questionnaire addressed to HE students from institutions in Portugal, Spain, Cyprus and the Czech Republic (including international students in these institutions coming from Cyprus, Russia, Mexico, Slovakia, Chechnya, Kazakhstan, Hungary, France and Vietnam) to listen to their views on FL learning in HE and at the same time to get to know their aptitudes for interdisciplinary and collaborative learning in the context of a FL. The purpose of this questionnaire was to document learning contexts of local HE regarding open, collaborative, interdisciplinary learning environments adapted to the students' individual needs, as a basis for the development of quality and effective pedagogical interventions using e-learning and mobile learning, and the development of transversal competences and integrated learning of both content and FL (CLIL).

The online survey questions, multiple choice on a scale of 1 to 5 (from I totally disagree to I totally agree), to be answered in English voluntarily by HE students of the proposing institutions, were designed collaboratively and made available in 2017 for two months.

There were 314 valid answers from HEIs in Portugal, Spain and the Czech Republic, involving undergraduate and master's students of courses as diverse as Secretariat, Basic Education, Bilingual Education, Mechanical Engineering, Industrial Engineering, Mechatronics Engineering, Tourism, Project Management, Economics and Management, Art History and Human Resource Management.

In addition to questions (P1 to P4) to characterise provenance (HE institution, country, course and FLs studied at the present time), the questionnaire included questions about FL learning practices (P5 to P73), other FLs studied, improvement strategies developed by students in specific areas such as writing, grammar, pronunciation, reading and reading materials, use of audio-visual and internet resources, preparation for exams, use of course books, need for a teacher, self-assessment in terms of competence and study needs, self-regulation of the study, etc.

The questions (P74) and (P75) are the ones that interest us most for the present study:

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(P74) I find it important to link my knowledge and skills in FL to other curriculum subjects (or other curricular units in which I am enrolled in my higher education institution).

(P75) I find it important to link my knowledge and skills in FL to other skills and competences such as interpersonal and intercultural relations, problem-solving, etc.

The respondents' reactions to these two statements briefly allow us to see whether students see an advantage in linking FL learning with other subjects and disciplinary contents, as well as with transversal skills or soft skills, while the answers to the previous questions summarily described contextualise their practices in culturally diverse learning contexts.

2.2.2 Results and discussion

According to the answers given to question (P74) about the importance of associating FL learning with other subjects, 78% of students agree (30%) or totally agree (48%) with it. Only 1% strongly disagrees and 6% disagree, with 15% being indifferent, that is, neither agreeing nor disagreeing.

Regarding question (P75), 76% of the students interviewed agree (30%), or strongly agree (46%) to associate FL learning with the development of interpersonal, intercultural and problem-solving skills, with 2% totally disagreeing, 4% disagreeing and 18% of the respondents stating that they do not agree nor disagree.

Skimming the questions about learning practice, without going into great detail, we notice that all the interviewed students are learning English in HEIs and, if they learn another FL, they do it on their own, or in private contexts with a teacher, or in language schools (P7 and P8).

The overwhelming majority of the students who were surveyed also state that they have already tried to learn a FL in an autonomous way to improve their skills (P9), choosing grammar exercises, reading magazines and listening to online programmes, watching online films, listening to music online, practising speaking and writing. Online FL learning resources, such as pronunciation practice or exam preparation, are less commonly used than the previous ones.

In the open-ended question about resources, one student said s/he had attended courses abroad, two other students referred to video games as a FL learning strategy, two mentioned travelling, three pointed out FL and Duolingo listening apps, five mentioned working abroad as *Au pair* in hotels, or without specifying where, one mentioned correspondence with other people using the Internet and one valued "making friends who are native speakers of the FL."

The respondents emphasise authentic materials (films, newspaper articles and music) as well as web pages and online resources, although they have been globally neutral on the question of trying out new and unfamiliar resources and materials (P36).

Responses regarding the experimentation of e-learning courses and learning apps were also more neutral (P38).

We also noted some dependence on the teacher for the FL learning process to be successful, as well as the expectation for following along with what is suggested by the teacher (P45).

In the answer to question P49, most students did not strongly support the idea that the success of learning a FL depends on the amount of time that this language is practised outside the classroom.

From the data gathered, there is some lack of pedagogical innovation in the way students say they prefer to learn a FL, perhaps due to traditional teaching methods. Physical and/or virtual mobility is hardly ever addressed, and the same happens regarding experiential exchanges with people from other FL cultures, or collaboration in multinational groups and experimentation with new digital resources such as apps; thus, students consider that the teacher continues to be an important facilitator of their own knowledge of a FL and that the classroom is the place, *par excellence*, for the practice of a target language.

However, the data gathered points towards the students' openness to the idea that learning a language is associated with the acquisition of personal, communicative and intercultural skills, as well as of attitudes showing intercultural sensitivity, being an advantage to both specialised FL learning environments and CLIL (content and language integrated learning).

CONCLUSIONS

From the data gathered and discussed, there are several lessons to be learnt and recommendations to be made for the process of FL teaching and learning in HEIs. First of all, the need to frame FL learning in an interdisciplinary way, both through specialised FL and through collaborative practice between HE teachers, leading to content and language integrated learning (CLIL).

Additionally, FLs can and should develop a range of skills considered important in the labour market, such as the intercultural communicative competence (ICC), intercultural communicative effectiveness, empathy, resilience, proactivity, and the ability to cope with change and with diversity, among others.

Learning should preferably make use of online environments, be collaborative and network teachers and students, in order to create communities of practice and of international learning, where the use of FLs will make perfect sense. The use of methodologies, such as telecollaboration or virtual exchanges with students from other countries in a controlled and monitored environment, is recommended as a way of developing intercultural sensitivity and the pragmatic competence of using FLs in

more authentic contexts, as well as of building common projects in international teams, taking advantage of the cultural and linguistic diversity of each member in a positive way.

In order to better adapt to globalised labour markets, the FL learning context should also be rich in moments when students make decisions and are entrusted with the curatorship of digital content in FL using digital tools, rather than being regarded as mere consumers of digital content in FL.

Finally, it is important to cultivate the notion, among students and teachers of HEIs, that we use several languages in the learning process and that knowing the pedagogical mechanisms that can facilitate the flexible integration of knowledge in an interdisciplinary way, from the linguistic repertoires of each one, is very important.

The areas of activation of these recommendations will not only be the FL classroom, but also the coordination of courses of a HEI, or the HEI itself as a whole, and may also refer to structures that support learning such as the Language Centres of HE, an important part leading to the promotion and development of FLs that are less frequently taught in HEI, or to the definition of language policies to support students and teachers, as well as validation and accreditation of learning.

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UM ESTUDO COMPARATIVO, ENTRE A CHINA E PORTUGAL, DA FORMAÇÃO PROFISSIONALIZANTE DO MESTRADO EM TRADUÇÃO

A COMPARATIVE STUDY, BETWEEN CHINA AND PORTUGAL, OF THE PROFESSIONAL TRAINING OF THE MASTER'S COURSE IN TRANSLATION

UN ESTUDIO COMPARATIVO, ENTRE CHINA Y PORTUGAL, DE LA FORMACIÓN PROFESIONAL DEL MÁSTER DE TRADUCCIÓN

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RESUMO

Introdução: Com a globalização, a interdependência de competências e de domínios tem-se aprofundado mundialmente. A formação de tradutores competentes torna-se cada vez mais importante. Em 2007, a Comissão de Grau Académico da China começou a implementação piloto do MTI (*Master's in Translation and Interpreting*), sendo que até agora mais de duzentas universidades já receberam a qualificação para iniciar este curso. Diferente dos cursos académicos de mestrado, o MTI é um mestrado profissionalizante, cujo objetivo consiste na formação de tradutores competentes para que, depois da formação, sejam capazes de adaptar-se rapidamente às exigências do mercado laboral.

Objectivos: Devido ao início tardio e à pouca experiência nesta área, apesar de um crescimento muito rápido da quantidade de universidades com MTI, os tradutores formados neste mestrado não possuem as competências compatíveis com as exigências do mercado. Precisamente porque o nível de formação do MTI na China ainda dista muito de modelos maduros existentes no estrangeiro, propomos esta análise comparativa, entre a China e Portugal, do curso de mestrado em tradução. Com base no modelo teórico de Nord (2006) em relação à formação de tradutores, pretendemos realizar um estudo comparativo entre o curso de mestrado em tradução na China e um em Portugal. Concretamente, abordaremos os objetivos e os planos curriculares de ambos os mestrados, analisando as diferenças e semelhanças no que diz respeito à formação dos futuros profissionais.

Métodos: Segundo Nord (2006), além da competência de tradução, existem ainda as competências em línguas, a competência cultural, a profissional e a técnica. Na formação o foco deve incidir mais na competência de tradução, na profissional e na técnica. Aliás, Nord criou o modelo de análise textual, enfatizando a importância da análise e da decisão quanto aos fatores internos e externos aos textos. Assim, apresentou as sugestões para os passos a seguir na formação de tradutores, esclarecendo o carácter intercultural da tradução e os papéis dos tradutores.

Resultados: Neste trabalho comparam-se os planos curriculares dos ciclos de estudos de três universidades chinesas e uma portuguesa nomeadamente no que se refere às competências da tradução, linguística, cultural, profissional e teórica.

Conclusões: Esperamos que esta pesquisa possa servir como incentivo para a formulação de novas políticas no ensino do MTI, contribuindo para o aumento do ensino prático e especializado em alunos que desejam a profissão de tradutor.

Palavras-chave: Mestrado em Tradução; Formação Profissionalizante; China; Portugal; Mercado de Trabalho

ABSTRACT

Introduction: With globalization, the interdependence of skills and domains has deepened worldwide. The training of competent translators is becoming more and more important. In 2007, the Chinese Academic Degree Commission began the implementation of the MTI (*Master's in Translation and Interpreting*). So far, more than 200 universities have already received the qualification to start this course. Unlike the academic masters', the MTI is a professional master's degree, with the objective of training competent translators so that, after training, they can adapt quickly to the demands of the labour market.

Objectives: Due to the late start and little experience in this area, despite the very rapid growth of the number of universities with MTI, the translators trained in this master's course do not have the skills required by the labour market. For the time being, the level of MTI training in China is still very far from the foreign mature models, which resulted in this comparative analysis, between China and Portugal, of the master's degree in translation. According to Nord (2006), besides the translation skill, there are also linguistic, cultural, professional, and technical skills. During training the focus should mainly be on the translation, professional and technical skills. In fact, Nord created the textual analysis model, emphasizing the importance of the analysis and of the decision concerning the internal and external factors to the texts. This way, she made the suggestions for the steps to be followed in the training of translators, clarifying the intercultural character of the translation and the roles of translators.

Methods: Based on Nord's (2006) theoretical model concerning the training of translators, a comparative study is carried out between the master's course in translation in China and Portugal. Specifically, the objectives and the study plans of both masters' courses will be studied, analyzing the differences and similarities with regard to the training of future professionals.

Results: In this paper we compare the curricular plans of the three study cycles of Chinese and Portuguese universities, regarding translation, linguistic, cultural, professional and theoretical competences.

Conclusions: We hope that this research can become an incentive for new policy making in education, contributing to the increase of practical and specialized teaching in students who wish to become a translator.

Keywords: Master's Course in Translation; Professional Training; China; Portugal; Labour Market

RESUMEN

Introducción: Con la globalización, la interdependencia de competencias y de dominios se ha profundizado en todo el mundo. La formación de traductores competentes es cada vez más importante. En 2007, la Comisión de Grado Académico de China comenzó la implementación piloto del MTI (*Master's in Translation and Interpreting*), hasta ahora más de doscientas universidades ya recibieron

la calificación para iniciar este curso. A diferencia de los másteres académicos, el MTI es un máster profesional, cuyo objetivo consiste en la formación de traductores competentes para que, después de la formación, sean capaces de adaptarse rápidamente a las exigencias del mercado laboral.

Objetivos: Debido al inicio tardío ya la poca experiencia en esta área, a pesar de un crecimiento muy rápido de la cantidad de universidades con MTI, los traductores formados en este máster no tienen las competencias compatibles con las exigencias del mercado. Por ahora, el nivel de formación de los MTI en China todavía se encuentra a una distancia nada menos dos modelos maduros existentes en el extranjero; como resultado, se nos ocurrió la idea de realizar un análisis comparativo de máster de traducción entre China y Portugal. Según Nord (2006), además de la competencia de traducción, existen aún la competencia lingüística, la cultural, la profesional y la técnica; en la formación, el foco debe incidir más en la de traducción, en la profesional y en la técnica. Por otra parte, Nord creó el modelo de análisis textual, enfatizando la importancia del análisis y de la decisión de los factores internos y externos a los textos y, con ello, ofreció las sugerencias sobre los pasos en la formación de traductores, aclarando el carácter intercultural de la traducción y los papeles de los traductores.

Métodos: Basado en el modelo teórico de Nord (2006) para la formación de traductores, tenemos la intención de realizar un estudio comparativo de los másteres de traducción entre China con Portugal, en particular, iremos a discutir los objetivos e los planos curriculares de los másteres entre ambos los países, analizando las diferencias y semejanzas en lo que se refiere a la formación de los futuros profesionales.

Resultados: En este trabajo se comparan los planes de estudio de los ciclos de tres grados de las universidades chinas y una portuguesa, en particular en lo relativo a las habilidades de traducción, lingüísticas, culturales, profesionales y teóricas.

Conclusiones: Esperamos que esta investigación pueda servir como incentivo para la formulación de nuevas políticas en la enseñanza del MTI, contribuyendo al aumento de la enseñanza práctica y especializada en alumnos que desean la profesión de traductor.

Palabras-Clave: Máster en Traducción; Formación Profesional; China; Portugal; Mercado de trabajo

INTRODUCTION

As exchanges between China and the outside world continue to deepen, the demand for high-level professional translators is increasingly urgent. Thus, based on foreign experience in translator training, the master's degree in Translation and Interpreting (hereinafter referred to as MTI) was established in China in 2007, with the purpose of training professional translators and interpreters. Due to its recent emergence and its practical nature, the MTI has attracted much attention from both the applicants and from universities. To date, 215 universities have opened the MTI course and this number continues to grow annually.

The MTI focuses mainly on the training of practical translation skills and provides knowledge strongly linked to future employment. Regarding the characteristics of the MTI orientation towards employment, Liu and Ren (2011, p. 47) claim that the MTI differs from traditional master's degrees in linguistics, literature or translation. In other words, the MTI is a professional type of master's degree rather than an academic one. According to these scholars, the professional master's degree is aimed at training professionals with high-level skills so that they meet the demands of the labour market. According to Zhong (cited by Liu & Ren, 2011, p. 47), the students' ability to practise translation or interpreting can be greatly enhanced through the MTI, while research is the emphasised competence acquired in traditional master's programmes. In Zhong's view, the focus of these two types of master's courses is different: the professional master's degree emphasises, above all, the capacity for translation practice (translation or interpreting), while traditional master's courses are characterised by the importance given to research skills. In this regard, Mu (2011, 78) clarifies that the goal of the MTI is to increase the students' practical capacity, whereas the goal of traditional master's degrees is to train students so that they are in full control of research methods and acquire complete knowledge of translation theories.

With the development of the MTI over the last 10 years, great progress has already been made. Being a new master's degree, the MTI professional teaching in China still presents some problems, such as: the goal of talent training is not clear enough; the study plan is not suitable for this purpose, etc. In order to further discuss these problems, we will draw inspiration from the five competences defined by Nord (2006) for the training of translators. According to Nord (2006), besides the translation competence itself, there are also linguistic, cultural, professional and technical competences. It should be emphasised that, during training, the focus should be mainly on the professional and technical competences of translation.

Based on Nord's theoretical model (2006) concerning the training of translators, we intend to carry out a comparative study between the master's degree course in translation in China and the one in Portugal. Specifically, we will address the training objectives and the course plans of both master's degrees, analysing the differences and similarities with regard to the training of future professional translators.

1. THEORETICAL FRAMEWORK

Christiane Nord, one of the representatives of the German school of functionalist translation, teaches at the University of Heidelberg. She has extensive experience in translator training, which has led her to systematically study translation teaching and to write the book entitled *Text Analysis in Translation: Theory, Methodology, and Didactic Application of a Model for Translation-Oriented Text Analysis*. In this book, Nord presents five competences for professional translators and for translation teaching, including:

1) Translational competence: conversion from source to target language;
2) Linguistic competence: native language and foreign language skills (lexicon, grammar, linguistic variants, registers, styles, textual genres, norms, etc.), which serve as a basis for the translation ability;
3) Cultural competence: a command of general knowledge of the target culture (involving many aspects: daily life, society, economy, politics, among others);
4) Professional competence: acquisition of knowledge in a specific area, such as the legal area, the political system, international business, digital technology, etc.;
5) Technical competence: the ability to research information or literature in some specific fields, the use of tools, dictionaries, etc.

Nord distinguishes translation competence from linguistic competence. As the aim of the MTI is to train professional translators and interpreters, the focus should be on reinforcing the professional and technical competences of translation, emphasising the professional part rather than emphasising the traditional ability to study foreign languages.

2. ANALYSIS OF THE CURRENT SITUATION AND PROBLEMS IN THE PROFESSIONAL TRAINING OF THE MASTER IN TRANSLATION IN CHINA AND PORTUGAL

2.1. Training Objectives

2.1.1. Training objectives in China

In 2007, the State Council Academic Degrees Committee of China reviewed and approved the Master's Programme in Translation and Interpreting, and from then on, the MTI was officially implemented at Chinese universities. Since then, the MTI has developed for more than 10 years and the number of universities that have opened the MTI course has also increased from 15 to 215.

According to the Orientation Programme for the Training of MTI Students, defined by the State Council Academic Degrees Committee of China, the objective of the MTI is to train high-level translators and interpreters so that they can adapt to globalisation and to the necessary requirements for enhancing the country's competitiveness, while at the same time meeting China's economic, cultural and social needs in terms of translation.

We can take as an example the MTI course at the **University of Foreign Languages in Beijing**, in order to know the fulfilment of the objectives of the Orientation Programme in this university. So, let us see:

- To master basic theories, systematic knowledge and basic methods of scientific research in its field.
- To have the skills to carry out tasks (teaching, scientific research, diplomacy, management of work related to the subject, etc.) in universities, scientific research entities, government agencies, business entities, multinational organisations, among others.

We consider the University of Foreign Languages in Beijing as a university that is oriented to the teaching of foreign languages. Therefore, to make a more balanced comparison, we have also selected universities oriented to other areas, such as technologies, business and economics. Given the nature of this work, we have chosen only one university in the technical area and one university in the field of economics and business (Beihang University and the University of International Business and Economics).

At **Beihang University** (more technology-oriented), through systematic training and practice, the aim is to foster strong professional skills and to enable students to gain enriching professional experiences. After training, they must have high-level professional skills in the area of translation and interpreting, capable of meeting the development needs of the country.

Through MTI training, the **University of International Business and Economics** (oriented towards business and economics), aims to train high-level professional talents in the area of translation and interpreting, who have a thorough knowledge of both English and Chinese (displaying a practical capacity adjusted to high competitiveness), as well as specific knowledge in the field of translation, intercultural communication, commerce and international business, in addition to being able to adapt to translation or interpreting work in multinational companies, diplomatic entities, etc., and to meet the demands of the country's economic, cultural and social development. Taking into account the objectives of the universities listed above, we notice that, in a sense, they are similar to the objectives set by the general educational orientation programme, which means that the autonomy of these universities is not absolutely guaranteed and the dependence of their objectives on the ones defined by the orientation programme is substantial. However, the objectives of the University of International Business and Economics are an exception, in that they are very well defined and in accordance with the specific characteristics of this university (a university focused on the areas of business and economics), which can also prove its autonomous approach.

2.1.2. Training objectives in Portugal

Although the Portuguese Ministry of Science, Technology and Higher Education has not designed a specific programme to guide the

training offered by the master's degrees in translation, after our research, we are inclined to the idea that, as a general rule, the master's degree in translation in Portugal follows the *Requirements for translation services of ISO 17100.*

According to *Translation services: Requirements for translation services of ISO 17100* (2015, p.7), translators should have the following competences:

a) *Translation competence: the ability to translate content … including the ability to address the problems of language content comprehension and language content production and the ability to render the target language content in accordance with the client-TSP agreement and other project specifications.*

b) *Linguistic and textual competence in the source language and the target language: the ability to understand the source language, fluency in the target language, and general or specialized knowledge of text-type conventions. This linguistic and textual competence includes the ability to apply this knowledge when producing translation or other target language content.*

c) *Competence in research, information acquisition, and processing: the ability to efficiently acquire the additional linguistic and specialized knowledge necessary to understand the source language content and to produce the target language content. Research competence also requires experience in the use of research tools and the ability to develop suitable strategies for the efficient use of the information sources available.*

d) *Cultural competence: ability to make use of information on the behavioral standards, up-to-date terminology, value systems, and locale that characterize both source and target language cultures.*

e) *Technical competence: the knowledge, abilities, and skills required to perform the technical tasks in the translation process by employing technical resources including the tools and IT systems that support the whole translation process.*

f) *Domain competence: the ability to understand content produced in the source language and to reproduce it in the target language using the appropriate style and terminology.*

After comparing the two, we notice that the Chinese and Portuguese systems show substantial differences (there are no similarities). The specifications of the Orientation Programme for the Training of MTI Students are intended for training purposes inherent to the master's degree in translation and interpreting, whereas the specifications contained in the *Requirements for translation services of ISO 17100 (2015)* are merely requirements for translators to work as qualified workers. Despite this, we cannot deny the fact that, compared to the requirements set for the translators in Portugal, the objectives imposed by the Chinese committee for the master's degrees in translation and interpreting are much less precise, not to mention the fact that they have no reference to the translators' specific competences.

After careful consideration of the two orientation programmes, we will analyse and discuss how the norms and requirements are put into practice at the University of Aveiro (given time and space constraints, we will only focus on the University of Aveiro). Therefore, let us see the training objectives of the master's degree in Specialised Translation at the University of Aveiro:

- *The Master's programme in Specialised Translation is designed to provide 2nd cycle qualifications for graduate students wishing to strengthen their translation skills in the area of Legal Sciences or Health and Life Sciences. It therefore aims to:*
  o *Provide advanced knowledge and adequate work methodologies so that students may develop their translation skills in a specialised field of study.*
  o *Expand the students' translation skills in two foreign languages (English, French, German or Spanish).*
  o *Provide students with adequate analysis and research skills in the field of specialised translation.*
  o *Provide students with competences for assessing and managing specialised translation projects.*
  o *Enable students to pursue post-graduate work at doctoral level.*

Comparing the specific objectives of the Chinese universities with those of the University of Aveiro, we notice the following:

a) In the definition of the objectives of the University of Aveiro, it is clearly stated that this is a Master's Degree in Specialised Translation (hereinafter referred to as MST), which aims to strengthen translation skills in the area of Legal Sciences or Health and Life Sciences; while in the programmes of Chinese universities there is not much information in this respect (except for the University of International Business and Economics, which has four areas of specialisation: translation in the area of Business and Economics; translation in legal issues; interpreting in the area of international conferences; interpreting in business and economics);

b) In China, the MTI (Master's Degree in Translation and Interpreting) usually has two strands (translation and interpreting). After entering this master's programme, students have to choose one of them at the beginning. However, among the objectives of the MST of the University of Aveiro, there is information on the fact that it is directed at translators and it excludes, by default, the possibility of including training for interpreters;

c) In the objectives of the MST, there is also reference to the inclusion of two foreign languages, whereas, in the objectives of the MTI at the three Chinese universities, only the University of Beihang and the University of International Business and Economics clearly indicate that the programme involves but one foreign language (English). The case of Beijing Foreign Studies University is a bit different. As it is a foreign language teaching university, students can choose the MTIs involving two foreign languages (English and Russian, English and French, English and German, English and Spanish, English and Japanese). For this type of MTI (involving two foreign languages), besides the very strong competition among applicants in the application

m9

process, they have to study these foreign languages in the degree; otherwise, the application is forbidden. For MTI applicants whose only required language is English, there is no requirement as to their background;

d) The MST at the University of Aveiro focuses mainly on specialised translation, whereas the MTI in most Chinese universities is not restricted to specialised translation. Sometimes, the focus can also be on literary translation. This is in line with what we indicated in the introduction to this study that many Chinese universities do not have a very clear definition of their training in terms of the MTI;

e) The skills in management and evaluation of translation projects are not part of the objectives of the Chinese universities, although there are course units that tackle them in the curricula;

f) MTI students from Chinese universities are generally not advised to continue their PhD studies. They can apply for doctoral degrees but are often discriminated against in the application. Since the MTI only lasts for two years and the academic master's degrees take three years, if MTI students apply for doctoral degrees, they are ranked less favourably in the shortlisting process. This is unfair to students of academic master's programmes in terms of total training duration (academic master's degrees also include master's programmes in translation, which take three years), but there is another constraint: students apply for the MTI expecting that, upon completion of their course, they can be translators with emphasis on professional practice rather than having to pursue their academic studies.

2.2. Course plan

Besides defining the course units that the students have to attend and the ones that are compulsory or optional, the course plan also specifies the sequential order of the course units and the distribution of their teaching hours. In fact, the course plan is also often accompanied by a brief presentation explaining the objectives, contents and requirements of the course units. Through the analysis of the organisation of the course units in the master's degree in translation of the universities of both countries, we can see how the skills of future translators are strengthened.

2.2.1. The Course Plan in China

According to the Orientation Programme for the Training of MTI Students, defined by the *State Council Academic Degrees Committee* of China, the course includes compulsory and optional course units, but the total number of ECTS credits should not be less than 30.
With regard to **compulsory course units**, the MTI has:

- Compulsory course units for all master's students (regardless of the course): Political theories (3); Chinese language and culture (3);
- Compulsory course units for MTI students: Introduction to translation (2); Interpreting theories (2); Introduction to translation studies (2);
- Compulsory course units for master's students of translation: Literary translation (4); Specialised translation (4);
- Compulsory course units for master's students of interpreting: consecutive interpreting (4); simultaneous interpreting (4).
- As for the **optional course units** (the choice of a second foreign language is mandatory), universities are free to open courses appropriate to their characteristics.
- **General course units**: Second foreign language (2); Brief history of translation in China and abroad (2); Translation criticism (2); Cultural communication (2); Contrastive linguistics between Chinese and foreign languages (2); Translation with CAT tools (2);
- **Interpreting course units**: Visual interpreting (2); Thematic interpreting (2); Interpreting at international conferences (2); Interpreting in business and economics (2); Legal interpreting (2); Diplomatic interpreting (2); Interpreting workshop (2);
- **Translation course units**: Specialised writing (2); Technical translation (2); Translation at international conferences (2); Translation in business and economics (2); Legal translation (2); Media translation (2); Translation of classical Chinese Literature (2); Translation workshop (2); Translation and localisation management (2).

As a governmental document of mandatory enforcement, the orientation programme has set rigid regulation in many respects, so that the autonomy of Chinese universities has become less prevalent than that of foreign universities. However, the Chinese orientation programme also states that all universities can open special courses as compulsory options, according to the orientation programme and the characteristics of each institution.

2.2.2. The Course Plan in Portugal

Unlike the situation in China, there is no orientation programme in Portugal to guide the course plan of master's degrees in translation. The MST course plans offered by the Portuguese universities are, to a great extent, based on the characteristics of each university, on the students' perspective and on the set of competences with which they reach the second cycle of studies. Again, due to time and space constraints, we will only focus on the course plan of the University of Aveiro:

First semester:
- Project Management and Evaluation (6)

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- **Paths: Legal Sciences**
- Language A I - Advanced Translation Practice (10) (French or English)
- Language B I - Advanced Translation Practice (10) (French, English, German or Spanish)
- Fundamentals in Science for Specialised Translation (4)
- **Path: Health and Life Sciences**
- Fundamentals in Science for Specialised Translation I (Chemistry) (4)
- Language A I - Advanced Translation Practice (10) (French or English)
- Language B I - Advanced Translation Practice (10) (French, English, German or Spanish)

Second semester:
- Revision Techniques (4)
- Orientation Seminar (6)
- **Path: Legal Sciences**
- Language A II - Advanced Translation Practice (10) (French or English)
- Language B II - Advanced Translation Practice (10) (French, English, German or Spanish)
- **Path: Health and Life Sciences**
- Language A II - Advanced Translation Practice (10) (French or English)
- Language B II - Advanced Translation Practice (10) (French, English, German or Spanish)

Third semester:
- CAT - Tools for Translation (8)
- Option:
- Technical Communication or Audiovisual Translation (6)
- Internship / Project / Dissertation (12)
- **Path: Legal Sciences**
- Fundamentals in Science for Specialised Translation II (4)
- **Path: Health and Life Sciences**
- Fundamentals in Science for Specialised Translation II (4)

Fourth semester:
- Internship / Project / Dissertation (30)

2.2.3. Comparative study of Course Plans

The comparison between the MST course plan, held at the University of Aveiro, and the Orientation Programme for the Training of MTI Students allowed us to conclude the following:

a) On the training duration: the MST at the University of Aveiro has the same duration as the MTI in China;
b) Regarding the organisation of course units: both the MST at the University of Aveiro and the MTI in China require that students attend compulsory and optional course units in order to obtain the necessary skills and credits.

In the MST at the University of Aveiro, students have to choose, at the beginning, a specific future area of study (legal area or health and life sciences) and the course plans also depend on the students' choices. We also noticed that the MST course units, at the University of Aveiro, offer preparation for translation only and not for interpreting, contrary to what happens in China.

On this separation between translation and interpreting in the MTI at Chinese universities, Liu and Ren (2011: 48) point out that it comes as a natural consequence of the fact that, with economic development, exchange activities have become increasingly rich and varied; but high-quality professional translators are very scarce and far from meeting real translation/interpreting needs. From their point of view, the main reason for this lack of qualified translators is the separation between translation and interpreting, without a specific strand being defined for each of them. This results in difficulties to find high-level professional workers who can meet the market needs. We notice then that the separation between specific strands of specialised application sometimes becomes more important than the simple separation between translation and interpreting.

Thus, what solutions can be pointed out? In fact, the comparison with the course plan of the University of Aveiro offers a different perspective. The University of Aveiro is an academic institution mainly focused on science and technology and this is what led to the creation of the MST oriented to the legal area and to health and life sciences. Although the MST is not separated into translation and interpreting and offers training in translation only, this does not affect the specialised translation training that the University promotes. In this light, and based on the MTI Orientation Programme, which defines that universities can open translation or interpreting courses based on the course plan of the orientation programme and on their own characteristics, it is important that the MTI course plans held in each Chinese university are adjusted to the characteristics of each institution.

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For example, the University of International Business and Economics has different strands for both the MTI in translation and the MTI in interpreting (translation in the area of business and economics; translation in legal issues; interpreting in the area of international conferences; interpreting in business and economics). As its name suggests, it is a university focused on the areas of business and economics, and its separation into specialised areas also portrays this reality. Similarly, some universities with a more technical vocation, when offering an MTI, may consider creating an MTI with a focus on technical translation. The separation into specialised strands at the beginning can help universities to provide translators with better preparation and professional qualification so that they can meet the real needs of the market.

As indicated above, Nord (2006, p.155) proposed the acquisition of five competences for students to qualify as translators: translational, linguistic, cultural, professional and technical competences. By reinforcing these competencies, the problems faced by the MTI can be solved. Strengthening these competences can also break the traditional Chinese teaching model in this area by promoting a close combination of teaching, research and the practice of translation. Let us analyse each of them.

Translational competence - Nord (2006, p. 155) points out the need to reinforce this competence in translation classes. From his point of view, language competence should be second in translation classes. With the focus on translation practice, this competence can be reinforced. In this sense, the MTI course units related to translation practice, such as *Consecutive and Simultaneous Interpreting* and *Specialised and Literary Translation*, and the course units in *Advanced Translation Practice* of the MST, held at the University of Aveiro, can help a lot.

Linguistic competence - according to Nord (2006, pp. 155-166), the representation of linguistic competence comprises the words of one's native language and the foreign language, grammar, semantics, linguistic variants, linguistic registers, language standards, among others. As this competence lies at the heart of the exercises on translational competence, it cannot be in any way underestimated, even though it does not have the same importance as the previous competence. The reinforcement of the linguistic competence is made apparent in the MTI course plan (in the course unit of Chinese Language and Culture), but it is not shown in the MST course plan. In fact, almost all the MST students, generally master the vocabulary and grammar of these languages, because they come from a degree in foreign languages. For MTI students, however, in addition to the necessary reinforcement of foreign languages, written skills in their native language should also be strengthened. This is because, even though many students may well understand a given source text written in a foreign language, they find it difficult to express the ideas conveyed using their native language: vocabulary may be poor, with little tuning of synonyms or quasi-synonyms or subtle forms of expression, and linguistic registers may not be the most appropriate for the context, the target readers or the textual genre.

Cultural competence - according to Nord (2006, p. 161), the concept of this competence is very broad, including many aspects such as everyday life, society, the political system, customs and habits, among others. The reinforcement of this competence can be achieved through interdisciplinary training. Master's students (usually with degrees in foreign languages) lack knowledge in the economic and business fields, in legal sciences, and in technical and technological knowledge. In order to reinforce this competence, course units of general studies should be offered, including different areas (each area does not need to be very deepened; students only need to have some functional knowledge of the different contents). The areas can cover current social, political and economic issues, the environment, science, among others. These general studies course units can be offered as a set of modules to be chosen by the students. From the analysis carried out, we notice that neither the MTI nor the MST course plan offers course units related to the reinforcement of this competence.

Professional competence - as Nord states (2006, p. 161), this competence relates to the specific knowledge of professional fields (legal, economic, business, technological, etc.). Knowledge in any of these specific areas is essential if translators are to be specialised professionals. At first glance, it seems that this competence is in conflict with cultural competence. However, in fact, they have different emphases. For future translators, mastery of a specific area is very important, as it will help them to be specialised professionals when entering the job market, without having to rely on the acquisition of this competence through experience or individual study. With the natural limits on one's level of knowledge, one cannot expect the translator to be versed in all areas. We can expect the translator to master the knowledge of a given area (specific terms, general discourse and textual genres). On the one hand, translators should know a little about everything (cultural competence); on the other hand, they should be "specialised translators" in at least one area. We believe that, at a basic level (after the first cycle of studies), translators should identify terms specific to an area and be able to investigate the concepts, discourse and textual genres of that area; but then, at a more advanced level of study, they should be able to deepen their knowledge in a specific area. In our opinion, the reinforcement of both cultural and professional competences can be achieved with the support of other departments or faculties, through lectures or course units specifically designed for these students. Once again, after the analysis carried out, we can conclude that there are no course units related to the reinforcement of this competence in the MIT or in the MST.

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Technical competence - Nord (2006, p. 161) points out that in order to strengthen the students' qualifications, the development of their technical competence should not be ignored. The reinforcement of this competence can be achieved concretely through the following course units: Translation with CAT tools (MTI, optional); Translation and localisation management (MTI, optional); Project management and evaluation (MST, mandatory); Technological tools to support translation (MST, mandatory); and Technical Communication (MST, optional). The compulsory or optional nature of the course units shows that the emphasis differs greatly between universities in both countries. For the course plan of the MTI in China, they are optional course units; however, in the course plan of the MST at the University of Aveiro, two of the three are compulsory course units. Nowadays, translators work in an increasingly professional market, especially in the field of translation, and efficiency and professionalism are factors of paramount importance, which can be achieved through training in this area. Although the reinforcement of the technical competence in the orientation programme has not been given the importance it deserves, we believe that, by exchanging experiences with other foreign universities, where the master's degree course in translation is successful and with the pressure of the translation market, the MTI course plan in China will consider other factors that may influence the reinforcement of this competence.

CONCLUSIONS

In the present study, we based ourselves on Christine Nord's (2006) considerations on the five-skills approach that translators should have; we carried out a comparative analysis between the master's degree in translation from three Chinese universities (University of Foreign Languages in Beijing, oriented to the teaching of foreign language); Beihang University (focused on the technical field); University of International Business and Economics (oriented towards the economic and business areas) and that of the University of Aveiro, in order to identify similarities and differences in terms of training objectives and course plans (regarding the course plans, the comparative analysis was carried out between the Orientation Programme for MTI Students and the course plan of the University of Aveiro).

The comparative analysis has led us to conclude that the MTI orientation programme is still at an exploratory stage, and the level of MTI training in China is still far from the mature models abroad, which is reflected in the training objectives, for example. The objectives of the MTI and the master's degree courses in translation at Chinese universities are not as detailed and clear as those of the MST at the University of Aveiro. There are no specific areas in most MTIs in China. Regarding the course plans, the comparative study showed us that the MTI course plan did not give the attention it deserved to the course units related to the reinforcement of technical competence; both the MTI and the MST course plans do not include general studies units (cultural competence), nor specialised knowledge in the field of professional areas (professional competence).

We hope that this research can serve as a starting point for the adoption of new policies regarding the teaching of MTIs, working as a contribution that helps to increase the practical and specialised teaching of students who aspire to become translators, thus fostering the steady development of the teaching of translation in China.

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CANTORES LÍRICOS: DUETOS COM A ANSIEDADE
LYRICAL SINGERS: DUETS WITH ANXIETY
CANTORES LIRICOS: DUETOS CON LA ANSIEDAD

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RESUMO

Introdução: O presente artigo de pesquisa descreve e analisa os resultados parciais de um estudo qualitativo alargado que pretendeu verificar de que forma a ansiedade de desempenho está presente no quotidiano do cantor lírico.

Objetivos: As alterações de vida diárias antes de um recital e quais as estratégias utilizadas no seu enfrentamento por parte deste grupo de profissionais.

Métodos: Resulta da administração de um questionário socioprofissional e de uma entrevista semiestruturada a um grupo de 8 cantores líricos com mais de 6 anos de prática, selecionados pelo método bola de neve.
O procedimento para aceder aos significados emergentes dos seus discursos foi a *Grounded Theory*, seguindo as rotinas de seleção de unidades de análise, criação de memorandos, e categorização em dois níveis (descritivo e conceptual).

Resultados: Centra-se na produção dos discursos referentes a três questões sobre a experiência da ansiedade de performance musical, rotinas diárias adotadas no período pré-recital e nas eventuais estratégias usadas para ultrapassar a sintomatologia ansiosa.

Conclusões: Os resultados manifestam o reconhecimento do impacto da performance, um convívio constante com a ansiedade e consequentes alterações das rotinas de vida diárias a nível pessoal e social, conduzindo à adoção de estratégias para o controle da ansiedade.

Palavras-chave: Cantores líricos; Ansiedade de desempenho Musical; Teoria sustentada nos dados

ABSTRACT

Introduction: This article describes and analyses the partial results of a broad qualitative study, whose goal was to explore how performance anxiety is presented in the everyday life of the lyrical singer.

Objectives: The daily life changes before a recital and what strategies are used in the their confrontation by this group of professionals.

Métodos: The results presented are centered in the production of discourse from three questions covering the experience of anxiety on musical performance, and the eventual strategies applied to overcome it. These data were gathered using a social-professional questionnaire and a semi-structured interview addressed to a group of 8 lyric singers with over 6 years of experience, sampled through the snowball method. Grounded Theory was the procedure chosen to access the emerging constructs in the participants' discourses, following the routines of analysis unit selection, memorandum generation and categorization on two levels (descriptive and conceptual).

Resultados: The method focuses on the production of the speeches concerning three question about the experience of musical performance anxiety, daily routines adopted in the pre-recital period and the eventual strategies used to overcome anxious symptomatology.

Conclusões: The collected results recognize the harmful impact of performance, a constant conviviality with the anxiety and consequent changes in daily life routines at personal and social level, leading to the adoption of strategies for anxiety control.

Keywords: Lyric Singers; Musical performance anxiety; Grounded Theory

RESUMEN

Introducción: El presente artículo describe y analiza los resultados parciales de un estudio cualitativo ampliado que pretendió comprobar de qué forma la ansiedad de rendimiento está presente en el cotidiano del cantante lírico.

Objetivos: Los cambios de vida diarios antes de un recital y cuáles las estrategias utilizadas en su enfrentamiento por parte de este grupo de profesionales.

Métodos: Los resultados aquí expuestos se centran en la producción de los discursos referentes a tres cuestiones sobre la experiencia de la ansiedad de performance musical, rutinas diarias adoptadas en el período previo al recital y en las eventuales estrategias usadas para superar la sintomatología ansiosa. Resulta de la administración de un cuestionario socio profesional y de una entrevista semiestructurada a un grupo de 8 cantantes líricos con más de 6 años de práctica, seleccionados por el método bola de nieve. El procedimiento para acceder a los significados emergentes de sus discursos fue la Grounded Theory, siguiendo las rutinas de selección de unidades de análisis, creación de memorandos, y categorización en dos niveles (descriptivo y conceptual).

Resultados: El método se centra en la producción sobre la experiencia de la ansiedad de performance musical, rutinas diarias en el período pre-recital y en las eventuales estrategias usadas para superar la sintomatología ansiosa.

Conclusiones: Los resultados demuestran el reconocimiento del impacto perjudicial de la performance, una convivencia constante con la ansiedad y consecuentes alteraciones de las rutinas de vida diarias a nivel personal y social, conduciendo a la adopción de estrategias para el control de la ansiedad.

Palabras Clave: Cantantes; Ansiedad de rendimiento musical; *Grounded Theory*

INTRODUCTION

Performance Anxiety (PA) refers to a group of emotional disturbances, which encompass a set of psychological, physiological and behavioral reactions to exposure to stressful situations, being felt in various domains, from the performance of exams in speaking in public (Kenny, 2006; Mendanha, 2014; Sloboda, 2008,). It is often confused with notions of fear of facing the stage (Wilson & Roland, 2002) and classified phenomenologically by social phobia (Kenny, 2011; Osborn & Franklim, 2010) representing for each lyric singer a challenge impacting on their daily tasks (Spahn et al, 2010). According to Brontons (1994, quoted by Mendanha, 2014), PA is composed of physiological, psychological and emotional, cognitive and behavioral changes.

Within the domains of PA, we choose the particular case of PA associated with lyric singing because the career of these professionals is full of auditions, tests, exams, exams, concerts and recitals that directly and indirectly imply the evaluation and exposure to the public, in addition to the high technical and artistic rigor of which they are captivated in order to captivate the same (Mendanha, 2014). The fear of failing in any aspect of individual functionality is the main factor of PA, characterizing its existence in several contexts, and in the case of singing, in addition to internal factors, the unpredictability and uncertainty of employment, unregulated schedules financial instability and even personal and social changes. The PA can focus on any age group, skills or technical experience and is present in amateur and professional singers who sing solo or in a group (Kenny, 2005; 2011). Although the range of incidence of PA can be comprehensive, it is necessary to produce scientific research directed to other contexts, styles and musical aspects (Parncutt & Mcpherson, 2002). Thus, it was intended with this investigation to verify how performance anxiety is present in the lyric singer's daily life, focusing on the daily changes before a recital and what strategies are used in their confrontation by this group of professionals.

1. REVIEW OF THE LITERATURE

As we look at a theme that combines the area of Music with that of Psychology, we seek to access the meanings lyrical singers attributed to anxiety. Historically, and from Harnoncourt's point of view (1988, quoted by Cerqueira, Zorzal & de Avila, 2012), the acquisition of musical skills was equated with the relationship of a master and artisan apprentice - an activity so characteristic of the eighteenth century. Following the reasoning of the same author, the contact, the construction of the relation and imposition of individual characteristics to the object (understood in this case as the repertoire), to spend the time and attention to the smallest details, acquire a central role for its success, achieved through the involvement of the artisan (musician), with the raw material (repertoire). Later, the Music Performance Teaching and Learning Model presents itself as a new and complete turning point in the deepening of this complex area, since it involves not only the stage of musical acquisition and preparation, but also the implications of the public presentation (performance) (Cerqueira, Zorzal & de Avila, 2012). In addition to the introduction of the concept of performance, this model has a double aspect, aimed at teachers and interpreters, recognizing the need for an effective, conscious and planned study, based on the previous personification of artisan art (Cerqueira, Zorzal & Avila, 2012). Parncutt and Mcpherson (2002) have shown that there is a lack of knowledge about vocal skills in the vocal range. In addition, it is the responsibility of a current construction of knowledge focusing on how the vocal technique can be influenced by the anxious load inherent to the performance of the singer.

2. METHODS

The qualitative method has as main objective to deepen the understanding of the complexity of phenomena, facts and processes, allowing deconstructing all social microprocesses and thus boosting their research, (Kenny, 2011; Victora, Knauth, & Hassen, 2000). It focuses not only on what is observable, but also on the attribution of meanings to behavior, since the study of human experience must take into account that the subject interacts, interprets and constructs meanings (Fernandes da Silva, 2010; Guerra, 2014). Within the group of qualitative methodologies, we highlight Grounded Theory, which gradually saw its method of analysis and several of its key strategies, particularly the coding and recording of memos, become part of the broader lexicon of qualitative research (Charmaz, 2011). The present research is based on the characteristics presented previously, collecting, registering, transcribing, organizing, interpreting and constructing hierarchical information collected, thus accessing the complexity and diversity of this reality, starting from the discourses and having as objective the meanings attributed by the participants.

2.1 Participants

It is an intentional sample, not probabilistic, selected by the snowball method. The elements included in this study were 8 professional lyric singers, 6 females and 2 males, aged between 25 and 49 years. Most of them had master degrees in the singing area and all of them had another occupation besides lyrical singing, linked to the teaching of this same art. Concerning

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the voice suits, our sample consisted of 5 sopranos, 1 contralto, 1 tenor and 1 baritone, with professional practice between 5 and 28 years.

2.2 Data collection and prcedures

The data collection was carried out in an online context, based on two instruments that focused on the sociodemographic and professional characterization of the participants (through a questionnaire), on the exploration of the PA experience and its impact, as well as on the strategies adopted in view of its emergence. The collection of data about the theme around the PA was made through a structured interview with eight questions that dealt with the lyrical singers' journey, the characterization of their routines, the impact of being a singer in other areas of life, recitals, necessary conditions for a young singer to develop. Due to the extension of the results obtained, the present article only focuses on three issues that constitute this script: "We know that voice is its main tool of work. In your opinion, in what way is anxiety present in the practice of lyric singing? "; "In your case, how do you handle the anxiety that may be present in the practice of lyric singing?"; "How is your routine when you have or are approaching a show / recital? Do you feel that there are changes in it? " Regarding the procedures, contact with the first participant was made by e-mail, and later the Messenger application was used, which allowed the automatic registration of the written text for later transcription of the information, without errors of understanding or misunderstandings. All ethical principles of confidentiality, voluntary participation and right of withdrawal have been ensured without any cost or repercussions. At the end of the interview, it was questioned whether the participant could suggest one or more colleagues linked to the same art, thus respecting the snowball sampling procedures adopted in the present investigation. The speeches transcribed in their literal context from Messenger were analysed and from here came the selection of units of analysis in sentence format. Sustained in the process of debugging categories and subsequent hierarchical integration we highlight the main nuclei of meaning emerging from the discourse of the group regarding the AP, its impact and the coping strategies adopted by lyrical singers.

3. RESULTS AND DISCUSSION

The results of the analysis of the discursive contents are evident in the three tables that integrate this discussion. These are the collected units (phrases), the 2nd order categories that correspond to the first hierarchy, and the 1st order or central categories that result from the conceptual aggregation of the previously mentioned ones.

Table 1 results from the contents obtained in response to question 1. The anxiety was homogeneously considered as a habitual presence in the practice of lyric singing (Spahn, Walther & Nusseck, 2016). The two categories of second order "threat perception" and "connection to perfectionism" (Kenny, 2005, 2011) are two of the cognitive mechanisms underlying the genesis of anxiety that are aggregated in the central category "fear of failure", a condition that Wilson and Roland (2002) name as concern for failure, visible in the response, for example, of participant 3 (table 1). The constancy of the PA is marked in the various moments that make up the lyrical performance (auditions, rehearsals and concerts) three categories of 2nd order that combine to construct the central category relative to the experience of anxiety in all phases of the process, as Ray (2009) and Spahn et al (2016). According to the analyzed discourses, multiple situations of fragility (central or first-order category) may be emotionally, technically and specifically physical (Kenny, 2011; Ray, 2009), in this case categories of second order. Continuing the analysis of the categorization performed, anxiety is seen as negative and as a vocal, physical and cognitive limit, central category sustained in the perception of the effects on voice, body and concentration (2nd order categories) as Fehm and Schmidt (2006). But if the negative effects of anxiety appear in various extracts from the speeches collected, then the awareness arises that dealing with it is a learning process that needs time and preparation (1st order category), which, in the opinion of Cardassi (2000) must be organizational, physical and psychological, and that associated with time can mirror the contents of the last two categories of first order in which anxiety may even be positive or non-existent.

Table 1. Units of analysis and categories of 1st and 2nd order obtained in the question:

"We know that the voice is the main tool of work. In your opinion, how is anxiety present in the practice of lyric singing?"

Analysis units	Categories of 2nd order	Categories of 1st order
"Present in almost at all"– S2	Present in almost everyone	
"I think it's very present"– S4 "Is allways – S3	Very or always present	Anxiety is present in almost everyone and is constant
"It is in everything that jeopardizes responsibility "– S1 "It is in everything that jeopardize our performance" – S1	It is associated with perceived threat	

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Analysis units	Categories of 2nd order	Categories of 1st order
"I always hope that things run as expected" – S3 "We always want to do it in a spectacular way" – S4 "(We always want to) impress everybody" – S4 "I'm also a perfectionist" – S3 "We believe that this work will be able to open doors to another even better" – S2	Connections to perfectionism	Fear of failure
"The auditions, then, are horrible"– S4 "(The auditions) are distresst"– S4	In the hearings	It is present in all phases of the process (from selection to final presentation)
"(IS) in the first essay with a conductor" – S1 "Before rehearsing, there is anxiety to be well prepared"– S8 ("Before an essay, there is anxiety) to know the working partners who constantly change"– S8	In rehearsals	
"It is in the concerts"– S1 "(Before the presentations) when I feel I'm not in good health"– S8	In the concerts	
"I only feel nerves when I have to face the public alone"– S2 "I only feel nerves in a solo recital situation"– S2 "(When) we are in an emotionally debilitated phase"– S6	In situations of emotional fragility	Arises in multiple situations of fragility
"Vocal health can also bring some anxiety"– S8 "(The anxiety for) not getting sick is terrible"– S8 "(When) we are in a phase (..) physically debilitated "– S6 "(When we are experiencing a phase of insecurity) for health issues– S6	In situations of physic health fragility	
"(when) the work has passages that are difficult – S6 "When I didn't prepare as I should"– S8	In situations of fragility in performance	
"Anxiety can very negatively affect the practice of the lyrical chant– S1 "Suffering from anxiety will only worsen my performance "– S2 "Percebi que isso só me prejudicava" – S3	Negative effect (no specification)	Negative impact without detail
"We need the opposite to produce beautiful and healthy tones"– S5 "(Anxiety) takes away our voice"– S7	It has negative effects on the voice	It is a vocal, physical and cognitive limit
"(Negatively) because it creates muscular tension"– S5 "(Anxiety) takes away our sleep"– S7 "(Anxiety) takes away the strength"– S7	It has negative effects because it limits the body	
"It makes our focus stop being in the music" – S7 "(Causes focus) to be in our fears"– S7	Negative for interfering with concentration	
Depending on how the singer handles her "– S2 "There are times that we are not so good and we must know how to deal with it"– S3 "I'm still learning to deal with stress and anxiety"– S3	It's a situation you learn to deal with	Coping with anxiety is a continuous learning process
"With my personal and vocal maturity I feel that the levels of anxiety have dropped considerably"– S4 "The more confident I am from my work (home preparation), less anxious"– S4	Decreases with preparation and maturity	
"I learned to use anxiety positively in the corner"– S2	Can be positive (no specification)	Can be positive without specification
"Rehearsals don't make me nervous at all"– S2 "No chorus, no new repertoire (makes me nervous)– S2	Don't get nervous	Anxiety is not always present
"In rehearsals I don't feel so much"– S3 "Before presentations less (anxiety)"– S8 "I can hide behind a character"– S2	Don't get so nervous	

In the categorization resulting from the hierarchy of meanings obtained through question 2, the concept of preparation emerges as nuclear (Mendanha 2014), without detail (first central category), or associated specifically with vocal and physical preparation, also category of 1st order. Several authors (Greene, 2002; Kenny, 2011; Ray, 2009) emphasize the importance of physical preparation, and in this respect Cardassi (2000) suggests the practice of sports and aerobic exercises, and specifically refers to the stretches that emerge explicitly in discourse of the participant 2. The strategies of anxiety control that emerged from the discourse constitute the third category of the 1st order and are based on practices such as those of the control of the breath, abstraction of the situation and understanding of the own anxious experience - categories of 2nd order. In the present case the respiratory control excels, and we do not find any reference to the use of relaxation techniques by the elements of the sample. The fourth central unit, which we call "anxiety devaluation strategies, valuing performance", gathered 5 categories of 2nd order, which in our opinion assume some distancing from the anxious experience using alternatives of greater abstraction: concentration/focus; search for emotional meaning; normalization of the anxious experience (emptying it of meaning and trivializing it); valuing pleasure to sing; tranquilizing effect of the song. These dimensions of confrontation with the most

elaborate anxiety (Brontons, 1994; Cardassi, 2000; Osborn & Franklim, 2010; Wilson & Roland, 2002) have a cognitive and emotional component that advocates in the field of Music Psychology believe deserve further study (Kenny, 2011). Finally, resorting to others to get help dealing with the AP (1st order category), namely to colleagues is another nucleus of meaning, but with less weight (by the number of subjects and references). Integrating the theoretical references with our results, it is understandable that the musician, in this case the lyrical singer, builds the presence of others as sources of eventual criticism (Kenny, 2011). Perfectionism and the need to succeed (Kenny, 2006, 2011; Kenny, Davis & Oates, 2004; Wilson & Roland, 2002) make the performance moment a potential threat, and consequently the anxious response emerges as a self-protection. In this way, the musical AP is a probable fight or flight response, with a record of physiological excitation that can reach panic (Kenny, 2006, 2011; Wilson & Roland, 2002). Ray (2005) listed a set of elements that combine in the AP and that involve anatomical, physiological, psychological and neurological aspects that allow us to reflect on the strategies to deal with the anxious experience of this group of lyrical singers. From his speeches do not emerge common techniques such as relaxation but in return we find a search for pleasure in performance, reference to the need for good physical conditions, highlighting stretching, detecting technical difficulties that have not been solved, establishing communication among colleagues, emotional projection in the performance, focusing and concentration, and respiratory control (Kenny, 2006¸Ray, 2005, 2009; Wilson & Roland, 2002).

Table 2. Analysis units and 1st and 2nd order categories obtained in question 2:
"In your case, how do you deal with the anxiety that may be present in the practice of lyric singing?"

Analysis units	Categories of 2nd order	Categories of 1st order
"Prepare me well"– S1 "The best strategy is the preparation "– S4 "The certainty that we prepare well is the best elixir "– S4	Prepares without specification	Prepares without specification
"With the best vocal and musical preparation"– S7 "Make a good heating "– S1 "I do the job as rigorously as possible in the trials" – S5	Vocal preparation	Vocal and physical Preparation
"I always do a physical warming up before I sing" – S4 "(I try) to stretch "– S2	Music Preparation	
"I have to take a deep breath"– S1; S3 "I always try to lower my breath"– S2	Breath Control	Anxiety control strategies
"I try to forget there are people there"– S2 "(I try) to forget the fact that it is being evaluated"– S5	Oblivion/Abstraction of the situation	
"Gather as much information as possible about the reason for this anxiety"– S7 "It's usually insecurity"– S7 "Patience"– S7 "I decided to mentor myself otherwise."– S3	Understanding Anxiety	
"(I try) to concentrate on the music"– S2 "(I try to concentrate) on the words I'm saying"– S2 "The way to cope nowadays is to think as much as possible on the positive side of the whole"– S6	Focus and concentration	Anxiety devaluation strategies, valuing performance
"I seek to use (…) the method of Lee Strasberg (who seeks emotions in our personal experiences) "– S2 "I always seek a" character "-S2 "(I try) to think of the meaning of words before entering"– S2	Seeking emotional significance	
"The best way to live the day of recitation is to live it with the biorhythms as close as possible to the usual"– S6 "I think I've begun to learn to see the" being a singer "as a profession."– S8 "Very important is not to give more importance to my work than the one that really has"– S4 "Acting in accordance with what is within our grasp"– S7	"Normalization" of the experience	
"Valuing the pleasure side of what we Do"– S1 "If singing is a pleasure then I don't need to be anxious"– S3 "(I need) to enjoy the moments I have the opportunity to do"– S3 "I say to myself," You're going to do what you like so much and enjoy it because it runs! "– S3	Appreciation of the pleasure obtained to sing	
"The longer I'm on stage, the more confidence I'll win"– S2 "As soon as I start singing, for some reason they (nerves) disappear"– S3	Singing has a tranquilizing effect	
"I had a stress manager."– S3 "I have thought about resorting to a psychologist or *coach*" –S4	Consider professional help	Resorting to the help of others
"I have always spoken of my feelings with other artists" – S4 "I sought to meet with them strategies to overcome this situation"– S7	Resorting to colleagues	

The categorical hierarchy of emerging discourses in the answers to question 3 reveals the impact that the preparation of a performance brings to the lyrical singing professional, and the change that implies (central category or 1st order). The entire process requires personal and social investment (2nd order categories). In this line of thought, singers report a lower predisposition to relationships with third parties, tending to resort to social isolation, preferring quieter environments. It seems therefore consensual that the singing professionals create rituals in order to achieve comfort (Salmon, 1992, cited by Cardassi, 2000). As already mentioned, the increased investment does not occur only in the weeks preceding the show. According to Cardassi (2000), the professional is obliged to dedicate himself in the pre, during and post recital phases, which implies constant dedication, concern and resilience over a long period of time, but when focusing on the time before a performance we verified in the participants' discourses the existence of behaviours to be avoided before the spectacle (category of 1st order). These include efforts to avoid contracting diseases, especially in winter (2nd order category). Professionals are forced not only to pay more attention to the cold, but also to avoid personal greetings, so the passage and contraction of third-party viruses is less prone. Likewise, in order to protect the voice and not damage the vocal chords, lyric singers choose to talk little, not laugh too much and tend to transpose practices specific to their professional life, in particular, resort to theoretical evidence. According to Cardassi (2000), physical training also becomes more moderate (2nd order category), which is an added value, contributing to body posture and physical fitness, which is essential for good vocal sound. In addition to the behaviours to be avoided before the show, there are mainly behaviours to be adopted in the pre-performance period (central category), namely a greater physical and vocal rest, and the adoption of more relaxed behaviours (2nd order categories). We find references to the importance of vocal warm-up and incessant mental tests. Such discourses are in accordance with the principles studied by Cerqueira, Zorzal and Augusto de Ávila (2012), which confirm the importance of consciousness and memory in performance so that there is no fragility or failure in the storage of information, which is central to the solid memory of all components inherent to the recital. Thus, cognitive strategies (1st order category) are designed to influence their emotional or affective state, directly impacting the way professionals select, organize, integrate and rehearse new knowledge and skills (Weistein & Mayer, 2004 cited by Sinico & Winter, 2012).

Table 3. Analysis units and 1st and 2nd order categories obtained in question 3:
"How is your routine when you have or are approaching a show / recital? (Do you feel that there are changes in it?)"

Analysis units	Categories of 2nd order	Categories of 1st order
"There are, yes"– S1 "There are changes "– S3 "Yes, there are changes "– S8	There are changes in the routines	
"I'm less available to others"– S1 "In particular in social life"– S3 "Tihave less availability to be with friends"– S4 "I cut on the social agenda"– S7 "Desappear in the World "– S7	Changes at social level	Change causes social and personal impact
"Our routine suffers alteration"– S4 "(It makes) time for us to be more limited""– S4 "I get more homemade stuff" – S3 "(Abstract me) to quieter environments" – S3	Changes at a personal level	
"I'm very careful not to catch a cold."– S1 "I have to protect myself from diseases"– S7 " I avoid to catch cold"– S3 "I avoid drafts of air "– S6´ "(In winter) I avoid many greetings from everyone "– S1	Care to prevent diseases	
"(To start) more moderate Gym"– S2 "(Avoid) physical efforts"– S2	Care to avoid efforts	Behaviors to avoid before the spectacle
"Try to talk less" – S2 "Put my students to do tests not to speak"– S2 "Don't talk so loud "– S8 "(Avoid) laugh"– S3	Care not to force the voice	

Analysis units	Categories of 2nd order	Categories of 1st order
"(Whenever I can) I try to sleep a nap"– S2 "Rest more"– S8 "(I try to protect me) from extra fatigue "– S7	Greater rest	Behaviors to be adopted before the show
"Make a slight warm-up in the middle of the day "– S6 "Review the reportory "– S6 "I spend the day singing in my head, incessantly, the piece I will present" – S5	Greater dedication to testing and vocal warming	
"I often go to the spa"– S2 "(I also do) thermal circuit"– S2	Moments of relaxation	
"I have constant thoughts of care and caution "– S1 "Think do something inspiring even before you go on stage"– S6 "Total focus" – S7	Thoughts influence	Thoughts to adopt before the spectacle
"I avoid worries"– S2 "(I have to protect myself) from additional concerns"– S7	Avoid worries	Avoid worries
"I don't need to change a big thing" – S5 "(I try) that my profession does not balance the family harmony"– S4	Try to maintain balance	Try to maintain balance

For our sample thought-control strategies lead to concentration and positive thinking before entering the stage, avoiding that everyday concerns overlap with the recital.

CONCLUSIONS

In addition to the behaviours to be avoided before the show, there are mainly behaviours to be adopted in the pre-performance period (central category), namely a greater physical and vocal rest, and the adoption of more relaxed behaviours (2nd order categories). We find references to the importance of vocal warm-up and incessant mental tests. Such discourses are in accordance with the principles studied by Cerqueira, Zorzal and Augusto de Ávila (2012), which confirm the importance of consciousness and memory in performance so that there is no fragility or failure in the storage of information, which is central to the solid memory of all components inherent to the recital. Thus, cognitive strategies (1st order category) are designed to influence their emotional or affective state, directly impacting the way professionals select, organize, integrate and rehearse new knowledge and skills (Weistein & Mayer, 2004, cited by Sinico & Winter, 2012). For our sample thought-control strategies lead to concentration and positive thinking before entering the stage, avoiding that everyday concerns overlap with the recital.

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CANTORES LÍRICOS: DUETOS COM A ANSIEDADE
LYRICAL SINGERS: DUETS WITH ANXIETY
CANTORES LIRICOS: DUETOS CON LA ANSIEDAD

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RESUMO

Introdução: O presente artigo de pesquisa descreve e analisa os resultados parciais de um estudo qualitativo alargado que pretendeu verificar de que forma a ansiedade de desempenho está presente no quotidiano do cantor lírico.

Objetivos: As alterações de vida diárias antes de um recital e quais as estratégias utilizadas no seu enfrentamento por parte deste grupo de profissionais.

Métodos: Resulta da administração de um questionário socioprofissional e de uma entrevista semiestruturada a um grupo de 8 cantores líricos com mais de 6 anos de prática, selecionados pelo método bola de neve.

O procedimento para aceder aos significados emergentes dos seus discursos foi a *Grounded Theory*, seguindo as rotinas de seleção de unidades de análise, criação de memorandos, e categorização em dois níveis (descritivo e conceptual).

Resultados: Centra-se na produção dos discursos referentes a três questões sobre a experiência da ansiedade de performance musical, rotinas diárias adotadas no período pré-recital e nas eventuais estratégias usadas para ultrapassar a sintomatologia ansiosa.

Conclusões: Os resultados manifestam o reconhecimento do impacto da performance, um convívio constante com a ansiedade e consequentes alterações das rotinas de vida diárias a nível pessoal e social, conduzindo à adoção de estratégias para o controle da ansiedade.

Palavras-chave: Cantores líricos; Ansiedade de desempenho Musical; Teoria sustentada nos dados

ABSTRACT

Introduction: This article describes and analyses the partial results of a broad qualitative study, whose goal was to explore how performance anxiety is presented in the everyday life of the lyrical singer.

Objectives: The daily life changes before a recital and what strategies are used in the their confrontation by this group of professionals.

Métodos: The results presented are centered in the production of discourse from three questions covering the experience of anxiety on musical performance, and the eventual strategies applied to overcome it. These data were gathered using a social-professional questionnaire and a semi-structured interview addressed to a group of 8 lyric singers with over 6 years of experience, sampled through the snowball method. Grounded Theory was the procedure chosen to access the emerging constructs in the participants' discourses, following the routines of analysis unit selection, memorandum generation and categorization on two levels (descriptive and conceptual).

Resultados: The method focuses on the production of the speeches concerning three question about the experience of musical performance anxiety, daily routines adopted in the pre-recital period and the eventual strategies used to overcome anxious symptomatology.

Conclusões: The collected results recognize the harmful impact of performance, a constant conviviality with the anxiety and consequent changes in daily life routines at personal and social level, leading to the adoption of strategies for anxiety control.

Keywords: Lyric Singers; Musical performance anxiety; Grounded Theory

RESUMEN

Introducción: El presente artículo describe y analiza los resultados parciales de un estudio cualitativo ampliado que pretendió comprobar de qué forma la ansiedad de rendimiento está presente en el cotidiano del cantante lírico.

Objetivos: Los cambios de vida diarios antes de un recital y cuáles las estrategias utilizadas en su enfrentamiento por parte de este grupo de profesionales.

Métodos: Los resultados aquí expuestos se centran en la producción de los discursos referentes a tres cuestiones sobre la experiencia de la ansiedad de performance musical, rutinas diarias adoptadas en el período previo al recital y en las eventuales estrategias usadas para superar la sintomatología ansiosa. Resulta de la administración de un cuestionario socio profesional y de una entrevista semiestructurada a un grupo de 8 cantantes líricos con más de 6 años de práctica, seleccionados por el método bola de nieve. El procedimiento para acceder a los significados emergentes de sus discursos fue la Grounded Theory, siguiendo las rutinas de selección de unidades de análisis, creación de memorandos, y categorización en dos niveles (descriptivo y conceptual).

Resultados: El método se centra en la producción sobre la experiencia de la ansiedad de performance musical, rutinas diarias en el período pre-recital y en las eventuales estrategias usadas para superar la sintomatología ansiosa.

Conclusiones: Los resultados demuestran el reconocimiento del impacto perjudicial de la performance, una convivencia constante con la ansiedad y consecuentes alteraciones de las rutinas de vida diarias a nivel personal y social, conduciendo a la adopción de estrategias para el control de la ansiedad.

Palabras Clave: Cantantes; Ansiedad de rendimiento musical; *Grounded Theory*

INTRODUÇÃO

A Ansiedade de Desempenho (AD) refere-se a um grupo de perturbações emocionais, que englobam um conjunto de reações psicológicas, fisiológicas e comportamentais perante a exposição a situações stressantes, fazendo-se sentir em vários domínios, desde a realização de exames ao falar em público (Kenny, 2006; Mendanha, 2014; Sloboda, 2008,). É frequentemente confundida com as noções de medo de enfrentar o palco (Wilson & Roland, 2002) e classificada a nível fenomenológico por fobia social (Kenny, 2011; Osborn & Franklim, 2010) representando para cada cantor lírico um desafio impactando nas suas tarefas diárias (Spahn et al, 2010). Segundo Brontons (1994, citado por Mendanha, 2014), a AD é composta por alterações fisiológicas, psicológicas e emocionais, cognitivas e comportamentais.

Dentro dos domínios da AD escolhemos o caso particular da AD associada ao canto lírico pois a carreira destes profissionais é repleta de audições, testes, provas, exames, concertos e recitais que implicam direta e indiretamente a avaliação e exposição ao público, para além do elevado rigor técnico e artístico de que se revestem de forma a cativar o mesmo (Mendanha, 2014). O medo de falhar em qualquer aspeto da funcionalidade individual é o principal fator da AD, caracterizando a sua existência em vários contextos, e no caso do canto, para além dos fatores internos, destacam-se a imprevisibilidade e incerteza do emprego, os horários desregulados de trabalho, a instabilidade financeira e até as alterações pessoais e sociais. A AD pode incidir em quaisquer faixas etárias, competências ou experiência técnicas e está presente em cantores amadores e profissionais, que cantam a solo ou em grupo (Kenny, 2005; 2011). Ainda que o leque de incidência da AD possa ser abrangente é necessário produzir investigação científica direcionada a outros contextos, estilos e vertentes musicais (Parncutt & Mcpherson, 2002). Deste modo, pretendeu-se com esta investigação verificar de que forma a ansiedade de desempenho está presente no quotidiano do cantor lírico, focando as alterações de vida diárias antes de um recital e quais as estratégias utilizadas no seu enfrentamento por parte deste grupo de profissionais.

1. REVISÃO DA LITERATURA

Ao debruçarmo-nos sobre um tema que conjuga a área da Música com a da Psicologia procuramos aceder aos significados que os cantores líricos atribuíam à ansiedade. Historicamente, e do ponto de vista de Harnoncourt, (1988, citado por Cerqueira, Zorzal & de Ávila, 2012), a aquisição de competências musicais era equiparada à relação de um mestre e aprendiz artesão – atividade tão característica do século XVIII. Seguindo o raciocínio do mesmo autor, o contacto, a construção da relação e imposição de características individuais ao objeto (entendido neste caso como o reportório), o despender do tempo e atenção aos mais pequenos detalhes, adquirem um papel fulcral para o seu sucesso, atingido através do envolvimento do artesão (músico), com a matéria-prima (reportório). Mais tarde o Modelo de Ensino e Aprendizagem da Performance Musical apresenta-se como uma nova e completa viragem no aprofundamento desta complexa área dado que envolve não só a etapa de aquisição e preparação musical, como também as implicações da apresentação pública (desempenho) (Cerqueira, Zorzal & de Ávila, 2012). Para além da introdução do conceito de performance este modelo tem uma dupla vertente, destinando-se quer a professores, quer a intérpretes, reconhecendo a necessidade de um estudo eficaz, consciente e planeado, assentando na anterior personificação da arte artesã (Cerqueira, Zorzal & de Ávila, 2012). No que concerne especificamente à área do canto, as investigações são escassas e focam essencialmente as competências físicas, como a postura corporal e a sua influência nas alterações vocais, demonstrando assim as necessidades evocadas anteriormente por Parncutt e Mcpherson (2002). Acresce-se assim a responsabilidade de uma construção atual de conhecimento focando o modo como a técnica vocal pode ser influenciada pela carga ansiosa inerente à performance do cantor.

2. MÉTODOS

O método qualitativo tem como principal objetivo aprofundar a compreensão da complexidade de fenómenos, factos e processos, permitindo desconstruir todos os micro processos sociais e impulsionando assim a sua investigação, (Fernandes da Silva, 2010; Victora, Knauth, & Hassen, 2000). Não se foca apenas no que é observável, mas também na atribuição de significados ao comportamento, já que o estudo da experiência humana deve ter em conta que o sujeito interage, interpreta e constrói sentidos (Fernandes da Silva, 2010; Guerra, 2014). Dentro do grupo das metodologias qualitativas destacamos a *Grounded Theory*, que gradualmente viu generalizados o seu método de análise e várias das suas estratégias chave, particularmente a codificação e o registo de memorandos, que se tornaram parte do léxico mais amplo de investigação qualitativa (Charmaz, 2011). A presente investigação sustenta-se nas características anteriormente apresentadas procedendo à recolha, registo, transcrição, organização, interpretação e construção hierarquizada da informação recolhida, acedendo assim, à complexidade e diversidade desta realidade, partindo dos discursos e tendo como objetivo os significados atribuídos pelos participantes.

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2.1   Participantes

Trata-se de uma amostra intencional, não probabilística, selecionada pelo método de bola de neve. Os elementos que integraram este estudo foram 8 cantores líricos profissionais, 6 do sexo feminino e 2 do sexo masculino, com idades compreendidas entre os 25 e os 49 anos. A maioria possuía mestrado na área do canto e todos tinham outra ocupação para além do canto lírico, ligada ao ensino desta mesma arte. Quanto aos naipes de vozes, a nossa amostra foi composta por 5 sopranos, 1 contralto, 1 tenor e 1 barítono, com prática profissional entre os 5 e os 28 anos.

2.2   Recolha de dados e procedimento

A recolha de dados decorreu em contexto *online*, com base em dois instrumentos que incidiram na caracterização sociodemográfica e profissional dos participantes (através de questionário), na exploração da vivência da AP e no seu impacto, bem como nas estratégias adotadas face ao seu surgimento. A recolha de dados acerca da temática em torno da AP foi feita através de uma entrevista estruturada com oito questões que versavam o percurso dos cantores líricos, a caracterização das suas rotinas, o impacto de ser cantor nas outras áreas de vida, rotinas de preparação de recitais, condições necessárias a um jovem cantor desenvolver. Devido à extensão dos resultados obtidos, o presente artigo centra-se apenas em três questões constituintes deste guião: *"Sabemos que a voz é a sua principal ferramenta de trabalho. Na sua opinião, de que maneira é que a ansiedade está presente na prática do canto lírico?"; "No seu caso, como lida com a ansiedade que pode estar presente na prática do canto lírico?"; "Como é a sua rotina quando tem ou se aproxima um espetáculo/recital? Sente que existem mudanças na mesma?".* No que concerne aos procedimentos, o contacto com o primeiro participante foi efetuado por *e-mail*, e posteriormente usou-se a aplicação *Messenger* que permitiu o registo automático do texto escrito para posterior transcrição da informação, sem erros de compreensão ou mal-entendidos. Foram assegurados todos os princípios éticos de confidencialidade, participação voluntária e direito à desistência sem quaisquer custos ou repercussões. No final da entrevista, era questionada a possibilidade de o participante sugerir um ou mais colegas ligados à mesma arte, respeitando desta forma os procedimentos da amostragem do tipo bola de neve, adotados na presente investigação. Os discursos transcritos no seu contexto literal a partir do Messenger foram analisados e daqui decorreu a seleção de unidades de análise no formato de frases. Sustentados no processo de depuração de categorias e posterior integração hierárquica elencamos os principais núcleos de significado emergentes do discurso do grupo quanto à AP, ao seu impacto e às estratégias adotadas por cantores líricos para o seu enfrentamento.

3.   RESULTADOS E DISCUSSÃO

Os resultados da análise dos conteúdos discursivos estão patentes nas três tabelas que integram esta discussão. Nelas se apresentam as unidades recolhidas (frases), as categorias de 2ª ordem que correspondem à primeira hierarquização, e as categorias de 1ª ordem ou centrais que resultam da agregação conceptual das anteriormente referidas.

A tabela 1 resulta dos conteúdos obtidos como resposta à questão 1. A ansiedade foi homogeneamente considerada como uma presença habitual na prática do canto lírico (Spahn, Walther & Nusseck, 2016). As duas categorias de 2ª ordem "perceção de ameaça" e "ligação ao perfecionismo" (Kenny, 2005, 2011) são dois dos mecanismos cognitivos subjacentes à génese da ansiedade que se agregam na categoria central "medo do insucesso", condição que Wilson e Roland (2002) nomeiam como preocupação com o fracasso, visível na resposta, por exemplo, da participante 3 (tabela 1). A constância da AP é assinalada nos vários momentos que compõem a performance lírica (audições, ensaios e concertos) três categorias de 2ª ordem que se conjugam para construir a categoria central relativa à vivência da ansiedade em todas as fases do processo, tal como referem Ray (2009) e Spahn e colaboradores (2016). Para esta presença contribuem, de acordo com os discursos analisados, múltiplas situações de fragilidade (categoria central ou de primeira ordem) que podem ser de cariz emocional, técnico e especificamente físico (Kenny, 2011; Ray, 2009), neste caso categorias de segunda ordem. Continuando na análise da categorização realizada a ansiedade é vista como negativa e como um limite vocal, físico e cognitivo, categoria central sustentada na perceção dos efeitos na voz, no corpo e na concentração (categorias de 2ª ordem) tal como referem Fehm e Schmidt (2006). Mas se os efeitos negativos da ansiedade transparecem em vários extratos dos discursos recolhidos também surge a consciência de que lidar com ela é um processo de aprendizagem que precisa de tempo, e de preparação (categoria de 1ª ordem), preparação esta que, na opinião de Cardassi (2000) deve ser organizacional, física e psicológica, e que associada ao tempo poderá espelhar os conteúdos das últimas duas categorias de 1ª ordem em que a ansiedade até pode ser positiva ou inexistente.

Tabela 1. Unidades de análise e categorias de 1ª e 2ª ordem obtidas na questão:
"Sabemos que a voz é a sua principal ferramenta de trabalho. Na sua opinião, de que maneira é que a ansiedade está presente na prática do canto lírico?"

Unidades de análise	Categorias de 2ª ordem	Categorias de 1ª ordem
"Presente ela está quase em todos" – S2	Está em quase todos	A ansiedade está presente em quase todos e é constante
"Acho que está muito presente" – S4	Muito ou sempre presente	
"Está sempre" – S3		
"Está em tudo o que põe em causa a responsabilidade" – S1	Está associada à perceção de ameaça	Está associada ao medo do insucesso
"Está em tudo o que põe em causa a nossa performance" – S1		
"Espero sempre que as coisas corram como previsto" – S3	Está ligada ao perfeccionismo	
"Queremos sempre fazer de forma espetacular" – S4		
"(Queremos sempre) impressionar toda a gente" – S4		
"Sou também perfeccionista" – S3		
"Acreditamos que esse trabalho é que poderá abrir portas para outro ainda melhor" – S2		
"As audições, então, são horríveis" – S4	Nas audições	Está presente em todas as fases do processo (desde a seleção à apresentação final)
"(As audições) são angustiantes" – S4		
"(Está) no primeiro ensaio com um maestro" – S1	Nos ensaios	
"Antes de ensaiar, há ansiedade de estar bem preparada" – S8		
("Antes de um ensaio, existe ansiedade) de conhecer os parceiros de trabalho que mudam constantemente" – S8		
"Está nos concertos" – S1	Nos concertos	
"(Antes das apresentações) quando sinto que não estou bem de saúde" – S8		
"Só sinto nervos quando tenho de enfrentar o público sozinha" – S2	Em situações de fragilidade emocional	Surge em múltiplas situações de fragilidade
"Só sinto nervos em situação de recital a solo" – S2		
"(Quando) estamos numa fase emocionalmente debilitada" – S6		
"A saúde vocal também pode trazer alguma ansiedade" – S8	Em situações de fragilidade de saúde física	
"(A ansiedade para) não ficar doente é terrível" – S8		
"(Quando) estamos numa fase (..) fisicamente debilitada" – S6		
"(Quando estamos a viver uma fase de insegurança) por questões (…) de saúde – S6		
"(Quando) a obra tem passagens que nos põem "em sentido" – S6	Em situações de fragilidade	
"Quando não me preparei como devia" – S8		
"A ansiedade pode afectar de forma muito negativa a prática do canto lírico – S1	Efeito negativo (sem especificação)	Impacto negativo sem detalhe
"Sofrer de ansiedade só vai piorar a minha performance" – S2		
"Percebi que isso só me prejudicava" – S3		
"Precisamos do oposto para produzir tons bonitos e saudáveis" – S5	Tem efeitos negativos na voz	É um limite vocal, físico e cognitivo
"(A ansiedade) tira-nos a voz" – S7		
"(Negativamente) porque cria tensão muscular" – S5	Tem efeitos negativos porque limita o corpo	
"(A ansiedade) tira-nos o sono" – S7		
"(A ansiedade) tira-nos a força" – S7		
"Faz com que o nosso foco deixe de estar na música" – S7	Negativo por interferir na concentração	
"(Faz com que o foco) passe a estar nos nossos medos" – S7		
Dependendo como o cantor lida com ela" – S2	É uma situação com que se aprende a lidar	Lidar com a ansiedade é um processo de aprendizagem contínua
"Há momentos que não estamos tão bem e temos de saber lidar com isso" – S3		
"Ainda estou a aprender a lidar com o stress e ansiedade" – S3		
"Com o meu amadurecimento a nível pessoal e vocal sinto que os níveis de ansiedade baixaram bastante" – S4	Diminui com a preparação e com a maturidade	
"Quanto mais segura estou do meu trabalho (a preparação em casa), menos ansiosa" – S4		
"Aprendi a usar a ansiedade de forma positiva no canto" – S2	Pode ser positiva sem especificação	Pode ser positiva sem especificação
"Ensaios não me deixam nervosa de todo" – S2	Não fica nervosa/o	A ansiedade nem sempre está presente
"Nem coro, nem novo reportório (me deixam nervosa) – S2		
"Nos ensaios por norma não sinto tanto" – S3	Não fica tão nervosa/o	
"Antes das apresentações menos (ansiedade)" – S8		
"Posso esconder atrás de uma personagem" – S2		

Na categorização resultante da hierarquização de significados obtidos através da questão 2 o conceito de preparação surge como nuclear (Mendanha 2014), sem detalhe (primeira categoria central), ou associado especificamente à preparação vocal e física, também categoria de 1ª ordem. Vários autores (Greene, 2002; Kenny, 2011; Ray, 2009) sublinham a importância da preparação física, e a este respeito, Cardassi (2000) sugere a prática de desporto e de exercícios aeróbicos, e refere concretamente os alongamentos que surgem explicitamente no discurso do participante 2. As estratégias de controle de ansiedade que emergiram do discurso constituem a terceira categoria de 1ª ordem, e sustentam-se em práticas como as do

controle da respiração, abstração da situação e compreensão da própria experiência ansiosa – categorias de 2ª ordem. No presente caso sobressai o controle respiratório, e não encontramos qualquer referência ao uso de técnicas de relaxamento por parte dos elementos da amostra. A quarta unidade central, que denominamos como "estratégias de desvalorização da ansiedade, valorizando a performance" congregou 5 categorias de 2ª ordem, que em nossa opinião assumem algum distanciamento da experiência ansiosa recorrendo a alternativas de maior abstração: concentração/focalização; procura de significado emocional; normalização da experiência ansiosa (esvaziando-a de significado e banalizando-a); valorização do prazer a cantar; efeito tranquilizante do canto. Estas dimensões de confronto com a ansiedade mais elaboradas (Brontons, 1994; Cardassi, 2000; Osborn & Franklim, 2010; Wilson & Roland, 2002) têm uma componente cognitiva e emocional que os advogados do ramo da Psicologia da Música defendem merecer aprofundamento (Kenny, 2011). Finalmente recorrer aos outros para obter ajuda para lidar com a AP (categoria de 1ª ordem), nomeadamente a colegas é outro núcleo de significado, mas com menor peso (pelo número de sujeitos e de referências). Integrando as referências teóricas com os nossos resultados é compreensível que o músico, neste caso o cantor lírico, construa a presença dos outros como fontes de eventuais críticas (Kenny, 2011). O perfeccionismo e a necessidade de ter sucesso (Kenny, 2006, 2011; Kenny, Davis & Oates, 2004; Wilson & Roland, 2002), tornam o momento de performance uma possível ameaça, e consequentemente, a resposta ansiosa surge como competência de autoproteção. Desta forma, a AP musical é uma resposta provável de luta ou fuga, com um registo de excitação fisiológica que pode atingir o pânico (Kenny, 2006, 2011; Wilson & Roland, 2002). Ray (2005) elencou um conjunto de elementos que se conjugam na AP e que envolvem aspetos técnicos anatomofisiológicos, psicológicos e neurológicos o que nos permite refletir sobre as estratégias para lidar com a vivência ansiosa deste grupo de cantores líricos. Dos seus discursos não emergem técnicas comuns como o relaxamento mas em contrapartida encontramos busca de prazer na performance, referência à necessidade de boas condições físicas, com destaque para os alongamentos, detetar dificuldades técnicas mal solucionadas, estabelecer comunicação entre colegas, projeção emocional na atuação, focalização e concentração, e controle respiratório (Kenny, 2006; Ray, 2005, 2009; Wilson & Roland, 2002).

Tabela 2. Unidades de análise e categorias de 1ª e 2ª ordem obtidas na questão 2:
"No seu caso, como lida com a ansiedade que pode estar presente na prática do canto lírico?"

Unidades de análise	Categorias de 2ª ordem	Categorias de 1ª ordem
"Preparar-me bem" – S1 "A melhor estratégia é a preparação" – S4 "A certeza de que nos preparamos bem é o melhor elixir" – S4	Prepara-se sem especificação	Prepara-se sem especificação
"Com a melhor preparação vocal e musical" – S7 "Fazer um bom aquecimento" – S1 "Faço um trabalho o mais rigoroso possível nos ensaios" – S5	Preparação vocal	Preparação vocal e física
"Faço sempre um aquecimento físico antes de cantar" – S4 "(Tento) fazer alongamentos" – S2	Preparação física	
"Tenho de respirar fundo" – S1; S3 "Tento sempre baixar a respiração" – S2	Controle da respiração	
"Tento esquecer que estão ali pessoas" – S2 "(Tento) esquecer o facto de estar a ser avaliada" – S5	Esquecimento/abstração da situação	
"Reunir o máximo possível de informações sobre o motivo dessa ansiedade" – S7 "Normalmente é a insegurança" – S7 "Ter paciência" – S7 "Resolvi mentalizar-me do contrário" – S3	Compreensão da ansiedade	Estratégias de controle da ansiedade
"(Tento) concentrar me na música" – S2 "(Tento concentrar-me) nas palavras que estou a dizer" – S2 "O modo de lidar, hoje em dia, é o de pensar o mais possível no lado positivo do todo" – S6	Focalização e concentração	
"Procuro utilizar (...) o método do Lee Strassberg (que procura emoções nas nossas experiências pessoais)" – S2 "Procuro sempre uma "personagem""- S2 "(Tento) pensar no sentido das palavras antes de entrar" – S2	Procura de significado emocional	
"A melhor maneira de viver o dia de récita é vivê-lo com o bio-ritmo o mais próximo possível do habitual" – S6 "Acho que comecei a aprender a ver o "ser cantora" como uma profissão" – S8 "Muito importante é não dar mais importância ao meu trabalho de que aquela que realmente tem" – S4 "Agir em conformidade com o que está ao nosso alcance" – S7	"Normalização" da experiência	Estratégias de desvalorização da ansiedade valorizando a performance
"Valorizar o lado do prazer do que fazemos" – S1 "Se cantar é um prazer então não preciso de ficar ansiosa" – S3 "(Preciso) de desfrutar dos momentos que tenho oportunidade de o fazer" – S3 "Digo para mim mesma "Vai fazer o que tanto gostas e aproveita porque passa a correr!"" – S3	Valorização do prazer obtido a cantar	

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Unidades de análise	Categorias de 2ª ordem	Categorias de 1ª ordem
"Quanto mais tempo estou em palco, mais confiança vou ganhando" – S2 "Assim que começo a cantar, por alguma razão eles (nervos) desaparecem" – S3	Cantar tem efeito tranquilizante	
"Recorri a uma gestora de stress" – S3 "Já pensei em recorrer a um psicólogo ou *coach*" – S4	Considerar ajuda profissional	
"Falei sempre dos meus sentimentos com outros artistas" – S4 "Procurei encontrar com eles estratégias para superar esta situação" – S7	Recorrer a colegas	Recorrer a ajuda de outrem

A hierarquização categorial dos discursos emergentes nas respostas à questão 3 revela o impacto que a preparação de uma performance traz ao profissional de canto lírico, e a mudança que implica (categoria central ou de 1ª ordem). Todo o processo exige um investimento pessoal e social (categorias de 2ª ordem). Nesta linha de pensamento, os cantores relatam uma menor predisposição para o relacionamento com terceiros, tendendo a recorrer ao isolamento social, preferindo ambientes mais calmos. Parece assim consensual que os profissionais do canto criem rituais com o intuito de alcançar conforto (Salmon, 1992, citado por Cardassi, 2000). Como já referido, o investimento acrescido não ocorre apenas nas semanas que precedem o espetáculo. De acordo com Cardassi (2000), o profissional é obrigado a dedicar-se nas fases pré, durante e pós recital, o que implica uma entrega, preocupação e resiliência constantes durante um longo período de tempo, mas quando se centram no tempo que antecede uma performance verificamos nos discursos dos participantes a existência de comportamentos a evitar antes do espetáculo (categoria de 1ª ordem). Dentro destes salientam-se os esforços para não contrair doenças, nomeadamente no inverno (categoria de 2ª ordem). Os profissionais veem-se obrigados não só a ter uma atenção redobrada com o frio como também evitam cumprimentos pessoais, assim, a passagem e contração de vírus de terceiros é menos propensa. Do mesmo modo, com o intuito de proteger a voz e não danificar as cordas vocais, os cantores líricos optam por falar pouco, não rir demasiado e tendem até a transpor práticas específicas para a sua vida profissional, em concreto, recorrer a provas teóricas. Os treinos a nível físico tornam-se também mais moderados (categoria de 2ª ordem) o que segundo Cardassi (2000) é uma mais-valia, contribuindo para a postura corporal e boa forma física, imprescindível à boa sonoridade vocal. Para além dos comportamentos a evitar antes do espetáculo existem sobretudo comportamentos a adotar no período prévio à performance (categoria central), nomeadamente um maior descanso físico e vocal, e a adoção de comportamentos de maior relaxamento (categorias de 2ª ordem). Encontramos referências à importância do aquecimento vocal e dos ensaios mentais incessantes. Tais discursos vão ao encontro aos princípios estudados por Cerqueira, Zorzal e Augusto de Ávila (2012) que confirmam a importância da consciência e memória na performance para que não exista uma fragilidade ou falha no armazenamento da informação, fulcral na memorização sólida de todos os componentes inerentes ao recital. Assim, par das estratégias comportamentais evocadas surgem as cognitivas (categoria de 1ª ordem) que se destinam a influenciar o seu estado emocional ou afetivo, impactando diretamente no modo como os profissionais selecionam, organizam, integram e ensaiam novos conhecimentos e habilidades (Weistein & Mayer, 2004 citado por Sinico & Winter, 2012).

Tabela 3. Unidades de análise e categorias de 1ª e 2ª ordem obtidas na questão *3:*
"Como é a sua rotina quando tem ou se aproxima um espetáculo/recital? Sente que existem mudanças na mesma?"

Unidades de análise	Categorias de 2ª ordem	Categorias de 1ª ordem
"Existem sim" – S1 "Existem mudanças" – S3 "sim, existem mudanças" – S8	Existem mudanças nas rotinas	
"Fico menos disponível para os outros" – S1 "Nomeadamente na vida social" – S3 "Tenho menos disponibilidade para estar com os amigos" – S4 "Reduzo na agenda social" – S7 "Desaparecer do mundo" – S7	Mudanças a nível social	A mudança causa impacto a nível social e pessoal
"A nossa rotina sofre alteração" – S4 "(Faz com que) o tempo para nós seja mais limitado" – S4 "Resumo-me a coisas mais caseiras" – S3 "(Resumo-me) a ambientes mais calmos" – S3	Mudanças a nível pessoal	

Unidades de análise	Categorias de 2ª ordem	Categorias de 1ª ordem
"Tenho imenso cuidado para não me constipar" – S1 "Tento proteger-me de doenças" – S7 "(Evito) apanhar frio" – S3 "Evitar correntes de ar" – S6´ "(No inverno) evito muitos cumprimentos de toda a gente" – S1	Cuidados para evitar doenças	Comportamentos a evitar antes do espetáculo
"(Para começar) ginásio mais moderado" – S2 "(Evito) esforços físicos" – S2	Cuidados para evitar esforços	
"Tendo a falar pouco" – S2 "Pus os meus alunos a fazer testes para não falar" – S2 "Tento não falar tão alto" – S8 "(evito) rir" – S3	Cuidados para não forçar a voz	
"(Sempre que posso) procuro dormir uma sesta" – S2 "Descanso mais" – S8 (Tento proteger-me) de cansaço extra" – S7	Maior descanso	Comportamentos a adotar antes do espetáculo
"Fazer um aquecimento ligeiro a meio do dia" – S6 "Rever o reportório" – S6 "Passo o dia a cantar na minha cabeça, incessantemente, a peça que vou apresentar" – S5	Maior dedicação ao ensaio e aquecimento vocal	
"Costumo também ir ao spa" – S2 "(Faço também) circuito termal" – S2	Momentos de relaxamento	
"Tenho constantes pensamentos de cuidado e precaução" – S1 "Pensar em algo inspirador mesmo antes de entrar em palco" – S6 "Concentração total" – S7	Os pensamentos influenciam	Pensamentos a adotar antes do espetáculo
"Evito preocupações" – S2 "(Tento proteger-me) de preocupações suplementares" – S7	Evitar preocupações	Evitar preocupações
"Não necessito de mudar grande coisa" – S5 "(Tento) que a minha profissão não desequilibre a harmonia familiar" – S4	Tentar manter o equilíbrio	Tentar manter o equilíbrio

Para a nossa amostra as estratégias de controlo do pensamento conduzem à concentração e aos pensamentos positivos antes de entrar em palco, evitando que as preocupações do quotidiano se sobreponham assim ao recital.

CONCLUSÕES

Dar voz a cantores líricos sobre a AP musical via *online* constituiu um fator facilitador do acesso aos participantes e revelou-se uma ferramenta importante na gestão do tempo facilitando um contacto com menor reflexo nas rotinas comuns aos cantores líricos. Como principal linha de reflexão verificamos que ansiedade surge como uma entidade conhecida, recorrente, com fatores variados na sua génese e expressões multifacetadas mas essencialmente pautada pela necessidade de ser evitada. Sendo uma experiência predominantemente negativa pelo risco que implica, o escape do impacto que pode ter na performance é traduzido em mudanças pessoais e sociais, conduzindo consequentemente à adoção de múltiplos comportamentos de segurança e à descoberta de estratégias para que possam lidar com ela e integrá-la nas suas performances. A prática do canto lírico agrega também corpo e identidade (Kenny, 2011), pois, tal como refere Charmaz (2011, p.177), "*Voice is a metaphor for self. Voice unifies body and self. Voice conveys self and expresses its passions*", adequando-se singularmente a uma aproximação qualitativa. Nas vozes registadas *online* divisa-se uma relação entre performance e ansiedade que o tempo e a preparação vão equilibrando, mas onde a ameaça que o insucesso pode constituir não deixa de estar presente, como ameaça ao estar em palco, e ao ser cantor lírico. Com o presente estudo pudemos "ouvir" o peso que a AP tem na forma como os participantes vivem a sua profissão e a sua arte, e acedemos a uma partilha de significados privada e personalizada, plena de nuances que não se vislumbram nas performances exuberantes, perfeccionistas, sentidas e apaixonadas dos cantores líricos, quando temos de partilhar as suas vozes com o resto do mundo.

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COMPETÊNCIAS LINGUÍSTICAS REQUERIDAS PELOS EMPREGADORES PORTUGUESES NOS ÚLTIMOS 40 ANOS: O CASO DOS PROFISSIONAIS DE SECRETARIADO

LINGUISTIC SKILLS REQUIRED BY PORTUGUESE EMPLOYERS IN THE PAST 40 YEARS: THE CASE OF OFFICE MANAGEMENT PROFESSIONALS

COMPETENCIAS LINGÜÍSTICAS REQUERIDAS POR LOS EMPLEADORES PORTUGUESES EN LOS ÚLTIMOS 40 AÑOS: EL CASO DE LOS PROFESIONALES DE SECRETARIADO

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80

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RESUMO

Introdução: Com a internacionalização e a globalização, as competências em línguas são cada vez mais úteis no mercado laboral, sobretudo em funções com relações com outros mercados, como é o caso do secretariado/apoio à gestão.

Objetivos: Identificar e analisar as competências linguísticas solicitadas em anúncios de emprego para profissionais de secretariado/apoio à gestão.

Métodos: Estudo de 844 anúncios de emprego, para secretariado/apoio à gestão, publicados no *Jornal Expresso* (1978-2018), em março. Analisaram-se os eventuais requisitos relativos a competências linguísticas presentes em cada anúncio. Estudaram-se os dados globalmente e em termos de evolução temporal.

Resultados: 78,8% dos anúncios analisados têm requisitos de línguas, dominando aqueles em que se pedem duas línguas. As línguas estrangeiras mais requeridas são o Inglês e o Francês. Em 67,2% das referências há menção explícita à oralidade/escrita. Há grande diversidade de formulações referentes ao nível de proficiência procurado, prevalecendo os pedidos de "Domínio" para o Inglês, Francês e Alemão e de "Conhecimentos/conhecimentos satisfatórios" para o Espanhol.

Conclusões: As competências linguísticas são fundamentais para os profissionais de secretariado/apoio à gestão. Estes devem ter bons conhecimentos na língua materna e em pelo menos duas línguas estrangeiras, nas quais devem revelar bons níveis de proficiência.

Palavras-chave: Línguas; anúncios de emprego; competências; secretariado/apoio à gestão

ABSTRACT

Introduction: With internationalisation and globalisation, language skills are increasingly useful in today's labour market, especially in functions that require contacts with other markets, such as secretarial/management support positions.

Objectives: Identify and analyse the language skills required in job advertisements for secretarial/office management professionals.

Methods: Study of 844 job advertisements for secretarial/office management positions, published in the newspaper *Jornal Expresso* (1978-2018), in March. Possible requirements for language skills used in each advertisement were examined. The collected data were studied globally and in terms of temporal evolution.

Results: 78.8% of the analysed advertisements have language requirements, predominating those in which two languages are requested. The most requested foreign languages are English and French. In 67.2% of the references, there is an explicit mention of oral/written competencies. There is a great diversity of formulations referring to the level of proficiency sought, prevailing the requests for "mastery" in the cases of English, French and German, and "knowledge/satisfactory knowledge" for Spanish.

Conclusions: Language skills are essential for secretarial/office management professionals. They must have a good knowledge of their mother tongue, as well as of at least two foreign languages in which they must demonstrate good levels of proficiency.

Keywords: Languages; job advertisements; skills; secretarial/office management positions

RESUMEN

Introducción: Con la internacionalización y la globalización, las competencias en lenguas son cada vez más útiles en el mercado laboral, sobre todo en funciones que implican contacto con otros mercados, como es el caso del secretariado/apoyo a la gestión.

Objetivos: Identificar y analizar las competencias lingüísticas solicitadas en anuncios de empleo para profesionales de secretariado/apoyo a la gestión.

Métodos: Estudio de 844 anuncios de empleo para secretariado/ apoyo a la gestión, publicados en el periódico *Jornal Expresso* (1978-2018), en marzo. Se analizaron los posibles requisitos relativos a las competencias lingüísticas utilizadas en cada anuncio. Se estudiaron los datos globalmente y en términos de evolución temporal.

Resultados: 78.8% de los anuncios analizados tienen requisitos de idiomas, dominando aquellos en que se solicitan dos lenguas. Las lenguas extranjeras más requeridas son el inglés y el francés. En el 67.2% de las referencias hay mención explícita a la oralidad/escritura. Hay una gran diversidad de formulaciones referentes al nivel de competencia buscado, prevaleciendo las solicitudes de "dominio" para el inglés, francés y alemán y de "conocimientos/conocimientos satisfactorios" para el español.

Conclusiones: Las competencias lingüísticas son fundamentales para los profesionales de secretariado y apoyo a la gestión. Estos deben tener buenos conocimientos en la lengua materna y, por lo menos, en dos lenguas extranjeras, en las que deben revelar buenos niveles de competencia.

Palabras clave: Lenguas; anuncios de empleo; competencias; secretariado/apoyo a la gestión

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INTRODUCTION

Over the last four and a half decades, there have been profound social changes in Portugal, with repercussions in practically all areas of activity and in all geographies. The transition to the democratic regime, in 1974, and the subsequent opening process were accompanied by significant changes, namely the access to education and a recharacterisation of the labour market. These developments include, on the one hand, higher enrolment rates and a universally accepted access to education and, on the other hand, the greater presence of women in the active productive structures, the growing outsourcing, computerisation and the ever-growing internationalisation of the Portuguese economy (Barreto, 2015). Joining the former European Economic Community (EEC) in 1986 was a crucial moment in the shift of the Portuguese society, with repercussions not only in the political and economic spheres but also at social and cultural levels (Rosa & Chitas, 2013).

Built on a mosaic of cultures, which ought to be maintained and protected, the European Union (EU) has developed policies that foster multilingualism with the aim of empowering citizens at the civic, cultural, political and professional levels, so as to ensure not only the European project but also to secure the increasing success of its economy. In this context, and with continuously more global and interdependent markets, in Portugal as well as throughout the EU, employers value these language skills more and more, favouring the hiring of multilingual individuals, capable of ensuring contacts with other markets.

Secretarial/office management professionals play a key role in the relationship established with the different organisational stakeholders, regardless of their geography, and language skills are therefore very often associated with their typical profile (Rankin & Shumack, 2017). To facilitate the training of future professionals in these areas, it is important to understand effectively what, in terms of language skills, Portuguese employers expect of these individuals.

With this premise in mind, and in order to have a more detailed notion – anchored in the Portuguese labour market – of the responsibilities of secretarial/office management professionals and the skillset required of them, a project was initiated in 2015 at the Higher School of Technology and Management of Águeda, University of Aveiro, with the aim of characterising the profile of the secretarial/office management professionals. The first results indicate that these professionals must have technical and transversal skills that allow them to perform a multiplicity of tasks, especially when it comes to interacting with foreign markets (Calvão, Simões, & Dimas, 2016; Ribeiro, Calvão, & Simões, 2018).

Due to these factors, and because, as mentioned before, our country has changed substantially over the course of the last decades, the present paper aims to analyse the evolution of the language requirements present in the job advertisements for secretarial/office management professionals published over the last 41 years. More specifically, with the goal of tracking how requirements in terms of language skills in seven professions (administrative assistant, correspondent, typist, clerk, secretary, executive secretary) evolved, the research group analysed secretarial/administrative-related job advertisements published in the weekly newspaper *Jornal Expresso*, each March, from 1978 to 2018. The main objective was to assess (i) the number of languages requested in each advertisement and (ii) which languages are most commonly requested, checking whether (iii) employers indicate these competences as mandatory or preferential requirements and if (iv) they give preference to oral or written skills and, finally, (v) to characterise how employers state their requirements, in particular as regards to the levels of proficiency.

1. FOREIGN LANGUAGES IN PROFESSIONAL PRACTICE: FROM INTERNATIONAL POLICIES TO THE NEEDS OF SECRETARIAL PROFESSIONALS

Since the mid-sixties of the twentieth century, several scholars have focused on the relationship between languages and the economy. Regardless of the nature and scope of these studies, it has been confirmed that the command of foreign languages has advantages not only for individuals who have these competences, but also for companies and for the countries where they operate. Languages are therefore perceived as human capital, as a vehicle for the transmission of values and as an asset with geostrategic value (Reto *et al*, 2012).

Language skills are not only associated with the level of remuneration, they are also a factor that represents an easier access to employment, reduces possible periods of unemployment and decreases individuals' chances of being discharged from a job. Language skills are, thus, for various authors, understood as a profitable investment both for individuals as well as for companies (Dubois, LeBlanc & Beaudin, 2006).

Studies carried out in Europe in recent decades, e.g. the ELAN study – *Effects on the European Economy of Shortages of Foreign Language Skills in Enterprise,* published in 2006 (Hagen *et al.*, 2006), confirmed precisely that language barriers lead to business loss and that weaknesses in language skills may not only be detrimental to individuals, since they act as a barrier to their entry into the labour market, but also for companies, especially when they seek to sell their products/services in the global market.

Aware of the importance of languages, the EU has a clear advocacy of multilingualism, emphasising the importance of linguistic diversity promotion and the consolidation of citizens' language skills, since they facilitate the success of EU Member States' economy (European Commission, 2012; Council of the European Union, 2014).

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In fact, almost two decades ago the EU has put together two important tools for enhancing citizens' language skills: The Common European Framework of Reference for Language (CEFRL) and the European Passport, launched in 2001. The CEFRL, which has been widely adopted by many EU Member States, has contributed to enhancing citizens' ability to master foreign languages (Broek & van den Ende, 2013).

In Portugal, according to data gathered by the Portuguese Statistics Institute (INE – Instituto Nacional de Estatística), the trajectory associated with foreign language skills seems to corroborate the effectiveness of EU's language policies implementation (Oliveira, Pacheco, Neves & Lima, 2017). Actually, according to the same source, significant progress has been made between 2007 and 2016, with an increase of 52% to 71.8% of adults (18-64 years old) stating they speak at least one foreign language.

In Portugal, language skills are increasingly valued by citizens and employers. For instance, in a study by Vieira and Marques (2014), they are among the 10 most valued competences (27.6% of the employers surveyed in this study value these skills, which are ranked 8th in a list of 21 skills).

With the aim of characterising the profile of secretarial professionals, recent studies highlight linguistic command as one of the most imperative challenges for these workers, especially as a result of globalisation and the subsequent need for international contacts (Tuorinsuo-Byman, 2008; Zarrága, Araluce, & Erviti, 2015).

Considering that office administration-related professions have undergone a clear evolution over the last decades, including the adoption of different designations (Borges, 2015; Moura, 2008), and taking into account all the political, economic and socio-cultural changes that occurred in the Portuguese society since the advent of democracy, particularly as a result of the integration in the EU and greater openness to foreign countries, it is important to understand whether, from the perspective of employers, the requirements associated with language mastery by secretarial/office management professionals have been perceived or not as a relevant.

2. METHODS

This work is anchored in the analysis of 844 job advertisements published in Portugal, in the weekly newspaper *Jornal Expresso*, between 1978 and 2018. The research group chose this media in particular, on the one hand, because its origin is very close, in temporal terms, to the beginning of the Portuguese democracy – allowing thus an overview of the country's evolution during the last four and a half decades; on the other hand, according to the *Yearbook of Communication 2014-2015* (Cardoso, Mendonça, & Paisana, 2016), this publication is the weekly newspaper with the largest market share in the country. Because it was only in 1978 that a specific job advertisements section was created, data collection for this work begins precisely in that year. For each year, the advertisements published in March were considered, since this is a period with important recruitment rates (Smith, 2013; Pôle-Emploi, 2018).

Job advertisements for seven secretarial/office management-related professions were collected: Administrative Assistant, Correspondent, Typist, Clerk, Receptionist, Secretary and Executive Secretary. Each job offer was analysed individually, always looking for possible requirements for language skills.

2.1 Sample

The sample consists of 844 job advertisements for secretarial/office management professionals published in March, in the years under review. Significant differences in the volume of job vacancies for this specific field have occurred, with less than 10 advertisements having been collected in 1978, 1995 and the years 2009 to 2018, and then other moments where there has been a significant number of advertisements. The most fruitful years were 2001 (74 offers), 1989 (52 offers) and 1991 and 2000 (43 offers) (see Graph 1).

Graph 1– Number of job advertisements analysed per year between 1978 and 2018
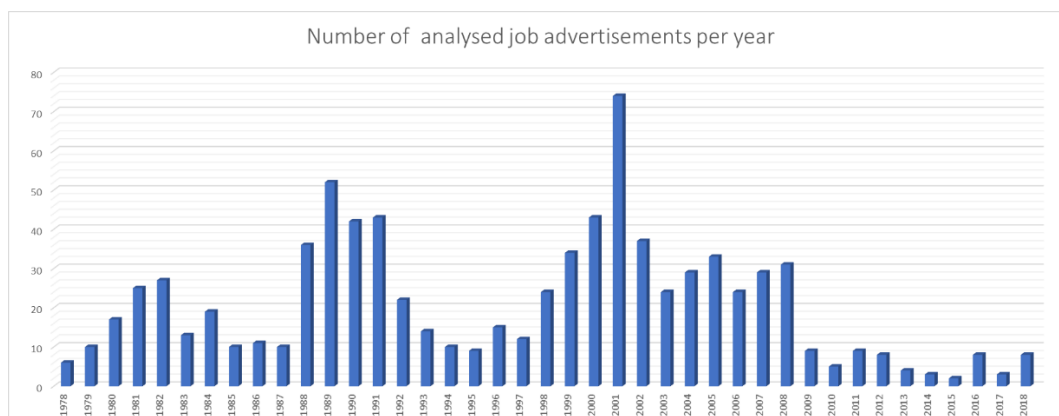
Because the research group only considered the advertisements published in the printed version of *Jornal Expresso*, excluding thus the many ads that were published on the online platform www.ExpressoEmprego.pt, in this study the years 2009-2018 present data that are less representative of the reality.

As mentioned before, these advertisements bring together job offers for seven distinct professions: Administrative Assistant, Correspondent, Typist, Clerk, Receptionist, Secretary and Executive Secretary. An "Other" class has also been created, with advertisements for professions which, although within the scope of secretarial/office management tasks and responsibilities, do not coincide with those categories mentioned above (e.g. "Second Class Technician", which is one of the formal job titles adopted by the Portuguese Public Administration to classify workers with clerking functions and responsibilities).

The most frequent vacancies are for "Secretary" (40.9%), followed by "Executive Secretary" (28.3%) and "Administrative Assistant" (16.9%), as shown in Graph 2.

Graph 2 – Percentage of advertisements analysed by profession
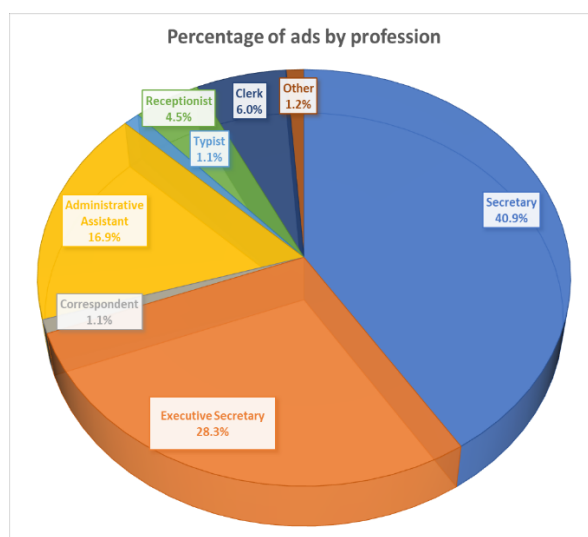
2.2 Procedures

The treatment of data focused on two distinct aspects: on the global analysis of requirements and on their temporal evolution. For each job advertisement, the research team gathered in tables the number of requests for language skills, the languages required, the (possible) distinction between oral and writing skills, the compulsory or preferential nature of these requests, as well as the formulations used to mention the levels of proficiency sought. Subsequently, and given the diversity of these formulations, it was decided to standardise them through the use of codes, as illustrated in Table 1.

Table 1 – Coding of formulations used by employers for proficiency levels

Used code	Found formulations
C1	Knowledge, satisfactory knowledge
C2	Good, solid, strong knowledge
C3	Very good, profound, great knowledge
C4	Perfect mastery; exceptional knowledge
D1	Command, good command
D2	Perfect, complete, secure mastery…
F1	Fluence in / fluent in…
F2	Absolute / total mastery
B	Bilingual
Concatenation of two codes. E.g. FD2	Fluent and perfect mastery in…
R1	Writing skills, good writing skills, ability to write
R2	Good ability to write; very good writing skills; Perfect…
1	Mention to a given language, without further information

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As the number of job advertisements was not constant throughout the analysed period, relative frequencies are used to explain the obtained results.

3. PRESENTATION AND DISCUSSION OF THE RESULTS

In the analysis of the collected job offers, several variables were considered in order to understand the main trends regarding the linguistic requirements included in them. In the next sections, in which the results are presented, the aim is to characterise the required language skills for these professionals and analyse, whenever possible, their evolution over the period under consideration.

3.1 Number of languages requested in each job advertisement

In 665 (78.8%) of the 844 examined ads, there are language requirements, and as a single advertisement may include more than one request, a total of 1171 references to language skills have been identified.

In the 844 analysed ads, almost half (45.9%) requests skills in two or more languages. There are 282 ads (33.4%) with requirements in two languages and 278 (32.9%) in which competences in a single language are required. There are 91 advertisements (10.8%) that request three languages. A residual number of ads (1.7%) presents requirements for four different languages.

The advertisements for "Secretary" and "Executive Secretary" are those in which two languages are requested more frequently (35.9% and 43.5%, respectively). The percentage of ads for "Secretary" where knowledge in a single language is required is quite similar (35.7%); in the case of Executive Secretaries, the percentage of advertisements that require only one language is much smaller (28.9%). In the advertisements for these two professions there are also requests for competences in three ("Secretary": 11.0%, "Executive Secretary": 14.2%) and in four languages ("Secretary"): 1.7%, "Executive Secretary": 2.5%).

For "Administrative Assistant", "Typist" and "Clerk", the offers in which there are no requirements of language skills prevail. In the advertisements for "Receptionists", there is a predominance of ads that request skills in one language. The position of "Correspondent", which only presents offers in the first few years of this study, stands out because it is mostly associated with advertisements in which three languages are requested (66.7%) and because there are no ads with requests in less than two languages. Table 2 shows this information.

Table 2 – Number of languages required in each job advertisement, by profession, in percentage

| Position / Number of requested languages	0	1	2	3	4
Secretary	15.7%	35.7%	35.9%	11.0%	1.7%
Executive Secretary	10.9%	28.9%	43.5%	14.2%	2.5%
Correspondent	0.0%	0.0%	33.3%	66.7%	0.0%
Administrative Assistant	40.6%	34.3%	18.2%	7.0%	0.0%
Typist	44.4%	22.2%	22.2%	11.1%	0.0%
Receptionist	28.9%	47.4%	23.7%	0.0%	0.0%
Clerk	47.1%	33.3%	19.6%	0.0%	0.0%

The requirements for language skills remain fairly stable throughout the period under review, with the exception of 2003, 2012 and 2014. In 27 of the 41 analysed years, language skills are sought in more than 80% of the offers (Chart 3).

Graph 3 – Percentage of advertisements requiring language proficiency over the reporting period

Percentage of ads with language requirements per year

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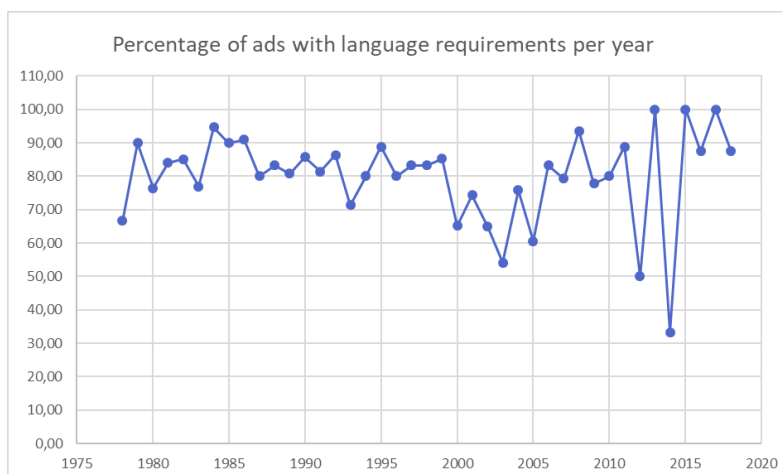
In 21 of the analysed years, there are 50% or more job advertisements requesting skills in two or more languages. In two years (1994 and 2011), the percentage of ads requesting three languages is the highest (60.0% and 44.4%, respectively). In Graph 4, the job offers analysed are organised by year, according to the number of languages requested.

Graph 4 – Time evolution of the number of languages required in each advertisement, in percentage
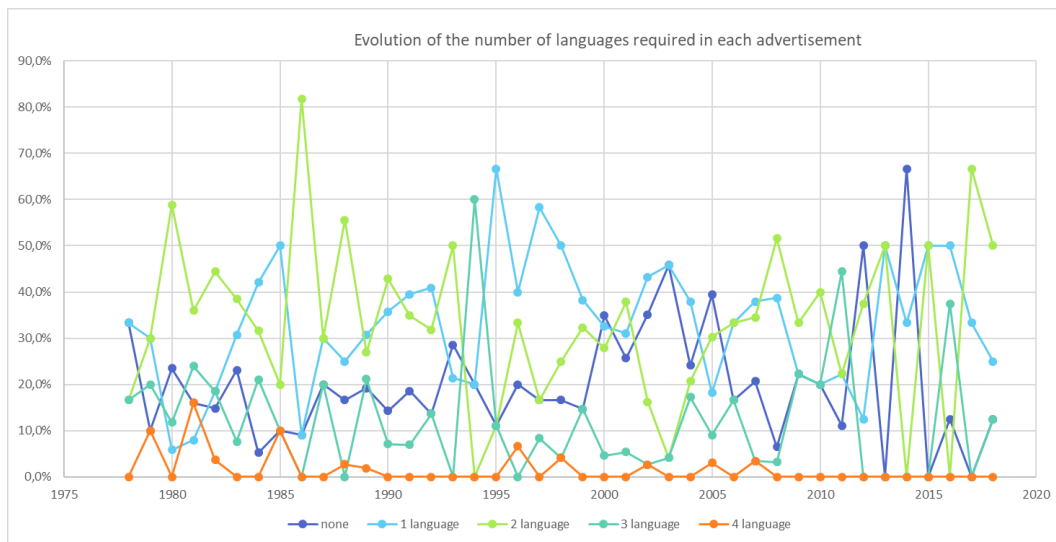

3.2 Most commonly requested languages

Of the 1171 identified requests for language skills, 90.4% are related to foreign languages and 9.6% are related to Portuguese.
The requests for competences in Portuguese occur in 113 advertisements (13.4% of the total). The most requested foreign language is English, referred to in 69.1% of all advertisements, followed by French, which occurs in 29.3% of the ads. In 10.7% of the ads analysed there are requirements regarding German and in 10.5% there are requests for Spanish. Requests for Italian represent a residual number (1.5%). In 4.3% of the job offers, skills in foreign languages are requested but no language is explicitly mentioned.
As shown in Chart 5, English is the most requested language in practically every analysed year, thus revealing a stable trend throughout the period under consideration. The course of the French language is not so regular. Between 1978 and 1995, French was always the second most sought-after language, with far higher percentages when compared to German and, especially, to Spanish. However, since the mid-1990s, not only has there been a decline in requests for French language competences, but there has also been a rise in requests for competences in Spanish. The latter is the only foreign language whose requests show a clear upward trend, supplanting German in more recent years. The requests concerning the Portuguese language are irregular, although, overall, they also show a slight upward trend.

Graph 5 - Evolution of requests for language skills in the four foreign languages: most represented in the sample

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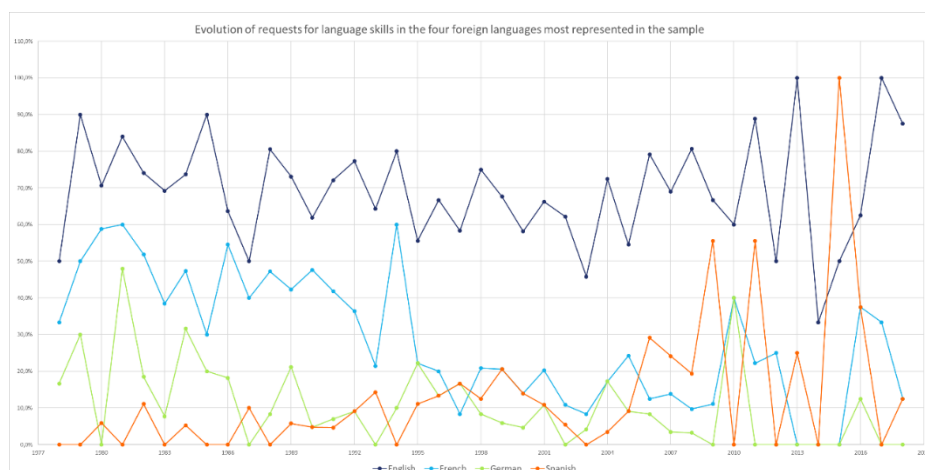
3.3 Mandatory/preferential nature of the required language skills

Most requests for language skills are mandatory (1025 of the 1171 references to language requirements are presented as requirements).

The Portuguese language almost exclusively occurs as a mandatory requirement, with only one advertisement referring to it as preferential. 94.5% of requests for competences in English are mandatory. In the case of the French language, 89.5% of the requests define it as mandatory. As for the German and Spanish languages, no such substantial differences were observed.

Throughout the period under review, English proficiency requests are regularly presented as mandatory. For French, references to "Mandatory" are much more common in the first half of the studied period; as the language becomes less requested, the gap between the mandatory/preferential requirements seems to narrow. For the most part, German and Spanish show results where the difference between the mandatory vs. preferential requirements is not significant (see Figure 1).
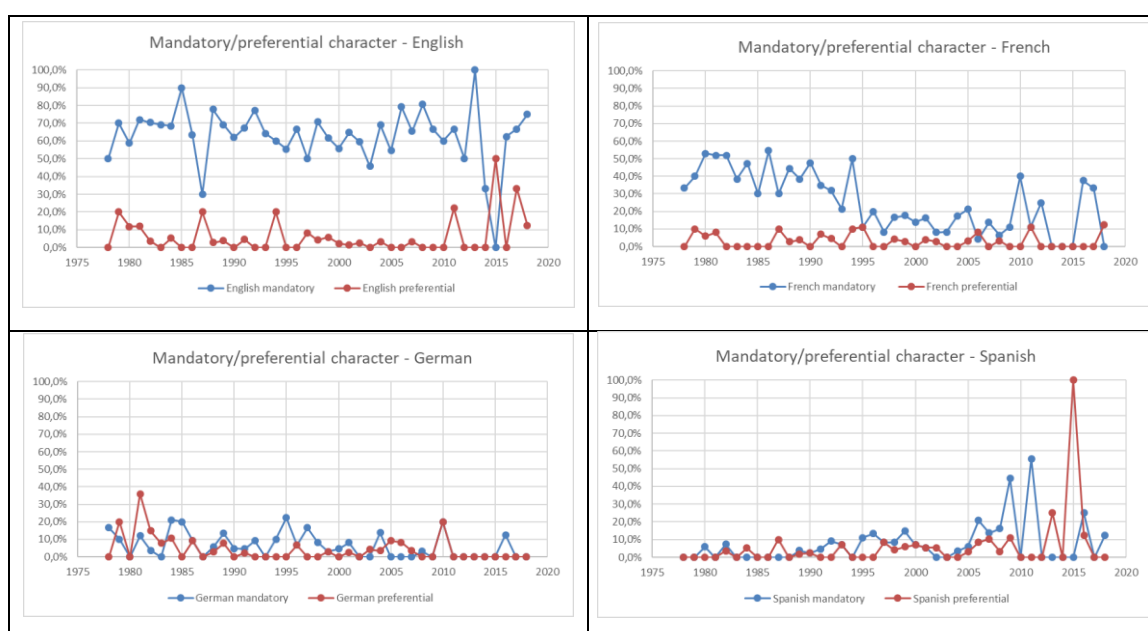

Figure 1 - Evolution of requests with a mandatory/preferential nature for the four most requested foreign languages, as a percentage

3.4 Requirements related to oral vs. written skills

Of the 1171 references to requests in terms of languages, there were 787 (67.2%) in which the employer detailed whether they required oral and/or written skills. Requests for writing skills are, overall, slightly higher than those referring to oral proficiency (399 and 388 references, respectively). Only in the requests concerning the Portuguese language there is a more noticeable difference between the requests for oral (41) and written (54) competences, values that result from the fact that, for this language in particular, there are several advertisements with requirements for writing competences. The research group has also verified that English and French are the languages for which these oral and written requirements are most frequently detailed (in relation to the total number of requests (1171), explicit references to oral/written English skills occur in 36% of the cases and, as for the French language, in 14%).

As far as Portuguese is concerned, whereas there is a concentration of requests for written skills in the first years included in this study, there were no oral requirements at that time (in 1978, 1980 and 1983, for example, advertisements with explicit references to writing skills correspond to 17%, 18% and 15% of the total number of advertisements published in those years, with no requests for oral competences). In subsequent years, the requests for oral/written competences in this language are quite balanced among themselves, without particularly expressive values.

The trend observed in English is also fairly regular at this level, with only four years in which there are no explicit requests for oral/written competences. In general, the percentage of advertisements in which, each year, there is a reference to oral skills and written skills coincides. The percentages of occurrence of these requests are always significant, reaching, predominantly, more than 20% of the published advertisements in each year.

Until 1993, requests for oral/written skills in French are always regular and, in some years (e.g. 1979, 1986), they exceed 35% of the published advertisements. From this date onwards, these requests decrease significantly in percentage terms, and in many instances, especially in the 21st century, when they do not occur at all.

The requests for oral/written skills in German and Spanish are never constant and tend to reach very insignificant percentages.

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3.5 Formulations used by employers to present language proficiency requirements: contributions to the standardisation of required proficiency levels

How employers explicitly state language skills requirements varies substantially from ad to ad. There are very synthetic formulations, including only expressions such as "Languages" or "English", with no indication of an expected level of proficiency (7%) and others where the employer characterises the intended profile slightly more ("Fluency", "Command", "Knowledge"), associated with an adjective that specifies the desired level (e.g. "good, perfect, excellent, solid, complete, total"). Given the diversity of formulations found, it was decided, as explained in the Methodology section, to define a framework that would allow grouping the formulations most used by employers for each language.

Even when applying this table, which is based on the confluence of dozens of different formulations into 17 generic designations, the multiplicity of enunciations is considerable. The requests for competences in Portuguese are based on 16 different formulations. For English, 13 different formulations were identified, 11 for French, 10 for German and 7 for Spanish.

The analysis of the adopted formulations allowed the research group to identify, although roughly, the levels of proficiency required by employers. Thus, with regard to the Portuguese language, there is a prevalence of job offers in which fluent professionals are sought. There are also some advertisements (18; 2%) in which the candidate is expected to be bilingual in Portuguese and another language.

As for the four most common foreign languages, and considering the offers with mandatory language requirements, the level of proficiency most often referred to for English, French and German is "Command of X", where X is the concerned foreign language. For Spanish, "Knowledge/satisfactory knowledge" is requested more regularly. It was also verified that, whereas for English, German and Spanish the second most common formulation is "Good/solid knowledge", for French it is "Satisfactory knowledge/knowledge". It could be observed that for the English, French and German languages the most commonly used formulation ("X language command") corresponds to a higher level of proficiency when compared to the level associated with the second most used formulation ("Good knowledge/knowledge"). For Spanish, however, the situation is inverted: whereas the most common formulation is "Satisfactory knowledge/knowledge", the second most frequent is "Good/solid knowledge".

It should also be noted that the more often used formulation in offers with preferential requirements is the same for the four foreign languages mentioned above: "Satisfactory knowledge/knowledge". It was verified that when English, French and German appear as preferential requirements, they are associated with lower levels of proficiency. Spanish, once again, behaves somewhat differently, insofar as the most common formulation is the same ("Satisfactory knowledge/knowledge") regardless of whether competences in this language arise as a mandatory or preferential requirement. Table 3 allows a detailed identification of the main results on the levels of proficiency mentioned for each of the analysed languages.

Table 3 - Levels of proficiency requested by employers: main results

Code	Portuguese		English		French		German		Spanish	
	Mandatory	Preferential	Mandatory	Preferential	Mandatory	Preferential	Mandatory	Preferential	Mandatory	Preferential
C1	1	0	81	18	44	13	5	20	17	20
C2	16	0	107	5	36	7	7	3	15	5
C3	4	0	22	1	7	0	4	3	3	0
C4	7	0	13	1	4	0	1	1	1	1
D1	15	0	150	1	54	1	14	5	11	2
D2	6	0	18	0	8	0	5	0	0	0
F1	21	0	103	3	38	4	5	1	5	1
F2	1	0	7	0	0	0	0	0	0	0
R1	9	0	1	0	1	0	0	1	0	0
R2	2	0	0	0	0	0	0	0	0	0
B	18	1	8	0	9	0	5	0	3	1

Contrary to what was initially expected, considering the transversal use of the CEFRL at the academic/formative level, no advertisement was identified in which employers use the levels defined by that framework of reference.

The examination of the development of formulations associated with proficiency levels does not allow an identification of regular or well-defined trends, either globally or in relation to a particular language.

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CONCLUSIONS

Overall, the study of the sample used in this work corroborates the importance that language skills have for secretarial/office management professionals. In fact, in 78.8% of the analysed advertisements, there are requirements (mainly of a mandatory nature) at this level, thus confirming that employers prefer to hire secretarial /office management professionals with a skillset that includes languages. The fact that almost half of the advertisements (45.9%) include requests for competences in two or more languages reinforces the need for these professionals to extend the range of languages in which they are proficient. At this level, the results obtained for the positions of "Secretary" and "Executive Secretary" are particularly noteworthy, since these are clearly professions where the command of languages is very important (for "Executive Secretary", for example, there are 60.2% of ads requiring competences in 2 or more languages).

The study concludes that, according to the collected sample, the language mostly valued by employers is English, present on a regular basis throughout the analysed period and with an overall occurrence in almost 70% of the job offers. French has proved to be the second most sought after language by employers, although it has a less regular occurrence from the mid-1990s onwards when there was a significant drop in requests, though recovering slightly in recent years. The German language, which was the third most sought foreign language in the first half of the study, is not so present in the meantime (since the 1990s, it is rare that it is requested in more than 10% of the analysed job offers).

In contrast, Spanish, whose values at the beginning of the studied period were not relevant, has been more and more requested lately. Although the analysed job advertisements were published in Portugal, the Portuguese language has an interesting occurrence percentage (13.4% of the ads).

This study also showed that employers attach equal importance to oral and written skills, feeling the need to make explicit reference to them.

It was also observed that there is a great diversity in the way in which the employers express their requests regarding the levels of proficiency sought. Notwithstanding this multiplicity of formulations, it was concluded that English, French and German behave similarly in this respect, since, for these three languages, employers mostly look for candidates with a "Mastery" of languages. For Spanish, the most requested level is "Satisfactory knowledge/knowledge". It was also noted that in the case of the first three mentioned languages, the second most common level ("Satisfactory knowledge/knowledge" or "Good/solid knowledge") points to a degree of proficiency lower than what is requested with more regularity; in the case of Spanish, the situation reverses, pointing to the second most requested level ("Good/solid knowledge") for a higher degree of proficiency.

In short, the analysis of these 844 job offers made it possible to understand that from employers' perspective language skills have a mandatory and prominent place in the profile of secretarial/office management professionals.

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A PESSOA COM DOENÇA PULMONAR OBSTRUTIVA CRÓNICA: COMO PROMOVEM OS ENFERMEIROS DE REABILITAÇÃO O AUTOCUIDADO

THE PATIENT WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE: HOW REHABILITATION NURSES PROMOTE SELF-CARE

LA PERSONA CON ENFERMEDAD PULMONAR OBSTRUCTIVA CRÓNICA: COMO PROMUEVEN LOS ENFERMEROS DE REHABILITACIÓN EL AUTOCUIDADO

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RESUMO

Introdução: O aumento da prevalência das doenças crónicas como a Doença Pulmonar Obstrutiva Crónica (DPOC) tem um elevado impacto social e económico, compromete a saúde das pessoas e consequentemente a forma como gerem a doença e promovem o autocuidado.
Objetivos: Sistematizar intervenções de enfermagem de reabilitação promotoras do autocuidado na pessoa com DPOC.
Métodos: Este estudo consiste numa revisão sistemática da literatura. Para compreender e analisar este fenómeno foi utilizada a Teoria do Autocuidado de Orem.
Resultados: Os resultados salientaram que os programas de intervenção de enfermagem de reabilitação compostos por exercícios respiratórios, treino de exercício e uma forte componente educacional nomeadamente sobre o controlo dos sintomas e a gestão da terapêutica promovem o autocuidado, a autogestão e a autoeficácia.
Conclusões: O enfermeiro de reabilitação, no âmbito das suas competências, onde se destacam as estratégias educacionais, contribui para a gestão da condição de saúde destas pessoas.

Palavras-chaves: Autocuidado; DPOC; Enfermagem; Enfermeiro de Reabilitação

ABSTRACT

Introduction: The increased prevalence of chronic diseases such as Chronic Obstructive Pulmonary Disease (COPD) has a high social and economic impact, compromises patient's health and consequently the way they manage the disease and promote self-care.
Objectives: Systematize rehabilitation nursing interventions that promote self- care in the person with COPD.
Methods: This study consists of a systematic review of the literature. To understand and analyze this phenomenon, Orem's Theory of Self-Care was used.
Results: The results showed that nursing intervention programs, consisting of respiratory exercises, exercise training and a strong educational component, especially on symptom control and therapeutic management, promote self-care, self-management and self-efficacy.
Conclusions: Rehabilitation's nurses, with their competences, where the educational strategies are highlighted, contributes to the management of the health condition of these patients.

Keywords: Self-care; COPD; Nursing; Nursing Rehabilitation

RESUMEN

Introducción: El aumento de la prevalencia de las enfermedades crónicas como la enfermedad pulmonar obstructiva crónica (EPOC) tiene un alto impacto social y económico, compromete la salud de las personas y, consecuentemente, la forma en que gestionan la enfermedad y promueven el autocuidado.
Objetivos: sistematizar intervenciones de enfermería de rehabilitatión promotoras del autocuidado en la persona con EPOC.
Métodos: Este estudio consiste en una revisión sistemática de la literatura. Para comprender y analizar este fenómeno se utilizó la Teoría del Autocuidado de Orem.
Resultados: Los resultados señalaron que los programas de intervención de enfermería compuestos por ejercicios respiratorios, entrenamiento de ejercicio y un fuerte componente educativo, sobre el control de los síntomas y la gestión de la terapia, promueven el autocuidado, la autogestión y la autoeficacia.
Conclusiones: El enfermero de rehabilitatión, en el ámbito de sus competencias, donde se destacan las estrategias educativas, contribuye a la gestión de la condición de salud de estas personas.

Palabras Clave: Autocuidado; Enfermería; Enfermero de Rehabilitación; EPOC

INTRODUCTION

The demographical indicators in developed countries such as Portugal reveal a growing tendency in population ageing alongside the improvement of living conditions and the increase of chronic diseases. Due to the improvement of health systems, those can no longer be viewed as an isolated issue, there has been an increase of people with multiple pathologies of chronic character such as diabetes, cardiovascular diseases and diseases of the respiratory system such as Chronic Obstructive Pulmonary Disease (COPD) (World Health Organization, WHO, 2015).

Chronic illness is defined by the WHO (2015) as a long-life disease, with slow progress that includes a variable set of situations from heart disease, diabetes, asthma, COPD, but also oncological, mental and psychiatric diseases, diseases in the osteoarticular system and HIV/AIDS.

When it comes to COPD, it's estimated that around 328 million people from all around the world suffer from this chronic respiratory condition (Vos, et al., 2015) with higher prevalence in the males, as this is the fourth cause of death in the world and the fifth in Portugal (Instituto Nacional de Estatística, 2017).

COPD is defined by the Global Initiative for Chronic Obstructive Lung Disease (GOLD, 2017) as a preventable and treatable disease, characterized by persistent respiratory symptoms and airflow limitations which are the result of alveolar alterations and/or of the airways, caused by the significate exposure to particles or harmful gases. The first manifestations are especially in the pulmonary and respiratory functions (dyspnoea, wheezing, cough and increase of expectoration) with extrapulmonary manifestations that can arise throughout the progression of the disease. The primary complications are cardiovascular (swelling and thoracic pain), musculoskeletal (osteoporosis and decrease of muscular strength), hematologic (anaemia) and psychic and emotional (anxiety and depression) as well.

The diagnostic and prognostic are established on the basis of spirometry to determine the level of airway obstruction. Its classification is established independently of the obstruction level but based on the evaluation of symptoms and history of exacerbations/hospitalizations. (GOLD, 2017).

The treatment is mainly on pharmacological therapeutics, especially inhalation (bronchodilators and corticoids) and not pharmacological. Relating to the later the ones that stand out are the smoking cessation, vaccination and respiratory rehabilitation (GOLD, 2017). Respiratory rehabilitation is defined as a program of multidisciplinary therapeutic intervention in which the nurse, especially the rehabilitation nurse, has a crucial intervention. This is based in a global evaluation of the patient followed by individualized interventions that include functional respiratory re-education, training and education in order to improve the physical and phycological condition and further the adhesion over time of healthy behaviour. Literature is unanimous when referring that respiratory rehabilitation in a person with COPD decreases its' symptoms, improves the muscular function of the limbs, the exercise ability, the emotional function, life quality, knowledge, self-efficacy and self-care (Direção Geral de Saúde, DGS, 2015).

In the view of chronic illnesses such as COPD, self-care has been identified as a resource for the promotion of health and management of the health-disease processes (Berbiglia & Banfield, 2014). Orem's Self-care model is based on the premise that individuals can take care of themselves and is defined as a human regulating function, discussed that is performed by the person or carer with the aim of maintaining life, health and well-being (Orem, 2001). The activities that one does in ones' favour are related to abilities, limitations, values and cultural and scientific rules of the person or of their agents. Every person can be considered a self-care agent, it can be the person itself when it's independent, or it can another such as a family member or a friend. When the person doesn't possess capacities to carry out self-care, it can also be called care reliant agent, in this situation, they can need the care from the part of nurses (Berbiglia & Banfield, 2014; Orem, 2001).

Orem (2001), defines the requirements of self-care as groups of individual needs that are divided in universal, development and diversion of health (Berbiglia & Banfield, 2014; Orem,2001). The universal requirements that are common to all human beings correspond to actions that provide the internal and external conditions that benefit human development. They are related with enough maintenance of air, water and food; appropriate processes of elimination; the balance between activity and rest and between solitude and social interaction; prevention of life risks, operation and well-being and development of the human being in social groups. When this occurs in an effective way, health and well-being are fostered (Silva, et al., 2009; Orem,2001).

The requirements of development appear from the need for adaptation to changes that appear in a person's life, throughout different stages or conditions that affect the person.

The requirements of health diversion are related to the frequency of diseases that affect the physiological and/or phycological mechanisms and the whole performance of the human being. When a permanent or temporary alteration occurs in the health condition and the person finds itself in a total or partial dependency in the satisfaction of its needs, it changes its' position as an agent of self-care to a patient, recipient of care (Orem,2001).

The type and the quality of the requirements to fulfil go through changes according to the basic conditioning factors such as age, gender, development stages, health state, social-cultural orientation, environmental factors, availability to resources and adaptation, family and health system and life pattern (Molina & Valenzuela, 2009; Orem,2001). Orem (2001) refers that there are barriers that make the fulfilment of self-care difficult such as physical limitations, lack of knowledge, financial constraints, worseness of symptoms and multiple problems with medication. When the standards of self-care are higher than its ability to respond, a self-care deficiency arises (Orem, 2001). In the view of the existence of said self-care deficiency, Orem (2001) proposes a Theory of Nursing Systems in which the author identified three classifications. This rests in the planning and execution of a series of actions with the aim that the person will reassume its' own care. When this is completely incapable of self-care and the intervention of nursing is needed to compensate entirely that incapability, it is used a completely compensatory system. When it can perform some self-care tasks but needs the nurse to compensate those that can't perform,

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we are in front of a partially compensatory system. When one can perform or can learn how to perform self-care measures, we apply the aid-education system.

COPD, especially the symptoms associated with dyspnoea lead to the compromise of self-care and the person will need the intervention of a rehabilitation nurse in the area of different nursing systems. A study by Gysels & Higginson (2009) proved the effectiveness of an educational individualized plan in a nursing appointment of respiratory rehabilitation. This plan consisted of supplying personalized orientation according to the identified needs and known symptoms. This plan improved self-management of the disease, systematic control, decreased the exacerbation episodes and promoted self-care. Frequently the concept of self-care and self-management are confused. Self-management is considered as a self-care component, being the ability of the person to conjugate with the family and health professionals, to manage in an effective way the symptoms, treatments, physical, phycological, cultural and spiritual consequences. In self-management it is inherent the capacity of changing lifestyles in order to survive with chronic illness (Redman, 2007).

The study of Warwik, Gallagher, Chenoweth and Parbury (2009), concluded that self-management of symptoms promotes self-care and decreases hospitalizations and as such, nurses should encourage this behaviour in people with COPD. These authors determined the important prominence of the family in the development of self-care and in the disease's management.

Kasikçi (2010) stresses that besides the importance of functional respiratory reduction made by muscle respiratory exercises and relaxation, the educational lessons as information about the disease, the instructions about self-care and social support increase self-efficacy and the ability for self-care.

The scientific evidence stresses that nursing care should be oriented for the promotion of self-care abilities of the person, promoting its personal autonomy and empowerment. Empowerment is an attribution of groups or people created by knowledge and trust to act for their own benefit to reach their goals in the best way they can (Anderson & Funnell 2010). In view of the therapeutic needs of self-care, the nurse is the primary enabler, while experts (therapeutic agents) in the process of the diseases' management (Anderson & Funnell, 2010).

Disler et al. (2014) and GOLD (2017) are of the opinion that in view of the limitations that this disease causes in the daily life it's necessary a health system for family and social support, in order to maintain a stable health condition, performance and self-care. Taking care of these patients is, nowadays, a challenge for rehabilitation nursing that implements interventions with the aim to promote self-care.

In that way, the aim of this study is to systematize nursing interventions that promote self-care in a person with COPD.

1. METHODS

To achieve scientific evidence relating to the issue under study, it was performed a systematic revision of the literature. This methodology allows in an exploratory, structured and accurate way to compile nursing interventions that contributed to the practice based on the evidence (Higgins & Green, 2017). This type of revision responds to a raised question using systematic and explicit methods to identify, select and critically evaluate relevant researches (Clark, 2001).

To systematize the state of the knowledge about the interventions that promote self-care in the person with COPD and for a wider understanding of this phenomenon, it was performed a study that followed the methodologic principles of a systematic revision of the literature on the basis of the Cochrane Handbook orientations (Higgins & Green,2017). This way, on the level of the creation of the question of the investigation as well as for the definition of the inclusion and exclusion criteria of primary studies, that affected the constitution of the sample, it was used the PI[C]O method (Cochrane, 2017) (Board 1). Starting from the analyses of the supposed theoretical, the following question was defined: Which nursing rehabilitation interventions (Intervention) promote self-care on the person with COPD (Population)?

Board 1. Adoption of the PI[C]O Method

				Key Words:
P	**Participant**	Who was studied?	People with COPD	COPD; Nursing; Rehabilitation Nurse; Self-care
I	**Intervention**	What was done?	Intervention of rehabilitation nursing	
C	**Comparison**	Can or not exist	----------------------	
O	**Outcomes**	Results/Effects or consequences	Promotion of self-care	

To obtain qualified data in view of the question of the investigation and the aim of the study, inclusion and exclusion criteria were established, which are presented in Board 2.

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Board 2. Inclution and Exclution Criteria in the articles in study

| Inclusion Criteria	Exclusion Criteria
• That refers to nursing interventions related to the promotion of self-care in the adult and elder with COPD; • With quantitative and qualitative methodology.	• With unclear methodology; • Without correlation with the aim of the study; • Repeated in the different databases; • Not written in either English or Portuguese language; • Not available in the complete text; • With a previous date to 2008.

1.1 Strategy and Research

For the Identification and selection of studies to be included in the revision, the concepts referring to the participants, interventions and drawings were isolated of the intendent studies as so to define a group of synonyms and terms related that, by intersection, would lead to the achievement of relevant results for the investigation.

Research with a basis in electronic data was conducted, in EBSCOhost Web in general, and in CINAHL (plus with full text) and in MEDLINE (plus with full text) in particular. The descriptors were removed of the MeSH Browser and the Boolean operators where used with the following orientation: [Nurs* AND (Lung Diseases, Obstructive OR Pulmonary Disease, Chronic Obstructive OR COPD) AND (Rehabilitation) AND (Self Care OR Activities of Daily Living) AND (Adult OR Aged OR Aged, 80 and over)].

The research was conducted in January 2018 and it was identified, in total, two hundred and sixty-three (263) articles. After the selection regarding the available articles in integral text, written in Portuguese or English, published in the last ten years and not repeated in both databases, two hundred and four (204) articles were excluded. From the result of this selection came out fifty-nine (59) articles which were analysed by two independent reviewers that applied the inclusion and exclusion criteria, and seven (7) studies were at last selected. These were evaluated on the level of evidence, using the orientations according to Melnyk e Fineout-Overholt (2015).

Of the selected articles, four are randomized studies controlled with evidence level II (Nguyen et al.,2008; Trappenburg et al.,2009; Titova, Steinshamn, Indredavik & Hentiksen,2015; Billington, Coster, Murrells & Norman, 2015), two are cohort studies with evidence level IV (Cosgrove, MacMahon, Bourbeau, Bradley & O'Neill, 2013; Isselt, Sruit, Groenewegen-Spkema, Chavannes & Achterberg,2014) and one qualitative descriptive study with evidence level VI (Casey, Murphy, Cooney, Mee & Dowling, 2011). The methodology is represented in Picture 1:
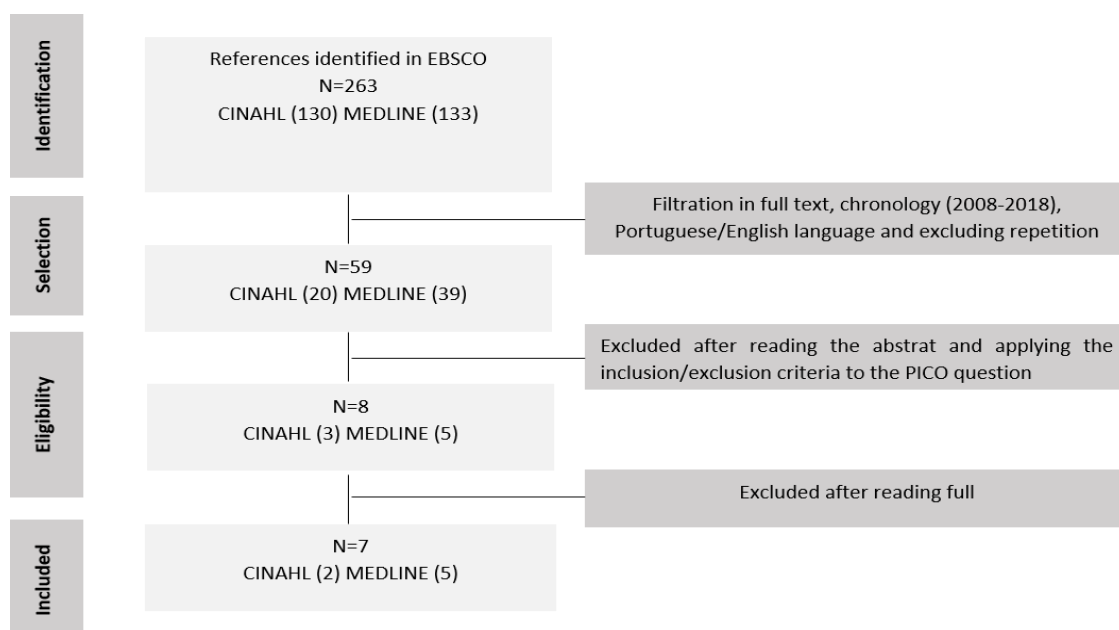
Picture 1. Selection method of the used research

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2. RESULTS

The obtained results in the selected studies of the research are presented below (Board 3).

Board 3. Summary of the selected studies

Article	Type of study/ level of Efficiency	Intervention/ Reached Evidence
Randomized Controlled Trial of an Internet-Based Versus Face-to-Face Dyspnea Self-Management Program for Patients with Chronic Obstructive Pulmonary Disease: Pilot Study (Nguyen et al.,2008)	Randomized Controlled Study Evidence Level - II	**Intervention:** Implemented an educational program for self-management of dyspnoea in two groups of elderly patients with COPD. Both groups received education for health according to control strategies of dyspnoea, exercise plans of endurance and muscular enhancement. A group received in person intervention and reinforcement through the phone and, the other, online via the internet. **Context:** Patients in ambulatory enrolment through a clinic. **Conclusions:** Both groups revealed significant improvement after 6 months in self-efficacy in the management of dyspnoea and tolerance to the effort with the increase of the capacity in self-care.
Action Plan to enhance self-management and early detection of exacerbations in COPD patients; a multicenter RCT (Trappenburg et al.,2009)	Randomized Controlled Study Evidence Level - II	**Intervention:** Nursing assistance was provided to a group of patients with COPD following the COPD guidelines relating to the therapeutic optimization, education about inhaling therapy, motor and respiratory exercises, nutrition, smoking cessation and control of exacerbations. Another group received the intervention of an individualized plan with written and customized information according to their needs and description of the behaviours that were to be adopted according to the degree of aggravation of the symptoms. It was planned with the family member of reference preferential contacts and defined the health professionals to whom they could relay in case of worsening. **Context:** Patients in ambulatory enrolled through hospitals and clinics. **Conclusion:** It was proved that patients who used the individualized plan improved more significantly their self-care and self-management ability and identified the exacerbation signs earlier and turned on the systematic control measures learned and/or relayed to health aid.
Developing a structured education programme for clients with COPD - Clients' perceptions of self-management following a PRINCE (SEPRP) (Casey et al., 2011)	Qualitative – Descriptive Evidence Level - VI	**Intervention:** The intervention was implemented by nurses of primary health cares which consisted in education and practice of therapeutic management, control of breathing, knowledge and management and exacerbation of symptoms, and the recognition stress and anxiety. The intervention also included a program of motor and respiratory exercises. **Context:** Patients followed in primary health care. **Conclusion:** The program improved the ability to control the disease, mainly the systematic control of dyspnoea, the ability for therapeutic self-management also inciting the acquisition of abilities for self-care. The study revealed that nurses of primary health care play a crucial part in the promotion of self-management and self-care.
Facilitating education in pulmonary rehabilitation using the Living Well with COPD programme for pulmonary rehabilitation a process evaluation (Cosgrove et al., 2013)	Cohort study Evidence Level - IV	**Intervention:** The intervention consisted of adapting an educational program of self-management in patients with COPD in the area of the respiratory rehabilitation program. This consisted of the information about dyspnoea control, techniques for the conservation of energy, exacerbation management, inhaling, stress, anxiety or depression therapy and physical exercise. It was introduced other posteriori themes: oxygenation-therapy, unclogging of the airways, smoking cessation and healthy eating habits. **Context:** Patients followed in the hospital or health centres. **Conclusion:** The introduction of this educational program translated beyond satisfaction in rehabilitation sessions, in a better understanding of the disease and improvement in self-efficacy and self-management.
Geriatric rehabilitation for patients with advanced chronic obstructive pulmonary disease (Isselt et al.,2014)	Cohort Study Evidence Level - IV	**Intervention:** Rehabilitation program for elders with COPD which included respiratory exercises, the practice of endurance exercises and muscle strengthening, breathing control, huffing, relaxation techniques, nutritional evaluation and education to patients and families about self-management strategies of the disease. **Context:** Hospitalized patients with discharge after one exacerbation with COPD. **Conclusion:** The implementation of the program improved the respiratory functional capacity and the self-care capacity.
Long term effects of an integrated care intervention on hospital utilization in patients with severe COPD a single center controlled study (Titova et al., 2015)	Randomized Controlled Study Evidence Level - II	**Intervention:** Intervention of home integrated cares after hospital discharge through the phone to monetarize the symptoms, provide education about self-management about COPD through e-learning and individualized written plan about the control of symptoms and therapeutic management. **Context:** Hospitalized patients by exacerbation of COPD and after discharge received home visits for validation of the educational program. **Conclusion:** The patients who received this intervention noticed a lower rate of rehospitalization and reduction of the hospitalization period when this did indeed happen.
Evaluation of a Nurse-Led Educational Telephone Intervention to Support Self-Management of Patients with Chronic Obstructive Pulmonary Disease A Randomized Feasibility Study (Billington et al., 2015)	Randomized Controlled Study - II	**Intervention:** A group of patients received standard cares of a self-management program of COPD (recognition of symptoms, exacerbations, therapeutic management and use of health services). The intervention group, besides the self-management program, received two telephonic interventions where the contents of the self-management program were reinforced, and counselling was provided. The program lasted for 12 weeks. **Context:** Home context. **Conclusion:** The patients with telephone intervention reduced their symptoms compared to the control group.

3. DISCUSSION

From the analyses of the different articles, all emphasize that health education performed by EER nurses is an intervention that promotes self-care in a person with COPD. The authors consider that enabling these people for the management of their symptoms (Titova et al., 2015; Billington et al., 2015) is fundamental for the control of dyspnoea (Casey et al., 2011; Cosgrove et al.,2013; Nguyen et al., 2008). In this control, the education of conservation of energy stands out (Cosgrove et al., 2013). The bronchial toilette (Cosgrove at al.,2013; Isselt et al., 2014) is important to clean the airways, stressing the education of the huffing technique. These interventions can be associated to rest and relaxation techniques (Isselt et al., 2014), decreasing the muscular tension, stress and anxiety, making the performance of self-care activities easier, such as the maintenance of enough quantity of air and the balance between activity and rest (Orem, 2001).

The management of the therapeutic regime (Trappenburg et al., 2009; Casey et al., 2011; Titova et al., 2015; Billington et al., 2015) is a self-care promoting intervention that eases the management of the disease, decreasing the exacerbations. The inhaling-therapy and the oxygenation-therapy (when necessary) are fundamental components of the therapeutic regime for the systematic control and well-fare of these people (Cosgrove et al., 2013; Trappenburg et al., 2009). The identified interventions besides increasing the ability to perform self-care actions, present as an outcome the ability to perform the self-management of the disease (Ng & Smith, 2017).

Other educational interventions such as: smoking cessation (Trappenburg et al., 2009; Cosgrove et al.2013); physical exercise (Nguyen et al.,2008) and eating habits (Isselt et al., 2014) were also emphasized as promoting interventions of self-care, as they are related with changes of behaviour as the motivation for the adoption of healthy lifestyles stands out.

Baker & Fatoye's (2017) study shows the positive effects of the self-management promoting interventions in the self-efficiency of people with COPD. Promoting self-efficiency contributes for the adoption of long-term health habits and in the person with COPD it's a predictor for the reduction of the psychosocial impact of the illness and the increase of well-fare and the quality of life (Baker & Fatoye, 2017).

Clari et al. (2017) and Efraimsson, Hillervik and Ehrenberg's (2008) studies determined that introducing educational programs about health brings out a higher motivation to adopt healthy lifestyles, mainly smoking cessation (Efraimsson et al., 2008). Areias et al. (2012) study proved that health education related to physical exercise promotes the well-fare of these patients.

Using informational technologies in the educational programs such as the phone (Nguyen et al.,2008) and the email (Nguyen et al.,2008; Titova et al., 2015; Billington et al., 2015) has a grand significance in the follow-up of the educational programs of health showing the reduction of exacerbations and re-hospitalizations (Titova et al., 2015).

For Casey et al. (2011) and Isselt et al. (2014), respiratory exercises and physical practice (endurance exercises and muscular strengthening) are essential interventions in a respiratory rehabilitation program and allow the improvement of the pulmonary function and the tolerance of physical activity. These improve the ability so the person can take hold of being their own self-care agent. When they don´t possess this ability they become agents dependent on cares, relaying of the cares of family member/carer or nurses. Involving the family, especially in the educational area is beneficial to promote the adhesion to the therapeutic regime (Isselt et al.,2014). In this sense, Kasikçi and Alberto (2007) demonstrated that there is a positive correlation between family support and the ability to perform self-care.

To sum up, we verified in the results of the studies that the intervention of the rehabilitation nurse includes predominantly the aid-education system. That way, respiratory exercises, physical training, management of symptoms help these patients/families in the fulfilment of the universal requirement of enough maintenance of air. The given orientations about adequate eating and hydration improve the satisfaction in the maintenance requirement of enough ingestion of food and liquids. The education of conservation of energy techniques, physical exercise and relaxation techniques improve the balance between loneliness and social interaction. The given orientations about anxiety and stress management and the importance of smoking cessation contribute to the prevention of dangers to life, performance and well-being.

Through the analyses of the studies, it was evidenced that the nurse, especially the rehabilitation nurse, provides cares in the sense of decreasing the effects of the self-care deficiency, enabling the person and promoting aid strategies and education with the aim to answer the patients self-care needs.

CONCLUSIONS

Self-care needs that are compromised in people with COPD can have repercussions in the satisfaction of different self-care requirements. In the intervention of the rehabilitation nurse, the important role it has as an educator and agent of change in the person and family stands out, in the sense of promoting and contributing in a more effective way to improve the self-efficacy and self-management of the chronic disease.

It is still stressed that the results of this revision are in line with the expertise of the rehabilitation nurse that foresee "taking care of the person with special needs throughout their life cycle", "enable the person with limitations in the activity and restrictions in social interaction" and "maximize their performance" (Ordem dos Enfermeiros, 2010). In view of the expertise of these nurses

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and the different contexts in which a person can find itself, it has become clear the importance in the articulation between this hospitalization cares and primary health cares, relating to respiratory rehabilitation programs, making it easier for the person with COPD to reinsert itself if the family and social life after their hospital discharge. It will be pertinent to perform researches/studies in the future about the effectiveness of the continuation of rehabilitation nursing cares between these two contexts, with the aim to improve the practice of cares in this field.

Relative to the implications for the practise, this study fulfils not only the purpose of systematizing interventions that promote self-care in this people but also offers a reflective analysis in the light of the conceptual module of Orem about the intervention of the rehabilitation nurse.

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A PESSOA COM DOENÇA PULMONAR OBSTRUTIVA CRÓNICA: COMO PROMOVEM OS ENFERMEIROS DE REABILITAÇÃO O AUTOCUIDADO

THE PATIENT WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE: HOW REHABILITATION NURSES PROMOTE SELF-CARE

LA PERSONA CON ENFERMEDAD PULMONAR OBSTRUCTIVA CRÓNICA: COMO PROMUEVEN LOS ENFERMEROS DE REHABILITACIÓN EL AUTOCUIDADO

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RESUMO

Introdução: O aumento da prevalência das doenças crónicas como a Doença Pulmonar Obstrutiva Crónica (DPOC) tem um elevado impacto social e económico, compromete a saúde das pessoas e consequentemente a forma como gerem a doença e promovem o autocuidado.

Objetivos: Sistematizar intervenções de enfermagem de reabilitação promotoras do autocuidado na pessoa com DPOC.

Métodos: Este estudo consiste numa revisão sistemática da literatura. Para compreender e analisar este fenómeno foi utilizada a Teoria do Autocuidado de Orem.

Resultados: Os resultados salientaram que os programas de intervenção de enfermagem de reabilitação compostos por exercícios respiratórios, treino de exercício e uma forte componente educacional nomeadamente sobre o controlo dos sintomas e a gestão da terapêutica promovem o autocuidado, a autogestão e a autoeficácia.

Conclusões: O enfermeiro de reabilitação, no âmbito das suas competências, onde se destacam as estratégias educacionais, contribui para a gestão da condição de saúde destas pessoas.

Palavras-chaves: Autocuidado; DPOC; Enfermagem; Enfermeiro de Reabilitação

ABSTRACT

Introduction: The increased prevalence of chronic diseases such as Chronic Obstructive Pulmonary Disease (COPD) has a high social and economic impact, compromises patient's health and consequently the way they manage the disease and promote self-care.

Objectives: Systematize rehabilitation nursing interventions that promote self- care in the person with COPD.

Methods: This study consists of a systematic review of the literature. To understand and analyze this phenomenon, Orem's Theory of Self-Care was used.

Results: The results showed that nursing intervention programs, consisting of respiratory exercises, exercise training and a strong educational component, especially on symptom control and therapeutic management, promote self-care, self-management and self-efficacy.

Conclusions: Rehabilitation's nurses, with their competences, where the educational strategies are highlighted, contributes to the management of the health condition of these patients.

Keywords: Self-care; COPD; Nursing; Nursing Rehabilitation

RESUMEN

Introducción: El aumento de la prevalencia de las enfermedades crónicas como la enfermedad pulmonar obstructiva crónica (EPOC) tiene un alto impacto social y económico, compromete la salud de las personas y, consecuentemente, la forma en que gestionan la enfermedad y promueven el autocuidado.

Objetivos: sistematizar intervenciones de enfermería de rehabilitatión promotoras del autocuidado en la persona con EPOC.

Métodos: Este estudio consiste en una revisión sistemática de la literatura. Para comprender y analizar este fenómeno se utilizó la Teoría del Autocuidado de Orem.

Resultados: Los resultados señalaron que los programas de intervención de enfermería compuestos por ejercicios respiratorios, entrenamiento de ejercicio y un fuerte componente educativo, sobre el control de los síntomas y la gestión de la terapia, promueven el autocuidado, la autogestión y la autoeficacia.

Conclusiones: El enfermero de rehabilitatión, en el ámbito de sus competencias, donde se destacan las estrategias educativas, contribuye a la gestión de la condición de salud de estas personas.

Palabras Clave: Autocuidado; Enfermería; Enfermero de Rehabilitación; EPOC

INTRODUÇÃO

Os indicadores demográficos nos países desenvolvidos como Portugal, revelam uma tendência crescente do envelhecimento populacional a par da melhoria das condições de vida e aumento das doenças crónicas. Devido à melhoria dos sistemas de saúde aquelas já não podem ser vistas de forma isolada, verificando-se um aumento de pessoas com múltiplas patologias de carater crónico, nomeadamente diabetes, doenças cardiovasculares e doenças do foro respiratórias como a Doença Pulmonar Obstrutiva Crónica (DPOC) (Organização Mundial de Saúde, OMS, 2015).

A doença crónica é definida pela OMS (2015) como uma doença de longa duração, com progressão lenta, que inclui um conjunto variável de situações desde a doença cardiovascular, a diabetes, asma, DPOC, mas também, doença oncológica, mental e psiquiátrica, do sistema osteoarticular e VIH/SIDA.

Quanto à DPOC, estima-se que cerca de 328 milhões de pessoas em todo o mundo sofrem desta condição respiratória crónica (Vos et al., 2015), com maior prevalência no género masculino, sendo a 4ª causa de morte no mundo e 5ª em Portugal (Instituto Nacional de Estatística, 2017).

A DPOC é definida pela Global Iniciative for Chronic Obstrutuve Lung Disease (GOLD, 2017) como uma doença, prevenível e tratável, caracterizada por sintomas respiratórios persistentes e limitação ao fluxo de ar, resultante de alterações alveolares e/ou das vias aéreas, causadas pela exposição significativa a partículas ou gases nocivos. As primeiras manifestações são especialmente da função pulmonar e respiratória (dispneia, pieira, tosse e aumento da expetoração) com manifestações extrapulmonares, que podem surgir mediante a progressão da doença. As principais complicações são cardiovasculares (edema e dor torácica), musculo-esqueléticas (osteoporose e diminuição da força muscular), hematológicas (anemia) e, também psíquicas e emocionais (ansiedade e depressão).

O diagnóstico e prognóstico é estabelecido com base na espirometria, para determinar o grau de obstrução aérea. A sua classificação é estabelecida independentemente do grau de obstrução, mas com base na avaliação de sintomas e histórico de exacerbações/internamentos. (GOLD, 2017).

O tratamento é sobretudo a terapêutica farmacológica, especialmente inalatória (broncodilatadores e corticoides) e não farmacológica. Desta última, destacam-se a cessação tabágica, vacinação e reabilitação respiratória (GOLD, 2017). A reabilitação respiratória é definida como um programa de intervenção terapêutica multidisciplinar no qual o enfermeiro, nomeadamente o enfermeiro de reabilitação, tem uma intervenção de destaque. Esta baseia-se numa avaliação global do doente seguida de intervenções individualizadas que incluem reeducação funcional respiratória, treino de exercício e educação, de modo a melhorar a condição física e psicológica e promover a adesão ao longo do tempo de comportamentos promotores de saúde. A literatura é unanime em referir que a reabilitação respiratória na pessoa com DPOC reduz os sintomas, melhora a função muscular dos membros, a capacidade de exercício, a função emocional, a qualidade de vida, o conhecimento, a autoeficácia e autocuidado. (Direção Geral de Saúde, DGS, 2015).

Face a doenças crónicas como a DPOC o autocuidado tem sido identificado como um recurso para a promoção da saúde e gestão dos processos saúde-doença (Berbiglia & Banfield, 2014). O modelo de Autocuidado de Orem, baseia-se na premissa de que os indivíduos podem cuidar de si e é definido como uma função humana reguladora, deliberada que é realizada pela pessoa ou cuidador no sentido de manter a vida, a saúde e o bem-estar (Orem, 2001). As atividades que realiza em favor de si estão relacionadas com habilidades, limitações, valores e regras culturais e científicas da própria ou dos seus agentes. Toda a pessoa pode ser considerada agente de autocuidado, pode ser o próprio quando este se encontra independente, ou pode ser outro como um familiar ou amigo. Quando a pessoa não possui capacidades para realizar o autocuidado, é também denominado agente dependente de cuidados, nesta situação pode necessitar de cuidados por parte dos enfermeiros (Berbiglia & Banfield, 2014; Orem, 2001).

Orem (2001), define os requisitos de autocuidado como grupos de necessidades do indivíduo, que se subdividem em universais, de desenvolvimento e de desvio de saúde (Berbiglia & Banfield, 2014; Orem,2001). Os requisitos universais comuns a todos os seres humanos, correspondem a ações que proporcionam as condições internas e externas que favorecem o desenvolvimento humano. Estão relacionados com manutenção suficiente de ar, água e alimentos; processos adequados de eliminação; equilíbrio entre atividade e descanso e entre solidão e interação social; prevenção de risco à vida, funcionamento e bem-estar e desenvolvimento do ser humano nos grupos sociais. Quando estes decorrem de forma eficaz é promovida a saúde e o bem-estar (Silva et al., 2009; Orem,2001).

Os requisitos de desenvolvimento surgem da necessidade de adaptação a mudanças que surgem na vida da pessoa, ao longo de várias fases ou condições que afetam o mesmo.

Os requisitos de desvio de saúde, estão relacionados com a ocorrência de doenças que afetam os mecanismos fisiológicos e/ou psicológicos, e o funcionamento integral do ser humano. Quando ocorre alteração permanente ou temporária do estado de saúde, e a pessoa se encontra dependente total ou parcialmente na satisfação das suas necessidades, muda de posição de agente de autocuidado para doente, recetor do cuidado (Orem,2001).

O tipo e a quantidade de requisitos a satisfazer, sofrem alterações de acordo com os fatores condicionantes básicos como a idade, género, etapas de desenvolvimento, o estado de saúde, orientação sociocultural, fatores ambientais, disponibilidade de recursos e adequação, sistema familiar e de sistema de saúde e padrão de vida (Molina & Valenzuela, 2009; Orem,2001). Orem (2001), refere que existem barreiras que dificultam a concretização do autocuidado como limitações físicas, carências de conhecimento, constrangimentos financeiros, agravamento de sintomas e múltiplos problemas com a medicação. Quando as exigências de autocuidado são superiores à sua capacidade de dar respostas, surge o défice de autocuidado (Orem, 2001). Face à existência de défice de autocuidado, Orem (2001) propõem a Teoria dos Sistemas de Enfermagem, em que a autora identificou três classificações. Esta assenta no planeamento e execução de um conjunto de ações com o objetivo da pessoa reassumir o seu próprio cuidado. Quando esta é totalmente incapaz para o autocuidado, e a intervenção de enfermagem é necessária para

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compensar inteiramente essa incapacidade, é utilizado o sistema totalmente compensatório. Quando realiza algumas ações de autocuidado, mas necessita do enfermeiro para compensar aquelas que não consegue executar, estamos perante o sistema parcialmente compensatório. Quando é capaz de realizar ou pode aprender a executar medidas de autocuidado, aplica-se o sistema de apoio-educação.

A DPOC, nomeadamente os sintomas a ela associados como a dispneia, levam ao compromisso do autocuidado necessitando a pessoa da intervenção do enfermeiro de reabilitação no âmbito dos diferentes sistemas de enfermagem. Um estudo de Gysels & Higginson (2009), comprovou a efetividade de um plano educacional individualizado numa consulta de enfermagem de reabilitação respiratória. Este plano consistia no fornecimento de orientações personalizadas de acordo com as necessidades identificadas e sintomas manifestados. Este plano melhorava a autogestão (*self-management*) da doença, controlo sintomático, diminuía os episódios de exacerbação e promovia o autocuidado. Frequentemente o conceito de autocuidado e autogestão são confundidos. A autogestão é considerada como uma componente do autocuidado, sendo a habilidade da pessoa de conjuntamente com familiares e profissionais de saúde, gerir de forma eficaz sintomas, tratamentos, consequências físicas, psicológicas, culturais e espirituais. Na autogestão está inerente a capacidade de mudança de hábitos de vida necessários para viver com doença crónica (Redman, 2007).

O estudo de Warwik, Gallagher, Chenoweth e Parbury (2009), concluiu que a autogestão dos sintomas promove o autocuidado e reduz os internamentos devendo os enfermeiros encorajar este comportamento nas pessoas com DPOC. Estes autores constataram a importante relevância da família na promoção do autocuidado e na gestão da doença.

Kasikçi (2010) salienta que para além da importância da reeducação funcional respiratória, composta por exercícios respiratórios dos músculos e relaxamento, as sessões educacionais como informações sobre a doença, instruções para o autocuidado e suporte social, aumentavam a autoeficácia e a capacidade para o autocuidado.

A evidência científica, salienta que os cuidados de enfermagem deverão ser orientados para a promoção das capacidades de autocuidado da pessoa promovendo a sua autonomia pessoal e o *empowerment*. O *empowerment* é um atributo dos grupos ou pessoas, gerado pelo conhecimento e confiança, para agirem em seu próprio benefício, para atingir da melhor forma os objetivos identificados (Anderson & Funnell 2010). Face às necessidades terapêuticas de autocuidado, o enfermeiro é o principal facilitador, enquanto *expert* (agente terapêutico) no processo de gestão da doença (Anderson & Funnell, 2010).

Disler et al. (2014) e a GOLD (2017), são da opinião que face às limitações que esta doença causa no dia-a-dia é necessário um sistema de saúde, de apoio familiar e social de forma a manter uma condição de saúde estável, a funcionalidade e o autocuidado. Cuidar destas pessoas, é atualmente um desafio para a enfermagem de reabilitação que implementa intervenções com o objetivo de promover o autocuidado.

Assim, o objetivo deste estudo é sistematizar intervenções de enfermagem de reabilitação promotoras do autocuidado na pessoa com DPOC.

1. MÉTODOS

Para obter evidência científica referente à problemática em estudo, foi realizada uma revisão sistemática da literatura. Esta metodologia permite de forma exploratória, estruturada e rigorosa compilar intervenções de enfermagem que contribuem para a prática baseada na evidência (Higgins & Green, 2017). Este tipo de revisão responde a uma questão formulada utilizando métodos sistemáticos e explícitos para identificar, selecionar e avaliar criticamente pesquisas relevantes (Clark, 2001).

Para sistematizar o estado do conhecimento sobre as intervenções que promovem o autocuidado na pessoa com DPOC e, para uma compreensão mais ampla deste fenómeno, levou-se a efeito um estudo de acordo com os princípios metodológicos de uma revisão sistemática da literatura com base nas orientações do Cochrane Handbook (Higgins & Green,2017). Desta forma, quer ao nível da elaboração da questão de investigação, como para a definição dos critérios de inclusão e exclusão de estudos primários, com efeitos na constituição da amostra, foi utilizado o método PI[C]O (Quadro 1). Partindo da análise dos pressupostos teóricos, definiu-se a seguinte questão: Quais as intervenções de enfermagem de reabilitação (Intervention) promotoras do autocuidado (Outcome), na pessoa com DPOC (Population)?

Quadro 1. Aplicação do Método PI[C]O

P	Participantes	Quem foi estudado?	Pessoas com DPOC	Palavras Chave:
I	Intervenção	O que foi feito?	Intervenções de enfermagem de reabilitação	Autocuidado; DPOC; Enfermagem; Enfermeiro de Reabilitação
C	Comparações	Podem existir ou não	----------------------	
O	Outcomes	Resultados/Efeitos ou consequências	Promoção do Autocuidado	

Para obter dados elegíveis face à questão de investigação e objetivo do estudo, estabeleceram-se critérios de inclusão e exclusão que são apresentados no quadro 2.

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Quadro 2. Critérios de Inclusão e Exclusão dos artigos no estudo

| Critérios de inclusão	Critérios de exclusão
• Que refiram intervenções de enfermagem relacionadas com a promoção do autocuidado no adulto e idoso com DPOC; • Com metodologia quantitativa ou qualitativa.	• Com metodologia pouco clara; • Sem correlação com o objeto de estudo; • Repetidos nas diferentes bases de dados; • Escritos em língua não inglesa ou não portuguesa; • Não disponíveis em texto integral; • Com data inferior a 2008.

1.1 Estratégia de Pesquisa

Para a identificação e seleção dos estudos a incluir na revisão, isolaram-se os conceitos referentes aos participantes, à intervenção e ao desenho dos estudos pretendidos, de modo a definir um conjunto de sinónimos e de termos relacionados que, por intersecção, levaria à obtenção de resultados relevantes para a investigação.

Foi efetuada uma pesquisa em base de dados eletrónica, na EBSCOhost Web em geral e, em particular na CINAHL (Plus with Full Text) e MEDLINE (Plus with Full Text). Os descritores foram retirados da MeSH Browser e os operadores booleanos foram utilizados com a seguinte orientação: [Nurs* AND (Lung Diseases, Obstructive OR Pulmonary Disease, Chronic Obstructive OR COPD) AND (Rehabilitation) AND (Self Care OR Activities of Daily Living) AND (Adult OR Aged OR Aged, 80 and over)].

A pesquisa foi realizada em janeiro de 2018 e foram identificados na totalidade duzentos e sessenta e três (263) artigos. Após filtragem referente a artigos disponíveis em texto integral, escritos em língua portuguesa ou inglesa, publicados nos últimos dez anos e não repetidos nas duas bases de dados, foram excluídos duzentos e quatro (204) artigos. Do resultado desta filtragem resultaram cinquenta e nove (59) artigos, os quais foram analisados por dois revisores independentes aplicando os critérios de inclusão e exclusão, sendo selecionados sete (7) estudos. Estes foram avaliados quanto ao nível de evidência, utilizando as orientações segundo Melnyk e Fineout-Overholt (2015).

Dos artigos apurados, quatro são estudos randomizados controlados com nível de evidência II (Nguyen et al.,2008; Trappenburg et al.,2009; Titova, Steinshamn, Indredavik & Henriksen,2015; Billington, Coster, Murrells & Norman, 2015), dois estudos são tipo coorte com nível de evidência IV (Cosgrove, MacMahon, Bourbeau, Bradley & O'Neill, 2013; Isselt, Sruit, Groenewegen-Spkema, Chavannes & Achterberg, 2014) e, um estudo qualitativo descritivo com nível de evidência VI (Casey, Murphy, Cooney, Mee & Dowling, 2011).

A metodologia encontra-se representada na figura 1:
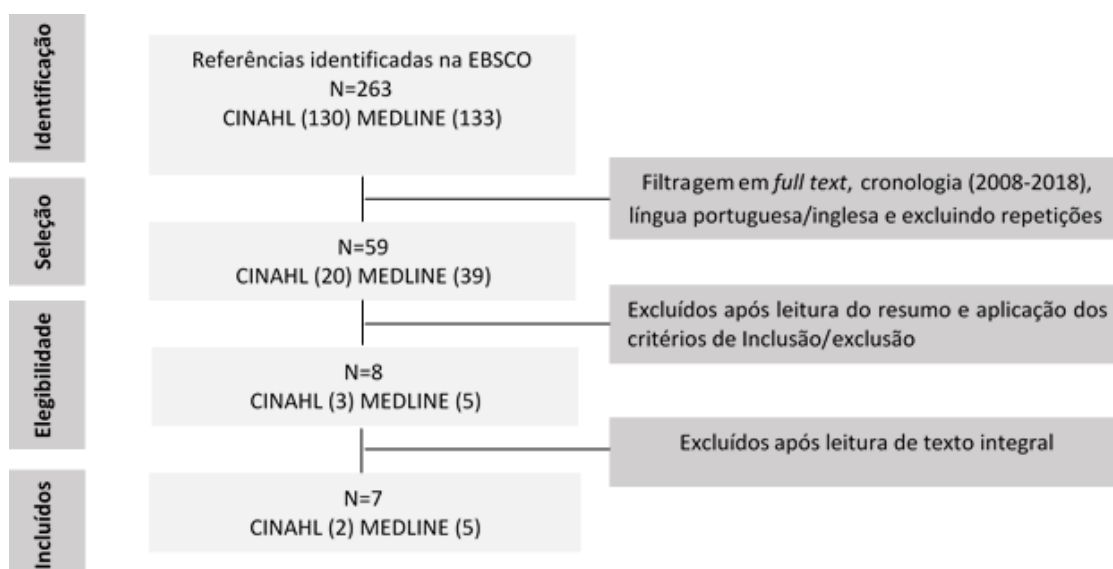
Figura 1. Método de Filtragem da Pesquisa Realizada.

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2. RESULTADOS

Apresentamos os resultados obtidos nos estudos selecionados na pesquisa (quadro 3).

Quadro 3 – Quadro resumo dos estudos selecionados

Artigo	Tipo de Estudo/Nível de Evidencia	Intervenção/Evidência alcançada
Randomized Controlled Trial of an Internet-Based Versus Face-to-Face Dyspnea Self-Management Program for Patients With Chronic Obstructive Pulmonary Disease: Pilot Study (Nguyen et al.,2008)	Estudo Randomizado Controlado Nível de Evidência – II	**Intervenção:** Implementado um programa educacional para a autogestão da dispneia em dois grupos de doentes idosos com DPOC. Ambos os gupos receberam educação para a saúde referente a estratégias de controlo da dispneia, plano de exercícios de endurance e fortalecimento muscular. Um grupo recebeu a intervenção presencialmente e reforço telefónico e outro on-line via internet. **Contexto:** Doentes em ambulatório recrutados a partir de uma clínica. **Conclusões:** Ambos os grupos revelaram após 6 meses melhorias significativas na auto-eficácia na gestão da dispneia e tolerância ao esforço com aumento de capacidade na realização do autocuidado.
Action Plan to enhance self-management and early detection of exacerbations in COPD patients; a multicenter RCT (Trappenburg et al.,2009)	Estudo Randomizado Controlado Nível de Evidência - II	**Intervenção:** Foram prestados cuidados de enfermagem a um grupo de doentes com DPOC, utilizando as guidelines da DPOC, referente à otimização terapêutica, ensino sobre técnica de inaloterapia, exercício motor e respiratório, nutrição, cessação tabágica e controlo das exacerbações. Outro grupo recebeu intervenção de um plano individualizado com informação escrita e personalizada de acordo com as necessidades e descrição de comportamentos a adotar consoante o grau de agravamento dos sintomas. Ficavam programados com o familiar de referência contactos preferenciais e definidos os profissionais de saúde a quem poderiam recorrer em caso de agravamento. **Contexto:** Doentes em ambulatório recrutados a partir de hospitais e clínicas. **Conclusões:** Comprovou-se que os doentes que usufruíram do plano individualizado melhoravam de forma mais significativa a capacidade de autocuidado e autogestão, e precocemente identificavam os sinais de exacerbação e acionavam medidas de controlo sintomático aprendidas e/ou recorriam a apoio de saúde.
Developing a structured education programme for clients with COPD - Clients' perceptions of self-management following a PRINCE (SEPRP) (Casey et al., 2011)	Qualitativo-Descritivo Nível de Evidência – VI	**Intervenção:** A intervenção foi implementada por enfermeiros de cuidados de saúde primários que consistiu na educação e treino de gestão terapêutica, controlo da respiração, conhecimento e gestão e exacerbação de sintomas, e reconhecimento do stresse e ansiedade. A intervenção também incluía programa de exercícios motores e respiratórios. **Contexto:** Doentes seguidos em cuidados saúde primários. **Conclusões:** O programa melhorou a capacidade de controlo da doença nomeadamente o controlo sintomático da dispneia, a capacidade de autogestão terapêutica, incitando também à aquisição de capacidades para o autocuidado. O estudo revelou que os enfermeiros de cuidados de saúde primários têm grande importância na promoção da autogestão e autocuidado.
Facilitating education in pulmonary rehabilitation using the Living Well with COPD programme for pulmonary rehabilitation a process evaluation (Cosgrove et al., 2013)	Estudo Coorte Nível de Evidencia IV	**Intervenção:** A intervenção consistia em adaptar um programa educacional de autogestão em doentes com DPOC no âmbito do programa de reabilitação respiratória. Este, consistiu na informação sobre controlo da dispneia, técnicas de conservação de energia, gestão das exacerbações, da terapêutica inalatória, do stress, ansiedade ou depressão e exercício físico. Foram introduzidas outras temáticas à posteriori: oxigenioterapia, desobstrução das vias aéreas, cessação tabágica e alimentação saudável. **Contexto:** Doentes seguidos em meio hospitalar e em centros de saúde. **Conclusões:** A introdução deste programa educacional traduziu-se para além de maior satisfação nas sessões de reabilitação, em maior entendimento da doença e melhoria na autoeficácia e autogestão da mesma.
Geriatric rehabilitation for patients with advanced chronic obstructive pulmonary disease (Isselt et al., 2014)	Estudo Coorte Nível de Evidência – IV	**Intervenção:** Programa de reabilitação para idosos com DPOC, incluía exercícios respiratórios, treino de exercícios de endurance e fortalecimento muscular, controlo da respiração, *huffing*, técnicas de relaxamento, avaliação nutricional e ensino aos doentes e famílias sobre estratégias de autogestão da doença. **Contexto:** Doentes internados com alta após uma exacerbação com DPOC. **Conclusões:** A implementação do programa melhorou a capacidade funcional respiratória e capacidade para o autocuidado.
Long term effects of an integrated care intervention on hospital utilization in patients with severe COPD a single center controlled study (Titova et al., 2015)	Estudo Randomizado Controlado Nível de Evidência – II	**Intervenção:** Intervenção de cuidados integrados domiciliários pós alta através contacto telefónico para monitorização de sintomas, fornecimento de educação sobre autogestão da DPOC em *e-learning* e plano escrito individualizado sobre controlo de sintomas e gestão terapêutica. **Contexto:** Doentes internados em hospital por exacerbação da DPOC e após alta recebiam visitas domiciliárias para validação do programa educacional. **Conclusões:** Nos doentes que receberam esta intervenção verificou-se menor taxa de reinternamentos e redução da duração do internamento quando este acontecia.
Evaluation of a Nurse-Led Educational Telephone Intervention to Support Self-Management of Patients with Chronic Obstructive Pulmonary Disease A Randomized Feasibility Study (Billington et al., 2015)	Estudo Randomizado Controlado Nível de Evidência – II	**Intervenção:** Um grupo de doentes recebeu cuidados padrão de um programa de autogestão da DPOC (reconhecimento de sintomas, exacerbações, gestão terapêutica e uso dos serviços de saúde). O grupo de intervenção para além do programa de autogestão, recebeu intervenção telefónica 2x, onde os conteúdos do programa de autogestão eram reforçados e fornecido aconselhamento. O programa decorreu durante 12 semanas. **Contexto:** Contexto domiciliário. **Conclusões:** Os doentes com intervenção telefónica, viram reduzidos os seus sintomas em relação ao grupo controlo.

3. DISCUSSÃO

Da análise dos diferentes artigos, todos enfatizam que a *educação para a saúde* realizada por enfermeiros de reabilitação é uma intervenção promotora do autocuidado na pessoa com DPOC. Os autores consideram que capacitar estas pessoas para a *gestão de sintomas* (Titova et al., 2015; Billington et al., 2015) é fundamental para o *controlo da dispneia* (Casey et al., 2011; Cosgrove et al.,2013; Nguyen et al., 2008). Neste controlo, destaca-se o ensino das *técnicas de conservação de energia* (Cosgrove et al., 2013). A *toilete brônquica* (Cosgrove at al.,2013; Isselt et al., 2014), é importante na limpeza das vias aéreas, dando ênfase ao ensino da técnica do *huffing*. A estas intervenções podem associar-se as *técnicas de descanso e relaxamento* (Isselt et al., 2014), diminuindo a tensão muscular, o stress e a ansiedade, facilitando a realização de atividades de autocuidado, como a manutenção de uma quantidade suficiente de ar e o equilíbrio entre atividade e repouso (Orem, 2001).

A *gestão do regime terapêutico* (Trappenburg et al., 2009; Casey et al., 2011; Titova et al., 2015; Billington et al., 2015) é uma intervenção promotora de autocuidado, que facilita a gestão da doença, diminuindo as exacerbações. A *inaloterapia* e a *oxigenioterapia* (quando necessária) são componentes do regime terapêutico fundamentais para o controlo sintomático e bem-estar destas pessoas (Cosgrove et al., 2013; Trappenburg et al., 2009). As intervenções identificadas para além de aumentarem a capacidade para executar ações de autocuidado, apresentam como *outcome* a capacidade de autogestão da doença (Ng & Smith, 2017).

Outras *intervenções educacionais* como: a *cessação tabágica* (Trappenburg et al., 2009; Cosgrove et al.2013); *exercício físico* (Nguyen et al.,2008) e *hábitos alimentares* (Isselt et al., 2014) foram também salientadas como intervenções promotoras do autocuidado, estando relacionadas com mudanças de comportamentos salientando-se a motivação para adoção de estilos de vida saudáveis.

O estudo de Baker & Fatoye (2017) evidencia os efeitos positivos das intervenções promotoras da autogestão na autoeficácia das pessoas com DPOC. Promover a autoeficácia contribui para a adoção de comportamento de saúde a longo prazo e na pessoa com DPOC é um preditor de redução do impacto psicossocial da doença e aumento do bem-estar e qualidade de vida (Baker & Fatoye, 2017.

Os estudos de Clari et al. (2017) e Efraimsson, Hillervik e Ehrenberg (2008), constataram que introduzir programas de educação para a saúde, traduz uma maior motivação para adotar estilos de vida saudáveis, nomeadamente a cessação tabágica (Efraimsson et al., 2008). O estudo de Areias et.al. (2012), comprovou que a educação para a saúde relacionada com o exercício físico promove o bem-estar destes doentes.

A utilização das tecnologias da informação nos programas educacionais como o telefone (Nguyen et al.,2008) e email (Nguyen et al.,2008; Titova et al., 2015; Billington et al., 2015) tem grande importância no *follow-up* dos programas de educação para a saúde verificando-se redução das exacerbações e de reinternamentos (Titova et al., 2015).

Para Casey et al. (2011) e Isselt et al. (2014) os *exercícios respiratórios* e o *treino de exercício* (exercícios de endurance e fortalecimento muscular), são intervenções essenciais num programa de reabilitação respiratória e que permitem melhorar a função pulmonar e tolerância à atividade física. Estes melhoram a capacidade para que a pessoa possa assumir-se como agente de autocuidado. Quando não possuem essa habilidade tornam-se agentes dependentes de cuidados, necessitando de cuidados de um familiar/cuidador ou de enfermeiros. Envolver a família, especialmente no âmbito do plano educacional é benéfico para promover a adesão ao regime terapêutico (Isselt et al.,2014). Neste sentido, Kasikçi e Alberto (2007), demonstraram existir uma correlação positiva entre o suporte familiar e a capacidade em realizar o autocuidado.

Em síntese, verificamos nos resultados dos estudos que a intervenção do enfermeiro de reabilitação engloba predominantemente o sistema apoio-educação. Assim sendo, os exercícios respiratórios, treino de exercício, gestão de sintomas ajudam nestes doentes/família ao cumprimento do requisito universal *manutenção suficiente de ar*. As orientações fornecidas sobre a alimentação e hidratação adequadas melhoram a satisfação do requisito manutenção de uma *ingestão suficiente de alimentos e de líquidos*. O ensino de técnicas de conservação de energia, exercício físico e técnicas de relaxamento melhoram o *equilíbrio entre solidão e interação social*. As orientações dadas sobre a gestão da ansiedade e stress e importância da cessação tabágica contribuem para a *prevenção dos perigos à vida, ao funcionamento e bem-estar*.

Pela análise dos estudos verificou-se que o enfermeiro, nomeadamente o enfermeiro de reabilitação, presta cuidados no sentido de minimizar os efeitos do défice de autocuidado, capacitando a pessoa e promovendo estratégias de apoio e educação com o objetivo de dar resposta às suas necessidades de autocuidado.

CONCLUSÕES

As necessidades de autocuidado comprometidas nas pessoas com DPOC podem ter repercussões na satisfação dos diferentes requisitos de autocuidado. Da intervenção do enfermeiro de reabilitação salienta-se a sua importância como educador e agente de mudança na pessoa e família no sentido de promover e contribuir de forma mais efetiva para melhorar a autoeficácia e autogestão da doença crónica.

Reforça-se ainda que os resultados desta revisão estão em sintonia com as competências do enfermeiro de reabilitação, que preveem" *cuidar da pessoa com necessidades especiais ao longo do ciclo da vida*", "*capacitar a pessoa com limitação da*

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atividade e restrição na participação social" e "*maximizar a sua funcionalidade*" (Ordem dos Enfermeiros, 2010). Face às competências destes enfermeiros e os diferentes contextos em que a pessoa se insere, torna-se deste modo clara, a importância da articulação entre cuidados hospitalares e cuidados de saúde primários, relativamente a programas de reabilitação respiratória, facilitando a reinserção familiar e social da pessoa com DPOC após a alta hospitalar. Será pertinente futuramente realizar pesquisas/estudos sobre a efetividade da continuidade dos cuidados de enfermagem de reabilitação entre estes dois contextos, com o objetivo de melhorar a prática de cuidados neste âmbito.

Relativamente às implicações para a prática, este estudo cumpre não apenas o propósito de sistematizar intervenções que promovem o autocuidado nestas pessoas, mas também oferece uma análise reflexiva à luz do modelo conceptual de Orem sobre a intervenção do enfermeiro de reabilitação.

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MORTE EM NEONATOLOGIA: VIVÊNCIAS DOS PROFISSIONAIS DE SAÚDE NA PRESTAÇÃO DE CUIDADOS PALIATIVOS NEONATAIS

END OF LIFE IN NEONATOLOGY: EXPERIENCES OF HEALTH PROFESSIONALS IN NEONATAL PALLIATIVE CARE

MUERTE EN NEONATOLOGÍA: VIVENCIAS DE LOS PROFESIONALES DE SALUD EN LA PRESTACIÓN DE CUIDADOS PALIATIVOS NEONATALES

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RESUMO

Introdução: Recentemente, tem-se constatado que os profissionais que trabalham nas Unidades de Cuidados Intensivos Neonatais mostram um interesse crescente pelas decisões tomadas no final da vida e pela qualidade dos cuidados prestados aos recém-nascidos e suas famílias.
Objetivos: Compreender as vivências dos profissionais de saúde relativamente aos cuidados paliativos neonatais.
Métodos: Utilizou-se a metodologia de investigação qualitativa, exploratório-descritiva, de cariz fenomenológica.
Resultados: Foram aplicados e analisados questionários a 15 profissionais a exercer numa UCIN do centro de Portugal. Os dados obtidos revelam carência de formação e inexistência de protocolos/*guidelines*, bem como necessidade de suporte psicológico a profissionais e família do RN.
Conclusões: A formação contínua e específica, o apoio e acompanhamento psicológico dos profissionais e das famílias devem constituir o pilar dos cuidados paliativos neonatais.

Palavras-chave: cuidados paliativos; neonatologia; recém-nascido; atitude frente à morte; pessoal de saúde

ABSTRACT

Introduction: It has recently been shown that professionals working in neonatal intensive care units (NICUs) show an increasing interest in decisions made at the end of life and in the quality of care provided to newborns and their families.
Objectives: To understand the experiences of health professionals regarding neonatal palliative care.
Methods: The research methodology was qualitative, exploratory-descriptive and phenomenological.
Results: Questionnaires were applied to 15 professionals working at a NICU in central Portugal and subsequently analysed. The data obtained show lack of training and lack of protocols/guidelines, as well as the need for psychological support for professionals and the families of the newborns.
Conclusion: Continuous and specific training, support and psychological counselling for professionals and families should be the pillar of neonatal palliative care.

Keywords: Palliative care; neonatology; infant, newborn; attitude to death; health personnel

RESUMEN

Introducción: Recientemente, se ha constatado que los profesionales que trabajan en las Unidades de Cuidados Intensivos Neonatales muestran un interés creciente por las decisiones tomadas al final de la vida y por la calidad de los cuidados prestados a los recién nacidos y sus familias.
Objetivos: Comprender las vivencias de los profesionales de la salud en relación con los cuidados paliativos neonatales.
Métodos: Se utilizó la metodología de investigación cualitativa, exploratoria-descriptiva, de carácter fenomenológico.
Resultados: se aplicaron y se analizaron cuestionarios a 15 profesionales para participar en una UCIN en el centro de Portugal. Los datos obtenidos revelan carencia de formación e inexistencia de protocolos / pautas, así como necesidad de soporte psicológico a profesionales y familia del RN.
Conclusiús: La formación continua y específica, el apoyo y acompañamiento psicológico de los profesionales y de las familias deben constituir el pilar de los cuidados paliativos neonatales.

Palabras Clave: Cuidados paliativos; neonatologia; recién nacido; actitud frente a la muerte; personal de salud

INTRODUCTION

The World Health Organization (1998) describes paediatric palliative care as total active care for the body, mind and spirit of the child as well as involving support for the family. Neonatal palliative care is defined as a holistic and extensive approach to both the child with an incurable disease and his or her family in mourning. When palliative care is not provided to end-of-life newborns and their families, they may not receive the specialized and multidisciplinary care they need and deserve (Catlin, & Carter, 2002). Advances in neonatal medicine have meant that children with serious diseases, who cannot survive, can be assisted with quality at the end of their lives (Torres, Goya, Rubia, Jimenez, Munóz & Rodríguez, 2013).

In recent years, professionals working in Neonatal Intensive Care Units (NICUs) have shown a growing interest in the decisions taken at the end of life and in the quality of care provided to both the newborn (NB) and the family (Torres et al., 2013). Thus,

neonatology health professionals and grieving families often receive no assistance or support in fatigue, frustration or sadness when babies die or are in an end-of-life situation (Peng, Chen, Huang, Liu, Lee, & Sheng, 2013).

The attitude of nursing professionals towards death is proportionately related to their attitude toward end-of-life care (Yang, Liu, & Liau, 2008). This therefore implies that positive attitudes and beliefs regarding palliative care are important, and professionals with these characteristics, even at an early stage, provide quality care (Chen, Huang, Liu, Lee, Wu, Chang, & Peng, 2013). The scarce research regarding the experiences health professionals go through, and how they deal with them, may affect their attitude towards death. Thus, these experiences must be identified in order to maintain job satisfaction and the appropriate provision of neonatal palliative care (Chen et al., 2013).

In short, taking into account the pertinence of these issues, this research study is conducted with the overall aim of understanding the experiences of health professionals in relation to neonatal palliative care. The specific aims of our study are: to identify and understand the emotions of health professionals in neonatal palliative care, as well as the moments in which they arise; to see if neonatology health professionals consider undergoing specific training in the area of neonatal palliative care and if they consider it important; to identify the perceived need for protocols/guidelines for the practice of neonatal palliative care; and to understand the importance of providing psychological support to neonatal palliative care professionals.

1. THEORETICAL FRAMEWORK

The implementation of palliative care in neonatology is extremely relevant today. With the advance in technology in NICUs from the 1960s, the viability limit for preterm newborns declined drastically, particularly for those with very low birth weight and very low gestational age, proportionally increasing the probability of survival with serious disability. Similarly, there was a substantial improvement in prenatal diagnosis techniques, resulting in increasingly accurate prognostic instruments, as well as an undeniable progress in therapeutic resources (Soares, Rodrigues, Rocha, Martins, & Guimarães, 2013).

In Portugal, the rate of neonatal mortality has decreased significantly over the last decades, decreasing from 6.9% in 1990 to 3.4% in 2002, which corresponds to a decrease of 50.7% and reaching 2% in 2015 (Pordata, 2017).

Taking technical and scientific developments in recent years and their repercussions on the neonatal mortality rate into account, the question of whether anything technically possible is ethically acceptable has arisen. Thus, ethical dilemmas with clear repercussions in clinical practice have emerged. Among these, a greater sensitivity to adopting therapeutic limitations and palliative care is emphasized when attempts to cure patients become futile and therefore clinically and ethically unjustifiable (Peng et al., 2013).

According to the Association for Children's Palliative Care (2009, p.4, cit. by Ministério da Saúde, 2014),

> "*palliative care for children and young people is an active and total approach to their care, from diagnosis to recognition, throughout their entire lives and beyond their death. It [palliative care] covers physical, emotional, social and spiritual elements, focusing on improving the quality of life of the child/youth and support for their family, and includes symptom control, provision of rest periods for caregivers, and assistance during the terminal stage and mourning.*"

Palliative care presupposes an acceptance of death as an unavoidable phenomenon, focusing on adequate care and comfort for the NB and support for the family. All phases of the newborn's disease should be taken into account during its progression until the final moment, with the aim of helping the NB to achieve a dignified death, respecting it as a person (Torres et al., 2013).

The decision to withdraw or discontinue intensive neonatal care can be made to alleviate suffering. The decision not to reanimate (DNR) is defined in a narrow sense as the decision to renounce cardiopulmonary resuscitation and was formally introduced as an option for end-of-life care (Huang, Chen, Liu, Lee, Peng, Wang, & Chang, 2013).

Health professionals in neonatology have an ethical obligation to administer the treatments that are indicated, as well as not to initiate or suspend treatments considered contraindicated. Continuing resuscitation measures in end-of-life situations presumes violating the ethical principle of *"non-maleficence"* that obliges not to cause harm or injury to the newborn (Peng et al., 2013).

Decision-making should be shared between the care team and parents through a process of deliberation and a choice of possible courses of action, which will best serve the interests of the child. The strategy of waiting for "absolute certainty" involves the risk of therapeutic obstinacy, which may cause harm to the newborn, the family, and society in general. It is the parents, as representatives of the child, who have a moral and legal responsibility to give their consent or deny it. In this way, their decisions are definitive unless they conflict with the opinions of the responsible professionals. The participation of parents in decision-making is always a difficult and stressful situation, so decisions should be taken in agreement with professionals (Torres et al., 2013).

Health professionals who experience the pain and suffering of children and their families can also experience their own pain and suffering. These negative feelings can lead to a reluctance to care for newborns at the end of life, as well as lead to an increase in burnout rates. Thus, these feelings should be identified in order to maintain job satisfaction and acceptable delivery of neonatal palliative care (Chen et al., 2013).

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2. METHODS

Considering the concerns that led us to the development of this study, we opted for a qualitative, exploratory-descriptive, phenomenological study. We based our methodological approach in Fortin, Côte, & Filion (2009), stating that the aim of the qualitative research method is to understand the phenomenon under study broadly. This was also stated by Streubert and Carpenter (2002, p.20), in affirming, "the purpose of phenomenology is to explore the experiences lived by individuals and provides researchers with the framework to discover what experience is like." Thus, we focus on the experiences of health professionals in relation to neonatal palliative care.

2.1 Sample

The data were collected in the NICU of a hospital unit in central Portugal and then analysed. The participants were selected through non-probabilistic, intentional sampling, in order to get answers to more specific and differentiated questions. For this, we had to create inclusion criteria, that is, the participants had to be health professionals practising in the NICU mentioned above. The study sample consisted of the health professionals who voluntarily participated and consisted of six paediatricians and nine nurses, for a total of 15 participants (N=15).

2.2 Data collection instruments

The instrument used for data collection was the questionnaire, consisting of open and closed questions. Two experts in the area validated the instrument through critical analysis, verifying the pertinence of each question in relation to the objectives of the study. After making the suggested changes, a pre-test was applied to two health professionals of the neonatology department in a hospital not involved in this study, in order to certify the clarity and impartiality of the questionnaire, as well as its adequacy in obtaining information.

To support the understanding and meaning of the data we use the technique of content analysis, based on Amado (2000), Bardin (2009) and some aspects referred to by Streubert and Carpenter (2002).

A random code (N1 to N15) was assigned to each questionnaire. Then, the body of each questionnaire was read carefully, followed by a rereading in order to discover the meanings and to formulate the dimensions, categories and subcategories that emerged. Each questionnaire was analysed individually, since each participant has a valid and sustained experience and opinion. After this step, an attempt was made to apprehend the essential relations, and a representative drawing of the phenomenon was elaborated, which was used as a driver to analyse the data.

2.3 Procedures

After receiving a favourable opinion from the hospital's board of directors, the hospital's ethics committee was consulted. Then, with the objectives explained to them and guaranteeing anonymity and confidentiality of the data, all of the participants signed the informed consent form to participate in the study. This ensures compliance with the ethical and legal considerations necessary for the research process.

3. RESULTS

After analysing the questionnaires for the sociodemographic characteristics, we found that 100% of the sample was female. As for educational level, 60% of the participants had a degree in nursing, 33.3% of whom had a speciality, 40% had studied medicine specializing in paediatrics. The mean age is 37.27 years, with a standard deviation of 7.79 and had 13.4 years of professional experience. It should be noted that 60% of the respondents have children.

Regarding specific training in palliative care, 86.7% reported not having it. Only 33.3% of the sample provided neonatal palliative care and 73.3% reported they had previously provided end-of-life care. Nearly all respondents, 93.3%, do not equate neonatal palliative care with end-of-life care. The same sample, 93.3% said that there are no protocols/guidelines in the service, even though 86.7% consider them important. There was unanimous agreement among participants on the importance of moments of reflection and being provided psychological support.

Thus, the data obtained are based on the experiences of health professionals marking their work in the provision of palliative care, as well as their opinion about the need for protocols or guidelines for their practice and support. From the data analysis of the open answers, six dimensions emerged: palliative neonatal care, end-of-life care, palliative and end-of-life care, importance of protocols/guidelines, importance of moments of reflection, and importance of psychological support, with respective categories and subcategories, as shown in table 1.

Table 1: Dimensions, categories and subcategories of the experience of health professionals in providing neonatal palliative care

Dimension	Categories	Subcategories
Providing neonatal palliative care	Satisfaction in providing care	Tranquillity
		Gift of prolonging life
		Doing one's duty
		Respect for the patient and the family
	Dissatisfaction in providing care	Impotence
		Anguish
		Emotional exhaustion
		Confusing feelings and thoughts
	No experience in providing care	
Providing end-of-life care	Emotionally difficult experience	
	Emotional relief	Peace
	No experience in providing care	
Equivalency of palliative and end-of-life care	Palliative care	Quality of life, comfort and well-being
		Pain management
		Managing care
	End-of-life care	Emotionally difficult experience
		Pain management
		Supporting the family
		Therapeutic obstinacy
Importance of the existence of protocols/guidelines	Standardization of team performance	Clarifying questions
		Ensuring quality of care
Importance of moments of reflection	Group sharing	Sharing of emotions, ideas, experiences
		Personal and professional enrichment
	Personal and professional development	Improving future situations
		Not feeling guilty
		Improving care
	Standardization of procedures	
Importance of psychological support	Availability	
	Emotional and social support	Cause of burnout
		Learning to deal with the patient

4. DISCUSSION

From the data analysis, we found they are in line with the studies mentioned above (Chen et al., 2013; Soares et al., 2013 & Mendes et al., 2013) which reinforce the fact that health professionals do not have specific training in the area of neonatal palliative care. They also attest to the lack of protocols/guidelines to guide and support care, as well as the absence of formal moments of reflection and psychological support to strengthen coping mechanisms in dealing with neonatal palliative care.

We acknowledge that this study reports on a single unit, so we cannot generalize these results to other neonatal units. However, we can infer that the results obtained are representative of this unit.

Given the wealth of the respondents' replies, it was not easy to sum up all of the information collected and organize it into dimensions, categories and subcategories.

Dimensional analysis:

Providing neonatal palliative care

The dimension of neonatal palliative care integrates care from diagnosis to acknowledging the situation, throughout life and beyond death. In this dimension, "satisfaction in providing care," "dissatisfaction in providing care," and "no experience in providing care" appear as categories.

According to Battikha, Carvalho, & Kopelman, (2014) and Chen et al. (2013), health professionals place themselves in the parents' shoes regarding their own experience of the death of a loved one. They recognize their own fragility lack of control over illness and death, as N14 says, professionals show "*a great respect for the sick NB and the family*" and "*the whole team is moved*" (N10). In addition, for these authors, feelings of anguish, impotence, guilt, suffering and loss are also described when confronted with the limits of modern medicine, of its action and of its inability to achieve the ideal of healing, as described by N6, "*feelings of impotence, distress*," and N10, "*a situation of some emotional exhaustion*." Moreover, Battikha et al. (2014) reports that it is the

death of the other, but evokes the finitude in all, as well as other limits, impossibilities and losses. As N3 indicates, *". . . confrontation with the finitude of life . . . the acceptance that the human being does not control everything. Death is not our domain."*

End-of-life care

In the dimension of end-of-life care, which involves maintaining the life of the newborn at all costs, focusing on invasive and technological care. This dimension includes the following categories: "emotionally difficult experience," "emotional relief," and "no experience in providing care."

Chen et al. (2013) reports that caring for newborns at the end of life is a traumatic experience and Torres et al. (2013) states that doctors and nurses mention palliative care as the most stressful activity of their care practice. These statements are reflected in N5, *"They are always very emotional moments that affect the whole team*."

End-of-life care presupposes an emotional relief for the professional as it presents a sense of peace and an end to the suffering of the neonate. As N14 says, *"I felt a great peace because of the end of the suffering*."

Equivalency of palliative and end-of-life care

This dimension involves a comparison between palliative and end-of-life care and is divided into the categories "palliative care" and "end-of-life care."

Peng et al. (2013) reported that, with the reduction in the neonatal mortality rate, there are ethical dilemmas with clear repercussions in clinical practice, highlighting a greater sensitivity towards adopting therapeutic limitations and palliative care. With this research involving Portuguese NICU professionals, we found that they mention the same experiences and duality of thought. In particular N8 mentions the *"practice of therapeutic obstinacy"* and N3, *"unnecessary invasive care*," and often because *"fear . . . invests heavily in the NB"* (N7), thereby practicing end-of-life care, not valuing the newborn's quality of life. This has the additional issue of delaying the moment of suspending invasive measures by the entire multidisciplinary team, removing the true essence of palliative care.

Soares et al. (2013) mentions that in palliative care there is a greater concern with pain relief at a time when a cure is not expected, which is in line with what N7 and N3 described respectively, *"comfort care (reducing pain)"* and *". . . promoting comfort, well-being and the absence of pain*."

Importance of the existence of protocols/guidelines

This dimension focuses on the importance of the existence of protocols/guidelines that guide and support the provision of neonatal palliative care. "Standardization of team performance" is the only category in this dimension.

Chen et al. (2013) and Soares et al. (2013) have shown that the absence of protocols and guidelines supporting palliative care and the lack of counselling services hamper the implementation of a palliative care model. The existence of rules of guidance accepted by health professionals constitutes a valuable aid to health professionals in the early relief of the suffering of the newborn and his/her family, during a severe and end-of-life neonatal illness (Mendes, J., Silva, L. J., 2013). This was found in comments by N2, N3, N4, N5, N6, N7, N11 and N14 *"So that there is a common thread unifying and guaranteeing quality of care."*

Importance of moments of reflection

This refers to formal moments of expression of feelings, active listening to conversations detailing experiences and sharing of ideas and experiences, facilitating the overcoming of difficulties experienced by the professionals, as a team. The categories in this dimension are "group sharing," "personal and professional development," and "standardization of procedures."

Mendes et al. (2013) states that it may often be important to hold meetings after neonatal death for group reflection, constructive assessment of the therapeutic and palliative attitudes adopted and expressing feelings. Most respondents also say, *"Any exchange of experiences and reflection on them is a contribution to the improvement of the care and balance of the team*." (N13) and *"[They] enable group reflection as well as a sharing of ideas and feelings experienced*." (N6).

Battikha et al. (2014) states that professionals recognize the need to talk about this anguish, which is often borne in silence. As N1 reports, *"At the time I felt the need to share with someone, but I did not have anyone*."

Importance of psychological support

Psychological support is critical to prevent burnout and emotional exhaustion. The categories in this dimension are "availability" and "emotional and social support."

The impending death of a child can generate strong emotions in health professionals, such as defeat, impotence and sadness, which, may require psychological follow-up as stated by N2. *"Given the negative load inherent to this situation, psychological support, as well as group reflection, would facilitate overcoming and going through this phase*." N6 says, *"It is important for health professionals to be supported in managing feelings/emotions/frustrations . . ."* And N8 reported *". . . I, myself, have felt the need to talk to someone*." Peng et al. (2013) mentions in their study that neonatal health professionals and grieving families are often

not assisted in coping with fatigue, frustration or sadness when babies die. With this analysis of the data obtained, we corroborate this situation, since 100% of the respondents answered that they had no psychological assistance, but stress that they consider its existence to be fundamental. "*There are no formal moments; there are informal moments, very generally associated with case gone through at the time,*" says N15. N13 further reinforces that these moments "*are during shift changes or service meetings*."

Given the reality that professionals are members of a multidisciplinary team that dedicates more time to the care of the newborn at the end of life, suffering and death are a great emotional burden on them. In our opinion, if this is not valued and properly accompanied it could lead to burnout. In the context of neonatal palliative care, professionals recognize this framework as an important barrier to the provision of quality care (Torres et al., 2013). This was reflected by N14, who stated, "*Caring for the threshold and/or limit of life can cause burnout for dedicated professionals.*"

After comparing the results of our questionnaire with the theoretical groundwork, we found that health professionals who provide care in neonatology play an essential role in the defence, promotion and delivery of care to terminally ill newborns and emotional support to their families. It is also noted that the majority of the respondents said they not to provide palliative care due to lack of training. In addition, of the total sample, only one respondent has received training in the area of paediatric palliative care and 100% have had situations of newborns requiring the need for palliative care. The training of professionals is essential to acquire the skills that will make the delivery of quality care possible (Ministério da Saúde, 2014).

In terms of state of the art in Portugal, we found a Consensus on Neonatal Palliative Care and End of Life, from the Portuguese Society of Paediatrics, Neonatology Section, a neonatal palliative care protocol. It states, "*[Palliative care] treats general considerations that may be accepted by neonatologists in general, but we believe that each unit should adapt palliative care to the individualized needs of the newborn and its family*" (Mendes et al., 2013, p.1).

Providing neonatal palliative care requires the development of human and relational skills, in which vocation and individual motivation associated with experience are crucial, but pre- and post-graduate training is indispensable. It is important that decisions involving neonatal palliative care and neonatal death are supported by the entire professional team in order to reach a consensus and so that there are moments after neonatal death for group reflection, constructive evaluation of the therapeutic and palliative attitudes adopted, as well as expressing feelings (Mendes et al., 2013).

"In spite of the reduced numbers and the trend towards a decline in the mortality rate, considering Perinatal Palliative Care (PPC) in Portugal should be a priority since this age group represents 29% of paediatric deaths with palliative needs" (Ministério da Saúde, 2014, p. 43).

According to the current reality, many newborns who survive due to the large investment of specialized care need palliative care after this investment. However, in an initial phase the interdisciplinary teams have difficulty assuming that this is a priority. We conclude that a problem of quaternary prevention is continually faced in this context. It must be recognized, valued and dealt with by the professionals involved.

CONCLUSIONS

Aware of the importance of understanding how health professionals experience palliative and end-of-life care in neonatology, we conducted this study, in order to help us understand the emotional diversity and the moments that are encountered, identifying the difficulties experienced by the health professionals of the NICU under study in relation to care delivery. In addition, the objectives of this study are to understand the existence and importance of specific training in palliative care, as well as the perceived need for service protocols and the possibility of requesting psychological support from professionals.

Taking into account the objectives of the study, we can say that palliative and end-of-life care provokes ambivalent emotions, with negative and impotent emotions predominating, in relation to the need for specific training, protocols/guidelines and psychological support for the professionals involved.

With this study, we have concluded that health professionals consider it important to have moments of sharing and reflecting on the emotions experienced and that, contradictorily, only a minority of them has this opportunity and practice. We consider it, therefore, as a practical implication of the conclusion of the study, that procedures for reflection of emotional experiences be made compulsory, as a form of inter-help, of professional growth to deal with new situations and as a form of identification of excessive interventionism in health, striving for quaternary prevention for the newborns and their families.

Faced with this issue, new studies should be conducted towards discovering other realities and contexts in the country's NICU in order to compare results. Knowing the perception of the experiences of the parents in this context is also an area of research that seems pertinent to us and that would contribute to raise health professionals' awareness on this topic.

We believe that the practice of neonatal palliative care should focus on differentiation and interdisciplinarity, based on continuous, adequate and rigorous training of professionals, as well as regular procedural emotional reflexive practices and individualized psychological support and follow-up when necessary, so that they can provide quality of care for newborns and their families.

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MORTE EM NEONATOLOGIA: VIVÊNCIAS DOS PROFISSIONAIS DE SAÚDE NA PRESTAÇÃO DE CUIDADOS PALIATIVOS NEONATAIS

END OF LIFE IN NEONATOLOGY: EXPERIENCES OF HEALTH PROFESSIONALS IN NEONATAL PALLIATIVE CARE

MUERTE EN NEONATOLOGÍA: VIVENCIAS DE LOS PROFESIONALES DE SALUD EN LA PRESTACIÓN DE CUIDADOS PALIATIVOS NEONATALES

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RESUMO

Introdução: Recentemente, tem-se constatado que os profissionais que trabalham nas Unidades de Cuidados Intensivos Neonatais mostram um interesse crescente pelas decisões tomadas no final da vida e pela qualidade dos cuidados prestados aos recém-nascidos e suas famílias.
Objetivos: Compreender as vivências dos profissionais de saúde relativamente aos cuidados paliativos neonatais.
Métodos: Utilizou-se a metodologia de investigação qualitativa, exploratório-descritiva, de cariz fenomenológica.
Resultados: Foram aplicados e analisados questionários a 15 profissionais a exercer numa UCIN do centro de Portugal. Os dados obtidos revelam carência de formação e inexistência de protocolos/*guidelines*, bem como necessidade de suporte psicológico a profissionais e família do RN.
Conclusões: A formação contínua e específica, o apoio e acompanhamento psicológico dos profissionais e das famílias devem constituir o pilar dos cuidados paliativos neonatais.

Palavras-chave: cuidados paliativos; neonatologia; recém-nascido; atitude frente à morte; pessoal de saúde

ABSTRACT

Introduction: It has recently been shown that professionals working in the Neonatal Intensive Care Units show an increasing interest in decisions made at the end of life and in the quality of care provided to newborns and their families.
Objetives: To understand the experiences of health professionals regarding neonatal palliative care.
Methods: The research methodology was qualitative, exploratory-descriptive and phenomenological.
Results: Questionnaires were applied and analyzed to 15 professionals working at a NICU in central Portugal. The data obtained show lack of education and lack of protocols/guidelines, as well as the need of psychological support to professionals and family of the NB.
Conclusions: Continuous and specific training, support and psychological counseling of professionals and families should be the pillar of neonatal palliative care.

Keywords: Palliative care; neonatology; infant, newborn; attitude to death; health personnel

RESUMEN

Introducción: Recientemente, se ha constatado que los profesionales que trabajan en las Unidades de Cuidados Intensivos Neonatales muestran un interés creciente por las decisiones tomadas al final de la vida y por la calidad de los cuidados prestados a los recién nacidos y sus familias.
Objetivos: Comprender las vivencias de los profesionales de la salud en relación con los cuidados paliativos neonatales.
Métodos: Se utilizó la metodología de investigación cualitativa, exploratoria-descriptiva, de carácter fenomenológico.
Resultados: se aplicaron y se analizaron cuestionarios a 15 profesionales para participar en una UCIN en el centro de Portugal. Los datos obtenidos revelan carencia de formación e inexistencia de protocolos / pautas, así como necesidad de soporte psicológico a profesionales y familia del RN.
Conclusíons: La formación continua y específica, el apoyo y acompañamiento psicológico de los profesionales y de las familias deben constituir el pilar de los cuidados paliativos neonatales.

Palabras Clave: Cuidados paliativos; neonatología; recién nacido; actitud frente a la muerte; personal de salud

INTRODUÇÃO

A Organização Mundial de Saúde (1998) descreve cuidados paliativos pediátricos como cuidados ativos totais para o corpo, mente e espírito da criança, envolvendo também o suporte à família. Os cuidados paliativos neonatais são definidos como uma abordagem holística e extensa, tanto à criança com uma doença incurável, como à sua família no seu luto. Quando não são proporcionados cuidados paliativos aos recém-nascidos (RN) em fim de vida e às suas famílias, estes podem não receber os cuidados especializados e multidisciplinares que eles necessitam e merecem (Catlin, & Carter, 2002).
Os avanços da medicina neonatal levaram a que as crianças com doenças graves, que não têm possibilidade de sobreviver, possam ser assistidas com qualidade no fim de vida (Torres, Goya, Rubia, Jimenez, Munóz & Rodríguez, 2013).
Nos últimos anos, tem-se constatado por parte dos profissionais que trabalham nas Unidades de Cuidados Intensivos Neonatais (UCIN's) um interesse crescente pelas decisões que se tomam no final da vida e pela qualidade dos cuidados prestados, tanto ao

RN como à família (Torres *et al*, 2013). Assim, os profissionais de saúde de Neonatologia e as famílias em luto, frequentemente não recebem assistência ou apoio no cansaço, frustração ou tristeza quando os bebés morrem ou se encontram em situação de fim de vida (Peng, Chen, Huang, Liu, Lee, & Sheng, 2013).

A atitude dos profissionais de Enfermagem perante a morte está relacionada proporcionalmente com a sua atitude perante os cuidados em fim de vida (Yang, Liu, & Liau, 2008). Deste modo, tal implica que atitudes positivas e crenças em relação a cuidados paliativos são importantes e os profissionais com estas características, mesmo que em início de carreira, prestam cuidados de qualidade (Chen, Huang,Liu, Lee, Wu, Chang, & Peng, 2013). A escassa investigação relativamente às vivências dos profissionais de saúde e a forma de lidar com estas, poderá condicionar a atitude destes perante a morte. Assim, estas vivências devem ser identificadas com o intuito de manter a satisfação profissional e a prestação apropriada de cuidados paliativos neonatais (Chen *et al*, 2013).

Em suma, tendo em conta a pertinência da temática, surge a elaboração do presente estudo de investigação, tendo como objetivo geral compreender as vivências dos profissionais de saúde em relação aos cuidados paliativos neonatais. Os objetivos específicos do nosso estudo são: identificar e compreender as emoções dos profissionais de saúde em cuidados paliativos neonatais, bem como os momentos em que surgem; perceber se os profissionais de saúde de Neonatologia consideram deter formação específica na área dos cuidados paliativos neonatais e se o consideram importante; identificar a necessidade sentida de protocolos/*guidelines* para a prática de cuidados paliativos neonatais e compreender a importância da existência de encaminhamento para apoio psicológico dos profissionais de cuidados paliativos neonatais.

1. ENQUADRAMENTO TEÓRICO

A implementação dos cuidados paliativos em Neonatologia reveste-se de extrema relevância nos dias de hoje. Com o domínio da tecnologia nas UCIN's a partir dos anos 60, o limite de viabilidade para os RN's de pré-termo diminuiu de forma drástica, particularmente para os de muito baixo peso e muito baixa idade gestacional, aumentando proporcionalmente a probabilidade de sobrevivência com incapacidade grave. De igual forma, verificou-se uma melhoria substancial das técnicas de diagnóstico pré-natal, resultando em instrumentos de prognóstico cada vez mais precisos, bem como um progresso incontestável ao nível dos recursos terapêuticos (Soares, Rodrigues, Rocha, Martins, & Guimarães, 2013).

Em Portugal, a taxa de mortalidade neonatal tem vindo a decrescer significativamente ao longo das últimas décadas, diminuindo de 6,9% em 1990 para 3,4% em 2002, o que correspondeu a um decréscimo de 50,7% e atingindo em 2015 os 2% (Pordata, 2017).

Tendo em conta a evolução técnico-científica verificada nos últimos anos e respetiva repercussão na taxa de mortalidade neonatal, questiona-se se tudo o que é tecnicamente possível será eticamente aceitável. Deste modo, surgem dilemas de natureza ética com claras repercussões a nível da prática clínica. Entre as últimas destaca-se uma maior sensibilidade para a adoção de atitudes de limitação terapêutica e de cuidados paliativos, quando as atitudes de caráter curativo se tornam fúteis e por isso, clinicamente e eticamente injustificáveis (Peng *et al*, 2013).

Segundo a Association for Children's Palliative Care (2009, p.4*,* cit. por Ministério da Saúde, 2014),

> *"cuidados paliativos para crianças e jovens são uma abordagem ativa e total aos seus cuidados, desde o diagnóstico ao reconhecimento da situação, durante toda a sua vida e para além da sua morte. Abrangem elementos físicos, emocionais, sociais e espirituais, focando-se na melhoria da qualidade de vida da criança/jovem e suporte à sua família. Incluem o controlo de sintomas, a provisão de períodos de descanso dos cuidadores e o acompanhamento na fase terminal e luto".*

Os cuidados paliativos pressupõem uma aceitação da morte como um fenómeno inevitável, centrando-se no cuidado e conforto adequado ao RN e suporte à família. Deve ter-se em consideração todas as fases da doença do RN durante a evolução da mesma até ao momento final, com o objetivo de o ajudar a ter uma morte digna, respeitando-o como pessoa (Torres *et al*, 2013).

A decisão de retirar ou suspender os cuidados intensivos neonatais pode ser feita para aliviar o seu sofrimento. Definida de forma restrita, a decisão de não reanimar (DNR) é a decisão de renunciar à ressuscitação cardiopulmonar e foi formalmente introduzida como uma opção para os cuidados de fim de vida (Huang, Chen, Liu, Lee, Peng, Wang, & Chang, 2013).

Os profissionais de saúde em Neonatologia têm a obrigação ética de administrar os tratamentos que estão indicados assim como não iniciar ou suspender tratamentos considerados contraindicados. Continuar com medidas de reanimação em situações de fim de vida supõe violar o princípio ético de *"não maleficência"* que obriga a não causar dano ou prejuízo ao RN (Peng *et al*, 2013).

A tomada de decisão deve ser partilhada entre a equipa de assistência e os pais através de um processo de "deliberação" e escolha entre diferentes opções possíveis para o curso de ação que melhor atende aos interesses da criança. A estratégia de esperar pela "certeza absoluta" envolve o risco de obstinação terapêutica, o que causa prejuízo para o RN, para a família e para a sociedade em geral. São os pais como representantes da criança que têm responsabilidade moral e legal para dar o seu consentimento ou negá-lo. Deste modo, as suas decisões são determinantes, a menos que entrem em conflito com os

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profissionais responsáveis. A participação dos pais na tomada de decisão representa sempre uma situação difícil e stressante, por isso deve ser tomada em comum acordo entre os pais e os profissionais (Torres *et al*, 2013).

Os profissionais de saúde que vivenciam a dor e o sofrimento das crianças e sua família, podem também experienciar a sua própria dor e sofrimento. Estes sentimentos negativos podem levar a relutância em prestar cuidados a RN em fim de vida, bem como originar um aumento das taxas de *burnout*. Desta forma, estes sentimentos devem ser identificados com o intuito de manter a satisfação profissional e a prestação apropriada de cuidados paliativos neonatais (Chen *et al*, 2013).

2. MÉTODOS

Tendo em conta as preocupações que nos levaram ao desenvolvimento deste estudo, a opção metodológica enquadra-se no método de investigação qualitativa, exploratório-descritiva, de cariz fenomenológica. Firmamos a nossa opção metodológica em Fortin, Côte, & Filion, (2009) ao referir que a utilização do método de investigação qualitativa tem por objetivo compreender de forma ampla o fenómeno em estudo também referida por Streubert e Carpenter (2002, p. 20), quando afirmam "o propósito da fenomenologia é explorar as experiências vividas pelos indivíduos e possibilita aos investigadores o enquadramento para descobrir como é viver a experiência". Assim sendo, centramo-nos nas vivências dos profissionais de saúde em relação aos cuidados paliativos neonatais.

2.1 Amostra

Os dados foram recolhidos na UCIN de uma unidade hospitalar do centro de Portugal e posteriormente analisados. Para a seleção dos participantes recorremos à amostragem não probabilística, intencional, de forma a conseguir respostas às questões mais específicas e diferenciadas. Para isso, foi necessário criarmos critérios de inclusão, nomeadamente, os participantes serem profissionais de saúde a exercer na UCIN supracitada. A amostra do estudo foi constituída pelos profissionais de saúde que voluntariamente aceitaram participar, sendo seis médicas pediatras e nove Enfermeiras, num total de 15 participantes (N=15).

2.2 Instrumentos de recolha de dados

O instrumento utilizado para a recolha de dados foi o questionário, constituído por questões abertas e fechadas. A validação do instrumento foi realizada por dois peritos na área, através da análise crítica, verificando a pertinência de cada questão face aos objetivos do trabalho. Após efetuar as alterações sugeridas, foi aplicado um pré-teste a dois profissionais de saúde do serviço de Neonatologia de uma unidade hospitalar distinta da do estudo, de forma a certificar a clareza e imparcialidade da formulação do questionário, bem como a sua adequação na obtenção de informação pretendida.

Para sustentar a compreensão e significado dos dados utilizamos a técnica de análise de conteúdo, tendo por base Amado (2000), Bardin (2009) e alguns aspetos referidos por Streubert e Carpenter (2002).

Foi atribuído um código aleatório (N1 a N15) a cada questionário. De seguida foi realizada uma leitura cuidadosa do corpo de cada um, seguida de uma releitura por forma a descobrir os significados e a elaboração das dimensões, categorias e subcategorias que iam emergindo. Cada questionário foi analisado individualmente, já que cada participante possui uma vivência e opinião válida e sustentada. Após este passo, procurou-se apreender as relações essenciais, tendo sido elaborado um desenho representativo do fenómeno, que foi utilizado como condutor na análise dos dados.

2.3 Procedimentos

Após parecer favorável do Conselho de Administração do Centro Hospitalar, auscultada a comissão de ética do mesmo centro hospitalar, todos os participantes firmaram o consentimento informado para participarem no estudo, depois de explicados os objetivos e garantido o anonimato e a confidencialidade dos dados. Deste modo, asseguram-se o cumprimento das considerações ético-legais necessárias ao processo de investigação.

3. RESULTADOS

Após análise dos questionários, no que diz respeito à caracterização sociodemográfica, constatamos que 100% da amostra era de sexo feminino. Relativamente ao nível de escolaridade, verificamos que 60% dos participantes eram licenciados em Enfermagem, dos quais 33,3% com especialidade; 40% eram licenciados em Medicina com especialidade de Pediatria. A média de idades é de 37,27 anos, com um desvio padrão de 7,79 e uma de experiência profissional 13,4 anos. É de referir que 60% das inquiridas têm filhos.

Em relação à formação específica em cuidados paliativos, 86,7% referiram que não a possuem. Apenas 33,3% da amostra prestou cuidados paliativos neonatais e 73,3% referem que já prestaram cuidados em fim de vida. A quase totalidade das inquiridas, 93,3%, não equipara cuidados paliativos neonatais a cuidados em fim de vida. A mesma amostra, 93,3% refere que não existem protocolos/*guidelines* no serviço, apesar de 86,7% considerar importante a sua existência. Para as participantes é unânime a importância dos momentos de reflexão e encaminhamento para apoio psicológico dos profissionais.

Assim, os dados obtidos assentam nas vivências dos profissionais de saúde, as quais marcam a sua experiência na prestação de cuidados paliativos neonatais, bem como na sua opinião acerca da necessidade de existência de protocolos ou *guidelines* para a prática e apoio dos mesmos. Da análise dos dados das respostas abertas, emergiram seis dimensões: prestação de cuidados paliativos neonatais, prestação de cuidados em fim de vida, equiparação de cuidados paliativos e em fim de vida, importância da existência de protocolos/guidelines, importância de momentos de reflexão e importância de encaminhamento para apoio psicológico, com respetivas categorias e subcategorias, conforme podemos observar na tabela 1.

Tabela 1: Dimensão, categorias e subcategorias da vivência dos profissionais de saúde na prestação de cuidados paliativos neonatais

Dimensão	Categorias	Subcategorias
Prestação de cuidados paliativos neonatais	Satisfação pela prestação de cuidados	Tranquilidade
		Dádiva de prolongar a vida
		Dever cumprido
		Respeito pelo doente e pela família
	Insatisfação pela prestação de cuidados	Impotência
		Angústia
		Desgaste emocional
		Confusão de sentimentos e pensamentos
	Sem experiência na prestação de cuidados	
Prestação de cuidados em fim de vida	Vivência emocionalmente difícil	
	Alívio emocional	Paz
	Sem experiência na prestação de cuidados	
Equiparação de cuidados paliativos e em fim de vida	Cuidados paliativos	Qualidade de vida, conforto e bem-estar
		Gestão da dor
		Gestão dos cuidados
	Cuidados em fim de vida	Vivência emocionalmente difícil
		Gestão da dor
		Apoio à família
		Obstinação terapêutica
Importância da existência de protocolos/guidelines	Uniformização da atuação da equipa	Esclarecimento de dúvidas
		Garantir qualidade de cuidados
Importância de momentos de reflexão	Partilha de grupo	Partilha de emoções, ideias, experiências
		Enriquecimento pessoal e psicológico
	Desenvolvimento pessoal e profissional	Melhorar situações futuras
		Não sentir culpa
		Melhoria de cuidados
	Uniformização de procedimentos	
Importância de encaminhamento para apoio psicológico	Disponibilidade	
	Apoio emocional e social	Causa de *burnout*
		Aprender a lidar com o doente

4. DISCUSSÃO

Da análise dos dados obtidos, verificamos que estão em consonância com os estudos mencionados (Chen *et al*, 2013; Soares *et al*, 2013 & Mendes *et al*, 2013) que reforçam que os profissionais de saúde não apresentam formação específica na área dos cuidados paliativos neonatais, bem como a inexistência de protocolos/*guidelines* que orientem e fundamentem a prestação de cuidados, além da ausência de momentos de reflexão formais e encaminhamento para apoio psicológico, reforçando assim os mecanismos de *coping* perante a prática de cuidados paliativos neonatais.

Reconhecemos que este estudo se reporta a uma única unidade, pelo que não possamos generalizar estes resultados a outras unidades neonatais. Contudo, podemos inferir que os resultados obtidos são representativos desta unidade.

Dada a riqueza do discurso das inquiridas não foi fácil sintetizar toda a informação recolhida e organizá-la em dimensões, categorias e subcategorias.

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Análise de dimensão *per se*:

Prestação de cuidados paliativos neonatais
Na dimensão prestação de cuidados paliativos neonatais, a qual integra os cuidados desde o diagnóstico ao reconhecimento da situação, durante toda a sua vida e para além da sua morte. Nesta dimensão surgem como categorias "satisfação na prestação de cuidados", "insatisfação na prestação de cuidados" e "sem experiência na prestação de cuidados".
Segundo Battikha, Carvalho, & Kopelman, (2014) e Chen *et al* (2013), os profissionais de saúde colocam-se no lugar dos pais quanto à sua própria experiência com a morte de alguém querido, pelo reconhecimento da sua própria fragilidade diante da falta de controle sobre a doença e morte, como diz N14: os profissionais demonstram "*um grande respeito pelo doente e pela família*" e "*toda a equipa fica sensibilizada*" (N10). Ainda para os mesmos autores, são também descritos sentimentos de angústia, impotência, culpabilidade, sofrimento e de perda, sentidos quando confrontados com os limites do alcance da Medicina, da sua própria atuação e da queda do ideal da cura, como descreve N6 "*sentimentos de impotência, angústia*" e N10 "*situação de algum desgaste emocional*". Ainda Battikha *et al* (2014) refere que a morte é do outro, mas evoca a finitude de todos, bem como outros limites, impossibilidades e perdas, como assinala N3 "*(...) confronto com a finitude da vida (...), a aceitação de que o ser humano não controla tudo. A morte não é do nosso domínio*".

Prestação de cuidados em fim de vida
Na dimensão prestação de cuidados em fim de vida, que pressupõe manter a vida do RN a todo o custo, centrando-se nos cuidados invasivos e tecnológicos. Esta dimensão inclui como categorias "vivência emocionalmente difícil", "alívio emocional" e "sem experiência na prestação de cuidados".
Chen *et al* (2013) refere que cuidar de RN em fim de vida é uma experiência traumática e Torres *et al* (2013) afirma que médicos e enfermeiros assinalam os cuidados paliativos como as atividades mais stressantes da sua prática assistencial. Estas afirmações estão espelhadas em N5 "*São sempre momentos muito emotivos e que afetam toda a equipa*".
Os cuidados em fim de vida pressupõem um alívio emocional do profissional pois evidencia sensação de paz e fim de sofrimento do RN, como diz N14 "*senti uma paz enorme pelo fim do sofrimento*".

Equiparação de cuidados paliativos e em fim de vida
Esta dimensão implica a comparação entre cuidados paliativos e cuidados em fim de vida e divide-se nas categorias "cuidados paliativos" e "cuidados em fim de vida".
Peng *et al* (2013) refere que, com a diminuição da taxa de mortalidade neonatal, surgem dilemas de natureza ética com claras repercussões a nível da prática clínica, destacando-se uma maior sensibilidade para a adoção de atitudes de limitação terapêutica e de cuidados paliativos. Com a investigação realizada aos profissionais portugueses da UCIN em estudo, verificou-se que estes referem as mesmas vivências e dualidade de pensamentos, nomeadamente N8 refere "*prática de obstinação terapêutica*" e N3 "*cuidados invasivos desnecessários*", sendo que muitas vezes por "*medo (...) investe-se muito no RN*" (N7), sendo assim praticados cuidados em fim de vida, não valorizando a qualidade de vida do RN, bem como o momento de suspender medidas invasivas por parte de toda a equipa multidisciplinar, o que afasta a verdadeira essência dos cuidados paliativos
Soares *et al* (2013) menciona que, em cuidados paliativos, há uma maior preocupação com o alívio da dor numa fase em que a cura não é expectável, o que vai de encontro ao descrito por N7 "*cuidados de conforto (acalmar a dor)*" e por N3 "*(...) promovendo o conforto, bem-estar e ausência de dor*".

Importância da existência de protocolos/*guidelines*
A dimensão supracitada foca a importância da existência de protocolos/*guidelines* que orientem e apoiem a prestação de cuidados paliativos neonatais. A "uniformização da atuação da equipa" é a única categoria desta dimensão.
Chen *et al* (2013) e Soares *et al* (2013) mostraram que a ausência de protocolos e *guidelines* que apoiem os cuidados paliativos e a falta de serviços de aconselhamento impedem a implementação de um modelo de cuidados paliativos. A existência de uma regra orientadora aceite pelos profissionais de saúde constitui um precioso auxiliar para os profissionais de saúde no alívio precoce do sofrimento do RN e sua família, ao longo de uma doença neonatal grave e em fim de vida (Mendes, J., Silva, L. J., 2013), tal como se verifica em N2, N3, N4, N5, N6, N7, N11 e N14 "*Para haver um fio condutor que uniformize e garanta a qualidade dos cuidados prestados*".

Importância de momentos de reflexão
São momentos formais de expressão de sentimentos, escuta ativa de vivências e partilha de ideias e experiências, que facilitem a superação de dificuldades sentidas pelos profissionais, em equipa. As categorias desta dimensão são: "partilha de grupo", "desenvolvimento pessoal e profissional" e "uniformização de procedimentos".
Mendes *et al* (2013) afirma que muitas vezes poderá ser importante a realização de reuniões após a morte neonatal, para reflexão em grupo, avaliação construtiva das atitudes terapêuticas e paliativas adotadas e expressão de sentimentos, como

denotam a maioria dos inquiridos: *"Qualquer troca de experiências e reflexão das mesmas é um contributo para a melhoria dos cuidados e para o equilíbrio da equipa"* (N13) e *"Permite um reflexão em grupo, bem como uma partilha de ideias e sentimentos vivenciados"* (N6).

Battikha *et al* (2014) refere que os profissionais reconhecem a necessidade de falar acerca dessa angústia, que, tantas vezes, é suportada em silêncio, como relata N1 *"na altura senti necessidade de partilhar com alguém, mas não tinha com quem".*

Importância de encaminhamento para apoio psicológico

O encaminhamento para apoio psicológico é fundamental para prevenir situações de *burnout* e desgaste emocional. Nesta dimensão, as categorias são: "disponibilidade" e "apoio emocional e social".

A morte iminente de uma criança pode gerar emoções fortes nos profissionais de saúde, tais como derrota, impotência e tristeza, que, desta forma, poderão necessitar de acompanhamento psicológico, como refere N2 *"Dada a carga negativa constituinte desta situação, o apoio psicológico, assim com a reflexão entre o grupo, facilitaria o ultrapassar e vivenciar desta fase."*, N6 *"É importante para os profissionais de saúde serem apoiados na gestão dos sentimentos/emoções/frustrações (...)"* e N8 *"(...) eu própria já senti a necessidade de falar com alguém"*. Peng *et al* (2013) menciona no seu estudo que os profissionais de saúde de Neonatologia e as famílias em luto, frequentemente não recebem assistência em lidar com o cansaço, frustração ou tristeza quando os bebés morrem. Com a presente análise dos dados obtidos, corroboramos tal situação, pois 100% dos inquiridos responderam que não tinham encaminhamento nem assistência a nível psicológico, no entanto realçam que consideram fundamental a sua existência *"não há momentos formais, há momentos informais, muito geralmente associados ao caso concreto vivido na altura"* – refere N15 e reforça ainda N13 que estes momentos *"são durante as passagens de turno ou reuniões de serviço"*.

Perante a realidade de os profissionais serem os elementos de uma equipa multidisciplinar que mais tempo dedicam ao cuidado dos RN em fim de vida, o sofrimento e a morte supõem para eles uma grande sobrecarga emocional. Na nossa opinião, se tal não for valorizado e devidamente acompanhado poderá levar ao *burnout*. No contexto dos cuidados paliativos neonatais, este quadro é reconhecido pelos profissionais como uma importante barreira na prestação de cuidados de qualidade (Torres *et al*, 2013), como evidencia N14 *"Cuidar no limiar e/ou no limite da vida pode ser causa de burnout para os profissionais dedicados"*.

Após a comparação dos resultados do nosso questionário com a fundamentação teórica, verificamos que os profissionais de saúde que prestam cuidados na neonatologia desempenham um papel essencial na defesa, promoção e prestação de cuidados aos RN em fase terminal e apoio emocional às suas famílias. Denota-se ainda que, na maioria das inquiridas, estas referem não prestar cuidados paliativos por falta de formação, sendo que, da totalidade da amostra, apenas um elemento detém formação na área de cuidados paliativos pediátricos e 100% já teve situações de RN's com necessidade de prestação de cuidados paliativos. A formação e treino dos profissionais são essenciais para a aquisição de competências que permitem a prestação de cuidados de qualidade (Ministério da Saúde, 2014).

Em termos de estado da arte em Portugal, encontramos um Consenso em Cuidados Paliativos Neonatais e em Fim de Vida, da Sociedade Portuguesa de Pediatria, Secção de Neonatologia, um protocolo de cuidados paliativos neonatais: *'Trata de considerações gerais que poderão ser aceites pelos neonatologistas em geral, mas consideramos que cada Unidade deve adaptar os cuidados paliativos às necessidades individualizadas do RN e sua família' (*Mendes *et al,* 2013, p.1*).*

A prestação de cuidados paliativos neonatais exige o desenvolvimento de competências humanas e relacionais, em que a vocação e a motivação individual associadas à experiência são determinantes, mas a formação pré e pós-graduada é indispensável. É importante que as decisões que envolvam os cuidados paliativos neonatais e a morte neonatal tenham o apoio e suporte de toda a equipa profissional com o propósito de alcançar um consenso de toda a equipa profissional e que existam momentos, após a morte neonatal, para reflexão em grupo, avaliação construtiva das atitudes terapêuticas e paliativas adotadas, bem como expressão de sentimentos (Mendes *et al*, 2013).

"Apesar dos números reduzidos e da tendência para o declínio da taxa de mortalidade, pensar os Cuidados Paliativos Peri Neonatais (CPPN) em Portugal deve ser uma prioridade já que esta faixa etária representa 29% das mortes pediátricas com necessidades paliativas" (Ministério da Saúde, 2014, p. 43).

De acordo com a realidade atual, os recém-nascidos que sobrevivem devido ao grande investimento de cuidados especializados, muitos deles após este investimento necessitam de cuidados paliativos. No entanto, numa face inicial as equipas interdisciplinares têm dificuldade em assumir que esta seja uma prioridade. Concluímos que se enfrenta sistematicamente neste contexto um problema de prevenção quaternária, que deve ser reconhecido, valorizado e combatido, pelos próprios profissionais.

CONCLUSÕES

Cientes da importância de compreender como é que os profissionais de saúde vivenciam os cuidados paliativos e em fim de vida em Neonatologia, realizamos este estudo, com o intuito de nos ajudar a compreender qual a diversidade emocional e os momentos em que se vivenciam, identificando as dificuldades vivenciadas pelos profissionais de saúde da UCIN em estudo face à prestação de cuidados supracitada. São adicionalmente objetivos deste estudo a compreensão da existência e da importância

de formação específica em cuidados paliativos, bem como, a necessidade sentida de protocolos de serviço e da possibilidade de pedido de apoio psicológico dos profissionais.

Tendo em conta os objetivos do estudo, podemos afirmar que a prestação de cuidados paliativos e em fim de vida provoca emoções ambivalentes, sendo que as emoções negativas e de impotência predominam, em relação à necessidade de formação específica, criação de protocolos/*guidelines* e apoio psicológico dos profissionais.

Com o estudo efetuado, concluímos que os profissionais de saúde afirmam consensualmente que é importante existir momentos de partilha e reflexão sobre as emoções vivenciadas e que, contraditoriamente, só uma minoria tem esta oportunidade e prática. Consideramos, portanto, como implicação prática desta conclusão do estudo, que se implementem procedimentos de obrigatoriedade de reflexão das vivências emocionais, como forma de inter-ajuda, de crescimento profissional para lidar com novas situações e como forma de identificação de excesso de intervencionismo em saúde, prevenindo quaternariamente os recém-nascidos e as suas famílias.

Face a esta problemática é incentivada a realização de novos estudos no sentido da descoberta de outras realidades e contextos em UCIN's do país, de modo a comparar resultados. Conhecer a perceção das vivências dos pais neste contexto é também uma área de investigação que nos parece pertinente e que contribuiria para sensibilizar os profissionais de saúde sobre esta matéria. Consideramos que a prática dos Cuidados Paliativos Neonatais deve apostar na diferenciação e na interdisciplinaridade, tendo por base a formação contínua, adequada e rigorosa dos profissionais, bem como, práticas reflexivas emocionais procedimentais regulares e acompanhamento e apoio psicológico individualizado quando necessário, para que possam prestar cuidados de qualidade aos RN em fim de vida e suas famílias.

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CONDIÇÕES SANITÁRIAS DOS SERVIÇOS DE ATENÇÃO PRIMÁRIA À SAÚDE NA PERSPECTIVA DA VIGILÂNCIA SANITÁRIA

SANITARY CONDITIONS OF PRIMARY HEALTH CARE SERVICES FROM THE PERSPECTIVE OF SANITARY SURVEILLANCE

CONDICIONES SANITARIAS DE LOS SERVICIOS DE ATENCIÓN PRIMARIA A LA SALUD EN LA PERSPECTIVA DE LA VIGILANCIA SANITARIA

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RESUMO

Introdução: A vigilância sanitária (Visa) tem por objeto o risco associado a produtos e serviços e se insere nas atividades relacionadas a Atenção Primária à Saúde (APS) em sua estrutura e processos.
Objetivos: Analisar a percepção dos profissionais da Visa sobre as condições sanitárias (CS) nos serviços da APS.
Métodos: Participaram do Grupo Focal (GF) profissionais das equipes de Visa de quatro Distritos Sanitários de Salvador. Procedeu-se a análise dos relatos com base em documentos e normativas do MS.
Resultados: Os participantes do GF associaram CS aos riscos à saúde, ressaltando problemas referentes a estrutura dos serviços e disposição de equipamentos/materiais para ações no âmbito da APS. Expuseram estratégias para minimização dos riscos como manutenção preventiva de equipamentos, disposição dos materiais para a prestação do cuidado, monitoramento e organização do processo de trabalho de forma adequada. Constataram a "persistência" como importante na atuação dos profissionais da Visa para alcance da minimização dos riscos à saúde de trabalhadores e usuários na APS.
Conclusões: A técnica de coleta de dados GF possibilitou a discussão do tema e a reflexão dos profissionais sobre suas práticas. Entretanto, constatou-se que para a execução de GF o foco na temática se constitui como um desafio. Considera-se que, houve dificuldade dos profissionais da Visa abordarem as possiveis implicações das CS sobre serviços de APS e no que tange a saúde da população.

Palavras-chave: Atenção Primária à Saúde; Vigilância Sanitária; Grupo Focal; Condições Sanitárias; Risco Sanitário.

ABSTRACT

Introduction: Sanitary surveillance (SS) is aimed at the risk associated with products and services and is part of the activities related to Primary Health Care (PHC) in its structure and processes.
Objectives: To analyze the perception of SS professionals on the sanitary conditions (SC) of PHC services.
Methods: Professionals of Sanitary surveillance teams Participated of a Focus Group (FG) of four Sanitary Districts of Salvador. The reports were analyzed based on documents and regulations of the Ministry of Health (MOH).
Results: The participants of the FG associated SC to health risks, highlighting problems regarding the structure of services and provision of equipment/materials for actions under the PHC. They presented strategies to minimize risks such as preventive maintenance of equipment, supply of materials for the provision of care, and monitoring and organization of the work process in an appropriate manner. They considered "persistence" as an important trait for the work of SS professionals to achieve the minimization of health risks of workers and users in the PHC.
Conclusions: The data collection technique of FG enabled the discussion of the topic and the reflection of professionals on their practices. However, it was found that for the implementation of FG, the focus on the theme is challenging. It is considered that it was difficult for SS professionals to address the possible implications of SC on PHC services and on the health of the population.

Keywords: Primary Health Care; Sanitary surveillance; Focus Group; Health Conditions; Health Risk.

RESUMEN

Introducción: La vigilancia sanitaria (Visa) tiene por objeto el riesgo asociado a productos y servicios y se inserta en las actividades relacionadas a Atención Primaria a la Salud (APS) en su estructura y procesos.
Objetivos: Analizar la percepción de los profesionales de Visa sobre las condiciones sanitarias (CS) en los servicios de APS.
Métodos: Participaron del Grupo Focal (GF) profesionales de los equipos de Visa de cuatro Distritos Sanitarios de Salvador. Se procedió al análisis de los relatos basados en documentos y normativas del MS.
Resultados: Los participantes del GF asociaron CS a los riesgos a la salud, resaltando problemas referentes a la estructura de los servicios y disposición de equipos / materiales para acciones en el ámbito de la APS. Se expusieron estrategias para minimizar los riesgos como mantenimiento preventivo de equipos, disposición de los materiales para la prestación del cuidado, monitoreo y organización del proceso de trabajo de forma adecuada. Constataron la "persistencia" como importante en la actuación de los profesionales de Visa para alcanzar la minimización de los riesgos a la salud de trabajadores y usuarios en la APS.
Conclusiones: La técnica de recolección de datos GF posibilitó la discusión del tema y la reflexión de los profesionales sobre sus prácticas. Sin embargo, se constató que para la ejecución de GF el foco en la temática se constituye como un desafío. Se considera que ha habido dificultad para que los profesionales de Visa aborden las posibles implicaciones de las CS sobre servicios de APS y en lo que se refiere a la salud de la población.

Palabras clave: Atención Primaria a la Salud; Vigilancia sanitaria; Grupo Focal; Condiciones sanitarias; Riesgo Sanitario.

113

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INTRODUCTION

The Unified Health System (SUS) is a policy of the State that is based on an expanded conception of health and a universalist perspective of the right to health. It is operationalized by a set of actions for the protection, prevention, promotion, care and recovery of health that serves millions of Brazilians benefited by the Brazilian public system, on a daily basis, through sanitary surveillance actions, risk control, damage control, among others (Teixeira, Souza, Paim, 2014).

The SUS is composed of a set of public health actions and services which must be organized regionally and hierarchically according to the guidelines of decentralization, comprehensiveness, and participation of the community. The health services are spaces for the provision of actions that promote and protect health, as well as preventive, curative and/or rehabilitative actions aimed at improving the health and life conditions of the population. The diversity of actions and services that constitute the SUS reveals its complexity. In this sense, it is possible to identify three distinct levels of health care, which also differ in technological density (but not in complexity of the activity): primary health care, secondary (or outpatient) care, and hospital care (Solla, Paim, 2014).

Since the beginning of the twentieth century, there have been experiences of creating and expanding care services for primary health care (PHC). In the 1980s, "prior to the implementation of SUS, there was no national primary care policy with segmentation of coverage and fragmentation of care". In the mid-1980s, "sparse municipal experiences and actions of university-service integration based on primary care started to be developed, and inspired the later creation of the Community Health Agents Program (CHAP) and then of the Family Health Program (FHP), as embryos of a national primary care policy". After 30 years of implementation of the SUS, three versions of the National Primary Health Care Policy (NPHCP) were published in the years 2006, 2011 and the most recent in 2017, still in force, the Decree n°. 2.436 (Pinto, Giovanella, 2018, p.1904).

Considering, therefore, the relevance of the discussion about the risks involved in the sanitary conditions, as an object of sanitary surveillance that are present in the structural, environmental and working conditions of the PHC, the present study sought to analyze how professionals of the sanitary surveillance have perceived the relationship between health conditions and risks related to primary health care services.

1. CONCEPTUAL MODEL

According to the National Primary Health Care Policy, one of the responsibilities common to all spheres of government is: "to guarantee the adequate infrastructure and good conditions for the operation of basic health units (BHU), guaranteeing space, furniture and equipment, as well as the accessibility of persons with disabilities, in accordance with current norms" (Brasil, 2017). In this context, the Health Units as care spaces must be in conditions that guarantee the safety and quality of care, and they are therefore subject to sanitary norms and are included in the scope of Sanitary Surveillance, given their function as the responsible institution for the protection, control and reduction of health risks (Silva, Costa, Lucchese, 2018).

Sanitary Surveillance as it is institutionally organized in Brazil has no equivalent systems in other parts of the world, although the regulatory activities are universal practices (Costa, Souto, 2014; Silva, Costa, Lucchese, 2018). In what concerns the performance in health services, sanitary surveillance can be considered a specific component of this system, since its action requires a set of knowledge and practices of a diverse, multiprofessional and interinstitutional nature without which the health services could not fulfill their main role of providing comprehensive health care to users (Costa, Souto, 2014; Teixeira, Souza, Paim, 2014).

Sanitary surveillance is educational (preventive), normative (regulatory) and/or supervisory (Costa, Souto, 2014). Currently, the Municipal Sanitary Vigilance units are inserted as a subsystem of the SUS, the National Sanitary Surveillance System (NSSS), which is coordinated by the National Sanitary Surveillance Agency (ANVISA), created in 1999. As part of SUS, the NSSS operates in an integrated, decentralized manner and with shared responsibilities in the three spheres of government. This agency, therefore, represented an advance in the organization of sanitary surveillance actions; "it can be said that since its creation, the performance of NSSS entities has been greatly improved, with personnel qualification, better physical structure and other resources of control and sanitary surveillance" (Silva, Costa, Lucchese, 2018, p.1956). However, the NSSS faces challenges, as for example the present contradictions between the economic interests and the health interests that are established by the characteristics of the objects under its competence (Teixeira, Souza, Paim, 2014).

The National Sanitary Surveillance Agency, for its regulatory action, publishes Resolutions of the Collegiate Board (RCD) as RCD n°. 50 of 2002 to guide and regulate the construction, functionality and operation of health services required to achieve principles such as regionalization, ranking and accessibility, and to qualify the assistance provided to the collectivity through a physical structure capable of meeting the needs of users with quality (Brasil, 2002).

2. METHODS

A qualitative, exploratory study was carried out using the technique of Focus Group (FG) (Merton, Fiske, Kendall, 2009), whose object was the perception of professionals of the Sanitary Surveillance system about sanitary conditions in PHC services.

2.1 Sample

The choice of the FG technique for collection of information was justified by the possibility offered by this technique of listening to professionals who work on the same objects, representing the same institution, but in different realities of the Sanitary Districts, in the territorial organization for health action of the studied municipality. The use of this technique required planning and organization of strategies to stimulate the debate, as well as creativity, ability and flexibility in the realization of the meeting. The prior structure and the acceptance of the participants who met the inclusion criteria were considered before starting the study (Prates, Ceccon, Alves, Wilhelm, Demori, Silva, Resse, 2015).

The duration of the meeting met what some authors propose in the technique, that the event should last something around two hours, in order to avoid the exhaustion of the participants and to maintain the quality of the discussion and permanence of the participants (Trad, 2009). The meeting took place on 06/10/2014, and lasted 1:11:42h. The team of researchers who conducted the FG was formed by observers and moderators with experience of applying the FG technique. The first ones received the participants, recorded impressions in field journals, and recorded the meeting in audio and video. The moderators were responsible for conducting the work, including the opening, the presentation of the team, the purpose of the meeting and the ethical information, which led to the reading of the Informed Consent Form (ICF) and elucidation of doubts about the ICF. All participants freely agreed to sign the ICF. At the moment of analysis, to maintain anonymity, privacy, and confidentiality, the participants were coded using a letter (P) followed by a control number.

2.2 Data collection instruments

The *corpus* that guided the formulation of the script to be used in the FG technique was based on themes from the manuals and directives of the Ministry of Health (MOH) and on research identified in the literature review, with a narrative structure and organized based on the descriptors: "Primary Health Care", "Sanitary surveillance", "Focus Group", "Sanitary Conditions", "Sanitary Risk". The time period searched was of ten years (Cordeiro, Oliveira, Rentería, Guimarães, 2007).

For the preparation of the script and realization of the FG, the limitation of time and a smaller number of questions was considered so as to give opportunity to hear the expressions of all, as recommended by Trad (2009). The script had 6 questions about the perception of professionals about the sanitary conditions in the FHU, and of possible implications of the sanitary conditions of the FHU on the work process of the teams and on the health of the population and the actions of managers to improve the sanitary conditions of the FHU.

2.3 Inclusion Criteria

In the composition of the FG, the inclusion criteria were the being working in the function of sanitary control inspector in the Sanitary Districts of the studied municipality, that is, workers with authority of police officers (Lima, 2008) who are responsible for sanitary control of public and private health services. It is noteworthy that the participants were from the same municipality, which can be reported as positive for the evolution of the application of the FG technique.

Authors have little agreement on the ideal number of participants in FGs (Ressel, Beck, Gualda, Hoffmann, Marion da Silva, Sehnem, 2008). However, there is convergence in the sense that all participants feel free to express their opinions on the topics addressed. Carrying out a FG with less than four people is not recommended, because this would lead to individual interviews (Thofehrn, Montesinos, Porto, Amestoy, Arrieira, Mikla, 2013). The experience reported in this study had four participants, valuable as a space for reflection on the sanitary conditions of PHC and its implications in the work of professionals and in the care provided to users (Ramos, Aruana, Lima, Santana, Tanaka, 2018; Francesca, Cordero, 2018).

2.4 Data analysis

In order to analyze the findings, we sought to identify the nuclei of meanings in the text transcribed from the recordings and also in the records of the field journals that included the different impressions and observations of the researchers that supported the implementation of the FG technique. With this, it was possible to produce a discussion based on the theoretical reference of content analysis (Campos, 2004) and on the norms and documents used by Sanitary Surveillance. No software was used to organize and support the analysis of the findings.

The findings of this study are part of that entitled "Sanitary Conditions of Family Health Units (FHU) and their implications on the work process, management, and risks to the population", which included several participants from different spaces and representatives from all twelve HD of Salvador/Bahia, in the Northeast Region of Brazil. This research met the ethical aspects established in the Resolution 466/2012 of the National Health Council (Brasil, 2012). The project was submitted to the Research Ethics Committee and approved under number 364.713 and CAAE: 17842013.0.0000.5030. It was also approved in Public Notice nº. 19/2013 of the Research Program for SUS (PPSUS) with funding from the Foundation for Research Support of the State of Bahia (FAPESB).

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3. RESULTS

The following categories were found:

(1) Relation of the sanitary conditions of the FHU with the risks.
Professionals of the sanitary surveillance linked sanitary conditions to risks, relating them to the structure and processes, as well as the results for end-user care:

> "I think they are conditions necessary for you to work well, minimizing risks, and it involves this: procedures, structure (...)" (P1).
> In my understanding, when you speak of sanitary conditions, you immediately think of the sanitary risk (...)" "(...) and then you have all the flow of procedures. I think it implies in risk, the part of structure also, the part of equipment and human resources (...) (P2)
> I think that within this delay that should not exist, Sanitary surveillance is very important, because somehow speeds up the process. So, I think it's very important that this will cause a difference there at the end. Is it too little? Yeah, but it's important! (P2)

(2) Strategies to minimize risks related to sanitary conditions.
These strategies were classified in:

a) preventive maintenance of equipment in order to ensure quality:
> Another thing that calls my attention is the little care taken with the preventive maintenance of equipment. For example, the tensiometer, the fluoroscope... How can you give a diagnosis of an X-ray if your fluoroscope is not in proper state? (P1)

b) provision of the necessary and continuous materials to provide care:
> The professionals mentioned the structure of the PHC units that has been adapted, which creates difficulties in the provision of health care. "(...) There we also observe something like this: they were not designed for a Health Unit, right? For the care ... You do not know "I'll put here"... It seems an adaptation. "(P3); "They rent a house and they adapt, and the problems go on forever. They are eternal ..." (P1); "(...) sometimes basic materials are absent. Towel paper, liquid soap" (P1).

c) control and monitoring:
> "(...) in the sterilization and the residues ... in the collection of residues, signs of bottles of alcohol for aseptic use, problems with infiltration, air conditioning, lack of control and monitoring of pharmacy, of medicines" (P4).

d) Maintenance of an adequate workflow beyond the structure. The need to organize the work process: it was mentioned that adjustments/corrections are organized more effectively and quickly:
> (...) You have a structure, but you do not have adequate flow, that is, adequate professional actions. It seems that they do not understand, like I said, of the critical areas, how it has to be, the needed caution. (...) So, the issue of procedures, when it is possible to improve them, they really improve (P1).

(1) Actions of SS in PHC services.
About this, some reports said: "resistant action", "persistent work ":

> I summarize it as a persistent work. At times, you go several times ... (...) Then you start changing, sometimes, into something that has no end. That is something that sometimes causes me anguish, because you never finish that action. (...) Until today in ... uses asbestos-insulated tank and was not able to change until today, even with the instrument of Sanitary Surveillance (P3).
> A frustration, right? You go, you see, right? The problem. You ask, you start to close rooms, seize products, but... this does not solve the problem, do you understand? (...) But procedural issues, when it can improve, they really improve (P1).

4. DISCUSSION

Objects under sanitary surveillance carry intrinsic risks that are not always perceived by society, and are also sometimes not identified even by professionals who work in health services. The perception of the different actors about risk occurs in a different way depending on the relation established with the object. It is the responsibility of sanitary surveillance to evaluate and manage risks and uncertainties related to the objects of health interest, in the sense of maintaining an acceptable limit of risk or even eliminate it when possible (Costa, Souto, 2014).

Lack of or little experience and low or almost no technical understanding of subjects that require specific knowledge may limit the identification of health risks by people who are not familiar with the subject, such as the relationship between health conditions of PHC services and risks that expose the health of users and workers of public and private health services. The technical knowledge

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and practice of professionals of the sanitary surveillance is something to consider when these risks to human health are to be identified (Tang, Sidhu, Fong, 2015).

A study in Canada found that about 43% of health authorities always rely on evidence-based experiences as their foundation for their decisions, and 46% do so often (Tang, Sidhu, Fong, 2015). In the present study, the professionals found that the risks are present both in the structure and in the *"flow of procedures"* developed in health services.

According to the National Primary Health Care Policy, "besides the guarantee of adequate infrastructure and environment, to carry out the professional practice, it is necessary to provide adequate equipment, adequate human resources, and sufficient materials and supplies to the health care provided" (Brasil, 2017). Noncompliance with such prerogatives potentially exposes users and workers to sanitary risks inherent in health services.

It is noticed that in order to minimize the risks related to sanitary conditions, the Sanitary surveillance officials mentioned the use of instruments such as analysis of the physical space (pre-analysis), sanitary inspection, and monitoring to improve the sanitary conditions in health establishments, promoting the quality of care provided to users. They also provide educational actions. All these activities, as actions of the normative, authoritative, inspection field and of sanctioning of actions, give a regulatory character to sanitary surveillance and generate intervention capacity (Seta, Oliveira, Pepe, 2017), exercise of authority by the police that makes it possible to restrict rights in function of the interests of the community - the supremacy of the public interest over the private interest. Therefore, the professionals use a set of intervention technologies that are part of the control system and must be "backed by up-to-date technical and scientific knowledge", in view of the principles established in the Constitution to protect the health of the general population (Lima, 2008; Costa, Souto, 2014).

The participants of the FG reinforced the perception that process-related risks are easier to resolve because they do not depend on financial resources and direct actions of the Secretariat, only on adjustments in the work processes developed in the FHU. The RDC nº. 63/2011 establishes, as requirements for Good Practices, that health services be able to offer services within the standards of quality and safety, in addition to providing the necessary resources for a smooth operation (Brasil, 2011).

The frustration mentioned about the difficulty to solve problems of health services in PHC and the actions carried out with "resistance" and "persistence" evidenced in this study definitively indicates that the practice of sanitary surveillance occurs in the middle of social relations of production and consumption that traverse the State, the market and the society, have as objects the goods and services of health and interest to health, so that they act in actions of prevention and control of risks and of promotion and protection to health (Brasil, 2013, Costa, 2009) based on principles and guidelines of the SUS.

The National Sanitary Surveillance System needs to stand with collective bodies in defense of health interests, fulfilling its "function in the SUS to ensure the quality of goods and services offered to contribute to the improvement of the quality of life of the Brazilian population and ensure the right to health as a fundamental right". In addition, "the argument of the financial crisis of the Brazilian State cannot prevail over the right of the population and the constitutional duty of health protection, under the prevailing public underfunding of the health sector" (Seta, Oliveira, Pepe, p. 2017, 3230, 3232).

As a public and universal health system, and a counter-hegemonic proposal that faces the crises related to capitalism (Teixeira, Souza, Paim, 2014), the SUS is responsible for the provision and regulation of health services, so that the development of their functions is influenced by the "political and economic relations" that are manifested by the interests of the actors involved (Lobato, Giovanella, 2012, p.108).

Sanitary Surveillance, as a "specific component of the system of health services" (Costa, Souto, 2014) or "subsystem of health services" (Teixeira, Souza; Paim, 2014) has suffered a strong influence and pressure of economic interests. Sanitary Surveillance has to face conflicts and fulfill/ensure its duty "of protecting health through state intervention, aiming at prevention of possible damages or risks to health and provision of greater safety to the population" (Seta, Oliveira, Pepe, 2017, pp. 3229).

Health protection implies the right to citizenship, necessitating the State's action to guarantee access, and regulating what interferes with the health of the population (Lobato, Giovanella, 2012).

CONCLUSIONS

In the development of the activities of the FG with Sanitary Surveillance professionals some challenges were identified in the organization and realization of the meetings of the focus group, and during the development of the group. The challenges in the management of the group concern the difficulty of being able to gather the professionals, mainly because they were from the same organ, in view of the possibility of causing an emptying of certain services in that specific moment. Another challenge was to keep the focus on the topic addressed, which requires a moderator who has mastery of the theme and technique, in order to maintain a climate that allows the dialogue, but do not divert the focus from the proposed theme. In contrast to Maldonado and collaborators (2013), who values interpersonal ties in the FG as a positive aspect for the exchange of information during the use of this technique, due to the affinity of the participants and the fact that they belonged to the same group or community, this fact may imply a speech that was sometimes ratified by the participants without criticism on the subject addressed.

Furthermore, other challenges were faced, such as choosing the date for the two focus groups, the difficulties in making contact with the participants, technical problems with electronic recording devices, although they had been tested in advance. However,

the planning of certain strategies, such as the participation of more than one moderator, the availability of extensive registry and recording material, and technical support were fundamental to overcoming the problems that emerged in the process. Poor communication with professionals was an obstacle to the optimization of the procedures necessary to make contacts and to the meeting of the participants, as well as the care with punctuality and establishment of time limits for the entry of participants in the space of the activity.

The FG gives the participants the opportunity to dialogue that can result in a critical re-elaboration on the theme. In the case of this study, it is possible to think that this new perception may occur directly in the actions carried out in the work environment of the participants, be it in the scope of surveillance or assistance. Each FG has its own dynamics, but the activities that are apparently considered simple can hide difficulties and obstacles, which were exposed in this article. It is worth emphasizing the interaction between the participants and the possibility developed in the group to revisit the reality, discussed through the vision of others. Despite some limitations to its use, the technique of FG stands out for its potentialities, especially when it is considered that the experiences lived by professionals with authority of police in the field of health are unique and very particular, not of easy general access. Thus, this the technique applied to this group of professionals is a very rich and important tool for research involving the subject.

Regarding the issues related to the perception of sanitary surveillance professionals about the sanitary conditions in PHC services, it was difficult for them to express their understanding of sanitary conditions, as well as to correlate the possible implications of sanitary conditions in health service units for the team work process and the health of the population.

However, the FG contributed to the identification of problems related to the work process of sanitary surveillance professionals in relation to the strategies for risk minimization in the health services studied that presented a difficult articulation of municipal management with sanitary surveillance. This points to the need to make efforts to broaden and discuss the importance of communication about risks in the formation of health conscience that reaches the users of health services, but also sensitize the professionals of the PHC and of sanitary surveillance with consistent scientific arguments to support the technical performance of sanitary surveillance professionals so that they can confront the interests that often weaken health relationships in different contexts of health systems (Silva, Costa, Lucchese, 2018). It is also necessary to take care not to accept actions of sanitary surveillance that disregard the complexity of the actions that occur in PHC services, based on the perspective that the actions have a lower technological density.

CONFLICT OF INTERESTS

The authors declare that there is no conflict of interest

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