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PUBLICATIONS ON SPIRITUALITY IN THE WORKPLACE FROM 1998 TO 2017: A BIBLIOMETRIC STUDY AT WEB OF SCIENCE DATABASE

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ABSTRACT

The purpose of this article was to analyze the scenario of publications on spirituality in the workplace in an international context, in the last couple of decades (1998-2017). For doing so, a bibliometric study was carried out in order to check the publications characteristics and the related subjects of utmost importance – hot topics. The results show that scientific production about spirituality in the workplace is higher in the field of business and management (60,6%), with a larger number of publications in the Journal of Business Ethics (11,3%) in the United States (36,6%) and in English language (97,7%). There is a gradual increase of publications per year. The main terms related to the topic are: values (6,5), religion (6,0), leadership (6,0), performance (5,5), development (5,5) and purpose (4,9). The results can trace productivity patterns, positive capabilities guided to measure, develop and increase performance at work in order to foster the growth of knowledge on the field of organizational behavior.

KEY-WORDS: Spirituality in the workplace; Web of Science; Bibliometric studies.

PUBLICAÇÕES SOBRE ESPIRITUALIDADE NO TRABALHO NO PERÍODO DE 1998 A 2017: UM ESTUDO BIBLIOMÉTRICO NA BASE DE DADOS *WEB OF SCIENCE*

RESUMO

O objetivo deste artigo foi analisar o panorama das publicações sobre espiritualidade no mundo do trabalho, no contexto internacional, nas últimas duas décadas (1998-2017). Para isso, realizou-se um estudo bibliométrico que possibilitou verificar as características das publicações e os temas relacionados com maior relevância – *hot topics.* Os resultados indicam que a produção científica sobre espiritualidade no trabalho é maior na área de Administração e Negócios (60,6%), com maior número de publicações no periódico *Journal of Business Ethics (11,3%) nos Estados Unidos (*36,6%) e no idioma inglês (97,7%). Há um aumento gradativo de publicações por ano. As principais expressões relacionadas à temática são: valores (6,5), religião (6,0), liderança (6,0), performance (5,5), desenvolvimento (5,5) e propósito (4,9). Os resultados, possibilitam traçar padrões de produtividade, capacidades positivas orientadas para medir, desenvolver e incrementar o desempenho no trabalho para fomentar a construção do conhecimento na área comportamento organizacional.

PALAVRAS-CHAVE: Espiritualidade no trabalho; Web of Science; Estudo Bibliométrico.

1 INTRODUCTION

In the beginning of the third millennium, there is a feeling in both scientific production and empirical studies that men, education and work should be viewed in a flexible and integral way, because they are part of a complex phenomenon manifested through human actions. According to Morin (2012) and Mitroff & Denton (1999), the studies on comprehension and on the treatment of organizations as spiritual environments challenge the organizational science.

Studies on spirituality became a world trend and they have been carried out at the Academy of Management since 1999, where a research group on spirituality and religion was formed. Still in the same year, the Journal of Organizational Change Management and the Journal of Management Inquiry dedicated their special issues to the theme. Other evidences showing studies on spirituality are: workshops and conferences, books production, magazine articles like *Spirit at Work* or *Business Spirit*; journals, such as *Journal of Business Ethics, Journal of Management Spirituality Religion, Leadership Quarterly, Human Relations, Journal of Nursing Management, Organization, Procedia Social and Behavioral Sciences* and *International Journal of Psychology*.

There is a number of reasons to investigate the relations among work, the organizations and spirituality. According to Burack (1999) and Jurkiewicz & Giacalone (2004), spirituality may be a way of rebuilding trust between employer and employee, allegedly lost with the alienation caused by dehumanized management practices. In the opinion of Garcia-Zamor (2003), spirituality contributes either to organizational performance or to effective leadership (Fry, 2003; Fry et al., 2005). Therefore, the topic spirituality in the workplace represents the acknowledgement that people are coming to work more with their minds and bodies, bringing along individual talents and one-of-a-kind spirits (Garcia-Zamor, 2003). That is why the debate over spirituality in the workplace raise questions on consolidated practices by the classic management models, as well as critical reflections about policies and practices of people's management.

The general purpose of the article is to show the scenario of publications on spirituality in the workplace in an international context in the last couple of decades (1998-2017), so that: (a) the main characteristics of publications about spirituality at work were researched in the database *Web of Science* (WOS) from 1998 to 2017; (b) 10 abstracts of the most quoted publications were analyzed; (c) hot topics were investigated on themes related to workplace spirituality in the aforementioned period, and (d) tendencies, potentialities and productivity patterns in the field of research were verified, aiming to foster the debate over the topic and to aggregate scientific knowledge in the field of organizational behavior.

Spirituality at work is a subject which can improve the quality of life of the ones who work and, at the same time, aim for a high level of efficiency in organizations (Oliveira, Silva, Castro, & Limongi-França, 2015; Rotili, Lopes, Amaral-Oliveira, & Carneiro, 2016). According to Dejours (1992), Seligman & Czikszentmihalyi (2000), Sheldon & King (2001) and Bacon (2005), it means spirituality starts to play an important role in the corporate calendar, by investigating work pathologies; by studying the positive subjective experience, the human potential and the virtues that promote life quality; by contributing in the understanding and in the development of factors which cause prosperity in individuals and communities.

Wellness at work is recognized for its multidimensionality, embracing physical and psychological aspects, independence level, social relation, environment and spirituality, in such a way that every action of adjustment between men and organizations should be considered (Limongi-França, 2004). In this regard, there are studies in a subjective level, such as the ones by Seligman & Csikszentmihalyi (2000) and Seligman et al. (2005) in the field of positive psychology, praising experiences from this instance such as well-being, contentment and satisfaction (past), hope and optimism (future), flow and happiness (present).

Yet, Vasconcelos (2007) presents that positive organizational behavior works on the virtues, on the forces and on the kindness of human beings, which are primary traits of spiritual nature, so that the positivists dynamics become part of the studies and applications of capabilities positively guided to measure, develop and increase performance at work. It means positive organizational behavior and positive dynamics follow the path of greatness, resistance, virtuosity, effort in abundance and prosperity.

According to Jurkiewicz e Giacalone (2004), the growing interest in spirituality at work and its positive impact in the lives of workers stimulate studies which can show the development of a new paradigm in the organizational science. In this context, spirituality can acknowledge that workers have their inner lives by searching a connection among themselves (sense of community) and a job with meaningful significance, also in accordance with Ashmos & Duchon (2000), Milliman, Czaplewski & Ferguson (2003), Vasconcelos (2007) Silva & Siqueira (2009), Siqueira (2014) and Garg (2017).

Thus, the results of the study were organized and presented in four parts. First, a bibliographic review on spirituality in the workplace was carried out. Then, the adopted methodology was presented and the analysis on the results. At the end, the final considerations of the study.

2 SPIRITUALITY IN THE WORKPLACE

Spirituality and religion are concepts that must be understood and distinguished: while spirituality is the essence of men and the search for answers to the fundamental questions of life, on the other hand religion stands for a system of beliefs, rituals and symbols organized in order to approximate men and sacred, according to Moreira-Almeida et al., (2006). As reported by Pinto & Pais-Ribeiro (2007), spirituality is built under sociocultural and historical contexts, structuring and giving meaning to values, behaviors and human experiences, and even growing sometimes into the practice of a religious belief.

Ashmos & Duchon (2000, p. 137) stated that: "workplace spirituality is the recognition that employees have an inner life which nurtures and is nurtured by the meaning of work, occurring in a sense of community". Nonetheless, Cavanagh (1999) presents spirituality in organizations as something not religion-oriented, corresponding neither to a religious phenomenon whatsoever, nor implying the conversion of organizational members into any belief system.

In the search for answers about what spirituality in the workplace may be, the absence of connections to any religion is observed, meaning they are not interdependent. According to Mitroff & Denton (1999), spirituality is an appropriate topic to be discussed at work, while religion is not.

Spirituality in the workplace does not involve a connection with any specific religion tradition, but it is based on one's own personal and philosophical values. Religion is an organized system of beliefs, while spirituality is an inner desire to search for meaning and sense of community. Therefore, they are different (Cavanagh, 1999; Mitroff & Denton, 1999; Milliman, Czaplewski, & Ferguson, 2003).

Religion is considered intolerant and disruptive, while spirituality is inclusive and universal. Both are compatible and shall coexist or not, although they are not equals, as perceived by Garcia-Zamor (2003). According to Karakas (2010, p. 91) "spirituality is different from religion because it is characterized as a universal human feeling, inclusive, non-denominational and universal. On the other hand, institutionalized religion is an alignment to specific organized beliefs, rituals or practices of an institution".

The studies about spirituality in the workplace must be investigated further, beyond the borders between spirituality and religion. Pfeffer (2003) & Fry (2003) point out four fundamental directions people seek in their workplace: (1) work which allows the apprenticeship, the development and the sense of competence and mastery; (2) meaningful work which delivers some sense of purpose; (3) sense of connection and positive social relationships with co-workers; (4) ability to live an integrated life, in such a way that work does not collide with the person's natural essence and with one's desire to live as a human being.

Spirituality in the workplace includes the employees' inner lives. So, when the worker comes to the company he fully brings his own being, including his own spirituality (Duchon & Plowman, 2005). This fact brings about the need to see the employee's inner life, and so his identity (self-concept, or an inner vision of himself) and social identity. Thus, if individuals define themselves as spiritual beings who have an inner life, inclusive at work, it means that the identity at the work unit is providing opportunities of inner life expressions. "Spirituality is defined as the journey to find a sustainable, authentic, meaningful, holistic and deep comprehension of the existential 'me' and its relation / interconnection with the sacred and the transcendental", according to Karakas (2010, p. 91).

Spirituality in the workplace needs research instruments to measure something so profound and abstract in order to identify the connections of the workers' attitudes in relation to organizational efficiency, according to Ashmos & Duchon (2000) and Milliman, Czaplewski & Ferguson (2003). This kind of research is reinforced by Karakas (2010) when it presents three perspectives of spirituality in organizational performance: (1) people management, which improves well-being and the employees' quality of life; (2) philosophic perspective, in which spirituality delivers the employees a sense of purpose and meaning at work, and; (3) interpersonal perspective, in which spirituality allows a feeling of interconnection and community.

According to Karakas (2010), the perspective to improve the employee's quality of life means the incorporation of spirituality in the workplace, which can favor the well-being of the subjects by an increase in their morale, commitment and productivity, stress reduction, burnout

and workaholism. Yet, spirituality gives the employees a deeper insight by indicating economic and profitability goals, making it possible for them to be recognized as integral beings with spirit, heart, soul, passion, hopes, talents, aspirations, families, private lives and emotions, besides interpersonal relations and collective dimensions.

According to Udani & Lorenzo-Molo (2017), spirituality is a field of interest in management and business. At one point there is a search for utilitarian structures, where spirituality is reduced as a way of addressing profit-oriented goals. On the other hand, business management goes through the multifaceted and subjective nature of spirituality. Therefore, the instrumental or the economic rationality pointed out by Weber (1994) is determined either by an expectancy on the results, or for the sake of calculation. When it comes to values, rationality is identified as substantive by Ramos (1989). Rationality shows as point of reference the ordination of social life and the structuring of human life, where the approach is more philosophical, particularly through ethics and virtue. Thereby, these approaches can clarify studies about workplace spirituality. This train of thought can be observed in one of the most commented articles at WOS by Louis W. "Jody" Fry, "Toward a theory of spiritual leadership"(2003), which deals with the elaboration of a theory on spirituality in the workplace based on leadership and motivation, which can be measured through effective results on the behavior of organizations.

3 METHODOLOGY

In the field of social sciences, bibliometric studies have the recurring function of checking on the creation of articles and knowledge in certain areas; they also map out academic communities and identify networks of researchers and their motivations (Nederhof, 2006; Chueke & Amatucci, 2015; Vasconcelos, 2016). These statistic studies which analyze the characteristics of publications in a longitudinal way are normally delimited by three laws: Lotka's law (Inverse-square Law), Brandford's law (Law of Scattering) and Zipf's law (Principle of Least Effort) (Corrêa et al., 2016).

The current study obtained its results from three bibliometric laws. Being aware of the contributions that this kind of research delivers in building a theoretical framework – which in turn leads to the evolution of knowledge – bibliometric analysis on workplace spirituality was chosen, covering publications from 2000 to 2016 in the *Web of Science* from *Institute for Scientific Information* (ISI) database.

The Web of Science database indexes the most quoted articles in their respective fields, and it is considered multidisciplinary. It is an index of quotations on the web, which establishes rankings through several guidelines. It also identifies the quotations received, the references used and the related registers (CAPES, 2015). Thus, data collection was carried out by search tools on WOS database and it used expressions such as "spirituality at work" and "workplace spirituality". It also considered only publications from 1998 to 2017, period in which there were more articles quoting this theme.

Bibliometric analysis was developed by the identification of variables in three different stages, according to Table 1. First, it was recognized the general characteristics of publications (year of publication, theme, type of document, authors, titles, institutions, languages and

publications with higher number of quotes). Second, the contents of ten abstracts from most quoted publications were analyzed. Finally, hot topics were determined according to the definitions of Banks (2006).

Table 1: Conceptual mode for bibliometric analysis

Research stages	Description	Tools
Identificação das características gerais das publicações	By year of publication	Base *WOS*
	Theme	
	Type of document	
	Authors	
	Titles	
	Institutions	
	Languages	
	Countries	
	Publications with higher number of quotes	
Analysis of 10 abstracts from most quoted publications	A word cloud is generated	Software Nvivo®11 2017
Hot topics identification	Expressions coinciding with the theme with m>2 (BANKS, 2006) indexes	Software SPSS®

Source: elaborated by the authors

The characteristics of the publications were identified by the search engine at WOS database in July, 2018. The expressions "spirituality at work" or "workplace spirituality" were typewritten there, covering the topics from 1998 to 2017. The second stage, the analysis of 10 abstracts from the most quoted publications on Web of Science with the theme workplace spirituality, was conducted through the software Nvivo® version 11.0 and it originated a word cloud with the words frequency.

The hot topics analysis occurs from the HB index located at WOS database. It is important to say that the h-index was proposed from Hirsch's (2005) research, named "An index to quantify an individual's scientific research output" which characterizes the scientific production of a researcher. Additionally, Banks (2006) came up with another index, the HB index, which is an extension of the h-index and it is accessed through a number of quotes in a certain topic, in a specific period of time, where quotes are listed in descending order. The HB index is found in those publications where the number of quotes is equal or higher than its ranking position. Regarding M level, the calculation is accessed by dividing HB level, by the period of interest.

Consequently, the analysis of HB and M indexes were carried out based on the definitions of Banks (2006): $0 < m \leq 0,5$: the result may interest researchers on a certain field of research, encompassing a relatively small community. $0,5 < m \leq 2$: this result may become a field of research hot topic, in which the community is considered too large or the topic/combination has quite interesting characteristics. In > 2: it can be considered a hot topic because it reaches other than its own fields, and it is considered an exclusive topic, likely to show application effects and unique characteristics.

Considering the definitions of Banks (2006), this research acknowledges hot topics as combinations which have $m > 2$ indexes. All the bibliography consulted and quoted in the article was taken into account, as well as the analysis on Bardin's (2011) content, by verifying a set of

techniques for communication analysis with systematic procedures, and by inferring the insights related to the production conditions. This inference requests indicators, either quantitative or not.

4 ANALYSIS AND RESULTS CONSIDERATIONS

4.1   General characteristics of publications on spirituality at WOS work

The general characteristics of the publications presented are arranged in accordance with the following categories: thematic area; type of documents; year of publication; authors; titles; institutions; countries; languages and publications with higher number of quotes.

In the research conducted at WOS database, 213 publications with the expressions "spirituality at work" or "workplace" were found in the last 20 years. As shown in Figure 1, there is a growing number of publications, data which is backed up by the figures of the last four years: 2014, 2015, 2016 e 2017, in which there were 139 publications, corresponding to 65,00% out of total publications in the last couple of decades.
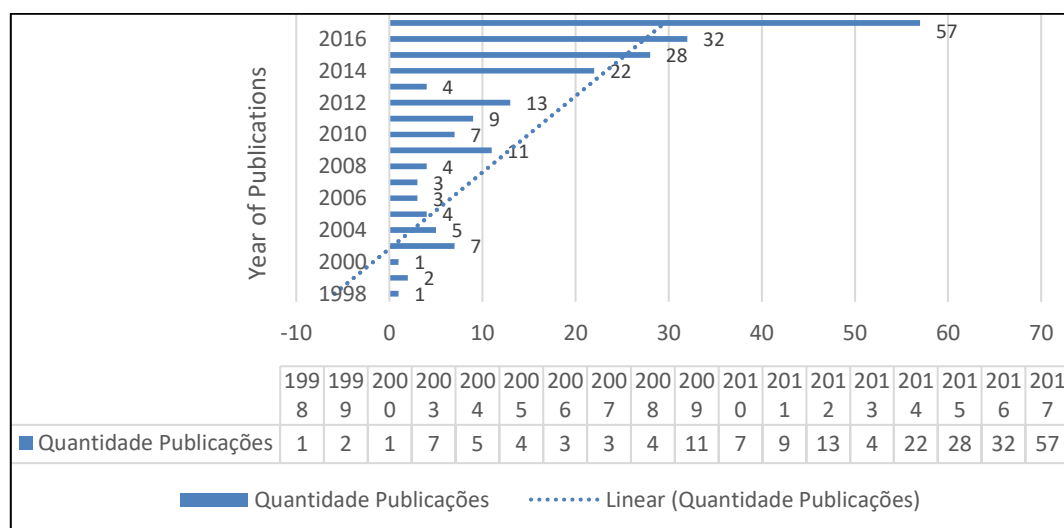

	1998	1999	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Quantidade Publicações	1	2	1	7	5	4	3	3	4	11	7	9	13	4	22	28	32	57

Figure 1: Publications on spirituality at WOS per year.

Regarding the type of document, 83,56% (178) of them are articles. The majority is classified as theoretical-empirical, and their results have potential for practical and theoretical applicability.

The ten main thematic areas related to the subject workplace spirituality are presented on Table 2. Management and business account for 60,56% (129) out of total publications, surpassing areas such as Psychology and Nursing, thus emphasizing researches about substantive factors in the organizational behavior studies. By analyzing the first decade of the research, this conclusion is reaffirmed once the area of Business was listed in third place with only 11.53 % (3) out of total publications, one position behind *Psychology Applied* in second place, which had twice as much production.

Table 2: Thematic areas of publications

Areas	Publications	Total percentage (213)
Management	82	38.498 %
Business	47	22.066 %
Religion	28	13.146 %
Ethics	25	11.737 %
Social Sciences Interdisciplinary	18	8.451 %
Psychology Applied	13	6.103 %
Psychology Multidisciplinary	11	5.164 %
Nursing	8	3.756 %
Economics	5	2.347 %
Education Educational Research	5	2.347 %

Source: Web of Science (2018)

On Table 3, the authors who published more over the subject spirituality in the workplace at WOS are highlighted in the analyzed period. Louis W. Fry and Badrinarayan Shankar Pawar are the authors who have more content related to the theme in study.

Table 3: Main Authors

Author Publications	Frequency	Total percentage (213)	Author Publications	Frequency	Total percentage (213)
Fry Lw	6	2.817 %	Giacalone Ra	3	1.408 %
Pawar Bs	6	2.817 %	Jurkiewicz Cl	3	1.408 %
Chawla V	4	1.878 %	Karakas F	3	1.408 %
Hunsaker Wd	4	1.878 %	Miller Dw	3	1.408 %
Lips-Wiersma M	4	1.878 %	Milliman J	3	1.408 %
Afsar B	3	1.408 %	Rahman Ms	3	1.408 %
Bell E	3	1.408 %	Rego A	3	1.408 %
Crossman J	3	1.408 %	Suhonen M	3	1.408 %
Cunha Mpe	3	1.408 %	Taylor S	3	1.408 %
De Klerk Jj	3	1.408 %	Van Der Walt F	3	1.408 %

Source: Web of Science (2018)

Louis W. "Jody" Fry PhD, is the founder of the International Institute for Spiritual Leadership, professor at Texas A & M University Central Texas. His studies are business models which include ethics, leadership, well-being, sustainability, social responsibility, profitability and organizational growth integrated with spiritualized leadership and spirituality in the workplace. It belongs to him the most quoted article at WOS, Toward a theory of spiritual leadership (2003). The article discusses the elaboration of a theory about spirituality at work based on leadership and motivation, which can be measured by the effectiveness of results in the behavior of organizations.

In the same train of thought is Professor Badrinarayan Shankar Pawar, from the Indian Institute of Management Kozhikode. He has taught in several institutes, including Oklahoma State University (mainly as an associated professor during his doctorate studies), City University of Hong Kong (1997-2001), the Indian Institute of Management, India (2001-2005) and XLRI School of Business and Human Resources (2007-2008). He is a professor of Human Resources Management, organizational behavior related affairs, business research methods, research methods and advanced research methods. His research interest areas include organizational citizenship behavior, transformational leadership and spirituality in the workplace.

Table 4 shows that most (45%) of the scientific production over the subject in the last 20 years can be found in the following journals: *Journal of Business Ethics, Journal of Management Spirituality Religion, Journal Of Organizational Change Management, Journal of Management Inquiry, Leadership Quarterly, Human Relations, Journal of Nursing Management, Organization, Procedia Social And Behavioral Sciences* and *International Journal of Psychology*. Production is widespread though, once 118 sources have the theme workplace spirituality in their publications.

The journal with a higher number of publications is the Journal of Business Ethics, with 24 publications over the course of 20 years. It publishes only original articles of a wide range of methodologic and disciplinary perspectives about ethical questions related to business, which bring new or exclusive contributions to its field of interest. The collaborators examine the moral aspects of the production systems, expenditure, marketing, advertising, social and economic accounting, labor and public relations, and organizational behavior. The impact factor (*h-index*) equals 11 in regarding to the theme spirituality in the workplace.

Table 4: Titles

Source	Publications	Total percentage (213)
Journal of Business Ethics	24	11.268 %
Journal of Management Spirituality Religion	23	10.798 %
Journal of Organizational Change Management	12	5.634 %
Journal of Management Inquiry	7	3.286 %
Leadership Quarterly	6	2.817 %
Human Relations	5	2.347 %
Journal of Nursing Management	5	2.347 %
Organization	5	2.347 %
Procedia Social and Behavioral Sciences	5	2.347 %
International Journal of Psychology	4	1.878 %

Source: Web of Science (2018)

Regarding the institutions who publish more articles about spirituality in the workplace, the Indian Institute of Management Kozhikode (IIMK) is an independent business school founded in 1996 and located in Kerala, India. Meanwhile, the State University System of Florida is a group of twelve public universities in the North American state which contains 28 community and state colleges and it is part of Florida's system of public higher education. The thematic spirituality at work has authors connected to other 249 institutions, according to researches at Web of Science.

Table 5: Main institutions

Institutions	Country	Nr. Of students	Publications	Total porcentage (213)
Indian Institute of Management Kozhikode	India	40.000	7	3.286 %
State University System of Florida	EUA	341.000	7	3.286 %
Islamic Azad University	Iran	1.700.000	6	2.817 %
Auckland University of Technology	New Zealand	26.000	4	1.878 %
International Islamic University of Malaysia	Malaysia	26.000	4	1.878 %
Kyungpook National University	South Korea	31.000	4	1.878 %
St Marys University	United Kingdom	6.000	4	1.878 %
Birmingham University	United Kingdom	29.000	4	1.878 %
Canterbury University	New Zealand	16.000	4	1.878 %
North Carolina University	United States	30.000	4	1.878 %
Universidade NOVA de Lisboa	Portugal	20.000	4	1.878 %

Arizona State University	United States	72.000	3	1.408 %

Source: Elaborated by the authors, based on data at *Web of Science* (2018)

Regarding the language, publications in English are predominant at WOS database with 208 articles published on the theme of spirituality in the workplace, accounting for nearly 97,65% out of total published articles - a world tendency. Three articles in Portuguese language were published in Brazilian magazines in 2017. Table 6 shows the main countries to publish articles on the subject, the United States responding alone for 36,62% (78) out of total publications. The countries listed below are located in different continents, such as America (38%), Asia (33%), Europe (19%), Oceania (8%) and Africa (2%). The result shows how much the thematic is widespread across the world.

Table 6: Main Countries

Countries	Publications	Total percentage (213)
USA	78	36.620 %
India	22	10.329 %
England	15	7.042 %
Malaysia	15	7.042 %
Iran	12	5.634 %
New Zealand	10	4.695 %
Australia	9	4.225 %
Canada	8	3.756 %
Finland	5	2.347 %
Peoples R China	5	2.347 %

Source: Web of Science (2018)

The list of 10 publications with a higher number of quotes in all databases indexed at Web of Science, with the thematic workplace spirituality, starts with Toward a Theory of Spiritual Leadership published in 2003 by Louis W. "Jody" Fry, the leading author in publications. The publication appeared in the magazine Leadership Quarterly with 27,63 quotes per year (Table 7).

Table 7: Studies with a higher number of quotes

Title	Authors	Source Title	Year of Publication	Total of quotes	Per Year
Toward a theory of spiritual leadership	Fry, LW	Leadership Quarterly	2003	442	27,63
Spirituality at work - A conceptualization and measure	Ashmos, DP, Duchon, D	Journal Of Management Inquiry	2000	353	18,58
Workplace spirituality and employee work attitudes - An exploratory empirical assessment	Milliman, J, Czaplewski, AJ, Ferguson, J	Journal Of Organizational Change Management	2003	231	14,44
Nurturing the spirit at work: Impact on work unit performance	Duchon, D, Plowman, DA	Leadership Quarterly	2005	157	11,21
A values framework for measuring the impact of Workplace spirituality on organizational performance	Jurkiewicz, CL, Giacalone, RA	Journal Of Business Ethics	2004	128	8,53

Workplace spirituality and organizational performance	Garcia-Zamor, JC	Public Administration Review	2003	109	6,81
Workplace values and outcomes: Exploring personal, organizational, and interactive workplace spirituality	Kolodinsky, R.W., Giacalone, R. A., Jurkiewicz, C. L.	Journal Of Business Ethics	2008	103	9,36
Spirituality and leadership: An empirical review of definitions, distinctions, and embedded assumptions	Dent, EB, Higgins, AE, Wharff, DM	Leadership Quarterly	2005	93	6,64
Spirituality and Performance in Organizations: A Literature Review	Karakas, Fahri	Journal Of Business Ethics	2010	92	10,22
Workplace spirituality and organizational commitment: an empirical study	Rego A., Cunha M., Pina E.	Journal Of Organizational Change Management	2008	91	8,27

Source: Web of Science (2018)

4.2 Analysis of 10 abstracts from the most quoted publications

In order to identify the words that appeared more since the findings of higher frequency, an analysis of 10 abstracts from the most quoted publications was performed. The software Nvivo version 11.0 was used, making it possible to generate the word cloud shown on Figure 2. The data reveal the word spirituality associated mainly to the following words/expressions: workplace, organizational performance and leadership.

Figure 2: Word cloud of 10 abstracts from the most quoted publications at WOS.

On Table 8 the words spirituality (85), workplace (33), work (31), leadership (22), performance (15), employee (11), sense (9), purpose (7), commitment(6), development (6) and

ethics (6) are the words more frequently shown in the 10 abstracts from the most quoted articles at WOS.

Table 8: Frequency analysis of the most used words in abstracts of the 10 most quoted articles at WOS

Word	Counting	Weighted percentage (%)
Spirituality	85	8,74
Workplace	33	3,39
Work	31	3,19
Leadership	22	2,26
Performance	15	1,54
Employee	11	1,13
Sense	9	0,92
Purpose	7	0,72
Commitment	6	0,62
Development	6	0,62
Ethics	6	0,62

Source: Research data (2018)

Thereby, the analysis of the main articles supports the research theme: spirituality and workplace as the two most quoted words. Yet the expressions work, leadership, performance, employee, commitment, development, ethics and also sense and purpose are confirmed to be the most quoted dimensions about spirituality in the workplace in the studies analyzed about organizations and its environment.

4.3   Spirituality in the workplace and hot topics

The main topics which have been studied in the last decade related to the theme spirituality at work or workplace spirituality are provided on Table 9, where the words values (125 quotes), leadership (121 quotes), performance (114 quotes) e employee (100 quotes) stand out among the others.

Table 9: Hot topics from workplace spirituality

Selected topics	Publications	H- index	Quotes per year (hb)	Hot topics (m)
Values	125	22	129,47	6,5
Religion	70	24	120,74	6,0
Leadership	121	20	119,79	6,0
Performance	114	22	110,74	5,5
Development	64	22	109,42	5,5
Purpose	91	16	99,74	4,9
Sense	61	16	88,53	4,4
Culture	65	15	88,16	4,4
Commitment	70	15	87,58	4,4
Motivation	50	14	87,26	4,4
Self	71	19	85,11	4,3
Employee	100	16	74,74	3,7
Community	63	16	72,84	3,6
Inner	44	14	70,63	3,5
Health	58	14	66,84	3,4
Psychology	45	15	58,84	2,9

Well-being	55	13	57,68	2,9
Engagement	42	11	52,89	2,6
Burnout	39	12	51,37	2,6
Flourishing	34	10	49,00	2,5

Source: Elaborated by the authors from WOS data (2018)

The expressions were selected following the authors' judgement and also because they are highly related to the studies about workplace spirituality. Hence, 20 topics related to the thematic and to the number of publications were chosen.

According to Banks (2006), the following hot topics were recognized (m > 2): values, religion, leadership, performance, development, purpose, sense, culture, commitment, motivation, self, employee, community, inner, health, psychology, well-being, engagement, burnout and flourishing. As for the results found, the theme spirituality in the workplace presents larger significance when associated to other themes, such as: values, religion, leadership, performance, development, purpose, sense, culture, commitment and motivation. And so it goes for emerging themes such as well-being, engagement, burnout and flourishing.

5 FINAL CONSIDERATIONS

The scientific production related to work spirituality has grown significantly from 1998 to 2017, reaching its peak in 2017 (57). The theme is recurring subject on publications in the last couple of decades. From 2013 to 2017 though, there were 139 publications, representing alone 65,00 % out of total publications in the last 20 years. This fact illustrates that the thematic is present-day and it is growing, being more and more inserted in new scientific researches.

Regarding the publications, the majority of them is related to two thematic areas: Management and Business, with a 60,56% (129) out of total publications, showing the interest in the field of organizational studies by thematic. In regarding to the type of document, articles were on top of the list, with 83,56%.

The leading authors in number of publications related to the theme are Louis W. "Jody" Fry, who is also the author of the most quoted article at WOS "Toward a Theory of Spiritual Leadership" (2003), and the professor Badrinarayan Shankar Pawar, both representing 2,81 % (6) of publications each. Regarding the journal with a higher number of publications, the *Journal of Business Ethics* stands out with 11,26 % (24) out of total publications in 20 years. This journal publishes only original articles in a wide range of methodological and disciplinary perspectives about ethic issues related to business, bringing therefore new or exclusive contributions to its field.

As to the main institutions with a higher number of publications, the Independent School of Business, the Indian Institute of Management Kozhikode (IIMK) and the State University System of Florida (SUS) stand out with 3,28 % (7) of registers each. The thematic of work spirituality also has authors connected to other 249 institutions, according to researches at *Web of Science*. The United States presents the highest number on publications, with 36,62% (78) out of total publications related to workplace spirituality. The most used language in productions was English, accounting for 97,65 % out of total registers (208).

Regarding hot topics, the main themes related to spirituality were: values (m=6,5), religion (m=6,0), leadership (m=6,0), performance (m=5,5), development (m=5,5) and purpose (m=4,9), and even more emerging themes such as well-being, engagement, burnout and flourishing were hot topics as well.

The results obtained in this bibliometric study about workplace spirituality can trace productivity patterns over the aforementioned topic. As limiting sources of study, the using of a single specific database and the fact of not taking into account the methodologic characteristics of the articles, as well as the characteristics of their bibliographic references. This was not the aim of this work, though. The aim was to focus only in authorship characteristics. It is important for future studies to have a broader database, including national and international academic events.

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