

Research on Subject area of Psychology in India: Scientometric Study

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Abstract

This paper research study focused on field of Psychology subject in India, total twenty years during the year 2001 to 2020, data downloaded from WoS. Total papers published numbers of 12, 543 (0.88%) with 96,871 citations and 14,30,7000 global wise records published the field of Psychology subject area during the period. Analyze the year-wise growth papers in India and the world and maximum papers published in the year 2019 total 1,632 (13.01%) papers published with 2,299 (2.37%) citations and very few papers published in the year 2001 only 102 (0.81%) with 2,579 (2.66%) citations. 2001 to 2019 slowly increased but suddenly in 2020 decreased the 1,373 (10.95%) papers publication. Maximum papers published from "Psychiatry" total 6,922 (55.19%) with 29575 (30.53%) citations and 95 h-index, most productive authors identified by Grover S is the most productive author in this field total 365 (2.84%) publications with 2014 (2.08%) citations and h-index 22. There are five authors who have published below 200 papers and eleven authors below 150 papers published. field of "Psychiatry" subject maximum covered 55.19% papers published during research study 2001 to 2020 and remaining types of subject field contributions papers published less than 15% only.

Keywords: Psychology, India, Subject Area, Scientometric, Web of Science, (WoS).

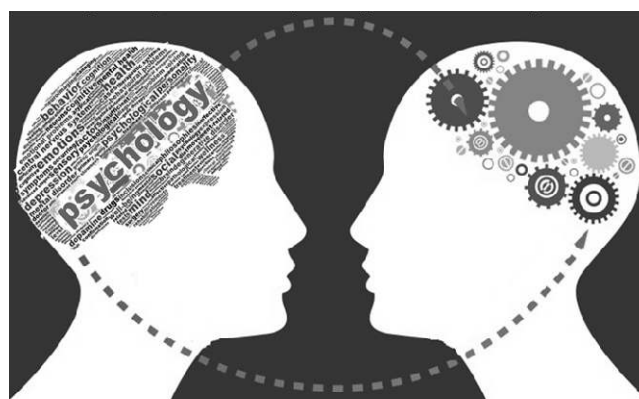
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I. INTRODUCTION

Psychology is the scientific study of the mind and behavior, Psychology is a multifaceted discipline and includes many sub-fields of the study such as human development like sports, health, clinical, social behavior, and cognitive process. It also applies to how information can be used to help understand incidents, treats mental health problems, and enhance school, work, and relationships. The topic falls somewhere between applied, educational, and theoretical research. The subject is a crossroads of applied, educational, and theoretical research. There are as many opportunities to research psychology as there are psychology majors. It's a personal decision, but there are five reasons I'd like to discuss with you that are often cited as compelling reasons to pursue a degree in psychology. 1) You gain a better understanding of why people behave in strange ways. 2) You Gain Knowledge of Kick-Ass Experiments. 3) You are taught how to conduct research. 4) You Gain Knowledge of Mental Illnesses and Treatment Options. 5) You get a better understanding of how people act.

According to the American Psychological Association (APA), psychology is the empirical study of the mind and actions. Human growth, sports, fitness, clinical, social behavior and cognitive processes are only a few of the many sub-fields of psychology that can be studied. Psychology is a relatively modern discipline, with the majority of developments occurring in the since 150 years. Its history, however, can be traced back to 400–500 BC in ancient Greece. Great thinkers similar to Socrates (470 BC – 399 BC) inspired Plato (428/427 BC – 348/347 BC), who in turn predisposed Aristotle (384 BC - 322 BC).

Fig. 1: Importance of Psychology Human Development



Source: <http://sowlcation.com/social-sciencesPsychology-and-its-Importance>

The study of mind and action is known as psychology, [1] saying "... the study of conscious and unconscious phenomena, as well as feelings and thoughts, is included in psychology. It's a huge research field with a lot of possibilities. Psychologists are interested in learning more about the emergent properties of brains, as well as the wide range of phenomena related to those emergent properties, and thereby join the larger neuroscientific community". It seeks to understand individuals and communities as a social science by defining general concepts and studying particular cases. [2] A psychologist is a trained practitioner or researcher who is known as a psychological, behavioral,

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or cognitive scientist in this field. Psychologists research the physiological and biological mechanisms that underpin cognitive functions and behaviors, as well as the role of mental functions in individual and social activity. India was an acronym for grouping that referred to the lead countries, and India also more papers published on psychology field and ranked wise 25th in the world. In this study, we have considered Indian author's research study filed of Psychology to analyze different Scientometric data for a period of twenty years 2001 to 2020 because in recent past the field of Psychology has shown a good remarkable growth both quantitatively and qualitatively.

II. METHODOLOGY

The aim of this study is to use Scientometrics indices to evaluate the year-by-year growth of the subject area field of Psychology in India and around the world. The achieve the database from the Web of science (WoS) used to extract publications, The database was created by collecting publications from the WoS using the search string CU= India AND SU=(Psychology OR Psychiatry OR "Mental illness" OR Mental OR Neurobehavioral OR Psycho diagnostics OR Mental OR Psycho Surgery OR Behavior OR Behaviorism OR Psychoanalyst OR Psychodynamic OR unconscious) from 2001 to 2020, a span of twenty years. There are a total of 12,543 publications in India, with 96,871 citations and publications in the whole world For the research report 14,30,700 records were considered. Furthermore, the downloaded data was saved as plain-text and tab-delimited MS Excel format spreadsheets and the tabulated data was analyzed using a few Scientometric indices.

III. OBJECTIVES OF THE STUDY

- Year-Wise growth of papers in India and World
- To study the field of subject area Psychology in India
- To find out the top most productive authors in Psychology research in India

IV. REVIEW OF LITERATURE

Narasanaikar, K I (2016). This paper reviewed the various bibliometric components of papers published in the Psychology literature during study from 1972 to 2008, a span of 37 years. India produced a total of 11,604 publicashed, accounting for 0.64 percent of all papers published in the field. India publishes an average of 313.62 papers per year, with a 0.02 percent annual increase. India has the largest number of articles, with 952 papers written between 1988 and 1990, accounting for 53.57 percent of all publications. A total of 1468 papers were submitted by 30 Indian contributors, with an average contribution rate of 39.68 percent.

Khanna, S et al, (2017). This paper research contribution and citation impact to 20 most productive authors of Scientometric Analysis of the research study output of Physics and Astronomy of Guru Nanak Dev University (GNDU) during a total of ten years 2006 to 2015. The highly productive author published by Thangaraj R. 54 with 179 citations and he got 3.31 average citation per paper and second high ranked by Singh S. authors published papers 53

with 348 high citation impact he got with 6.57 ACPP and followed by Bedi R.K. total 50 papers published with 291 citations and 5.82 ACPP, the university has published 652 papers published in physics and astronomy. The University had registered the average citation impact per paper of (7.01%) and 06 publications received 51 to 100 citations.

V. RESULTS AND DISCUSSION

Year-Wise growth of papers in India and World

The year-wise growth of papers research output in India and the world from the year 2001 to 2020, a total of papers published in India 12,543 (0.88%) with 96,871 citations and 14,30,7000 global wise records published the field of Psychology subject area during the period.

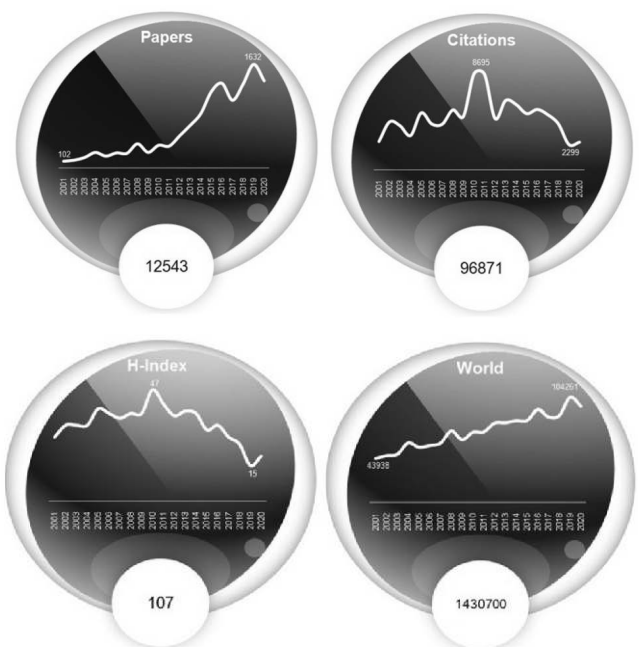
Table-1: Year-Wise growth of papers in India and World

Year	% of Papers	% of Citations	<i>h-index</i>	% of World
2001	0.81	2.66	27	3.07
2002	0.95	4.50	32	3.28
2003	1.29	4.14	32	3.37
2004	1.92	3.23	32	4.16
2005	1.46	5.35	39	3.86
2006	1.87	4.31	37	3.98
2007	1.81	4.29	35	4.15
2008	3.01	5.63	37	4.99
2009	1.93	5.02	37	4.38
2010	2.83	9.01	47	4.90
2011	2.72	8.98	41	4.92
2012	4.03	4.82	36	5.53
2013	5.34	6.52	38	5.56
2014	6.82	6.13	37	5.71
2015	9.60	5.28	30	5.71
2016	10.63	5.67	32	6.46
2017	8.50	5.18	27	5.96
2018	10.52	4.32	24	6.06
2019	13.01	2.37	15	7.29
2020	10.95	2.60	19	6.67
Total	12,543	96,871	107	14,30,700

The high contribution was by the in the year 2019 total 1,632 (13.01%) papers published with 2,299 (2.37%) citation and very less papers published in the year 2001 only 102 (0.81%) with 2,579 (2.66%) citations. Noticed that 2001 to 2019 slowly increased the publication but suddenly in the year 2020 decreased the 1,373 (10.95%) papers publication, observing that similarly near papers published in the year 2006 and 2007. [3] "... India has produced a total of 11,604 papers with a 0.64%. The average number of publications per year in India is 313.62 papers with a 0.02%.... highest number of publications was found by India is 952 papers during the period of 1988, with a cumulative 53.57%" (cited from p.57). Field of Psychology research study total twenty years 2001-2020 highly citation published in the year 2010

total 8,726 (9.01%) with 47 h-index also high and in the year 2001 to 2020 slowly citation decreased. Global wise 2001 to 2020 slowly increased the papers publication, highly papers published in the year 2019 total 1, 04, 261 and again in the year 2020 decreased papers publications 95,392.

Fig.2: Publication productivity of Thin Film Research on BRICS



Field of subject area Psychology

During the research study total psychology more than 50 subject areas are there we selected top ten field psychology subject area.

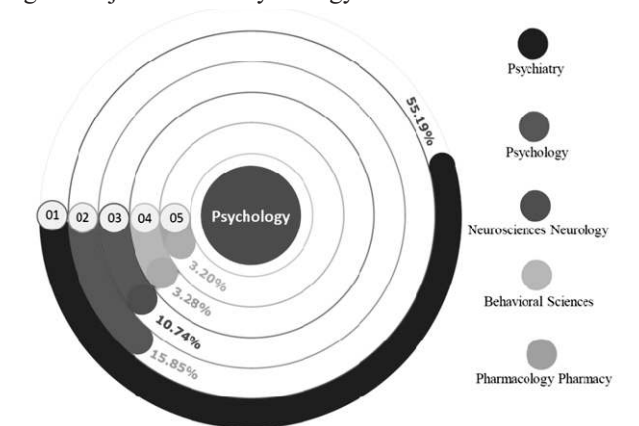
Table-2: Subject area on Psychology in India

Subject Area	% of Paper	% of Citation	h-index
Psychiatry	55.19	30.53	95
Psychology	15.85	28.92	80
Neurosciences			
Neurology	10.74	15.59	68
Behavioral Sciences	3.28	6.01	37
Pharmacology			
Pharmacy	3.20	4.61	43
Biomedical Social Sciences	1.71	1.31	26
Public Environmental Occupational Health	1.58	1.98	29
Geriatrics Gerontology	1.44	1.87	23
Health Care Sciences Services	0.99	1.10	25
Substance abuse	0.85	1.33	24
Others Subject Area	5.17	6.77	47
Total	12,543	96,871	

Shown in table-2 the subject classification gives some top ten ranked and first ranked maximum “Psychiatry” total 6,922 (55.19%) papers published with 29,575 (30.53%) citations and 95 h-index followed by the second-ranked by

“Psychology” 1,988 (15.85%) papers published with 28,013 (28.92%) citations and 80 h-index and third-ranked “Neurosciences Neurology” 1,347 (10.74%) papers published with 15,102 (15.59%) citations and 68 h-index. Newly- developed specialized subject of “Biomedical Social Sciences” 214 (1.71%) papers published with 1,266 (1.31%) citations during 2001 to 2020 above showed that the majority of the contributions appeared under file of Psychology. The remaining types of subject field contributions recorded the lowest output below 1% of output. Noticed that field of “Psychiatry” subject maximum covered 55.19% papers published during research study 2001 to 2020 and the remaining types of subject field contributions papers published less than 15% only.

Fig.3: Subject area on Psychology in India



Most Productive Twenty Authors on Psychology Research in India

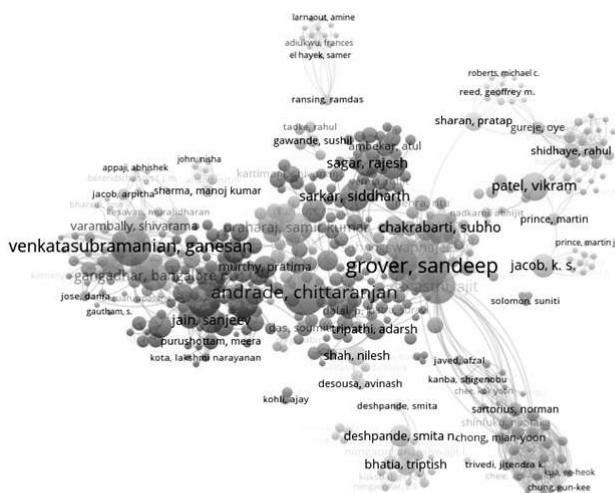
More than 21,025 authors contributed 96,871 publications field of psychology researching in India during the year 2001 to 2020, out of these 21,021 authors only top-ranked and most popular authors identified.

Table-3: Top Twenty Most Productive Authors on Psychology Research in India

Authors	% of Papers	% of Citations	h-index
Grover S	2.84	2.08	22
Andrade C	2.34	2.29	24
Venkatasubramanian G	1.92	2.19	27
Gangadhar BN	1.81	2.99	30
Thirthalli J	1.46	1.92	25
Avasthi A	1.44	1.26	19
Kumar S	1.44	1.20	20
Jain S	1.41	1.04	20
Sarkar S	1.22	0.44	11
Reddy YCJ	1.20	2.34	29
Patel V	1.12	5.37	40
Praharaj SK	1.09	0.72	12
Chakrabarti S	1.08	1.32	19
Math SB	1.06	0.71	17
Rao TSS	1.04	0.34	10
Sagar R	1.00	5.20	22
Gupta R	0.97	0.49	12
Kumar A	0.94	0.97	17
Narayanaswamy JC	0.92	0.82	16
Singh S	0.92	0.43	9
Other Authors	72.77	65.87	76
Total	12,543	96,871	

Table-3 shows the 20 most productive authors identified with more than 100 publications. Grover S is the most productive author in this field total 365 (2.84%) publications with 2014 (2.08%) citations and h-index 22. second most productive publication by Andrade C total 294 (2.34%) with 2,219 (2.39%) Citations and 24 h-index, followed by Venkatasubramanian G contributed 241 (1.92%) with 2,120 (2.19%) citation and 27 h-index secured second and third position respectively, forth ranked author by Gangadhar BN published papers 227 (1.81%) with 2,894 (2.99%) and 30 h-index. [4] "... During the year 2001-2015. Sagar, R. published 115 (20.10%) articles. He received 2174 citations with an average of 18.19 citations. His citing articles were 1498. His H-Index is 26. Pandey, AK is on the second rank of most productive authors list" (cited from p.10). Noticed that author Patel V 140 papers published and more citation than Grover S total 5301(5.37%) with 40 h-index similarly author by Sagar R 126 productive publication with 5039 (5.20%) citations with 22 h-Index. There are five authors who have published below 200 papers and eleven authors below 150 papers published.

Fig.4: Using VOS Viewer prolific author's Bibliographic Couplings on Psychology



Using by VOSViewer software for most productive authors label view and cluster view of for belongs to their highest productivity articles on the field of Psychology subject. The particular authors name size and colored were isolated groups are also indicated that their positions of publication status of mentioned authors. The authors of "Grover S", "Andrade C", "Venkatasubramanian G" and "Gangadhar BN" were having the highest productivity of Psychology papers, the below label view scattering the figure has revealed it clearly.

VI. CONCLUSION

This research paper looked at the field of psychology in India for a total of twenty years, from 2001 to 2020, using data from the World of Statistics (Web of Science). During the time, a total of 12, 543 (0.88 percent) papers were published in the field of Psychology, with 96,871 citations and 14,30,7000 global wise records. Year-by-year growth of papers in India and around the world, with the most papers published in 2019 totaling 1,632 (13.11%) with 2299 (2.37%) citations and the

least papers published in 2001 totaling just 102 (0.81%) with 2579 (2.66%) citations. From 2001 to 2019, the number of papers published steadily rose, but then abruptly decreased in 2020, with 1373 (10.95%) papers published. Maximum papers published from "Psychiatry" total 6922 (55.19%) with 29575 (30.53%) citations and 95 h-index, Grover S is the most prolific author in this area, with a total of 365 (2.84 percent) publications, 2014 (2.08 percent) citations, and an h-index of 22. There are five authors who have published less than 200 papers and eleven authors who have published less than 150 papers. The area of "Psychiatry" occupied the maximum of 55.19 percent of papers published between 2001 and 2020, with the remaining categories of topic field contributions papers covering less than 15% of the total of "Psychiatry" subject maximum covered 55.19% papers published during research study 2001 to 2020 and remaining types of subject field contributions papers published less than 15% only.

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