

A systematic review of Twitter's hashtags in public health: an example of a globally adopted standard

de San Pedro M
Pla M
Canela-Soler J
Garcia-Cuyàs F

Doctoral Programme in Health, Welfare and Quality of Life

Grup de Recerca en Societats, Polítiques i Comunitats Inclusives (SoPCI)

Chair in ICT and Healthcare, Centre for Health and Social Care Research (CESS), (UVIC-UCC)

Project abstract

The objective is to find evidence and make recommendations on the use of Twitter in public health, particularly through the study of hashtags (#). This systematic review shows the use of Twitter in different areas of public health: epidemiological surveillance, health promotion, health protection and disease prevention. Articles on this subject published in indexed journals with impact factor show the importance of conversations to engage the attention of Twitter users by using citations (@ user) and retweets (RT); however, not much importance seems to be given to the use of hashtags (#), which are often assimilated to the concept of keywords. Although tracking recurring hashtags should be less expensive than computing Twitter content, the potential of hashtagged data has not been properly exploited or recognized over the past years, probably due to the lack of efficient tools.

Objectives

An overarching aim is to find evidence on the use of hashtags in public health and to make recommendations to boost the usefulness of Twitter's hashtags for disseminating information in public health.

Methodology / Materials

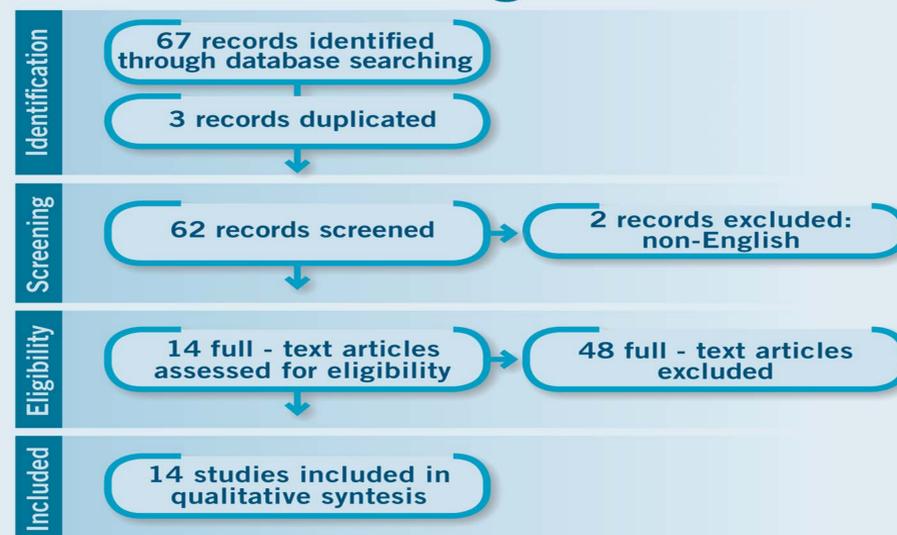
Methods

- PRISMA systematic review guidelines. Search terms include: "Twitter" and "Public Health". This study was reviewed by two reviewers. Disagreements were resolved by the consensus of both examiners.

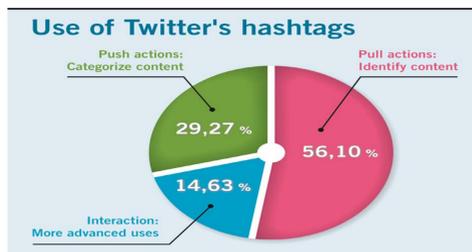
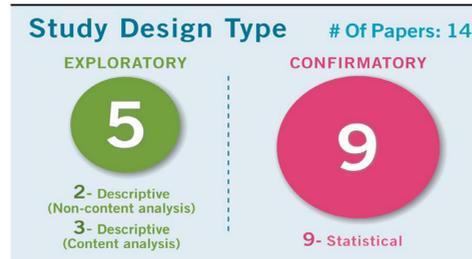
Materials

- Thomson Reuters. Web of Knowledge (from 2009 to 2013). Joanna Briggs Institute reviewers' Manual 2014. R Statistical Software. Google Scholar

PRISMA Flow Diagram



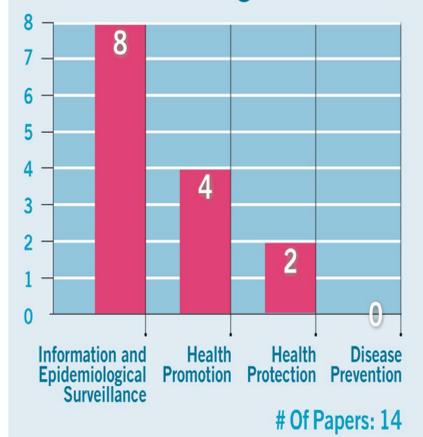
Findings / Research update



Statistics: Pearson's Chi-squared test: Table (2 x 5 years) over 62 articles. X-squared= 5,894; p-value=0,2072. Although the number of indexed journals with impact factor showing the use of Twitter's hashtags in public health has increased over the years, there has been no significant progress in statistical terms.

$\% = \frac{\# \text{ of similar uses of Twitter's hashtags mentioned in 14 papers}}{\text{Total number of uses of hashtags mentioned}} \times 100$

Public Health categorization



Conclusions

The quantity of studies in indexed journals with Impact Factor showing the relevance of Twitter's hashtags in public health is still poor (n=14). The key question is about the reasons. The proportion of Confirmatory studies are almost double than Exploratory ones. Twitter's hashtags in public health are globally adopted to identify and categorize related content, more advanced uses like asking for advice, resolving doubts or following events are less frequent. The most common use of Twitter's hashtags in public health papers is in the field of epidemiological surveillance. The use of hashtags is one of the most efficient ways of organizing conversations on Twitter. However, there is still a lack of web tools for efficiently tracking or disseminating hashtagged information; it could be helpful to engage in conversations about #ICD11.