

The 100 Most Influential Publications in Scoliosis Surgery

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Introduction

Previous studies have applied the technique of citation analysis to other areas of study. This is the first paper to apply this technique to the field of scoliosis surgery.

Methods

A two-step search of the Thomson Reuters Web of Science was conducted to identify all articles relevant to the field of scoliosis surgery. The top 100 articles with the most citations were identified based on analysis of titles and abstracts. Further statistical analysis was conducted to determine whether measures of author reputation and overall publication influence affected the rate at which publications were recognized and incorporated by other researchers in the field.

Results

Total citations for the final 100 publications included in the list ranged from 82 to 509. The time period for publication ranged from 1954 to 2010. Most studies were published in the journal Spine (n = 63). The most frequently published topics of study were surgical techniques (n = 35) and outcomes (n = 35). Measures of author reputation (number of total studies in the top 100, number of first-author studies in the top 100) were found to have no effect on the rate at which studies were adopted by other researchers (number of years until first citation, number of years until maximum citations). The number of citations/year a publication received was found to be negatively correlated with the rate at which it was adopted by other researchers, indicating that more influential manuscripts attained more rapid recognition by the scientific community at large.

Conclusions

In assembling this publication, we have strived to identify and recognize the 100 most influential articles in scoliosis surgery research from 1900 to 2015.

Journal Statistics

Journal	Impact factor	Number of articles	Average citations/year	Year of first publication	Year of most recent publication
Spine	2.297	63	8.51	1982	2010
Journal Of Bone And Joint Surgery-American Volume	5.28	20	5.73	1958	2008
Journal Of Bone And Joint Surgery-British Volume	3.309	4	3.67	1954	1998
European Spine Journal	2.066	3	7.43	2000	2002
Journal Of Pediatric Orthopaedics	1.474	2	6.60	1997	2007
Journal Of Neurology, Neurosurgery, and Psychiatry	6.807	1	7.9	1986	
Anesthesia And Analgesia	3.472	1	5.19	2001	
Clinical Orthopaedics And Related Research	2.765	1	3.00	1982	
Journal Of Spinal Disorders & Techniques	2.202	1	10.78	2008	
International Orthopaedics	2.11	1	6.83	1994	
Neurosurgical Focus	2.105	1	15.86	2010	
Evoked Potentials-Electroencephalography And Clinical Neurophysiology	N/A	1	13.95	1995	
Revue De Chirurgie Orthopedique Et Reparatrice De L Appareil Moteur	N/A	1	3.48	1984	