

IDENTIFYING THE INTELLECTUAL STRUCTURE OF EMOTION MANAGEMENT STUDIES: INFLUENTIAL CONTRIBUTION

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ABSTRACT

This paper used scientometrics to analyse many articles' citation data and realized the paradigm shift of emotion management of health. Emotion management is an important issue of organizational psychology practice. By analyzing 95,996 citations of 1,758 articles published in SSCI and SCI journals in the emotion management field from year 2003 to year 2012, this study maps the intellectual structure of emotion management of health studies and find the development of emotion management of health. After executing keyword analysis and tag cloud analysis, "emotion", "management", "social", "health", "quality", "research and "education" are the emerging topics in the security and privacy of health field. The contribution of this study is to provide important insights and implications of emotion management of health. The results of the mapping can provide a valuable tool for researchers to access the literature in this area.

Keywords: Emotion Management, Bibliometrics, Tag Cloud.

INTRODUCTION

The topic of emotions in the workplace has gained much considerable attention in recent decades [1]. A lack of theoretical clarity regarding the stream of research is that of emotional management. The knowledge system of each discipline is a part of a more general knowledge system as well. It plays a basic role in storage and knowledge spread in various disciplines, journals, articles, books and monographs [2]. In the formal exchange of the three ways (journals, articles, books and monographs), journal articles produce the most useful information because of their timeline as well as the evaluation of the scholars.

This study uses Bibliometrics and Tag Cloud Analysis to understand the evolution to introduced emotion management research from 2003 to 2012. This study, in a more objective way, uses Invisible Network of Knowledge (INK) to research the application of the smart structures of emotion management field.

This study defines INK as a set of interrelated invisible node. Each node provides a specific purpose for emotion management research and any other fields of research. With the quotation and co-citation analysis, this mode can explore the smart structures existing in any field, define its knowledge network, and further depict the process of its knowledge diffusion.

The aim of this study is to provide emotion management researchers with a unique map to better understand emotion management related publications and to provide a systematic and objective mapping of different themes and concepts in the development of emotion management field. This study also attempts to help identify the linkage among different

publications and confirm their status and positions in their contribution to the development of emotion management field. The principal methods used are citation and Tag Cloud Analysis.

Therefore, this study is trying to reach the following research purposes by applying Invisible Network of Knowledge (INK):

1. To establish the most important and the most influential scholars, journals, books and articles in Emotion management study with an objective analysis of the citation.
2. To provide important insights and impact on current and future research paradigms with the analysis of invisible network of knowledge in Emotion management research, as well as the relative research of scholars and practitioners in the management level.

STUDIES OF ACADEMIC LITERATURE

There are a number of techniques that can be used to study a body of literature. Most frequent is the simple literature review where a highly subjective approach is used to structure the earlier work. Objective and quantitative techniques have recently become popular with more databases available online for use. These techniques adopt author citations, co-citations, and systematic review [3] to examine the invisible knowledge network in the communication process by means of written and published works of a given field. These techniques are attractive because they are objective and unobtrusive [4].

Several studies have used the bibliometric techniques to study the literature of management research. [5] -[8]. To the best of our knowledge, no similar study has been conducted on the current research of emotion management. Therefore this study aims to fill a gap in emotion management literature by applying citation and Tag cloud analysis to a representative sample of recent research on emotion management collected by the Science Citation Index and Social Sciences Citation Index.

METHODOLOGY

Research Method

Search “emotion” and "management" related journals in SCI and SSCI journals fields. Instead, the entire databases of SCI and SSCI from 2003 to 2012 served as the universe for analysis. The SCI and SSCI are widely used databases, which include citations published in over 8000 world's leading scholarly journals. While there are arguments that other online databases might also be used for such analysis, using SCI and SSCI provided the most comprehensive and the most accepted databases of emotion management publications. In order to collect the data, we used “key word” method which utilizes the SCI and SSCI databases key word search in article’s title and abstract. Using “emotion management” as key word, this study collected 1,758 journal articles which further cited 95,996 publications as references. The cited references in these papers included both books and journal articles. Bibliometrics and tag cloud are applied to the study.

Bibliometric

Citation analysis method is mainly used to analyze the reference phenomenon or objects of journals, papers, authors, and to explore the relationship between the sources of literature and citation. It can help researchers understand the current state of development

of certain disciplines, the literature usage characteristics in the disciplines, correlation within the literatures between disciplines and the future trends of research through citation analysis.

Tag Cloud

In addition to the advantage of visual creativity and easy-to-use, Tag cloud can be used to assess cluster focus, and is beneficial to the content promotion. It is a good navigation tool to the traditional text based information retrieval system. Tag cloud can also support browsing unexpected discovery, and can be used as a visual summary of the database content.

The tag cloud carries on the preliminary inquisition, pondered from the social network angle, uses the populace wisdom, a little at a time mounts up, or may innovate the theory and the real diagnosis, provides a new thinking direction. The tag cloud is the common display mode for the search results in folksonomy-based websites, presenting tag sizes according to the frequency and the popularity of the key words. In other words, the tag cloud is one kind the sole glossary, demonstrated by the different color size font, encircles the shape with the succinct sole vision to present the subject index the network application way, may let human one see the popular tag, each tag all is a directional same subject group linking, simultaneously also is one kind of survey tool.

RESULTS

Citation Analysis

To identify the key publications and scholars that have laid down the ground work of emotion management research, citation data were tabulated for each of the 1,758 source documents and 95,996 references using the Excel package. The citation analysis produced interesting background statistics, as shown in the following tables. Table 1 lists the most cited journals in emotion management area in the decade years, among which Journal of Personality and Social Psychology, Journal of Applied Psychology, Academy of Management Review, Psychological Bulletin, and Pain are the top five most cited journals. The ranking of Journal of Personality and Social Psychology is higher than many prestigious management journals, which indicates Journal of Personality and Social Psychology has proved itself is the most influential journal among emotion management research of this ten years. The general pattern of the most cited journals shows that emotion management research features psychology and medical specific journals.

TABLE1 THE MOST FREQUENTLY CITED JOURNALS: 2003-2012

Journal	Total Citation
Journal of Personality and Social Psychology	2505
Journal of Applied Psychology	856
Academy of Management Review	720
Psychological Bulletin	707
Pain	624
Academy of Management Journal	616
Archives of General Psychiatry	558

American Journal of Psychiatry	543
Journal of Consulting and Clinical Psychology	539
Administrative Science Quarterly	497
American Psychologist	480
British Journal of Psychiatry	469
Personality and Individual Differences	454
Personality and Social Psychology Bulletin	443
Human Relations	416
Journal of Psychosomatic Research	392
Psychosomatic Medicine	380
Diabetes Care	373
Jama-Journal of the American Medical Association	362
Social Science & Medicine	344
Cognition & Emotion	333
Psychological Review	308
Schizophrenia Bulletin	300
British Medical Journal	290
Child Development	290

The most influential documents with the most citation and the most influential scholars were then identified by their total counts of citation within the selected journal articles. Table 2 and Table 3 lists publications including both books and journal articles. As shown in Table 2, the most cited emotion management publication between 2003 and 2007 (the first five years). It was noted that the majority of the highly cited documents were actually books, Hochschild's book *The Managed Heart: Commercialization of Human Feeling*, followed by Lazarus's book *Stress Appraisal and Coping*, and Baron's paper *The Moderator Mediator Variable Distinction in Social Psychological -Research-Conceptual Strategic, and Statistical Considerations* (see Table 2).

TABLE 2 HIGHLY CITED DOCUMENTS: 2003-2007

Full Citation Index For Document	Total citation
Hochschild A.R., 1983, <i>Managed Heart</i>	56
Lazarus RS, 1984, <i>Stress Appraisal and Coping</i>	31
Baron RM, 1986, <i>J Pers Soc Psychol</i> , V51, P1173	27
Hochschild AR, 1979, <i>Am J Sociol</i> , V85, P551	24
Glaser B.G., 1967, <i>Discovery Grounded Theory</i>	23
Watson D, 1988, <i>J Pers Soc Psychol</i> , V54, P1063	19
Goleman D., 1995, <i>Emotional Intelligen</i>	17
Lazarus R. S., 1991, <i>Emotion Adaptation</i>	16
Ashforth BE, 1995, <i>Hum Relat</i> , V48, P97	15
Butzlaff RL, 1998, <i>Arch Gen Psychiat</i> , V55, P547	14

Fineman S., 1993, Emotion Org	14
Hogarty GE, 1986, Arch Gen Psychiat, V43, P633	14
Leidner R., 1993, FAST FOOD FAST TALK	14
Mayer J. D., 1997, EMOTIONAL DEV EMOTIO, P3	14
RAFAELI A, 1987, ACAD MANAGE REV, V12, P23	14
Aiken L. S., 1991, MULTIPLE REGRESSION	13
ASHFORTH BE, 1993, ACAD MANAGE REV, V18, P88	13
MCFARLANE WR, 1995, ARCH GEN PSYCHIAT, V52, P679	13
VANMAANEN J, 1989, RES ORGAN BEHAV, V11, P43	13
WHARTON AS, 1993, WORK OCCUPATION, V20, P205	13

For the second five years (2008-2012), the most cited emotion management publications were the same as in the first five years. The third most cited was Hochschild's book *The Managed Heart: Commercialization of Human Feeling*, followed by Baron's paper *The Moderator Mediator Variable Distinction in Social Psychological - Research - Conceptual Strategic, and Statistical Considerations* and Lazarus's book *Stress Appraisal and Coping* (See Table 3).

TABLE 3 HIGHLY CITED DOCUMENTS: 2008-2012

Full Citation Index For Document	Total Citations
Hochschild A.R., 1983, Managed Heart	110
Baron RM, 1986, J Pers Soc Psychol, V51, P1173	62
Lazarus RS, 1984, Stress Appraisal and Coping	61
Goleman D., 1995, Emotional Inatelligen	41
Mayer J. D., 1997, Emotional Dev Emotio, P3	41
Salovey P., 1990, Imagination Cognitio, V9, P185	40
Glaser B.G., 1967, DISCOVERY GROUNDED T	39
Watson D, 1988, J Pers Soc Psychol, V54, P1063	39
Lazarus R. S., 1991, EMOTION ADAPTATION	36
Fredrickson BL, 2001, Am Psychol, V56, P218	34
Hochschild AR, 1979, Am J Sociol, V85, P551	34
Ashforth BE, 1993, Acad Manage Rev, V18, P88	33
Goffman E., 1959, Presentation Self Ev	33
Aiken L. S., 1991, Multiple Regression	32
Morris JA, 1996, ACAD MANAGE REV, V21, P986	29
Podsakoff PM, 2003, J APPL PSYCHOL, V88, P879	29
Weiss HM, 1996, RES ORGAN BEHAV, V18, P1	27
ASHFORTH BE, 1995, HUM RELAT, V48, P97	26
FORNELL C, 1981, J MARKETING RES, V18, P39	25
Goleman D., 1998, WORKING EMOTIONAL IN	25

Tag Cloud Analysis

In this study, the Science Citation Index (SCI) and Social Sciences Citation Index (SSCI) were used for analysis. The SCI and SSCI are widely used databases, which include citations published in over 8000 world's leading scholarly journals. While there are arguments that other online databases might also be used for such analysis, using SCI and SSCI provided the most comprehensive and the most accepted database of emotion management publications.

Unlike other prior studies, the data used in this study were not drawn from journals chosen by peer researchers [9]. Instead, the entire databases of SCI and SSCI from 2003 to 2012 served as the universe for analysis. In order to collect the data, we used “key word” method which utilizes the SCI and SSCI databases key word search in article’s title and abstract. Using “emotion management” as key word, this study collected 1,758 journal articles which further cited 95,996 publications as references. In Stage 1, based on the results of tag cloud analysis shown in Figures 3 and Figures 4, there is clearly an immediate visual impact of these tag clouds that identifies dominant words, making what was tacit within the document more implicit. This study looks at changes in the use of words over time, describes the tag clouds for the individual documents, and identifies the prominent messages. (see Figure 3, Figure 4 and Table 4) The largest tag in the stage 1 analysis(indicating the most frequently used term) is "emotion" (149→459), the words "management" (72→203), "social" (25→92) and " intelligence" (17→68) are also dominant.



Figure 3 Tag clouds in key word of Emotion Management (2003-2007)



Figure 4 Tag clouds in key word of Emotion Management(2008-2013)

Table 4: keyword analysis of comparison chart from 2002 to 2011: showing top 30 possible words

Key words	2003-2007	2008-2012	Difference
emotion	149	459	+310
management	72	203	+131
pain	46	55	+9
stress	37	62	+25
coping	34	50	+16
family	29	35	+6

disorder	27	52	+25
social	25	92	+67
work	24	55	+31
chronic	23	29	+6
anger	22	46	+24
care	22	38	+16
psychosocial	22	16	-6
schizophrenia	22	17	-5
cognitive	21	58	+37
health	21	59	+38
intervention	21	25	+4
therapy	20	38	+18
quality	19	44	+25
behavior	18	64	+46
life	18	36	+18
organizational	17	36	+19
anxiety	17	22	+5
control	17	na	na
intelligence	17	68	+51
treatment	16	28	+12
depression	15	43	+28
communication	15	47	+32
risk	15	38	+23
affective	14	na	na

In the stage 2, there is a tag cloud of the 30 most popular title analysis in the selected number possible words analysis(see Figure 5, Figure 6 and Table 5). The largest tag in stage 2 analysis is "emotional" (167→366), other large tags are the words "management" (109→191), "study" (27→86) and "effect" (39→86) are also dominant. The rest should be noted that the words "behavior" (20→66), and "role" (22→61).

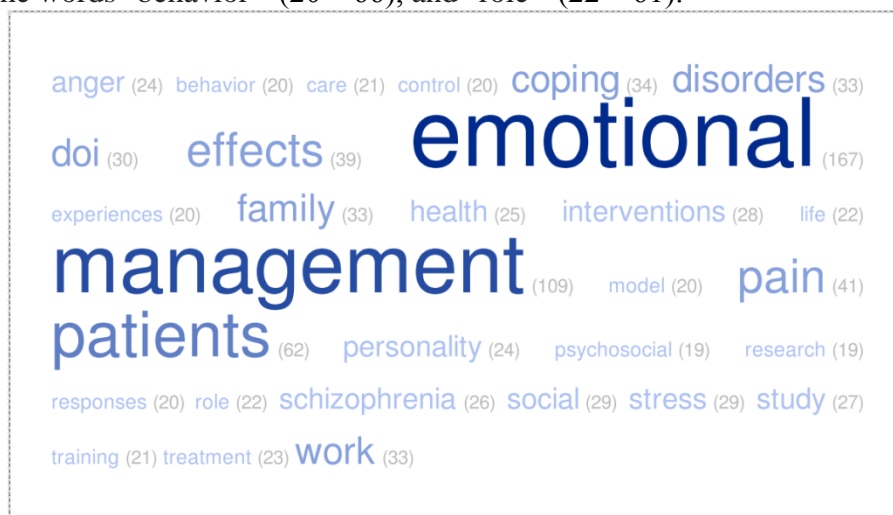


Figure 5 Tag clouds in title of Emotion Management (2003-2007)



Figure 6 Tag clouds in title of Emotion Management(2003-2007)

Table 5: title analysis of comparison chart from 2002 to 2011: showing top 30 possible words

Key word	2003-2007	2008-2012	Difference
emotional	167	366	199
management	109	191	82
patients	62	94	32
pain	41	61	20
effect	39	86	47
coping	34	45	11
disorder	33	45	12
family	33	na	na
work	33	48	15
doi	30	na	na
social	29	69	40
stress	29	na	na
intervention	28	40	12
study	27	86	59
schizophrenia	26	na	na
health	25	40	15
anger	24	48	24
personality	24	na	na
treatment	23	40	17
life	22	39	17
role	22	61	39
care	21	na	na
training	21	na	na
behavior	20	66	46
control	20	na	na
experiences	20	45	25
model	20	45	25
responses	20	na	na
psychosocial	19	na	na
research	19	na	na

CONCLUSIONS

The past decade years have seen extensive research on emotion management. This study investigates emotion management research using citation and co-citation data published in SCI and SSCI between 2003 and 2012.

The mapping of the intellectual structure of emotion management studies indicates that emotion management has somehow created its own literature and that it has gained the reputation as a legitimate academic field, with emotion management specific journals gaining the status required for an independent research field, such as *Journal of Personality and Social Psychology*, *Journal of Applied Psychology*, *Academy of Management Review*, *Psychological Bulletin*, and *Pain*. Given that the emotion management is still young and our analysis has shown that it has an evolving structure, it is believed that emotion management publication outlets will gain more popularity and prestige that is required to become a more prominent academic field when we learn more about current paradigms and the key research themes in emotion management studies, how they relate, and what they stand for. With more scholars and more resources contributing to the emotion management area, a better academic environment conducive for research ideas' cross-fertilizing will be formed and emotion management, as a field, will gain more momentum for further development.

While this study provides important insights on organizational psychology research, there are limitations associated with use of citation and co-citation analysis to identify influential authors or group research topics. The citation dataset we collected from SCI and SSCI only provided information on the first author for each document (while it is not impossible to dig out information about other authors, the cost of doing so will make citation analysis less attractive), implying that our citation analysis unduly overestimate the influence of the first author in any given document, and their co-authors, which may be equally significant and influential, are thus undervalued by this method. Further, the use of factor analysis to group authors into sub-fields only brings out major research themes, which thus somehow neglects small research themes or other nursing leadership themes. In order to overcome these problems, further studies should be done by, for example, analyzing each document manually or choosing different databases for comparison.

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