Investigating Non-suicidal Self-Injury Discussions on Twitter

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Abstract : Social networking sites have become a space for people to discuss public health issues such as non-suicidal self-injury (NSSI). There are thousands of tweets containing self-harm and self-injury hashtags on Twitter. It is difficult to distinguish between different users who participate in self-injury discussions on Twitter and how their opinions change over time. Also, it is challenging to understand the topics surrounding NSSI discussions on Twitter. We retrieved tweets using #selfham and #selfinjury hashtags and investigated those from the United kingdom. We applied inductive coding and grouped tweeters into different categories. This study used the Latent Dirichlet Allocation (LDA) algorithm to infer the optimum number of topics that describes our corpus. Our findings revealed that many of those participating in NSSI discussions are non-professional users as opposed to medical experts and academics. Support organisations, medical teams, and academics were campaigning positively on rais-ing self-injury awareness and recovery. Using LDAvis visualisation technique, we selected the top 20 most relevant terms from each topic and interpreted the topics as; children and youth well-being, self-harm misjudgement, mental health awareness, school and mental health support and, suicide and mental-health issues. More than 50% of these topics were discussed in England compared to Scotland, Wales, Ireland and Northern Ireland. Our findings highlight the advantages of using the Twitter social network in tackling the problem of self-injury through awareness. There is a need to study the potential risks associated with the use of social networks among self-injurers.

Keywords : self-harm, non-suicidal self-injury, Twitter, social networks

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