

# Systematic mapping of forensic psychiatry: discovering evolution, trends and current priorities

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Number of words: 3364 (Excluding references and tables)

Number Tables: 4

Number of Figures: 4

Conflict of interest: The authors declare that they have no conflicts of interest.

Funding: Not applicable

Disclosure: An initial analysis of this dataset is to be presented as a research poster at the Annual meeting of American Academy of the child and adolescent psychiatry in 2018.

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# **Abstract**

30 The expansion of research in forensic neuropsychiatric practice has led to several developments  
 31 with an interdisciplinary focus in legal systems and psychiatry around the globe. Given the dearth  
 32 of scientometric analyses in this area, this article will help increase knowledge of publication  
 33 trends in law and psychiatry, and will also highlight the scant attention given on forensic psychiatry  
 34 research in lower- and middle-income countries (LMICs). Web of Science (WoS) Network  
 35 Analysis Interface for Literature Studies (NAI) platform software was used to conduct statistical  
 36 and Social Network Analysis (SNA) of citation records, in order to obtain journal rankings based  
 37 on citations, popularity, and highly cited keywords. A total of 7184 articles were published through  
 38 November, 2016 in the journals selected for analysis. These items were cited a total of 44,033  
 39 times in 25,286 articles and a total of 36,441 times without self-citations in 22,105 articles. The  
 40 keywords cited most frequently in these journals were psychopathy, risk assessment, delinquency,  
 41 recidivism, violence, sex offender, aggression, treatment, assessment, adolescents, offenders,  
 42 prison, mental illness, homicide, prisoners, gender, rehabilitation, sexual offenders, meta-analysis,  
 43 self-control, the Hare Psychopathy Checklist Revised, suicide, personality disorder, and forensic  
 44 psychiatry. None of the most influential articles were published from LMICs, and funding  
 45 opportunities were poor.

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## Introduction

The psychiatric domain constitutes a fundamental aspect of criminal law. Significant involvement of psychiatry in the framework of legitimate criminal studies in the USA emerged in the early nineteenth century (Prosono, 2003), culminating in the formal development of forensic psychiatry into a vigorous field of expert endeavor (Rosner, 1990). Growing interest in criminological neuropsychiatric skills also led to the advent of the American Academy of Psychiatry and the Law (AAPL), founded in 1969. The AAPL is an expert association in the field of legal psychiatry, currently with more than 2000 members and fellows in North America and worldwide. This organization publishes the *Journal of the American Academy of Psychiatry and the Law* on a quarterly basis; until 1997 the journal was titled the *Bulletin of the American Academy of Psychiatry and the Law* (<http://jaapl.org/content/about-us>, 2018).

Exponential progress in psychiatric research has been accompanied by a corresponding growth in the discipline of forensic psychiatry. The expansion of research in forensic neuropsychiatric practice has led to several developments with an interdisciplinary focus in legal systems and psychiatry around the globe. However, little research has been done to map the publication output and trends in this field. In contrast, several studies have reported research trends in general psychiatry (Wu & Duan, 2015a,b) and child psychiatry (López-Muñoz et al., 2008; Waqas et al., 2017). These studies used multiple strategies and methods to identify research hotspots and trends based on scientometric and bibliometric analyses.

Scientometrics, defined as the “quantitative study of science, communication in science, and science policy”, helps to evaluate the impact of journals, scientists and institutes on the development of and innovation in scientific fields (Hess, 1997). These analyses identify influential research studies that are important markers of evolution and progress in a specific field of science. Although determining the true value of a particular research study depends on a number of factors, citation analysis is a simple quantitative technique to estimate the impact of an article in its field. The role of citation frequency in identifying the influence of an article has long been debated, yet this indicator has consistently been used to map important discoveries and landmark studies in specific fields (Moed, 2002).

One of two well-known applications of quantitative citation analysis pertaining to scientific publications is the determination of their scientific impact, especially for journal articles (Elsinghorst, 2005). Discovering exemplary articles with these techniques can serve as a

basis for future research in forensic psychiatry. Such studies can help guide policy makers, researchers and funding agencies towards areas where restrictions or increases in research activity are required. With the advent of comprehensive indexation databases such as the Web of Science (WoS) and Medline, it has become easier to map research patterns in specific fields of science. However, the paucity of studies designed to map research outputs in the field of forensic psychiatry motivated the present study, which analyzes the research trends in the field of forensic psychiatry with reproducible scientometric techniques.

This study was been designed with following aims:

- a) To delineate journal metrics, publication trends and outputs in the field of forensic psychiatry and psychology.
- b) To identify the authors, funding agencies and countries making major contributions to this field.
- c) To identify the common research foci and topics in this field.
- d) To identify the most influential articles and other publications in the field of forensic psychiatry.

## Materials & Methods

For the present analysis, seven journals publishing in forensic psychiatry, psychology and criminology were selected (Table 1). This selection was based on indexation in WoS (core database), impact factor (Journal Citation Reports, 2016), h5-index and h5-median (Google Scholar, 2016), and relevance to forensic mental health. Journal impact factor, h5-index and h5-median are important indicators of a given entity's productivity and research impact (Journal Citation Reports, 2016; Google Scholar, 2016).

Thereafter, the WoS core database was used to download bibliographic records of these publications, including titles, author names, abstracts, keywords and cited references through November, 2016. Records for a total of 7184 articles were retrieved, with no restrictions on the language, study design or type of the article. This was followed by detailed analyses with two analytical platforms: WoS core collection records analytics, and Network Analysis Interface for Literature Studies (NAILS project) software (Knutas et al., 2015).

Web of Science core collection record analytics were used to document yearly trends in publications in these journals, citations, and influential authors based on their productivity, institutions, funding agencies and countries. The NAILS software was used to conduct statistical and Social Network Analysis (SNA) studies of citation records, which yielded journal rankings based on citations and popularity, and on the most frequently cited keywords. These analyses identified the top 25 articles based on three measures of importance, e.g., in-degree (within its own collaborative unit), citation count as provided by the WoS core collection, and Page Rank score in the citation network. Topic modeling was then used to identify common topics and research foci in forensic psychiatry. This type of statistical text mining uses a topic modeling algorithm that recognizes clusters of co-occurring words in abstracts of published articles, and groups the ten most relevant words together for one topic (Knutas et al., 2015).

## Results

A total of 7184 articles were published through November, 2016, in the journals selected for analysis. These items were cited a total of 44,033 times in 25,286 articles; after subtracting self-citations the number of non-self citations was 36,441 in 22,105 articles. The average number of citations per published item was 6.13. Overall, these articles had an h-index of 59.

*Legal and Criminological Psychology* had the highest impact factor, while *International Journal of Offender Therapy and Comparative Criminology* had the highest h5-index and h5-median. Among journals dealing with forensic psychiatry specifically, *Journal of the American Academy of Psychiatry and the Law* had the highest impact factor (Table 1).

The earliest journal records appeared in 1973, with a stagnant trend in publication through the year 1993. In 1973, a total of 46 articles were published (0.640%). The number of articles published per year was lowest in 1985 (n=31, 0.432%). However, an increase in the number of publications was observed in 1994 (n=123, 1.712%), followed by steady yearly growth. The number of citations increased from 1973 to 2016, reflecting the increasing research activity in forensic psychiatry and psychology (Figure 2). Overall, the number of articles published per year was highest in 2014 (n=371, 5.164%). *International Journal of Offender Therapy and Comparative Criminology* and the *Journal of the American Academy of Psychiatry and the Law* published the largest number of articles.

Of 7184 published items, a total of 5046 (70.239%) were categorized as original articles. By type of publication, editorial material accounted for 903 items (12.570%), book review for 815 (11.345%), letters for 182 (2.533%), proceedings papers for 152 (2.116%), reviews for 150 (2.088%), biographical items for 31 (0.432%), notes for 25 (0.348%), corrections for 17 (0.237%), correction additions for 6, (0.084%), items about an individual for 6 (0.084%), and reprints for 3 (0.042%). Among these items, 4366 (60.774%) were indexed under the term psychiatry, 3852 (53.618%) as government and law, 3737 (52.018%) as criminology and phenology, and 2818 (39.226%) as psychology.

The country of origin of the largest proportion of research contributions in these journals was the USA (48.90%). This was followed in decreasing order by England, Canada, Australia, Netherlands, Germany, Sweden, Israel, Scotland, and New Zealand (Table 2). The funder that accounted for the largest proportion of research projects was the Social Sciences and Humanities Research Council of Canada (8, 0.112%).

In terms of research output, Palermo GB was the most productive author with a total of 94 (1.308%) publications, followed in decreasing order by Gutheil TG, Scott EM, Pinals DA, Griffith EEH, Weiss KJ, Bloom JD, Kocsis RN, Walters GD, and Leong GB (Table 2). The most cited author was Rogers R, with more than 250 citations, followed by Gutheil TG, Simon RI, Palermo GB, Bloom JD, Walters GD, Griffith EEH, Arboleda-florez J, Soothill K, and Scott EM (Figure 3). Among institutions, the University of London was the most productive, publishing a total of 204 (2.840%) items in these journals. This was followed by the University of California System, Yale University, Harvard University, Florida State University System, University of Massachusetts System, Kings College London, University of Toronto, University of Massachusetts Worcester, and Oregon University.

Figure 4 presents the most cited keywords in items published in these journals. The most frequent keywords were psychopathy, risk assessment, delinquency, recidivism, violence, sex offender, aggression, treatment, assessment, adolescents, offenders, prison, mental illness, homicide, prisoners, gender, rehabilitation, sexual offenders, meta-analysis, self-control, the Hare-psychopathy checklist revised, suicide, personality disorder, and forensic psychiatry. The topic modeling technique recognized six research foci in forensic psychiatry: a) laws and legal rights governing mental health, b) ethical concerns and clinical assessment in forensic psychiatry, c) sexual offenders, personality psychopathologies, violence and recidivism, d) drug

and treatment programs for offenders and inmates, e) court proceedings, expert opinions, role of memory and false testimony by witnesses, and f) suicide, substance abuse, mental disorders, and psychosis.

Table 3 lists the most influential papers that were published in the selected journals.

Table 4 lists the most influential references (e.g. DSM) that have influenced or inspired research in the field of forensic psychiatry, as discussed below.

## Discussion

Our analysis shows that the largest contributions to the field of forensic psychiatry were from the USA and UK, and were led mainly by local authors with very little input from Asian authors. Only a few organizations funded projects in this field. The most persistent mainstream topics in the discipline during the sampling period we studied were legal rights and ethical concerns.

Research areas concerning the law and legal rights of offenders with psychiatric morbidities remain favorite hotspots. Significant roles of forensic psychiatrists predominantly include the assurance of competency to stand trial, and representations to the official court in adjudicative processes. For this reason, the practice of forensic psychiatry entails inherent ethical concerns – which have also frequently been the subject of research and evolution (AAPL, 1995). For forensic specialists, a core value of their work is to promote the interests of equity. The two standards on which this role is based are regard for people, and truth-telling (Appelbaum, 1997).

According to the present analyses, other important research foci were concerned with sexual offenses, personality psychopathologies, violence, and recidivism. Two dominant positions have been identified in the forensic literature concerning the personality profile of sexual offenders. In one viewpoint, Proulx and associates portray them as having schizoid and avoidant personalities (Knight & Prentky, 1990; Robertson & Knight, 2014). In another viewpoint, Knight and colleagues depict them as psychopathic and narcissistic (Beauregard et al., 2007; Proulx et al., 2014). In addition, the heterogeneity of sadistic offenders in terms of risk of recidivism has frequently been documented (Quinsey et al., 1998; Hanson & Thornton, 2000; Wakil & Epperson, 2008). Other areas of research emphasis were memory and false testimony by witnesses, court proceedings, expert opinions, suicide, substance abuse, mental disorders, and psychoses.



These research foci were reflected in our list of important articles. Some of the most important papers identified in the present analysis are described briefly below.

1) *AAPL Practice Guideline for the forensic psychiatric evaluation of competence to stand trial* (Mossman et al., 2007). These guidelines provide practical guidance to psychiatrists who agree to perform forensic evaluations of adjudicative competence or competence to stand trial. The Practice Guideline describes how psychiatrists should evaluate individuals concerning their competence to stand trial, and defines acceptable forensic psychiatric practice for such evaluations. The authors take note of nationally applicable case law, federal constitutional standards, statutory language, and federal and state interpretations of rights or statutes, recognizing that jurisdictions may differ in their specific interpretation or application of statutes or general constitutional standards.

2) *Coercion and commitment: understanding involuntary mental hospital admission* (Monahan et al., 1995). In this article the authors address the issue of involuntary mental hospitalization and its effectiveness in producing effective treatment outcomes. In addition, they discuss the various conditions that promote a better understanding of forceful mental hospital admission.

3) *The parable of the forensic psychiatrist: ethics and the problem of doing harm* (Appelbaum, 1990). This study explores the differences in ethical principles between forensic psychiatrists and regular psychiatrists. The author claims that concern over violating the principle of beneficence and non-maleficence are misplaced, and point to other reasons why forensic psychiatrists experience stress, including failure to present the results of their evaluation as best as they can in finding the truth. The author points out the need for comprehensive ethical principles in forensic psychiatry.

4) *Violent and aggressive behavior by criminal psychopaths* (Hare & McPherson, 1984). In this article the authors report their assessment of 500 male criminals; their results show that psychopaths were much more likely to use violent and aggressive behavior than were criminals in general.

5) *Police as street corner psychiatrist: Managing the mentally ill* (Teplin & Pruett, 1992). This paper demonstrates how police officers determine whether a person with mental health problems needs to be hospitalized or arrested based on socio-psychological and structural factors



rather than the degree of psychiatric symptomology. The authors also highlight the need for a formal code that police can use when dealing with mentally ill persons on the streets.

6) *Perceptions of coercion in the admission of voluntary and involuntary psychiatric patients* (Hoge et al., 1997). This article demonstrates that use of voluntary or involuntary admission status as the sole determinant of forceful admission to mental health hospital is misguided. The perceived justification for forceful admission to a mental health facility may be based on an individual's underlying mental disorder itself; accordingly, the authors emphasize the importance of further research in this area by policy makers.

7) *Patient perceptions of coercion in mental hospital admission* (Hiday et al., 1997). This paper elucidates the significance of understanding patients' perceptions of coercion and its implications for treatment outcomes. The findings support distinguishing between objective legal status and subjectively perceived coercion among involuntarily hospitalized inmates. Perception of coercion was significantly associated with their education level, gender and race. Importantly, white, female, unmarried and educated respondents were more likely to perceive higher coercion owing to their greater resources, autonomy and control in their psychosocial environment.

8) *Reasoning and rehabilitation* (Ross, Fabiano & Ewles, 1988). "Reasoning and Rehabilitation" was an experimental project based on sequential studies of codes concerning effective correctional programs tailored for high-risk adult probationers. The program highlighted the importance of cognitive skills training in reducing incarceration and re-arrest rates in a sample of adults at high risk for probation. The authors concluded that cognitive training provided by probation officers results in markedly reduced rates of re-arrest and incarceration compared to regular probation and life skills training.

9) *Perceived coercion and procedural justice in the Broward mental health court* (Poythress et al., 2002). This study investigates the impact of procedural justice in mental health courts (MHCs). In comparison to traditional court settings, MHCs are superior in perceived procedural justice and court outcomes. Defendants in MHCs report lower perceived coercion.

10) *Prevalence and severity of lifetime physical and sexual victimization among incarcerated women* (Browne, Miller & Maguin, 1999). This study reports severe pervasive violence across the lifespan of incarcerated women, with a strikingly high prevalence of physical and sexual abuse by parental care figures, and of childhood sexual molestation. This study has

important implications for determining the impact of victimization on women's future involvement in criminal activities.

### **Other landmark publications**

The revised DSM III (DSM-III-R) and subsequent editions (DSM-IV and DSM-IV-TR), published by the American Psychiatric Association, were important landmarks in the field of forensic psychiatry (American Psychiatric Association, 1994, 2000, 2013). This manual has demonstrated its usefulness as a multifaceted tool to improve the reliability of psychiatric diagnoses. As a reference work, it is especially relevant for forensic psychiatry because of axis 2 and the specific diagnostic criteria for sexual paraphilias and substance use disorder. Coid used the DSM-III classification system to evaluate the prevalence of antisocial personality disorder (Coid, 1992). Because of ongoing controversies and substantial forensics concerns, the most recent edition of the DSM manual did not receive many citations until 2016 (American Psychiatric Association, 2013).

Another important landmark in forensic psychiatry was the development of various psycho-diagnostic tools and scales. In 1991, a revised version of the Psychopathy Checklist, renamed the Hare Psychopathy Checklist-Revised (PCL-R), was released. This 20-item inventory in the format of a semistructured interview is used for evaluation in psychopathy (Hare, 1991). A second edition was published more recently (Hare, 2003). This tool has important implications for research and clinical aspects of forensics, and has been used for risk assessment in sex offenders (Craig, Browne & Beech, 2004). In addition, Hildebrand evaluated the relationship between psychopathy and DSM-IV axis I and II disorders with the PCL-R in a sample of male forensic patients (Hildebrand & de Ruiter, 2004). Similarly, the development of the Historical Clinical Risk Management-20 (HCR-20) risk assessment tool was an important milestone in clinical-forensic assessment. Version 2 of the HCR-20 has more than 1900 disseminations based on evaluations in various organizations across 35 countries (Webster, 1997). The latest revision was published in 2014, and multiple studies have supported the usefulness of the HCR-20 for forensic psychiatric inpatients (Douglas et al., 2014).

A fundamental contribution in forensics was the book by Gottfredson and Hirschi A *General Theory of Crime*, in which the authors presented a new dimension of criminology.

According to their novel theory, they attributed the essence of criminality to a lack of self-control (Gottfredson & Hirschi, 1990).

Sexual recidivism remains a major research area in forensic psychiatry. A fundamental metaanalysis of sexual offender recidivism that merged evidence from 61 follow-up studies was published by Hanson and Bussiere. They found that the best predictors of sexual assault recidivism were linked to prior sexual offenses and sexual deviancies, whereas non-sexual violent recidivism was best predicted by a history of juvenile incarceration and violent assaults (Hanson & Bussiere, 1998).

Another important input in forensic psychiatry was Moffitt's study of antisocial behavior. This study found psychopathy to have origins in externalizing behavior, and highlighted the significance of dealing with negative emotions and temperamental disputes from early childhood, given that early disruptive behavior is likely to precede offending patterns in adult life (Moffitt, 1993).

Our analysis revealed a strikingly low to non-existent research output from low- and middle-income countries (LMICs), and none of the landmark articles were from LMICs, where forensic psychiatry is still a developing field. Unfortunately, many judicial institutions and processes in these countries have little or no access to forensic psychiatric services; this situation highlights the dire need to develop mental health service infrastructures within prison-based and non-prison-based correctional facilities, and reflects unmet needs to manage the factors that underlie criminal activities in these countries. Handuleh and Mclover proposed a valuable model for in-reach prison mental health services in LMICs, noting the benefits of collaboration between local stakeholders and international agencies (Handuleh et al., 2014). In their intervention, a framework emphasizing the role of task-shifting to nonspecialists rather than specialists in mental health yielded excellent effects in Somaliland. Psychiatrists liaised with university legal departments for consultation, psycho-education was provided for police officers in the identification and management of prisoners with mental illnesses, nurses were trained in triage and initial treatment, a doctor was responsible for administering medications, and specialists in mental health from the UK supervised the whole process.

## Conclusion

In general, the field of forensic psychiatry is witnessing rapid development mainly in the USA and Europe, and has evolved through various major research foci. Since the 1960s the field has seen dramatic growth in influence and prestige. Given the dearth of scientometric analyses in the area, our analysis will help increase knowledge of publication trends in law and psychiatry, and also highlights the scant attention given to forensic psychiatry research in LMICs. The identification of trends and areas of research emphasis in forensic psychiatry can aid in directing future research and policy reforms.

## Acknowledgements

The authors thank K. Shashok (AuthorAID in the Eastern Mediterranean) for improving the use of language in the manuscript.

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446 **Table 1** Impact factor, h5-median and h5-index of selected forensic psychiatry journals

Journal Title	Impact factor	h5-index	h5-median	Items published
Journal of Forensic Psychology Practice	0.375	9	11	295 (4.106%)
International Journal of Forensic Mental Health	0.767	17	22	142 (1.977%)
Legal and Criminological Psychology	1.776	18	29	405 (5.638%)
Journal of the American Academy of Forensic Psychiatry and the Law	1.222	17	21	1832 (25.501%)
International Journal of Offender Therapy and Comparative Criminology	1.006	24	35	2118 (29.483%)
International Journal of Law and Psychiatry	1.000	23	30	1615 (22.481%)
Journal of Forensic Psychiatry	0.598	17	23	777 (10.816%)

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449 **Table 2**

450 Top contributing countries, funding agencies, authors and organizations in forensic psychiatry

Countries	N (%)	Funding Agencies	N (%)	Authors	N (%)	Organizations	N (%)
USA	3513 (48.90%)	Social Sciences and Humanities Research Council of Canada	8 (0.112 %)	Palermo GB	94 (1.308%)	University of London	204 (2.840%)
England	1183 (16.467 %)	Canadian Institute of Health Research	6 (0.084 %)	Gutheil TG	64 (0.891%)	University Of California System	196 (2.728%)
Canada	678 (9.438%)	Wellcome Trust	4 (0.056 %)	Scott EM	51 (0.710%)	Yale University	178 (2.478%)
Australia	290 (4.037%)	Fundacao Para A Ciencia E A Tecnologia FCT Of Portugal	3 (0.042 %)	Pinals DA	31 (0.432%)	Harvard University	168 (2.339%)
Netherland s	238(3.31 3%)	Chosun University	2 (0.028 %)	Griffith EEH	30 (0.418%)	Florida State University System	160 (2.227%)

Germany	122 (1.698%)	Finnish Ministry of Social Affairs and Health	2 (0.028 %)	Weiss KJ	30 (0.418%)	University of Massachusetts System	149 (2.074%)
Sweden	117 (1.629%)	John D And Catherine T Macarthur Foundation	2 (0.028 %)	Bloom JD	29 (0.404%)	Kings College London	124 (1.726%)
Israel	109 (1.517%)	National Institute For Health Research	2 (0.028 %)	Kocsis RN	27 (0.376%)	University of Toronto	118 (1.643%)
Scotland	108 (1.503%)	National Institute of Justice	2 (0.028 %)	Walters GD	27 (0.376%)	University of Massachusetts Worcester	113 (1.573%)
New Zealand	72 (1.002%)	National Institute of Mental Health	2 (0.028 %)	Leong GB	26 (0.362%)	Oregon university	109 (1.517%)

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456 **Table 3**

457 Influential research articles published in selected journals

Article	In-degree	Times cited	Page Rank	Citations in Google scholar
Mossman D, Noffsinger SG, Ash P, Frierson RL, Gerbasi J, Hackett M, Lewis CF, Pinals DA, Scott CL, Sieg KG, Wall BW. AAPL practice guideline for the forensic psychiatric evaluation of competence to stand trial. Journal of the American Academy of Psychiatry and the Law Online. 2007 Dec 1;35(Supplement 4):S3-72.	31	53	2.81e-05	138
Monahan J, Hoge SK, Lidz C, Roth LH, Bennett N, Gardner W, Mulvey E. Coercion and commitment: understanding involuntary mental hospital admission. International Journal of Law and Psychiatry. 1995 Aug 31;18(3):249-63.	25	122	1.20e-05	283
Appelbaum PS. The parable of the forensic psychiatrist: ethics and the problem of doing harm. International journal of law and psychiatry. 1990 Dec 31;13(4):249-59.	25	64	1.50e-05	156
Hare RD, McPherson LM. Violent and aggressive behavior by criminal psychopaths. International journal of law and psychiatry. 1984 Jan 1;7(1):35-50.	23	215	1.04e-05	528

Teplin LA, Pruett NS. Police as streetcorner psychiatrist: Managing the mentally ill. International journal of law and psychiatry. 1992 Jan 1;15(2):139-56.	23	81	1.15e-05	223
Hoge SK, Lidz CW, Eisenberg M, Gardner W, Monahan J, Mulvey E, Roth L, Bennett N. Perceptions of coercion in the admission of voluntary and involuntary psychiatric patients. International journal of law and psychiatry. 1997.	21	76	1.14e-05	167
Hiday VA, Swartz MS, Swanson J, Wagner HR. Patient perceptions of coercion in mental hospital admission. Int J Law Psychiatry. 1997 Spring;20(2):227-41.	20	64	1.10e-05	167
Ross, Robert R.; Fabiano, Elizabeth A.; Ewles, Crystal D. Reasoning and rehabilitation. International Journal of Offender Therapy and Comparative Criminology, Vol 32(1), Apr 1988, 29-35. <a href="http://dx.doi.org/10.1177/0306624X8803200104">http://dx.doi.org/10.1177/0306624X8803200104</a>	19	97	1.02e-05	412
Poythress NG, Pettila J, McGaha A, Boothroyd R. Perceived coercion and procedural justice in the Broward mental health court. International journal of law and psychiatry. 2002 Oct 31;25(5):517-33.	18	83	9.60e-06	187
Browne A, Miller B, Maguin E. Prevalence and severity of lifetime physical and sexual victimization among incarcerated women. International journal of law and psychiatry. 1999 Aug 31;22(3):301-22.	17	164	8.70e-06	539

Dupont R, Cochran S. Police response to mental health emergencies—Barriers to change. <i>Journal of the American Academy of Psychiatry and the Law</i> . 2000.	17	70	1.15e-05	199
Maruna S, Mann RE. A fundamental attribution error? Rethinking cognitive distortions. <i>Legal and Criminological Psychology</i> . 2006 Sep 1;11(2):155-77.	16	138	9.20e-06	443
Rice ME, Harris GT. A comparison of criminal recidivism among schizophrenic and nonschizophrenic offenders. <i>International Journal of Law and Psychiatry</i> . 1992 Nov 30;15(4):397-408.	16	92	9.50e-06	182
Compton MT, Bahora M, Watson AC, Oliva JR. A comprehensive review of extant research on crisis intervention team (CIT) programs. <i>Journal of the American Academy of Psychiatry and the Law Online</i> . 2008 Mar 1;36(1):47-55.	16	69	1.28e-05	230
Gold LH, Anfang SA, Drukteinis AM, Metzner JL, Price M, Wall BW, Wylonis L, Zonana HV. AAPL practice guideline for the forensic evaluation of psychiatric disability. <i>Journal of the American Academy of Psychiatry and the Law Online</i> . 2008 Dec 1;36(Supplement 4):S3-50.	16	27	1.65e-05	85
Boothroyd RA, Poythress NG, McGaha A, Petrila J. The Broward mental health court: Process, outcomes, and service utilization. <i>International Journal of Law and Psychiatry</i> . 2003 Feb 28;26(1):55-71.	15	64	9.40e-06	178

Nicholson RA, Ekenstam C, Norwood S. Coercion and the outcome of psychiatric hospitalization. <i>International Journal of Law and Psychiatry</i> . 1996 May 31;19(2):201-17.	15	54	1.02e-05	101
Stone AA. Revisiting the parable: truth without consequences. <i>International Journal of Law and Psychiatry</i> . 1994 Dec 31;17(1):79-97.	15	32	1.23e-05	46
Hildebrand M, de Ruiter C. PCL-R psychopathy and its relation to DSM-IV Axis I and II disorders in a sample of male forensic psychiatric patients in the Netherlands. <i>International Journal of Law and Psychiatry</i> . 2004 Jun 30;27(3):233-48.	14	48	8.50e-06	144
Wiederanders MR, Bromley DL, Choate PA. Forensic conditional release programs and outcomes in three states. <i>International Journal of Law and Psychiatry</i> . 1997 May 31;20(2):249-57.	14	40	9.70e-06	73
Giorgi-Guarnieri D, Janofsky J, Keram E, Lawsky S, Merideth P, Mossman D, Schwart-Watts D, Scott C, Thompson J Jr, Zonana H; American Academy of Psychiatry and the Law. AAPL practice guideline for forensic psychiatric evaluation of defendants raising the insanity defense. <i>American Academy of Psychiatry and the Law. J Am Acad Psychiatry Law</i> . 2002;30(2 Suppl):S3-40.	14	19	1.00e-05	81
Antonowicz DH, Ross RR. Essential components of successful rehabilitation programs for offenders. <i>International Journal of Offender Therapy and Comparative Criminology</i> . 1994 Jun 1;38(2):97-104.	13	60	9.60e-06	291

Porporino FJ, Motiuk LL. The prison careers of mentally disordered offenders. International journal of law and psychiatry. 1995 Dec 31;18(1):29-44.	13	54	9.60e-06	134
Bourget D, Gagné P. Maternal filicide in Québec. J Am Acad Psychiatry Law. 2002;30(3):345-51.	13	51	1.56e-05	151
Levenson JS. Sexual predator civil commitment: A comparison of selected and released offenders. International Journal of Offender Therapy and Comparative Criminology. 2004 Dec 1;48(6):638-48.	13	44	1.04e-05	110

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469 **Table 4**

470 Influential works inspiring research in forensic psychiatry journals included in this analysis

Article	In-degree	Page rank
Diagnostic and statistical manual of mental disorders. DSM IV-4th edition. APA. 1994:1994.	351	9.02e-05
American Psychiatric Association, 2000. Diagnostic and statistical manual of mental disorders DSM-IV-TR fourth edition (text revision).	286	7.97e-05
American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, -revised (DSM-III-R) American Psychiatric Association. Washington, DC. 1987.	161	4.48e-05
The Hare Psychopathy Checklist-Revised by Robert D. Hare, 1991. Multi-Health Systems, 908 Niagara Falls Blvd, North Tonawanda, New York, USA, 14120-2060	142	2.99e-05
Spitzer RL, Williams JB. Diagnostic and statistical manual of mental disorders. In American Psychiatric Association 1980.	115	3.45e-05
Hare, R. D. (2003). The Psychopathy Checklist – Revised, 2nd Edition. Toronto: Multi-Health Systems	105	2.25e-05
Gottfredson MR, Hirschi T. A general theory of crime. Stanford University Press; 1990.	105	2.22e-05

Webster, C. D., Douglas, K. S., Eaves, D., & Hart, S. D. (1997). HCR-20: Assessing the Risk for Violence (Version 2). Vancouver: Mental Health, Law, and Policy Institute, Simon Fraser University.	103	2.47e-05
Hanson RK, Bussiere MT. Predicting relapse: a meta-analysis of sexual offender recidivism studies. Journal of consulting and clinical psychology. 1998 Apr;66(2):348.	101	2.72e-05
Moffitt TE. Adolescence-limited and life-course-persistent antisocial behavior: a developmental taxonomy. Psychological review. 1993 Oct;100(4):674.	89	2.02e-05

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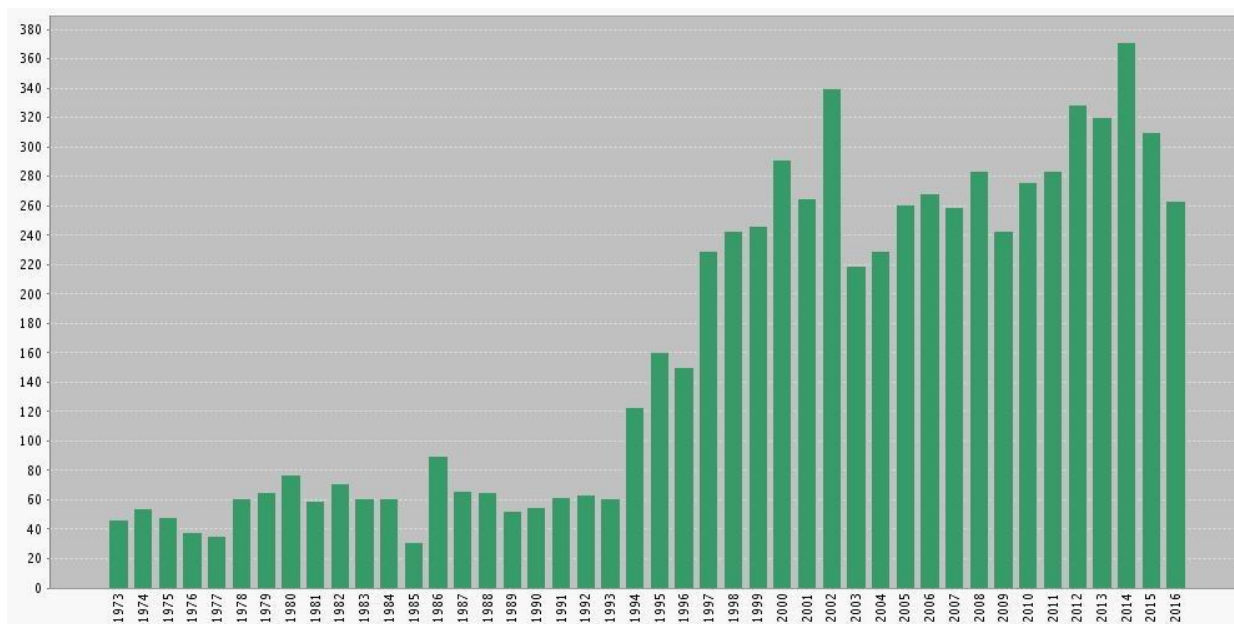
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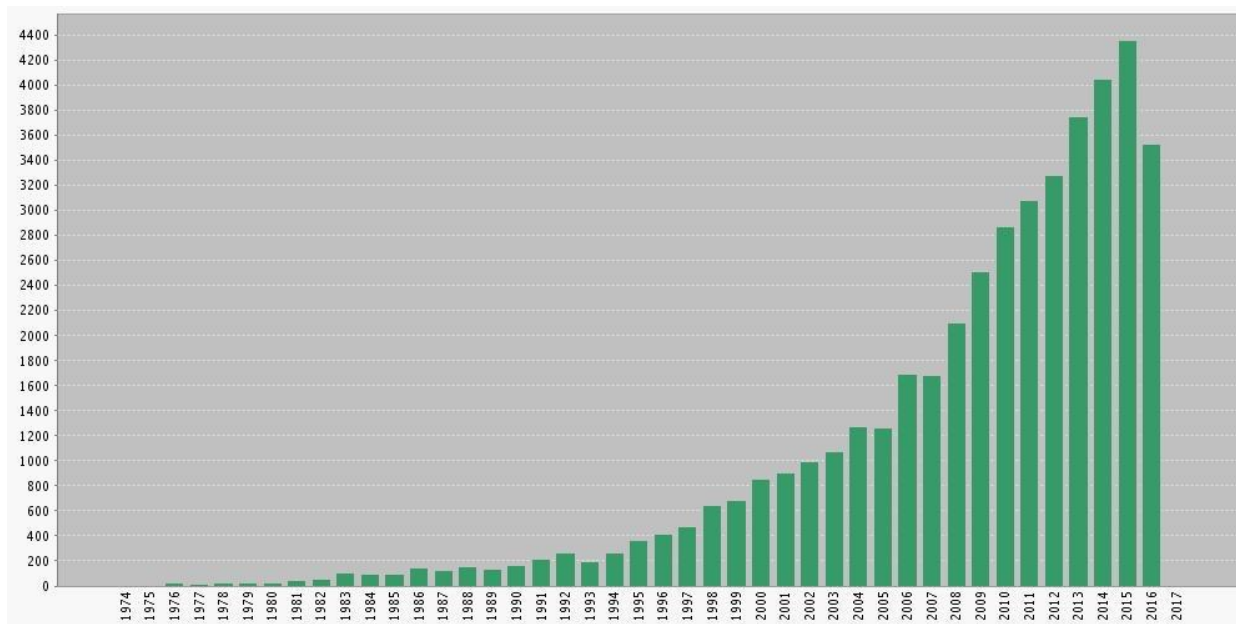
**Figure 1**

Number of published items in selected journals related to forensic psychiatry



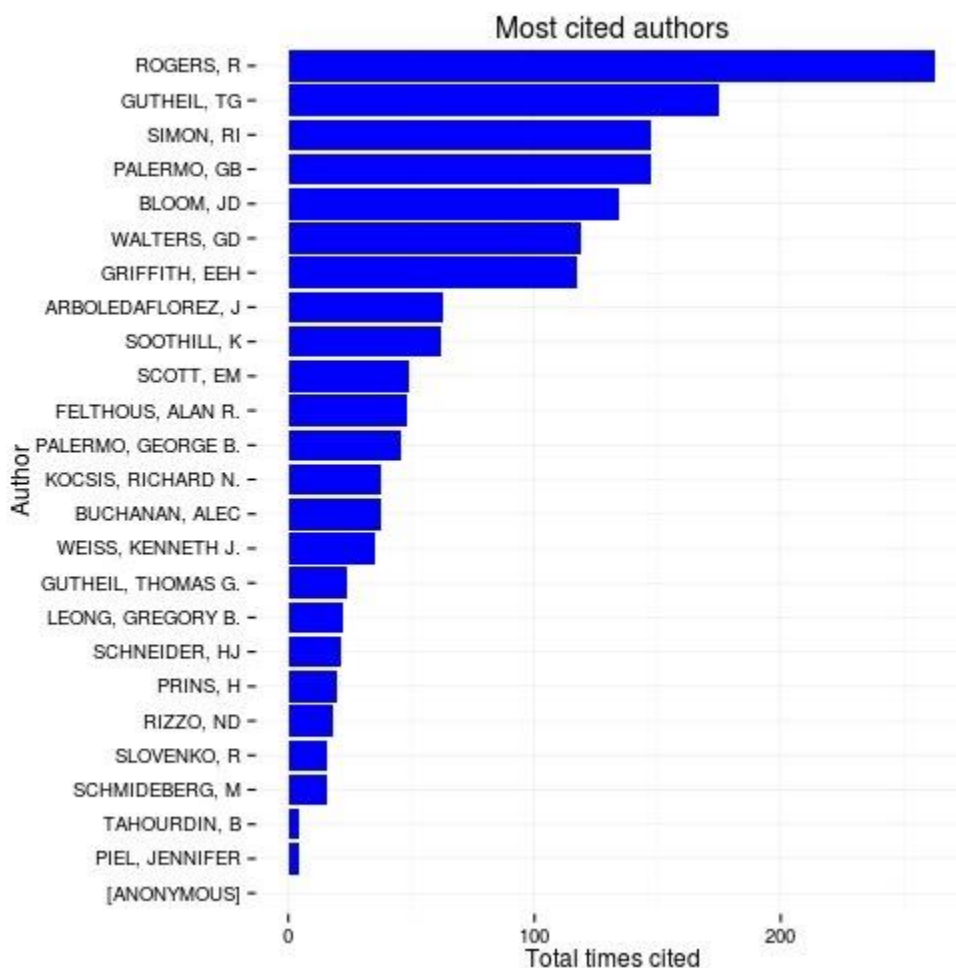
**Figure 2**

Yearly citation pattern in journals related to forensic psychiatry



**Figure 3**

Most cited authors in forensic psychiatry



# Figure 4

## Most cited keywords

