

A Bibliometric Analysis Of Global Research Pattern On Psychological Well-Being

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Abstract

This paper reports an analysis of publications of scholars around the world in psychological well-being in the subject area of psychology. The study uses a bibliometric approach that explores patterns in global psychological well-being research, published from 1962 to 2018. The research patterns are focused on outputs of publications, co-authorships among authors and affiliated countries as well as co-occurrences of author keywords. 928 bibliographic records were retrieved from Scopus database. The findings illustrate global researchers have significantly enhanced their impact, particularly since the period of 2007 onwards. 63% of the total global publications is published by scholars from the United States, Australia and the United Kingdom, followed by the other 63 countries/territories. Besides, top 10 productive universities were from the first three leading countries and nine of it were amongst the top 100 universities in the world. This study indicates that global scholars have made significant contributions to global psychological well-being study.

Keywords: psychological well-being, bibliometric analysis, Scopus database, VOS viewer, publication output, co-authorships, affiliated countries and co-occurrences of author keywords

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1.0 INTRODUCTION

Psychological well-being is conceptualized differently by various scholars according to their field or discipline of study. Many scholars argue that psychological well-being represents overall psychological quality of life in the psychology field (Ryan & Deci, 2001). Psychological well-being is interpreted as a state of well-being in which individuals understand their own capabilities of adapting with life stresses, working productively and contributing to society (WHO, 2011, as cited in, Galderisi *et al.*, 2015).

Previous studies conceptualize psychological well-being as the self-acceptance, autonomy, personal growth, environmental mastery and development, positive relations with others and purpose or meaning of life (Ghasempour *et al.*, 2013; Panahi, 2016). The diverse significance of psychological well-being on both aspects of individual and organizational require further and wider study and analysis. Such study will be very valuable as it will act as guideline not only to scholars, but also to psychiatrists, psychologists and even those in the field of psychology to determine the linkages of psychological well-being and needs of people.

Bibliometric and scientometric studies on psychological well-being have been conducted to determine the general trends in this context in general (Qasim, 2017; Ryff, 2018; Sánchez-García *et al.*, 2018). Despite this, no literature reviews were identified for bibliometric or scientometric analysis of publications that related to psychological well-being.

Prior to this, research was aimed at addressing this gap by mapping the literature on psychological well-being. For this reason, the main purpose of this study aims to accomplish the following objectives:

- a) Investigate the publication output and growth of psychological well-being research area.
- b) Identify the top productive journals on psychological well-being research area.
- c) Identify the top countries, leading institutions and international collaboration that contribute the publications of psychological well-being.
- d) Determine the top prolific authors and author keywords used in publications.

2.0 METHODOLOGY

The main research method implemented is bibliometric analysis, which plays a significant role in research performance in various fields (Reuters, 2008). This research method differentiate a bibliometric analysis paper from reviewed papers in systematic literature review (Fanaj, 2014; Murray *et al.*, 2016; Wang *et al.*, 2010) which mainly aims to analyze the recent research performance which could lead to a foundation of further study from other scholars on the focused variable

Data Source and Search Strategy

This paper presents the analysis and evaluation of scientific research and publications pertaining to psychological well-being between 1962 and 2018. In 21 December 2019, data mining was obtained through Scopus database. The central theme for this bibliometric paper was research studies that consist of “psychological well*being” in the title and abstract. The steps as shown in Table 1 is performed for this bibliometric study to retrieve the research studies on psychological well-being in the field of psychology.

Table 1 The search strategies and query strings used in Scopus database

Search	Query
Psychological well-being research articles	(TITLE-ABS (psychological well*being)) AND (LIMIT-TO (SRCTYPE,"j")) AND (LIMIT-TO (DOCTYPE,"ar")) AND (EXCLUDE (PUBYEAR,2020) OR EXCLUDE (PUBYEAR,2019))
Review articles of psychological well-being	(TITLE-ABS (psychological well*being)) AND (TITLE ("recent" OR progress OR review OR critical OR revisit OR advance OR development OR highlight OR perspective OR prospect OR trends OR bibliometric OR scientometric) OR (ABS (progress OR review OR bibliometric OR scientometric))) AND (LIMIT-TO (SRCTYPE,"j")) AND (LIMIT-TO (DOCTYPE,"ar")) AND (LIMIT-TO (SUBJAREA,"PSYC")) AND (EXCLUDE (PUBYEAR,2020) OR EXCLUDE (PUBYEAR,2019))
Psychological well-being research without articles	(TITLE-ABS (psychological well*being)) AND NOT EID review(<i>insert EID of review articles here, see appendix A</i>) AND (LIMIT-TO (SRCTYPE,"j")) AND (LIMIT-TO (DOCTYPE,"ar")) AND (LIMIT-TO (SUBJAREA,"PSYC")) AND (EXCLUDE (PUBYEAR,2020) OR EXCLUDE (PUBYEAR,2019))

The total number of articles retrieved by using a wider search through Scopus database by “psychological well*being” in the Title and Abstract was 5147. In the screening process, the research studies by the year of publications between 1967 to 2018 was included and only selected the publications that focused on articles (document type, journals (source type) and psychology (subject area). In order to remove the irrelevant research studies, the review articles were excluded with a total of 124 publications. These criteria lead to a 928 finalized research articles that were used for bibliometric purposes. The data collection of publications on psychological well-being is showed in Figure 1.

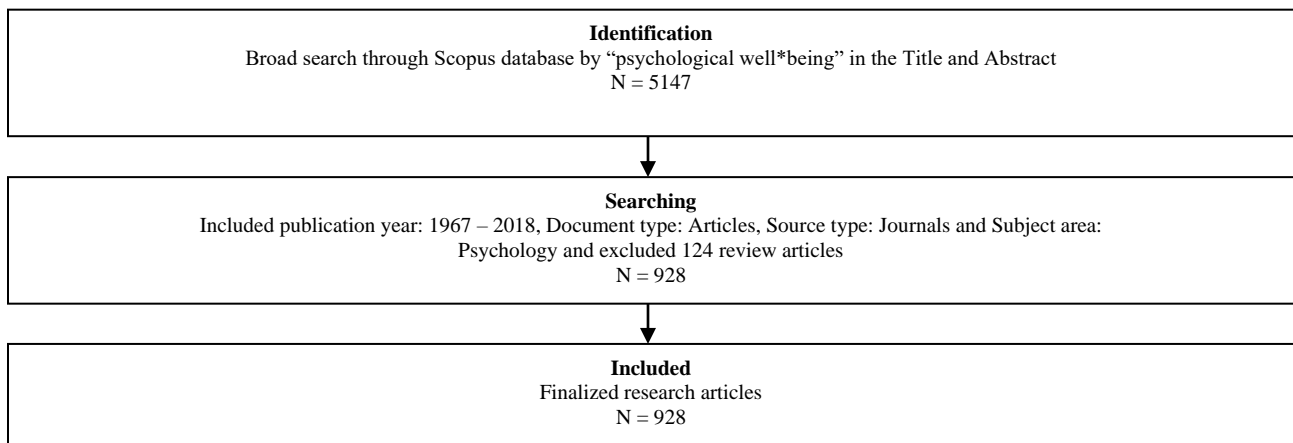


Figure 1 Flowchart of data collection of psychological well-being publications in Scopus database

Bibliometric Maps

A total of 928 articles were retrieved and the data pertaining citation, bibliographical and author keywords were exported to VOSviewer version 1.6.13. VOSviewer is a software that helps in mapping the data network and maps visualization and exploration (Van Eck & Waltman, 2010). Items were used to create the map, visualize it and for further exploration. The items consist of focused objects such as terms, publications and researchers. There is a link between any pair of the items that relate or connect between two items. Not only that, there can be more than one link between any pair of the items which is indicated by strength. The strength link is shown in positive numerical value where the link is stronger when the value is high.

An example of strength link is the strength of link between countries for co-authorship analysis which represents the total of publications between the two affiliated countries that have co-authored. In connection with total strength of link, it reflects the overall strength of a country's co-authorship with another country. In addition, in terms of the co-occurrence analysis, the strength of link between the author keywords refers to the number of publications that have occurred together with the two keywords.

4.0 RESULTS

Publication Output and Development of Psychological Well-being Research Area

A total of 928 articles on psychological well-being in psychology field had been published in a period of 57 years, from 1962 to 2018 as shown in Figure 2. The first publication was from Pohlen (1967) in 1962 and there was not recorded publications until 1974. There is lack of publications on psychological well-being from year 1975 to 1985. The publications began to increase in 1986 where there is an increase of at least one articles a year. From 2008 onwards, the publications number increased with a 20 number of publications as the minimum number. The publications were doubled in 2010 where it leads to an increase of annual publications and rise in the cumulative total publications. Hence, the total number of publications is claimed to rise continuously.

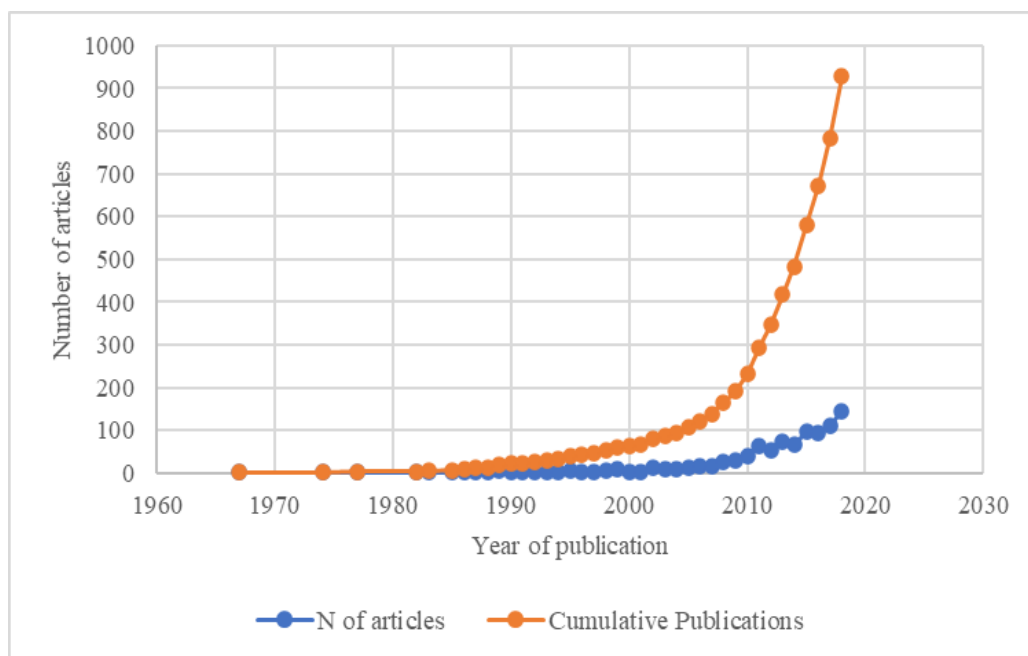


Figure 2 The annual and cumulative numbers of research articles on psychological well-being retrieved from Scopus database from year 1962 to 2018

However, out of 928 articles, only 127 articles or 16% are open access while the other 801 articles (84%) are not freely available where payment need to be made and the subscription will allow the researcher to receive the whole article. Thus, it is suggested that the particular scholars will consider for the open access journal to ensure the other scholars and practitioners receive the required data and information and more citations will be received by the scholars from this approach.

The results also indicated that the articles published were in 13 different languages with English as the main language used by most of the scholars with the total of 855 articles (92.1%). The second leading language was Spanish with total of 43 articles (4.6%) followed by 11 articles (1.1%) for French and German language respectively and 10 articles in Italian language (1.0%). Other languages (18: 0.1%) include Portuguese, Russian, Dutch, Greek, Macedonia, Norwegian, Serbian and Turkish. Title and abstract of the article publications must be written in English language that used other than English in order to be indexed in Scopus.

Preferred Journals

The top 10 most productive journals on psychological well-being research followed by the number of cited articles are shown in Table 2. Seven different publishers that were the top 10 most productive journals include Cambridge University Press, Frontiers Media S. A.,

Wiley-Bleekwell, Springer Nature, Elsevier, Dietrich Steinkopff Verlag. The top three journals include Cambridge University Press, Frontiers Media S. A. and Wiley-Bleekwell. Wiley-Bleekwell appeared thrice in the top 10 most productive journals while Elsevier appeared twice.

Ageing and Society was found to be the most productive journal with 35 articles or in other words, it covers 3.8% of the total publications, followed by Frontiers in Psychology (32; 3.4%), Australian Psychologist (28; 3.0%) and Social Indicators Research (20; 2.2%). The Frontiers in Psychology has the highest total citations with 13211 citations which followed by Personality and Individual Differences with 5433 total citations. In terms of the most cited articles, the Cambridge University Press that published an article by Bromley et al. (2004) has the highest cited article with 224 citations and the second most cited article with 174 citations is from Fergusson et al. (2013) and Frontiers Media S.A. as the publisher.

Based on the CiteScore 2018 report, only one journal had a CiteScore of 3 and above that was Social Psychiatry and Psychiatric Epidemiology (3.29) even though it ranked 8th with 13 publications in Scopus. Total journals that have CiteScore of 2 and above was five that include Ageing and Society, Frontiers in Psychology, Social Indicators Research, Children and Youth Services Review and Personality and Individual Differences. The lowest CiteScore was the Australian Psychologist (1.24) which ranked 3rd in the top most productive journals which might be due to not freely available to access the articles published, leading to low CiteScore.

Table 2 The top 10 most productive journals on psychological well-being research with their cited articles

Rank	Journal	TP (%)	TC	CiteScore 2018	The most cited article (reference)	Times cited	Publisher
1	Ageing and Society	35 (3.8)	617	2.22	Mothers supporting children with autistic spectrum disorders: Social support, mental health status and satisfaction with services (Bromley <i>et al.</i> , 2004).	224	Cambridge University Press
2	Frontiers in Psychology	32 (3.4)	13211	2.40	Childhood sexual abuse and adult developmental outcomes: Findings from a 30-year longitudinal study in New Zealand (Fergusson <i>et al.</i> , 2013).	174	Frontiers Media S.A.
3	Australian Psychologist	28 (3.0)	224	1.24	Interpreting the WHOQOL-Brèf: Preliminary population norms and effect sizes (Hawthorne <i>et al.</i> , 2006).	127	Wiley-Bleekwell
4	Social Indicators Research	20 (2.2)	1834	2.15	Predictors of vulnerability to reduced body image satisfaction and psychological wellbeing in response to exposure to idealized female media images in adolescent girls (Durkin & Paxton, 2002).	128	Springer Nature
5	International Journal of Psychology	18 (1.9)	365	1.86	Improving classroom learning environments by cultivating awareness and resilience in education (CARE): Results of a randomized controlled trial (Jennings <i>et al.</i> , 2013).	93	Wiley-Bleekwell
6	Australian Journal of Psychology	15 (1.6)	123	1.35	Stigma, social support, and depression among people living with HIV in Thailand (Li <i>et al.</i> , 2009).	116	Wiley-Bleekwell
7	Children and Youth Services Review	14 (1.5)	1950	2.04	'I like to go out to be energised by different people': An exploratory analysis of mobility and wellbeing in later life (Ziegler & Schwanen, 2011).	109	Elsevier
8	Social Psychiatry and Psychiatric Epidemiology	13 (1.4)	1709	3.29	Institutional betrayal (Smith & Freyd, 2014).	76	Dietrich Steinkopff Verlag
9	Personality and Individual Differences	11 (1.2)	5433	2.65	The varieties of wellbeing (Lawton, 1983).	58	Elsevier
10	Psychology Health and Medicine	11 (1.2)	644	1.75	Mindfulness and self-compassion as predictors of psychological wellbeing in long-term meditators and matched nonmeditators (Baer <i>et al.</i> , 2012).	81	Taylor & Francis

Leading Countries, Top Institutions and International Collaboration

Figure 3 displays the top 15 most productive countries that contribute to the development of global psychological well-being research publications. About 63% of the research activity worldwide was led by top three countries, United States, Australia and United Kingdom representing these three countries act as major contributor in the global growth of psychological well-being research area. United States was a leading country with 212 publications, covering 22.8% of the total global publications. Australian and United Kingdom had contributed a total of 192 (20.7%) and 187 (20.2%) total publications worldwide respectively.



Figure 3 Fifteen leading countries in psychological well-being publications

Besides, there were also top 50 universities based on the QS Top Universities (2019) as shown in Table 3 which the leading universities were from the top three productive countries in the world. University of Michigan, Ann Arbor ranked 20th, University of Melbourne ranked 39th and University College London ranked 10th in the world. According to these rankings based on the top 50 universities in the world, the top three universities contribute to the most productive academic institutions with 29 total global publications by University of Melbourne, followed by 22 and 12 total global publications from University College London and University of Michigan, Ann Arbor respectively.

Table 3 The top 15 most prolific countries and academic institutions in psychological well-being publications

Rank	Country	TPc	The most productive academic institution	TPI	No. of affiliated countries
1	United States	212	University of Michigan, Ann Arbor	12	36
2	Australia	192	University of Melbourne	29	16
3	United Kingdom	187	University College London	22	25
4	Spain	51	Universidad del Pais Vasco	7	13
5	Italy	47	Universita degli Studi di Roma La Sapienza	8	10
6	Canada	43	The University British Columbia	6	16
7	Netherlands	36	Utrecht University	6	14
8	New Zealand	27	University of Auckland	8	6
9	South Africa	27	North-West University	10	5
10	Germany	19	Humboldt-Universität zu Berlin	3	12
11	China	17	The University of Hong Kong	2	9
12	Sweden	16	Gothenburg University	4	13
13	Israel	15	University of Haifa	4	4
14	Switzerland	15	University of Zurich	5	6
15	Ireland	14	National University of Ireland Galway	4	7

TPc: Total publications based on countries; TPI: Total publications based on institutions

Figure 4 indicates the countries or territories distributions per region. Based on the map, when two nations are close to each other, then their connectedness or relatedness are stronger and link strength between two countries also higher, where the line is thicker. Based on the co-authorships results, United States was the most affiliated country with 74 co-authorships that linked to 36 countries/territories. The list was then followed by countries with links between countries and co-authorships that are: (1) United Kingdom

(25, 66); (2) Australia (16, 44); (3) Canada (16, 23); and (4) Italy (14, 18). It was also shown that only the top nine countries that were affiliated with other countries more than 10 times in publishing articles on psychological well-being.

The varied number of the total of international collaboration might be due to several factors. One of the factors could be the participation of active collaborators among countries within the larger network. The stronger the network, then the global collaboration would be higher. Not only that, it is also due to the participation of foreign students who studied in a particular academic institution that contribute to the collaboration of their respective countries. Besides, the research funding also plays key role in determining the active collaboration among countries as larger network requires more fund.

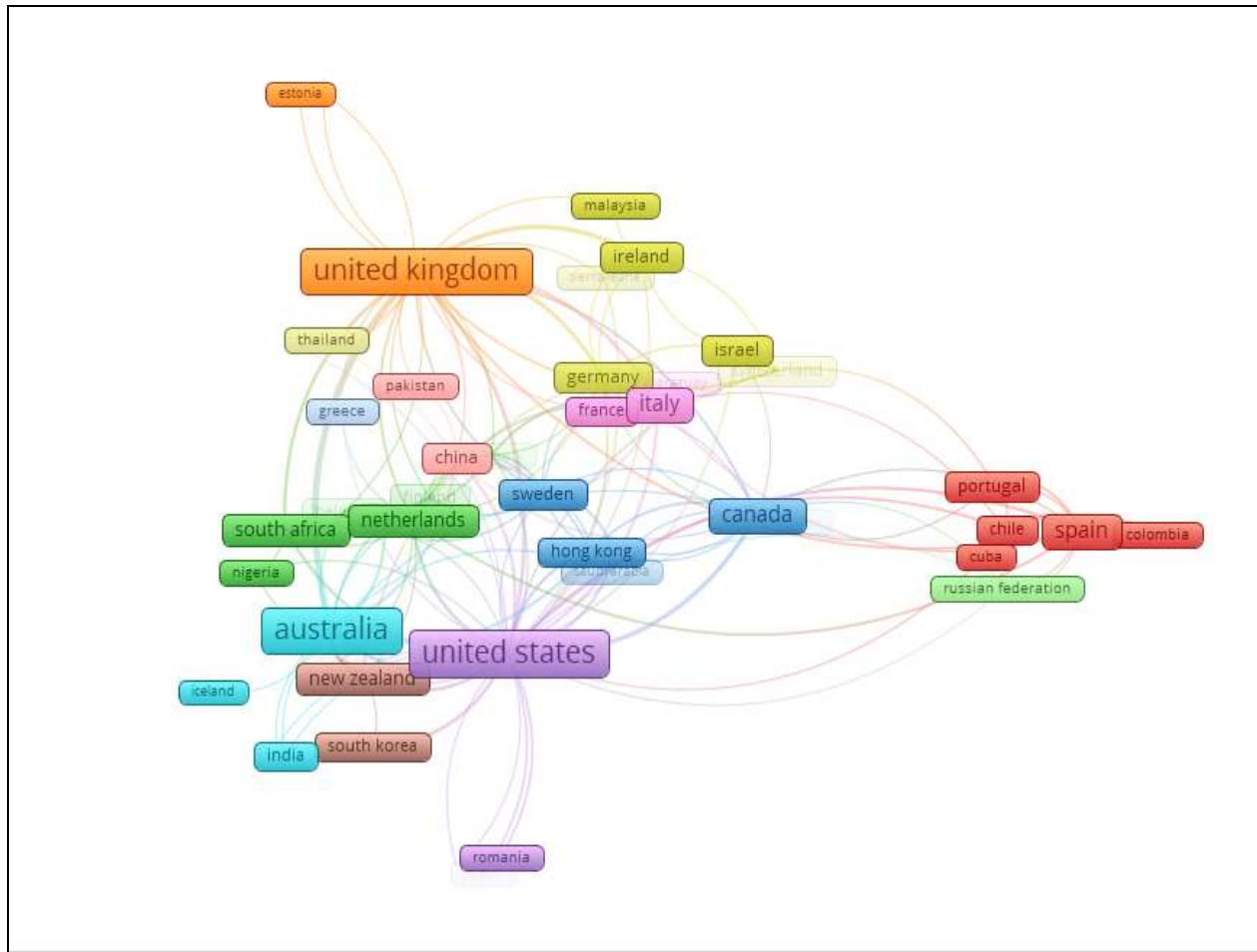


Figure 4 A bibliometric map screenshot, produced on the basis of co-authorships of affiliated countries. The following URL can be used to view Figure 4 in VOSviewer: <http://bit.ly/co-authorships>

Leading Authors

Table 4 indicates the 15 most prolific authors list in psychological well-being research area with total of four affiliated countries. Australia was the highest affiliated country with 11 authors, England (3 authors) while United States and Scotland consist of one author only. The first publications on psychological well-being was between 1974 to 2011 in which three authors had responsibilities as the first author and the other 12 authors as a co-author which these positions do not have any specific rules in the authorship order.

J. B. Brooks-Gunn from Australia was the first leading author in the list with a total record of 476 publications since year 1974 with 94 h-index and 36510 times citations. C. G. Sibley was the second top authors from England have half of the h-index from the first author that is 39 and the difference of the total citations were very huge which this author only has 6635 times citations. The other authors from England include C. Lee and L. M. Cortina ranked 6th and 10th. The other countries other than Australia and England were United States and Scotland from P. A. Creed who ranked 11th and L. E. Kotila who ranked 15th.

In almost all scientific fields, there has been a movement towards broader co-authorship (Casanueva & Galán, 2006; Cronin *et al.*, 2003). In addition, co-authorship is the most structured representation in a scientific field of intellectual collaboration. If two or more authors collaborate in research, there will not only be a greater amount of scientific outcome, but also importantly a greater quality (Hudson, 1996). The trend towards broader co-authorship of published articles is proven by psychological well-being in the field of psychology.

Table 4 List of 15 most prolific authors in psychological well-being research area

Rank	Author	Scopus author ID	Year of 1 st publication	TP	h-index	TC	Current affiliation	Country
1	Brooks-Gunn, Jeanne B.	7005457863	1974 ^a	476	94	36510	University of Melbourne	Australia
2	Sibley, Chris G.	7102504126	2001 ^a	290	39	6635	UCL	England
3	Burns, Richard	55682654356	2007 ^b	64	16	929	Australian National University	Australia
4	Dudgeon, Pat	6602161727	2000 ^a	32	10	328	Deakin University	Australia
5	Kendig, Hal	6603690761	1976 ^a	136	26	2348	Monash University	Australia
6	Lee, Christina	24463988800	1983 ^a	187	39	7731	King's College London	England
7	Waldfoegel, Jane	7005529343	1995 ^a	181	52	9051	The University of Sydney	Australia
8	Barlow, Julie Helen	7402197697	1988 ^b	140	38	5835	University of Queensland	Australia
9	Berry, John W.	7402634538	1966 ^a	141	48	14207	University of Western Australia	Australia
10	Cortina, Lilia M.	6603951675	1998 ^a	73	31	4341	University of Manchester	England
11	Creed, Peter A.	7003468262	1996 ^a	141	32	3085	University of Michigan, Ann Arbor	United States
12	Deary, Ian J.	57193752767	1982 ^a	1397	120	62893	Swinburne University of Technology	Australia
13	Giallo, Rebecca	23097685100	2003 ^a	105	23	1554	La Trobe University	Australia
14	Kessels, Roy P.C.	26642874000	1998 ^a	299	45	9147	Australian Catholic University	Australia
15	Kotila, Letitia E.	54389393100	2011 ^b	15	7	202	University of Edinburgh	Scotland

^a First author^b Co-author^c Last-author

Author Keywords

Keywords tend to contextualize the contents of the research article as well as to focus and develop the basic concepts of the research. For bibliometric application, Figure 5 shows the author keywords co-occurrence in psychological well-being research area in the title, abstract or even the entire research articles within or across sets of published articles. The co-occurrence distribution provides a comprehensive overview of the areas of research of psychological well-being within the psychology field over a given time period. (Qasim, 2017).

6.0 CONCLUSION

This bibliometric analysis has presented a comprehensive overview of psychological well-being global research patterns or trends where a total of 928 publications from Scopus database have been retrieved. The movement towards the publications on this research area is increasing starting 2007 onwards and it is estimated to rise continuously as this become a significant topic or issue that being discussed by many scholars from different disciplines. It is highly recommended to increase the research funding from government grants, non-profit organizations and companies that involved in research and development to academic institutions, particularly among the universities that have psychology majors to boost the research output. United States, Australia and United Kingdom were recognized as the most productive countries in the world that contribute a huge number of publications on psychological well-being and build strong international collaborations whereas Venezuela, Uzbekistan and Ukraine were found to be the least countries in contributing to psychological well-being studies. For this reason, it is suggested that more international collaborations should be facilitated in order to emphasize psychological well-being related to psychology field, especially in countries with high research resources. In overall, this study has shown that bibliometric analysis is a good methodological technique for mapping literature on a specific topic and determining research gaps in that topic.

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References

- Baer, R., Peters, J. R., & Lykins, E. L. (2012). Mindfulness and Self-compassion as Predictors of Psychological Wellbeing in Long-term Meditators and Nonmeditators. *The Journal of Positive Psychology*, 7(3), 230–238. <https://doi.org/10.1080/17439760.2012.674548>
- Bromley, J., Hare, D. J., Davison, K., & Emerson, E. (2004). Mothers Supporting Children with Autistic Spectrum. *Autism*, 8(4), 409–423. <https://doi.org/10.1177/1362361304047224>
- Casanueva, C., & Galán, J. L. (2006). Co-authorship in Management and Organizational Studies: An Empirical and Network Analysis. *Journal Of Management Studies*, 43(5), 957–983.
- Cronin, B., Shaw, D., & Barre, K. La. (2003). A Cast of Thousands : Coauthorship and Subauthorship Collaboration in the 20th Century as Manifested in the Scholarly Journal Literature of Psychology and Philosophy. *Journal of the American Society for Information Science and Technology*, 54(9), 855–871.
- Durkin, S. J., & Paxton, S. J. (2002). Predictors of Vulnerability to Reduce Body Image Satisfaction and Psychological Wellbeing in Response to Exposure to Idealized Female Media Images in Adolescent Girls. *Journal of Psychosomatic Research*, 53(5), 995–1005.
- Fanaj, N. (2014). A Systematic Literature Review on Self-esteem Psychological Well-being in Kosovo. *Human And Social Sciences at the Common Conference*, 103–108.
- Fergusson, D. M., Mcleod, G. F. H., & Horwood, L. J. (2013). Child Abuse & Neglect Childhood Sexual Abuse and Adult Developmental Outcomes: Findings from a 30-year Longitudinal Study in New Zealand. *Child Abuse & Neglect*, 37(9), 664–674. <https://doi.org/10.1016/j.chiabu.2013.03.013>
- Galderisi, S., Heinz, A., Kastrup, M., Beezhold, J., & Sartorius, N. (2015). Toward a New Definition of Mental Health. *World Psychiatry*, 14(2), 231–233. <https://doi.org/10.1002/wps.20231>
- Ghasempour, A., Jodat, H., Soleimani, M., & Shabanlo, K. Z. (2013). Happiness as a Predictor of Psychological Well-being of Male Athlete Students. *Annals of Applied Sport Science*, 1(2), 25–32.
- Hawthorne, G., Herrman, H., & Murphy, B. (2006). Interpreting the WHOQOL-BREF: Preliminary Population Norms and Effect Sizes. *Social Indicators Research*, 77(1), 37–59. <https://doi.org/10.1007/s11205-005-5552-1>
- Hudson, J. (1996). Trends in Multi-authored Papers in Economics. *Journal of Economic Perspectives*, 10(3), 153–158. <https://doi.org/10.1257/jep.10.3.153>
- Jennings, P. A., Frank, J. L., Snowberg, K. E., Coccia, M. A., & Greenberg, M. T. (2013). Improving Classroom Learning Environments by Cultivating Awareness and Resilience in Education (care): Results of a Randomized Controlled Trial. *School Psychology Quarterly*, 28(4), 374–390. <https://doi.org/10.1037/spq0000035>
- Lawton, M. P. (1983). The Varieties of Wellbeing. *Experimental Aging Research*, 9(2), 65–72. <https://doi.org/10.1080/03610738308258427>
- Li, L., Lee, S. J., T., P., Jiraphongsa, C., & Rotheram-Borus, M. J. (2009). Stigma, Social Support and Depression among People Living with HIV in Thailand. *AIDS Care*, 21(8), 1007–1013. <https://doi.org/10.1080/09540120802614358>
- Murray, M., Murray, L., & Donnelly, M. (2016). Systematic Review of interventions to Improve the Psychological Well-being of General Practitioners. *BMC Family Practice*, 17(1), 36. <https://doi.org/10.1186/s12875-016-0431-1>
- Panahi, S. (2016). Predictors of psychological well-being among Malaysian graduates. *The European Journal of Social and Behavioural Sciences*, 16(2), 2067–2083. <https://doi.org/10.15405/ejsbs.186>
- Pohlen, M. (1967). Über Die Beziehung Zwischen Rhythmischer Einstimmung Und Frühzeitiger Differenzierung Des Gehörsinns Bei Der Entstehung Des Ichs Und Der Sprache. *Psychotherapy and Psychosomatics*, 15(6), 407–445. <https://doi.org/10.1159/000285907>
- Qasim, M. (2017). Sustainability and Wellbeing: A Scientometric and Bibliometric review of the literature: Sustainability and Wellbeing. *Journal of Economic Surveys*, 31(4), 1035–1061. <https://doi.org/10.1111/joes.12183>
- QS Top Universities. (2019). *QS World University Rankings: Who Rules?* Retrieved from <https://www.topuniversities.com/university-rankings/world-university-rankings/2019> Retrieved date: 07 January 2020.
- Ryan, R. M., & Deci, E. L. (2001). On Happiness and Human Potentials: A Review Of Research on Hedonic and Eudaimonic Well-Being. *Annual Review of Psychology*, 52(1), 141–166.
- Ryff, C. D. (2018). Well-being with Soul: Science in Pursuit of Human Potential. *Perspectives on Psychological Science*, 13(2), 242–248. <https://doi.org/10.1177/1745691617699836>
- Sánchez-García, J. C., Vargas-Morúa, G., & Hernández-Sánchez, B. R. (2018). Entrepreneurs' Well-being: A Bibliometric Review. *Frontiers in Psychology*, 9, 1–19. <https://doi.org/10.3389/fpsyg.2018.01696>
- Smith, C. P., & Freyd, J. J. (2014). Institutional Betrayal. *American Psychologist*, 69(6), 575–587.
- van Eck, N. J., & Waltman, L. (2010). Software Survey: VOSviewer, A Computer Program for Bibliometric Mapping. *Scientometrics*, 84(2), 523–538. <https://doi.org/10.1007/s11192-009-0146-3>
- Wang, C., Bannuru, R., Ramel, J., Kupelnick, B., & Scott, T. (2010). Tai Chi on Psychological Well-being: Systematic Review and Meta-analysis. *BMC*

Complementary and Alternative Medicine, 10(23), 1–16. <https://doi.org/10.1186/1472-6882-10-23>

Whitepaper using Bibliometrics: A Guide to Evaluating Research Performance with Citation Data. (2008). America: Thomson Reuters.

Ziegler, F., & Schwanen, T. I. M. (2011). 'I like to Go Out to be Energised by Different People': An Exploratory Analysis of Mobility and Wellbeing in LaterLife.' *Ageing & Society*, 31(5), 758–781. <https://doi.org/10.1017/S0144686X10000498>

APPENDIX A

EID of review articles:

(2-s2.0-85046149773 OR 2-s2.0-85050149669 OR 2-s2.0-85041011409 OR 2-s2.0-85021233849 OR 2-s2.0-85048574074 OR 2-s2.0-85051110994 OR 2-s2.0-85046814747 OR 2-s2.0-85046907025 OR 2-s2.0-85045312554 OR 2-s2.0-85044841041 OR 2-s2.0-85042494805 OR 2-s2.0-85044351291 OR 2-s2.0-85039903598 OR 2-s2.0-85042566015 OR 2-s2.0-84983474756 OR 2-s2.0-85024489519 OR 2-s2.0-85030675079 OR 2-s2.0-85065608957 OR 2-s2.0-84994444626 OR 2-s2.0-85069731091 OR 2-s2.0-85028454624 OR 2-s2.0-85046650304 OR 2-s2.0-85027973957 OR 2-s2.0-85029611829 OR 2-s2.0-85015256902 OR 2-s2.0-85025118422 OR 2-s2.0-85025142297 OR 2-s2.0-85025140738 OR 2-s2.0-85011387391 OR 2-s2.0-85017459057 OR 2-s2.0-85015762601 OR 2-s2.0-85012940732 OR 2-s2.0-85028421009 OR 2-s2.0-85026749767 OR 2-s2.0-85007409311 OR 2-s2.0-85027309915 OR 2-s2.0-85061232273 OR 2-s2.0-85021699149 OR 2-s2.0-84991794180 OR 2-s2.0-84978066660 OR 2-s2.0-84995487750 OR 2-s2.0-84983757506 OR 2-s2.0-85000915457 OR 2-s2.0-84964933194 OR 2-s2.0-84979215078 OR 2-s2.0-84961204782 OR 2-s2.0-84973369496 OR 2-s2.0-84973523476 OR 2-s2.0-84918570568 OR 2-s2.0-84962617971 OR 2-s2.0-84958051790 OR 2-s2.0-85008477677 OR 2-s2.0-84953371205 OR 2-s2.0-84992159910 OR 2-s2.0-85045961049 OR 2-s2.0-84986270354 OR 2-s2.0-84953790779 OR 2-s2.0-84949743640 OR 2-s2.0-84949537928 OR 2-s2.0-84943551584 OR 2-s2.0-84941050028 OR 2-s2.0-84943578387 OR 2-s2.0-84939652758 OR 2-s2.0-84959217341 OR 2-s2.0-84960416222 OR 2-s2.0-84919918859 OR 2-s2.0-84926368446 OR 2-s2.0-84930759973 OR 2-s2.0-84945455745 OR 2-s2.0-84930399217 OR 2-s2.0-84928654413 OR 2-s2.0-85023631792 OR 2-s2.0-85007280708 OR 2-s2.0-84924525937 OR 2-s2.0-84932117266 OR 2-s2.0-84904293839 OR 2-s2.0-84906250125 OR 2-s2.0-84928949257 OR 2-s2.0-84906851364 OR 2-s2.0-85026258630 OR 2-s2.0-84885341936 OR 2-s2.0-84888405047 OR 2-s2.0-84881023069 OR 2-s2.0-84881559891 OR 2-s2.0-84883181487 OR 2-s2.0-84879173918 OR 2-s2.0-84880624613 OR 2-s2.0-84878195752 OR 2-s2.0-84880155008 OR 2-s2.0-84955421530 OR 2-s2.0-84861835426 OR 2-s2.0-84870437251 OR 2-s2.0-84865843900 OR 2-s2.0-84858590776 OR 2-s2.0-84901333527 OR 2-s2.0-82655173686 OR 2-s2.0-84872030576 OR 2-s2.0-84865660076 OR 2-s2.0-80053080994 OR 2-s2.0-79960191840 OR 2-s2.0-84855933113 OR 2-s2.0-79955717350 OR 2-s2.0-84856500125 OR 2-s2.0-77954809333 OR 2-s2.0-77952189085 OR 2-s2.0-84857807358 OR 2-s2.0-70450209967 OR 2-s2.0-78649610603 OR 2-s2.0-70149115128 OR 2-s2.0-50849102639 OR 2-s2.0-36048986715 OR 2-s2.0-34748923479 OR 2-s2.0-34548404354 OR 2-s2.0-34347345892 OR 2-s2.0-33750607317 OR 2-s2.0-33947661387 OR 2-s2.0-76749110754 OR 2-s2.0-0037336037 OR 2-s2.0-0037337725 OR 2-s2.0-1642558461 OR 2-s2.0-0032848535 OR 2-s2.0-0030526113 OR 2-s2.0-84926281761 OR 2-s2.0-0018528428)