Bibliometric analysis and network mapping of the scientific literature on the influence of public relations on well-being and happiness

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Abstract

Managing employees' happiness and well-being as a business strategy offers positive outcomes for companies, as has been widely studied in the scientific literature. In the field of public relations, published studies address these benefits for individuals and collectively, both for the employees themselves (Pérez, 2020) and for the organisation for which they work, whether intangible or tangible (Castro-Martínez and Díaz-Morilla, 2020; Sidney et al., 2017). However, the function of promoting a good working environment is not always attended to in the workplace, nor is it always exclusive to a specific area (Bowen, 2008). In addition to a systematic documentary review, the Web of Science database is used for a bibliometric study and network mapping of the scientific literature, from which articles are extracted for analysis using different bibliographic searches. Based on the information obtained, VOSviewer software is used for the analysis of bibliometric networks by authorship, citation and co-occurrence of keywords in scientific publica-

tions. The number of articles published on the management of happiness and wellbeing in organisations as part of their public relations has increased significantly over the last decade, although there has been a notable change in this growth since 2021. According to the research, corporate social responsibility programmes are increasingly considering these aspects as part of their organisational strategy, and departments such as human resources are taking on a greater role in generating a good working environment. This study provides an overview of the international production of scientific publications on the subject of happiness management and organisational well-being from the point of view of public relations. It shows the evolution of scientific activity in terms of the number of works published by area of knowledge and the current trends in terms of authorship, subject matter and repercussion in the scientific field.

Keywords: public relations; happiness; well-being; organizations; bibliometric

Resum. *Anàlisi bibliomètrica i mapatge de xarxes de la literatura científica sobre la influència de les relacions públiques en el benestar i la felicitat*

La gestió de la felicitat i el benestar dels empleats com a estratègia organitzativa ofereix resultats positius per a les empreses, tal com ha estat àmpliament estudiat en la literatura científica. En l'àmbit de les relacions públiques, els estudis publicats aborden aquests beneficis tant individualment com col·lectivament: per als empleats (Pérez, 2020) i per a l'entitat per a la qual treballen, siguin intangibles o tangibles (Castro-Martínez i Díaz-Morilla, 2020; Sidney et al., 2017). No obstant això, la funció de promoure un bon ambient de treball no sempre és atesa en l'àmbit organitzacional, ni és exclusiva d'una àrea específica (Bowen, 2008). A més de la revisió documental sistemàtica realitzada, s'utilitza la base de dades Web of Science per a l'estudi bibliomètric i el mapatge de xarxes de la literatura científica, de la qual s'extreuen els articles per analitzar-los en diferents cerques bibliogràfiques. A partir de la informació obtinguda, s'utilitza el programari VOSviewer per a l'anàlisi de les xarxes bibliomètriques referides a autoria, citació i coocurrència de paraules clau en les publicacions científiques. El nombre d'articles publicats sobre la gestió de la felicitat i el benestar en les organitzacions per l'àrea de les relacions públiques ha augmentat significativament en l'última dècada, encara que s'ha produït un canvi notable en aquest creixement a partir de 2021. Segons la recerca, els programes de responsabilitat social corporativa consideren cada vegada més aquests aspectes com a part de la seva estratègia organitzativa, i departaments com el de recursos humans assumeixen un major protagonisme en la generació d'un bon ambient de treball. Aquest estudi ofereix una visió general de la producció internacional de publicacions científiques sobre el tema de la gestió de la felicitat i el benestar organitzacional des del punt de vista de les relacions públiques. Mostra l'evolució de l'activitat científica quant al nombre de treballs difosos per àrea de coneixement i les tendències actuals quant a autoria, temàtica i repercussió en l'àmbit científic.

Paraules clau: relacions públiques; felicitat; benestar; organitzacions; bibliometria

Resumen. *Análisis bibliométrico y mapeo de redes de la literatura científica sobre la influencia de las relaciones públicas en el bienestar y la felicidad*

La gestión de la felicidad y el bienestar de los empleados como estrategia organizativa ofrece resultados positivos para las empresas, tal y como ha sido ampliamente estudiado en la literatura científica. En el ámbito de las relaciones públicas, los estudios publicados abordan estos beneficios tanto individual como colectivamente: para los empleados (Pérez, 2020) y para la entidad para la que trabajan, ya sean intangibles o tangibles (Castro-

Martínez y Díaz-Morilla, 2020; Sidney et al., 2017). Sin embargo, la función de promover un buen ambiente de trabajo no siempre es atendida en el ámbito organizacional, ni es exclusiva de un área específica (Bowen, 2008). Además de la revisión documental sistemática realizada, se utiliza la base de datos Web of Science para el estudio bibliométrico y el mapeo de redes de la literatura científica, de la que se extraen los artículos para su análisis en diferentes búsquedas bibliográficas. A partir de la información obtenida, se utiliza el software VOSviewer para el análisis de las redes bibliométricas referidas a autoría, citación y coocurrencia de palabras clave en las publicaciones científicas. El número de artículos publicados sobre la gestión de la felicidad y el bienestar en las organizaciones por el área de las relaciones públicas ha aumentado significativamente en la última década, aunque se ha producido un cambio notable en este crecimiento a partir de 2021. Según la investigación, los programas de responsabilidad social corporativa consideran cada vez más estos aspectos como parte de su estrategia organizativa, y departamentos como el de recursos humanos asumen un mayor protagonismo en la generación de un buen ambiente de trabajo. Este estudio ofrece una visión general de la producción internacional de publicaciones científicas sobre el tema de la gestión de la felicidad y el bienestar organizacional desde el punto de vista de las relaciones públicas. Muestra la evolución de la actividad científica en cuanto al número de trabajos difundidos por área de conocimiento y las tendencias actuales en cuanto a autoría, temática y repercusión en el ámbito científico.

Palabras clave: relaciones públicas; felicidad; bienestar; organizaciones; bibliometría

1. Introduction and theoretical foundations

In the international scientific literature, there has been growing interest in the last decade in studies relating to happiness and well-being in the workplace, whether from the perspective of the worker or from the point of view of the company, both in terms of reputation specifically and economic performance generally (Álvarez-Nobell and Muñiz-Velázquez, 2013; Barbeito-Veloso and Perona-Páez, 2019).

Today, businesses such as the consulting firm Great Place to Work help companies improve their workplaces, through exclusive benefits for employees, opportunities for professional improvement or public recognition of their performance. They also publish annual rankings of top places to work, in their list World's Best Workplaces (2021). In 2021, organisations such as the Observatorio de Comunicación (2021) highlighted companies that had adapted to changes caused by the global coronavirus pandemic by promoting internal communication as a tool to boost the performance of workers and the links between them, both when remote working or when returning to the workplace. As Núñez-Sánchez, Gómez-Chacón and Jambrino-Maldonado (2021) show, it is advisable to maintain constant communication with employees, using all the digital tools at our disposal.

Authors such as Huettermann and Bruch (2019) point out that the link between human resource management of the psychological well-being employees and the performance of the organisation is modified by conditioning factors: a positive employee stress mindset, a climate of transforma-

tional leadership in companies, and collective commitment. Fisher (2010) adds that happiness and positive attitudes depend on the individual employee's perception and interpretation of external environments or events. However, as far as the other studies analysed in this paper are concerned, the relationship between the actions that the organisation directs towards promoting a good working environment and the response of its workers is more direct.

The strategic management of internal communication has been recognised by authors such as García-Uceda (2016) and Cuenca-Fontbona and Verazzi (2018) as a key practice to bring about change in an organisation through the transmission of values relating to the motivation and pride of employees to belong to a certain organisation. This practice within the company leads, as Díaz-Soloaga (2019) emphasises, to a strengthening of the internal corporate culture which directly relates to greater efficiency in the productivity of its workers. In this sense, the introduction of intangible assets such as satisfaction, well-being and happiness in the work environment (Barbeito-Veloso and Perona-Páez, 2019; Castro-Martínez and Díaz-Morilla, 2020) bring tangible benefits to the organisation. Their evidence is found in studies such as Sidney et al. (2017) in which well-being improvement programmes carried out in companies are evaluated and monetised through the analysis of medical costs. In the same vein, Page and Vella-Brodrick (2009) highlight employee well-being as a critical factor in achieving organisational success.

In the specific field of public relations, authors such as Aced (2013) and Teixeira, Cardoso and Pimenta (2015) were already recommending corporate communication management nearly a decade ago, defining it as the activity aimed at reinforcing those intangible aspects referred to among internal audiences: key agents in the process of identification of employees with organisational objectives (Cuenca-Fontbona and Verazzi, 2018). Published studies address these benefits both individually and collectively for workers (Pérez, 2020).

According to Acosta et al. (2015), organisational reputation emerges as an extra-organisational outcome of healthy firms, thus adding to intra-organisational outcomes such as performance. They propose the inclusion of organisational reputation in future updates of the healthy firm model.

Having a person responsible for the management of well-being and happiness and the design of spaces for sharing and relaxation (D'Almeida and Libaert, 2018; Perez, 2020), and a supervisor of the company's social climate (Beau, 2019) is becoming increasingly widespread. This is corroborated by the increase in the number of articles published on the subject and the growth in the number of citations these works receive (Rando-Cueto et al., 2022a). Indicators of the good work of what Beau (2019) calls *Chief Happiness Officer* include the quality of communication and internal relations that lead to loyalty and commitment on the part of employees, demonstrated, for example, by a lower rate of absenteeism. The management of the working relationship

thus has an impact on the way people feel and therefore on their productivity (Cassar and Buttigieg, 2015).

However, the function of fostering a good work climate is not always attended to in the workplace, nor is it always exclusive to a particular area (Bowen, 2008). Although support for basic human rights is reflected in public relations documents, researchers such as Berman and Logsdon (2011) are sceptical about the actual behaviour of companies towards their employees.

At present, although this subject of study continues to arouse interest in the scientific community, in 2021 there was a slight decrease in the number of studies published on happiness management and corporate well-being. This decline is significant if the focus of the study is on the influence of public relations. Scholars on the subject, such as Albors-Alonso and Paricio-Esteban (2016) and Castro-Martínez and Díaz-Morilla (2020), point out in this regard that, in parallel with the extensive development of internal communication management in organisations, it is often linked to departments such as human resources and, more recently, within the area of corporate social responsibility (CSR).

The main objectives of this research are as follows:

O1. To identify and contextualize the main studies on public relations and happiness/well-being that appear on the Web of Science Core Collection database, and to analyse their evolution over time.
O2. To analyse the influence of public relations in the management of well-being and happiness in the workplace, according to the studies published in scientific publications.
O3. To present visually and show in an easily understandable way the results of the work on the current state of research activity in the field of public relations management and its significance in the improvement of professionals.

2. Methodology

For the bibliometric analysis, a search of the Web of Science (WoS) Core Collection database was used to select records for further analysis, as this is considered to be an accurate, reliable and leading source for scientific analysis (Cabeza-Ramírez, Sánchez-Cañizares and Fuentes-García, 2017; Martínez et al., 2015). The criteria for selecting the search terms used are summarised in Table 1, and were conditioned by the systematic review of the previous literature. In this way, concepts that are most prevalently used in the published research are considered; and the number of records found that can offer valid conclusions after analysis of the results is taken into account. For the process of selection of search terms, English was chosen as the standard language of science (Shock et al., 2016). Most scientific manuscripts, even when written in another language, show abstract or bibliographic information in English, so they are also included in the search results.

Based on the process followed by De las Heras et al. (2022) in their article on business management of happiness, the term "public relations" was ultimately considered to be an essential concept in the publications searched, given the focus of the study. Alongside this term, the concepts of "happiness" or "well-being" appear in the publications searched.

In order to make the process as specific as possible and to carry out an in-depth study, it was decided to restrict the publications of the more than 4,000 articles in which different terms related to the business field are included to those 148 in which only studies relating to public relations and its influence on well-being and happiness are included.

Table 1. Results of the main WoS Core Collection searches for the bibliometric analysis
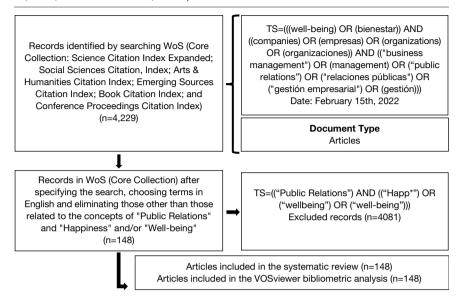
	Date	Searches	Publications
1	15/02/22	TS=(((well-being) OR (bienestar)) AND ((companies) OR (empresas) OR (organizations) OR (organizaciones)) AND (("business management") OR (management) OR ("public relations") OR ("relaciones públicas") OR ("gestión empresarial") OR (gestión)))	4,229
2	15/02/22	TS=(((well-being) OR (bienestar)) AND ((organizations) OR (organizaciones)) AND (("business management") OR (management) OR ("public relations") OR ("relaciones públicas") OR ("gestión empresarial") OR (gestión)))	3,600
3	15/02/22	TS=((well-being) AND (companies) AND (("business management") OR (management) OR ("public relations")))	932
4	15/02/22	TS=(("Public Relations") AND (("Happ*") OR ("wellbeing") OR ("well-being")))	148

Following Chen's (2017) guidelines on bibliometric analysis, scientific and visual tools and indicators, the design and methodological resources used in this study are based on a previous systemic review of the scientific literature. The bibliometric technique used is scientific or science mapping (Vallejo-Correa, Monsalve-Pulido and Tabares-Betancur, 2021; Ballesteros-Ricaurte et al., 2021) to obtain the predominant topics that have been published on public relations and their influence on the happiness and well-being of individuals, as well as their evolution over time.

The software used in this case is VOSviewer. This tool allows for the construction and visualisation of bibliometric networks, and their subsequent interpretation. Following the approach of Sánchez-Núñez, De las Heras-Pedrosa and Peláez (2020), this study presents the nets of: author keywords; citations and subject areas; citations and indexed journals; authors and geographical areas where a greater number of records are published; and authorship and affiliated institutions with greater scientific production.

The flowchart of the bibliographic search and selection process is shown in Figure 1, according to previous research models (Jambrino-Maldonado et al., 2022; Rando-Cueto et al., 2022b). The criteria for the selection of search terms were conditioned by the systematic review of the previous literature,

Figure 1. Flowchart of bibliographic search and selection process (Jambrino-Maldonado et al., 2022; Rando-Cueto et al., 2022b)


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┌─────────────────────────────────┐   ┌──────────────────────────────────────┐
│ Records identified by searching  │   │ TS=(((well-being) OR (bienestar)) AND │
│ WoS (Core Collection: Science    │   │ ((companies) OR (empresas) OR          │
│ Citation Index Expanded;         │   │ (organizations) OR (organizaciones))   │
│ Social Sciences Citation, Index; │   │ AND (("business management") OR        │
│ Arts & Humanities Citation Index;│   │ (management) OR ("public relations")   │
│ Emerging Sources Citation Index; │   │ OR ("relaciones públicas") OR          │
│ Book Citation Index; and         │   │ ("gestión empresarial") OR (gestión))) │
│ Conference Proceedings Citation  │   │ Date: February 15th, 2022              │
│ Index)                           │   ├──────────────────────────────────────┤
│ (n=4,229)                        │   │            Document Type               │
│                                  │   │              Articles                  │
└─────────────────────────────────┘   └──────────────────────────────────────┘
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Records identified by searching WoS (Core Collection: Science Citation Index Expanded; Social Sciences Citation, Index; Arts & Humanities Citation Index; Emerging Sources Citation Index; Book Citation Index; and Conference Proceedings Citation Index) (n=4,229)

TS=(((well-being) OR (bienestar)) AND ((companies) OR (empresas) OR (organizations) OR (organizaciones)) AND (("business management") OR (management) OR ("public relations") OR ("relaciones públicas") OR ("gestión empresarial") OR (gestión)))
Date: February 15th, 2022

Document Type
Articles

Records in WoS (Core Collection) after specifying the search, choosing terms in English and eliminating those other than those related to the concepts of "Public Relations" and "Happiness" and/or "Well-being" (n=148)

TS=(("Public Relations") AND (("Happ*") OR ("wellbeing") OR ("well-being")))
Excluded records (n=4081)

Articles included in the systematic review (n=148)
Articles included in the VOSviewer bibliometric analysis (n=148)

incorporating the most recurrent concepts in the publications analysed based on the subject of the study, the sample of the selected records and their specificity, in order to carry out an in-depth analysis.

3. Results

One of the results that stands out before starting the computational analysis of the scientific mapping is the number of studies found. Without using any filter, that is, with a sample without any temporal, geographical or linguistic limitation, the overall number of published papers which include the terms "public relations", "wellbeing" or "well-being", or with the root "happ-" was 148 (on 15th February 2022). Despite not being an outstanding number of published works (on WoS), there has been an increase in the number of scientific studies published over the years, with the appearance of articles being exceptional and irregular until 2008, when the curve of both the number of publications and citations of articles begins to rise significantly, reaching its maximum in 2020. After 2020, the decline in the following year is remarkable (Figure 2).

Table 2 shows the interest of the scientific community in the influence of public relations practice on happiness and well-being. This is shown by the fact that the average citation rate per article is more than 15, and by the nearly 2,300 citations of the 148 records found. Moreover, these figures

increase significantly as the period analysed progresses. The H index for the works with the highest number of citations is 16, which means that 16 publications have been mentioned in bibliographical references at least this number of times.

Figure 2. Times cited and publications over time

Table 2. Citation Report

Citation Report	
Publications	148
Times Cited	2,293
Average citation per item	15.49
H-Index	16

3.1. Author keyword analysis

The analysis of keywords that the authors select from their works shows which subject matter in the scientific literature is more prevalent, both in terms of the most common concepts and in terms of the strength of the relationship between them. The VOSviewer software is used to generate the network of co-occurrence of keywords, as shown in Figure 3. In this case, in the analysis of the influence of public relations on people's happiness and well-being, 1,397 keywords are used from the 148 publications in the sample. 29 different groupings, or clusters, of concepts were obtained (Figure 3), differentiated in the figure by colours. The size of names and circles are proportional to the frequency and strength of the connections (Van Eck and Waltman, 2010).
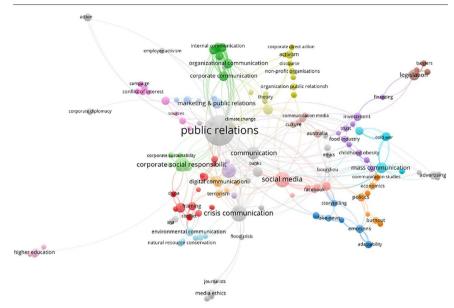
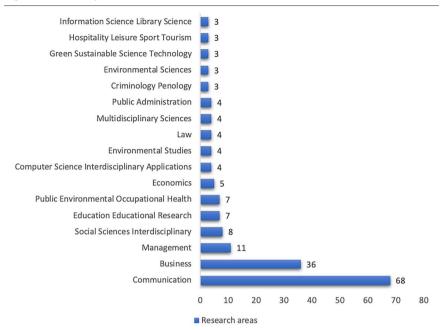**Figure 3.** Keywords map of authors and their interrelationships

"Public relations" (Figure 3) is the term most frequently used by the authors in their works and the one that is most strongly related to words such as "corporate social responsibility", "communication", "crisis communication", "social media", "crisis management", "digital communication", "organisational and corporate communication", "internal communication", "mass communication", "activism", "sustainability", "advertising", "higher education" or "fake news", among others.

3.2. Analysis of main citations - subject areas and journals

The subject area with the highest number of studies recorded is "communication", with more than double the number of published works compared to the next most common subject area where publications on public relations and human happiness or well-being are identified: "business". In third place comes the category of "management", followed by "educational research" and "public environmental occupational health", with more than five publications on the topic (Figure 4).

Among the journals that have published the most works on the subject of this study, *Public Relations Review* stands out as the oldest journal that features in-depth works in the field of public relations, as recorded by Elsevier's ScienceDirect database (2022). This is followed by the *Revista Internacional de Relaciones Públicas*, with six published papers since 2011.
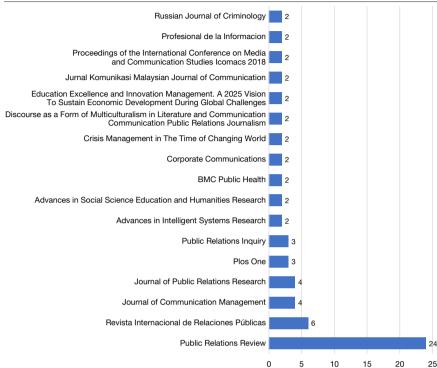
Figure 4. Main subject areas

The *Journal of Communication Management* and the *Journal of Public Relations Research* also cover topics relating to the influence of public relations on the happiness and well-being of individuals, with four works published each; and *Plos One* and *Public Relations Inquiry* with three each. The rest of the published research is spread across different scientific publications, as shown in Figure 5 of the journals with more than two published works on the subject of this study.

3.3. *Analysis of authors and citation of records*

In the case of the paper found, their authorship is not defined by a concentration of articles; that is, the most prominent researchers in terms of the number of works published do not have more than two published studies each. Moreover, the co-occurrence between authors is practically nil, which shows a remarkable autonomy when working on the subject.

However, in terms of citations, there are papers with a significant total number of citations and average number of citations per year. Table 3 shows, in descending order, the twenty most cited papers in the scientific field, each with more than 15 citations, indicating their authorship, year and publication medium. The table shows keywords or main theme, thus reflecting which topics are the most cited throughout the years of study.

Figure 5. Publications with the highest number of papers published

The list of most cited articles does not include any of the most recent years (from 2019 to 2022), with 2018 being the most recent year included in Table 3. The highest number of citations of published works occurs between 2008 and 2011.

Table 3. Ranking of the twenty articles with the highest number of citations

Authors	Papers - keywords	Citations	Average Citation per year
Brown (2008)	"Design Thinking". Harvard Business Review. – No keywords. This author states as key aspects in the implementation of a public relations campaign: "empathy", "integrative thinking", "optimism", "experimentalism" and "collaboration".	1,259	83.93
Pollard et al. (2008)	"Increasing fruit and vegetable consumption: success of the Western Australian Go for 2&5 campaigns". Public Health Nutrition. – fruit, vegetables, social marketing, campaign, nutrition intervention.	102	6.8

Liu, Ho and Lu (2017)	"Recent Themes in Social Networking Service Research". PLoS One. – community structure, research fronts, United-States, Twitter, Facebook, online, sites, communication, time, displays.	91	15.17
Stephens and Malone (2009)	"If the Organizations Won't Give Us Information…: The Use of Multiple New Media for Crisis Technical Translation and Dialogue". Journal of Public Relations Research. – No keywords. The research provides messaging strategies in crisis situations to include those used through a variety of new media.	78	5.57
Bowen (2008)	"A State of Neglect: Public Relations as 'Corporate Conscience' or Ethics Counsel". Journal of Public Relations Research. – No keywords. Study of the role of corporate conscience in the public relations function, ethical counseling among public relations professionals.	76	5.07
Claeys and Cauberghe (2012)	"Crisis response and crisis timing strategies, two sides of the same coin". Public Relations Review. – public relations, crisis response strategies, crisis timing strategies, reputation, credibility.	62	5.64
Ordeix and Duarte (2009)	"From Public Diplomacy to Corporate Diplomacy: Increasing Corporation's Legitimacy and Influence". American Behavioral Scientist. – public diplomacy, corporate diplomacy, public relations, legitimacy, social responsibility, public agenda, public interest.	49	3.5
Mickey (1997)	"A postmodern view of public relations: Sign and reality". Public Relations Review. – No keywords Analysis of postmodernism as a critical theory to provide insight into modern public relations practice.	32	1.23
Ninaus et al. (2015)	"Benefits and stressors – Perceived effects of ICT use on employee health and work stress: An exploratory study from Austria and Hong Kong". International Journal of Qualitative Studies on Health and Well-Being. – work-related technology use, ICT stressors, ICT benefits, work stress, burnout, employee health.	31	3.88
Shrewsbury et al. (2009)	"A randomized controlled trial of a community-based healthy lifestyle program for overweight and obese adolescents: the Loozit study protocol". BMC Public Health. – weight-management program, physical-activity, childhood overweight, behavior-change, blood-pressure, children, interventions, maintenance, internet, tracking.	30	2.14
O'Neil (2007)	"The link between strong public relationships and donor support". Public Relations Review. – fundraising, nonprofits, organizational-public relationships, stewardship.	28	1.75
De Bussy and Kelly (2010)	"Stakeholders, politics and power: Towards an understanding of stakeholder identification and salience in government". Journal of Communication Management. – stakeholder analysis, politics, Australia, corporation.	24	1.85

Avery (2010)	"The role of source and the factors audiences rely on in evaluating credibility of health information". Public Relations Review. – public relations, public health, sources, credibility.	22	1.69
Hege et al. (2018)	"Occupational health disparities among U.S. long-haul truck drivers: the influence of work organization and sleep on cardiovascular and metabolic disease risk". PLoS ONE. – shift work, psychosocial factors, national-survey, mental-health, stress, environment, association, prevalence, obesity, population.	21	4.2
Eckert et al. (2018)	"Health-Related Disaster Communication and Social Media: Mixed-Method Systematic Review". Health Communication. - quality.	17	3.4
Gómez et al. (2011)	"Sponsorship of physical activity programs by the sweetened beverages industry: public health or public relations?". Revista de Sauce Pública – nutrition, public health, physical activity, soft drinks, soft drinks industries, conflict of interest.	17	1.42
Plaisance (2016)	"Media Ethics Theorizing, Reoriented: A Shift in Focus for Individual-Level Analyses: Media Ethics Theorizing, Reoriented". Journal of Communication. – media ethics, media sociology, virtue theory, moral psychology, public-relations, values.	16	2.29
Wilson et al. (2013)	"Trust makers, breakers and brokers: building trust in the Australian food system". BMC Public Health. – food, trust, food scare, food safety, Australia, United Kingdom, consumers, perception, media, risk.	16	1.6
Canel (2012)	"Communicating strategically in the face of terrorism: The Spanish government's response to the 2004 Madrid bombing attacks". Public Relations Review. – government communication, strategic communication, terrorism, framing.	16	1.45
Vujnovic and Kruckeberg (2005)	"Imperative for an Arab model of public relations as a framework for diplomatic, corporate and nongovernmental organization relationships". Public Relations Review. – arab model of public relations, communication technology, "cold war", globalization, "hot war", ideological/political/economic systems, interpersonal communication, mass communication, moral/ethical values, organic theory of public relations, relationship-building, ritual communication, transmission of information.	16	0.89

3.4. Analysis of the most cited papers

Of the works highlighted in the above ranking, the first three stand out, both in terms of the number of citations and the citation rate per year. Thus, Brown (2008: 3), in his article on "Design thinking", states the following as key aspects in the implementation of a public relations campaign in the business environment: "empathy", "integrative thinking", "optimism", "experimentalism" and "collaboration".
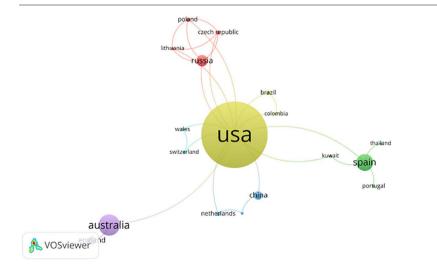
Pollard et al. (2008) study the relevance of nutritional habits for the well-being of the individual and the way in which these can be promoted through social marketing campaigns, maintained over time and correctly developed. And in the case of Liu et al., (2017), these authors carry out a bibliometric study of the scientific literature on content in social networks, among which public relations interrelated with the following subjects stand out: Improving Health, Adolescent Health, Sentiment and Trend in Microblogs, Romantic Relations, Microblogging Politics and Journalism.

3.5. Analysis of main co-authorships - countries and number of registrations

The analysis of the geographical areas with the highest number of published research studies is represented with a co-occurrence map, which visually expresses not only the most prolific places in terms of production, but also the international relationships established in terms of scientific production on public relations and happiness or social welfare (Figure 6). At the same time, a chorochromatic map (Figure 7) shows the geographical location of the places where the greatest production of papers has been published.
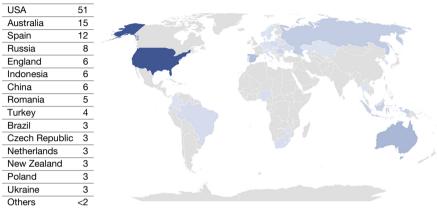
In the first case (Figure 6), the USA appears as the predominant area in the publication of scientific articles and as a link with other regions, notably the following (by size and strength of relationship with other countries): Australia, linked with England; Spain, linked with Thailand, Portugal and Kuwait; Russia, linked with Poland, the Czech Republic and Lithuania; and China, linked with the Netherlands.

Figure 6. Geographical areas with the greatest influence on scientific production and their links

In the second figure (Figure 7), the most important geographical areas are practically the same, with the addition of others which, although they have notable scientific production, their relationship with authors from other countries is not so strong.

Figure 7. Chorochromatic mapping of geographical areas with scientific production

USA	51
Australia	15
Spain	12
Russia	8
England	6
Indonesia	6
China	6
Romania	5
Turkey	4
Brazil	3
Czech Republic	3
Netherlands	3
New Zealand	3
Poland	3
Ukraine	3
Others	<2

3.6. Analysis of main co-authors – organisations and number of published studies

Figure 8 shows how universities, both public and private, are the mainstay of scientific production, with the University of Washington being the organization with the strongest relationships with other American and European organizations in terms of scientific production.

Figure 8. Most influential international affiliations (greater scientific output and strength of relationship with other entities)
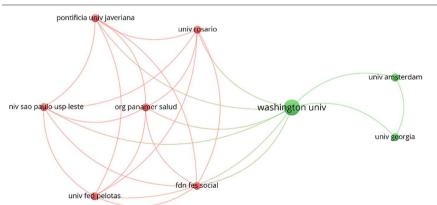
Table 4 shows the four universities with more than two published papers on public relations and its relationship with happiness and well-being, as well as the percentage that this number represents of the total number of published articles. In addition, it shows the classification of these organisations according to indicators of two rankings that place universities according to their global reputation in the period: the QS World University Rankings 2022 and the Academic Ranking of World Universities 2021 (ARWU) (Sánchez-Núñez et al., 2020).

Table 4. Prestigious and influential universities

Classification	Organisation	Articles	% Total	QS 2022	ARWU 2021
1	University of Texas Systems (at Austin)	4	2.67	67	41
2	California State University System (at San Diego)	3	2	48	18
3	University of Tennessee Knoxville	3	2	541-550	201-300
4	University of Tennessee System (Health Science Center)	3	2	-	901-1000

4. Discussion and conclusions

The analysis of the literature reviewed in this article, on the influence of public relations on human happiness and well-being, reflects a growing interest in this subject in the scientific community. Over the years, more and more studies have been published showing the benefits of public relations actions, campaigns or initiatives in the workplace, both in the personal and professional spheres of people – both of which are mutually reinforcing. However, the analysis shows that this is still not a field of study with a large volume of research published in journals of scientific impact, particularly because since 2021 it seems that the various concepts overlap; areas such as human resources and corporate social responsibility gain ground against public relations, and are given greater weight and independence in the structure of organisations. However, in terms of citation, papers with a high number of citations and average number of citations per year have been found.

The second objective is drawn, first of all, from the clusters and their visual representations created by VOSviewer software, which highlights the groups of terms related to the workplace as one of the singular aspects in the study of their relationship with happiness or well-being. Also, for the most influential authors, according to the key concepts they choose in their works, "public relations" and "social media" are closely related to corporate communication actions and crisis management in communication, as well as to corporate social responsibility actions. This analysis shows the most outstanding trends in public relations and happiness/well-being management. This conclusion is corroborated in the study of the predominant thematic areas: *communication*, *business* and *management*.

With regard to key publications, with the exception of the *Public Relations Review* and the *Revista Internacional de Relaciones Públicas*, a significant number of publications (more than 200) include between one and four articles, so that the decision to publish in one or other medium is not defined by the authors. The same is true of the organisations with which they are affiliated.

Finally, the United States ranks as the area with the highest number of articles on public relations and happiness and well-being management – public relations origins and a long tradition in human resources management. However, Australia and Spain also stand out, both in terms of the number of works published on the subject (most of which are more recent), as well as in terms of their relationships with other geographical areas (Figure 7).

It should be noted that all the studies used for this analysis are indexed on Web of Science (WoS); academic research that may be registered on other databases or repositories with different quality criteria was not considered. This is one of the greatest limitations of the study, although WoS was chosen because it covers a significant percentage of quality literature and offers more thorough citation analysis (Falagas et al., 2008). Another limitation was the selection of articles published in English. A low percentage of studies written in other languages were left out of the research, although English is chosen as the standard language of science (Shock et al., 2016) and because for the vast majority of studies, even if the full text is not in English, their abstract and bibliographic information do appear in English.

Taking into account the above-mentioned limitations, the results described above provide an overview of the scientific literature on public relations and happiness/well-being over time, thus fulfilling the first objective.

As future lines of research, we plan to carry out a bibliographic search in other databases that can be compared to the WoS Core Collection, as well as to extend the time period of the bibliometric study.

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