

# Plagiarism detection during submission in three Croatian biomedical journals

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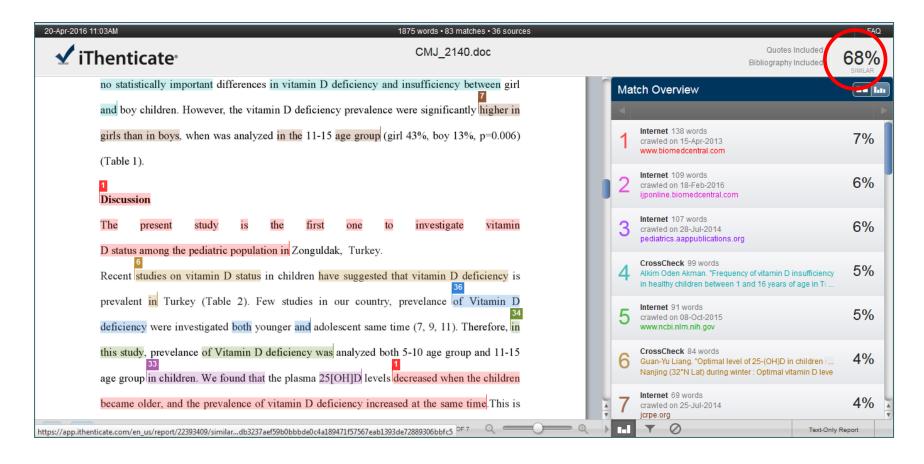
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5th World Conference on Research Integrity



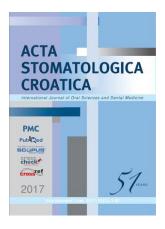
#### Prevalence of plagiarism in scholarly journals

Authors (publication)	Journal, manuscripts	Prevalence/ Treshold	Method of detection
Zhang (Learn Publ, 2010)	Journal of Zheijang University Science (2008-2009); N=662	23% OSI 40-50%	Manual verification
Bazdaric et al (Sci Eng Ethics, 2012)	Croatian Medical Journal (2009-2010); N=754	11% OSI ND	>10% similarity in one source Manual verification
Higgins, Lin, Evans (RIPR; 2016)	Genetics in Medicine (2013-2014); N=400	17% OSI 15%	80 % in a sentece Methods excluded Manual verification
Taylor (AJR, 2017)	American Journal of Roentgenology (2014) N=110 (10% sample)	11% OSI 12%	Manual verification



### AIM

 to detect textual similarity in manuscripts submitted for publication in three biomedical Croatian journals and to establish the threshold of plagiarism.







IF: 3.05 IF: 1.48



## Methods

- All manuscripts submitted from June to December 2015. BM and CMJ have research integrity editor.
- The type of article, country of first author, overal similarity score (OSI), citing, plagiarism and type of plagiarism





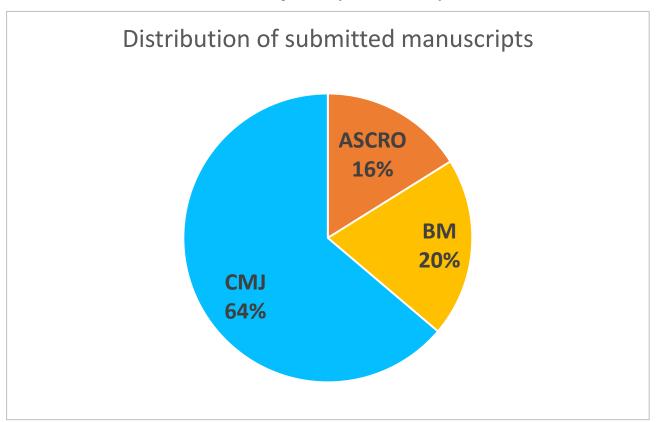


Criteria: OSI: 25% & MV OSI: 10% & MV MV



### Results

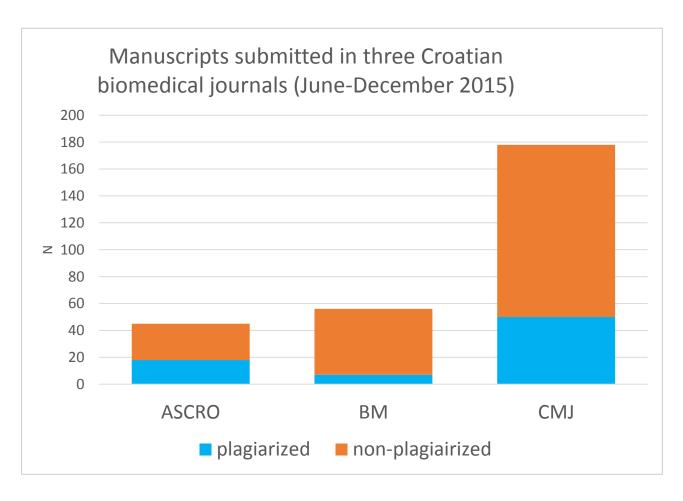
#### Submitted manuscripts (N=279)



Type: original articles [201(72%)], case-reports [34(12%)] & others [44(16%)] Country: Croatia [49(18%)], Turkey [45(16%)], China [37(13%)], Iran [15(5%)], BIH [14(5%)] & others [119(43%)].



### Results



- Out of 279,
  75 (27%)
  manuscripts
  contained
  plagiarism →
  11(14%) SP
- patchwork plagiarized [56(74%)] out of 75
- Mostly partially cited [52(69%)] out of 75

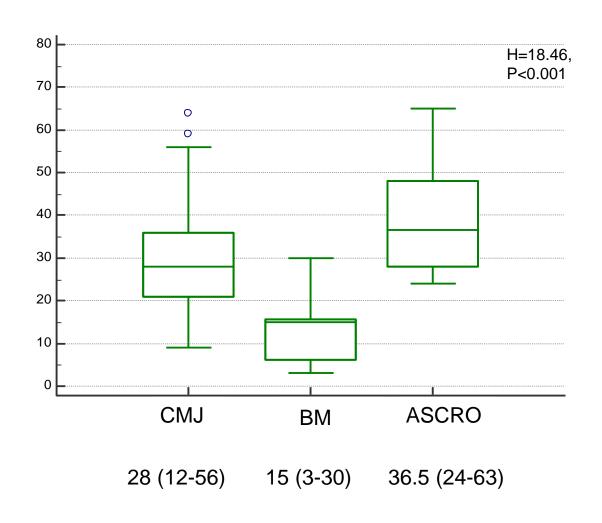
plagiarized 18(40%) 7(13%)

50(28%)

0

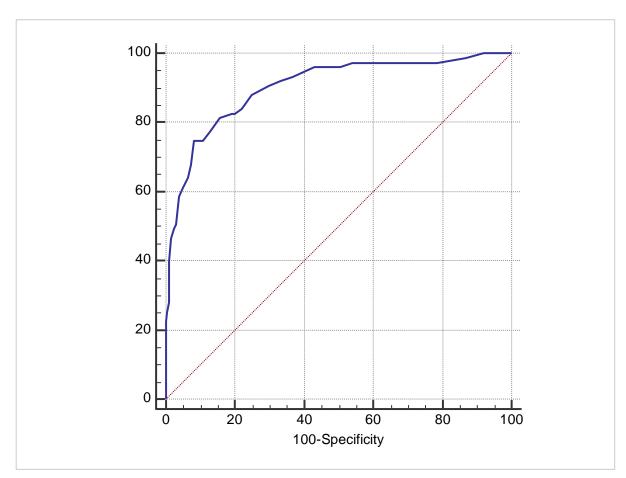


# Text similarity rate (OSI) in plagiarized manuscripts





#### Threshold value



The threshold value of overall similarity was 14%

sensitivity 91 (CI 82-96) specificity 70 (CI 63-76)

AUC (C.I. 0.86-0.93) P<0.001



# Conclusion

- The detected prevalence of plagiarism in submitted manuscripts (27%) is 22 times greater than rates of committed plagiarism in non-self reports in a recent systematic review of plagiarism.
- The recommended threshold for screening with Similarity Check is overall text similarity value of 14% which afterwards require manual verification by the editor.











