

Content Analysis of the Official Twitter Account of the Ministry of Health of the Republic of Turkey in the Framework of Health Promotion

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Abstract: As a social media platform, Twitter is increasingly getting popular among health institutions that would like to interact with their audience. Being the leading public authority responsible of health sector in Turkey, the Ministry of Health has become active on Twitter since April 2012 via its account name @saglikbakanligi. The Ministry of Health has more than 110.000 followers, whereas it only follows 9 accounts. This study aims to explore how the Ministry of Health used its official Twitter account in terms of health promotion messages between January 1st and December 31st, 2013. The key question of the study is the content analysis of health promotion messages in the form of 'tweets'. To this end, we first had a look at the quantitative analysis of the tweets posted within this one-year period. Then, the research moves on with the content analysis under three health promotion themes: health literacy, healthy life styles and prevention of chronic and communicable diseases.

Keywords: Twitter, social media, content analysis, health promotion, health literacy, healthy life styles, prevention of chronic and communicable diseases

I. INTRODUCTION

When the social media practices of health institutions are examined, one can argue that social media is used both as a traditional and innovative medium. Dissemination of messages produced by radio, television and print media show a parallelism with these traditional media. However, social media predominantly appears to be as an innovative mass medium since it enables a two-way, interactive communication between senders and receivers and, allows content creation by its users. The importance of social media for public health communication is that the target audience has become both the creator and user of content shared in social-networking platforms. In this regard, social media has limitless opportunities for searching and sharing information. And being aware of these opportunities, public or private health institutions engage social media in their communication plans. For instance, public health institutions prefer reaching their audience during a

public health emergency as soon as possible by benefiting from social media which makes information available quicker than any other medium. Or, pharmaceutical companies would like to promote their new products and open their services to wider audience within a similar fashion.

As social networking by health institutions is relatively a new practice, especially for governmental health institutions, this study aims to bring an insight by showcasing the Twitter use of a leading public health authority in health promotion field. The findings of the study can make valuable contribution to the message sharing and dialogue between public health institutions and their audience as well to their communication about health promotion. In this regard, the study attempts to find opportunities and limitations with a view to understanding the practice of a public health institution on social media platforms.

II. LITERATURE REVIEW

World Health Organization (1948) defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”. This definition by the World Health Organization was considered thoroughly in the “Ottawa Charter” of the International Conference on Health Promotion held in Ottawa in 1986. According to the Ottawa Charter, health was identified with a more comprehensive and dynamic perspective aiming at health promotion, which was defined as “the process of enabling people to increase control over and to improve, their health”. Likewise, health is seen as a resource for everyday life, not the objective of living in the WHO, Milestones in Health Promotion Statements from Global Conferences [1].

The Ottawa Charter (1986) suggests two recommendations to increase health potentials of individuals by structural and political initiatives, and personal supports. The first recommendation relates to empowerment of individuals and personal health improvement to address health risks while the latter engages a more social and environmental health concept. In this regard, health communication plays a critical role since individuals can address health risks more easily as much as they are informed about health issues [2].

Recognized as a key element in health promotion and health communication, health literacy represents the cognitive and social skills which determine the motivation and ability of individuals' access to, understand and use information in ways which promote and maintain good health [3]. Nutbeam (2000:266) identifies three levels of health literacy: functional health literacy, interactive health literacy and critical health literacy. 'Functional health literacy' reflects the outcome of traditional health education based on the communication and factual information on health risks, and on how to use the health system. 'Interactive health literacy' focuses on the development of personal skills in a supportive environment. And finally, 'critical health literacy' reflects the cognitive and skills development outcomes which are oriented towards supporting effective social and political action, as well as individual action [4].

Within the final level of health literacy, mass media have become one of the primary sources of information on health to public. In addition to the traditional mass media, with new advances in communication technologies, a number of novel media are now available to communicate health information. Particularly, the Internet expands the limits of health

communication which enables a constant flow of information without any restriction of time and medium. Therefore, this limitless flow has been embraced by public health authorities in health promotion.

The role of new communication technologies in health promotion field can be summarized as; a) increasing public awareness, b) creating advocacy environment, c) changing behaviours [5] and influencing health literacy levels with access to information [6].

Embodying all these opportunities, social networking is increasing its coverage and popularity among individuals' lives and is getting accepted as a prioritized, available and cost-effective resource for information. Among the social networking platforms, Twitter has become the fastest growing community site [7]. According to 2013 data of Turkish Statistical Institute (Turkstat), there are around 36, 5 million Internet users in Turkey and 73.2% of them use the Internet to join social groups [8]. In line with a recent research on social media use in Turkey, the number of Twitter users is recorded as 11.3 million in 2013 [9].

As much as worldwide use of social media increases, these platforms get more popular and widely used among both patients and health professionals for a variety of purposes such as seeking information, health promotion, publicity and risk communication [10]. Social media affects communication and interaction between people in the field of health in many ways. Today, people ask questions via social networks about their health and many health organizations or experts answer questions [11].

Twitter is a social networking tool that enables users to stay connected to their friends, family mem-

bers, and people who share the same interests by sending and receiving short messages called "tweets". Twitter's speed of delivering information and ability to reach many people simultaneously provides an effective and powerful means for organizations to reach relevant target groups or audiences [6]. According to Jessen (2008), in communicating health information and medical alerts, social media such as Twitter offer a convenient and cost effective way for health institutions [12].

Twitter helps health institutions with a) informing people of important health information; b) guiding them to avoid potential health risks; c) serving as an interactive tool between health professionals and public; and d) allowing them to take comments and asking questions online. Their concise but meaningful and informative messages can emerge as important topics that become trends through retweeting and thus facilitate the flow of information by virtue of a dynamic and evolving ecology of networks [6].

III. METHOD

This study examined the Ministry of Health's use of Twitter in disseminating health messages for health promotion with content analysis method. All tweets posted by the official account of the Ministry of Health '@saglikbakanligi' were analysed for a period of one year. The sampling frame of this study derived from a search of health promotion messages during January 1st and December 31st, 2013. In this regard, 957 Twitter messages posted within this one year were analysed.

For the content of the tweets, a coding list was generated and all tweets were analysed through the following variables:

- Date of the tweets,
- Tweets using visual materials like photograph, illustration, infographics and so on,
- Number of retweets,
- Number of tweet follow
- Number of thematic tweet content

The last variable, thematic content of tweets, examined three topics for tweet content; a) institutional, b) health promotion, c) outbreak communication. Institutional tweets covered meeting announcements, press releases, news announcements related to legal proceedings or implementations of the Ministry. Outbreak communication tweets, on the other hand, addressed outbreaks, pandemics or crisis and risk communication messages to inform public and media. The study focused on the health promotion theme and covered content analysis of health promotion tweets among 957 tweets posted within one-year.

The contents of the health promotion tweets were coded under three categories: *health literacy*, *healthy life styles and prevention of chronic and communicable diseases*. These coding categories were built on a) previous literature on health promotion and social media literature and b) the health promotion activities' focus of the Ministry of Health. Due to the limited literature on health promotion and social media use of public health institutions, the categorization of the study was considered basic and foundational in terms of health promotion activities and the authors acknowledge that further researches can suggest other categories.

IV. FINDINGS

The study examined 957 tweets posted on Twitter in a period of one year covering January 1st and

December 31st, 2013. During this period of analysis, the highest numbers of tweets were posted in September (n=130) and in November (n=111). In September, an international meeting was held in Turkey, and in accordance with this, information and messages generated during the meeting were shared and the content of these messages was institutional (56.2%, n=73). It was observed that the increase in the number of messages when compared to other months was directly related to the said organization. Unlike other days in September 2013, the Ministry shared a series of information in the meeting days, which were quite higher than a regular day. Content of the messages posted in November, on the other hand, mainly focused on health promotion (62.2%, n=73). Majority of the topics of the tweets posted in November consisted of "Chronic Obstructive Pulmonary Disease", "Organ Transplantation", and "Oral Health".

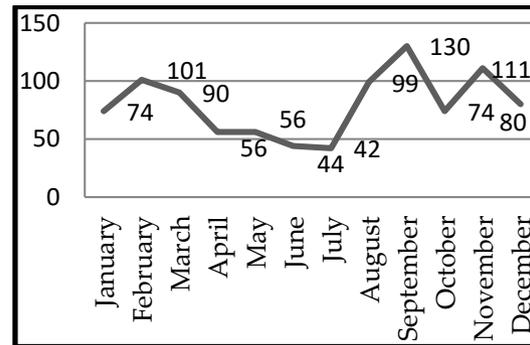


Fig.1 Distribution of Tweets by Months

Of the overall 957 tweets, 46.6% (n=446) tweets contained photograph, and 1.9% (n=18) contained video. On the other hand, 51.5% (n=493) of all tweets had no visual element (fig.2).

	Frequency	Percentage
Photograph	446	%46,6
Video	18	%1,9
None	493	%51,5
Total	957	100,0

Fig.2 Tweets Using Visuals

As Fig.3 shows, it was observed that the tweets posted by @saglikbakanligi were frequently retweeted (95%, n=913). 4.4% (n=42) of the tweets were retweeted 51 times and above.

The number of the retweets was significant as it showed that the message was embraced and found worth to share with others by the followers. At the same time, it was an indicator of the popularity of the user, in this case the Ministry of Health.

Retweet	Frequency	Percentage
none	44	%4,6
1-5	133	%13,9
6-15	360	%37,6
16-30	280	%29,3
31-50	98	%10,2
51 +	42	%4,4
Retweet Total	913	%95,4
Total	957	100,0

Fig.3 Frequency of “Retweets”

Adding a tweet as favourite showed that the tweet was liked by the followers and considered worth to share on profile page. The 58.5% (n=560) of @saglikbakanligi was marked as the favourite. 45.4%

(n=434) of the tweets were marked as 1 to 5 times; 10.7% (n=102) 6 to10 times (fig.4).

Favourite	Frequency	Percentage
none	397	41,5
1-5	434	45,4
6-10	102	10,7
11-20	20	2,1
21-30	3	%0,3
31 +	1	%0,1
Total	957	100,0

Fig.4 Frequency of “Favourite”

%30.4 (n=291) of the tweets received no comments. 69.6% (n=666) of the tweets received at least one comments (fig.5).

Comment	Frequency	Percentage
none	291	%30,4
1-5	540	%56,4
5 +	126	%13,2
Total	957	100,0

Fig.5 Frequency of “Comments”

A. Content Analysis of Health Promotion Tweets

Fig. 6 shows that during the one year period, 957 tweets were posted by the Ministry of Health. Of these 957 tweets, 35% constituted of the tweets involving Ministry’s activities. These were related to the institutional and organization activities of the Ministry of Health. For example, when a new Hospital was opened or the Minister of Health visited a health

institution, the announcement of this activity was shared with a tweet.

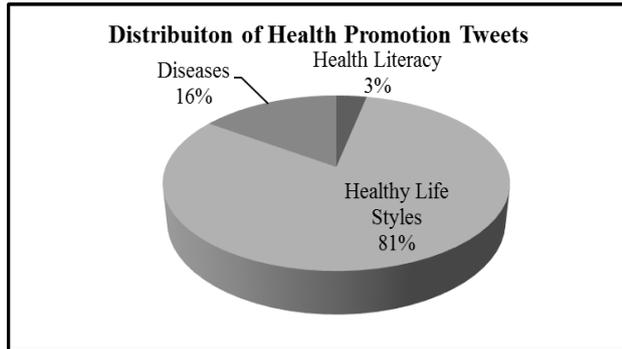


Fig.6 Distribution of Health Promotion Tweets

On the other hand, there was no tweet shared under the theme of outbreak communication during this one year. From a general perspective, outbreak communication is one of the effective tools that can help achieve the public health goal of bringing an outbreak under control as quickly as possible, with as little social disruption as possible (ECDC). Disease outbreaks are the times which necessitate the earliest, quickest and the most rigorous communication between the parties involved, most of the time the public and the public health institutions engaged in outbreak control activities. During disease outbreaks social media is an important tool to gather and share information. Social media helps to start, continue and have control over information about diseases, prevention and control measures with wide coverage and easy access.

The Ministry of Health during the period of the study did not share any tweet for the purpose of outbreak communication as there was no serious outbreak

communication in the country during the said period. Therefore, the number of tweets being “zero” did not mean that the Ministry does not use Twitter for outbreak communication purposes.

Health Promotion Tweets

Of all the tweets shared during January 1st 2013 and December 31st 2013, the Ministry of Health posted 622 health promotion related tweets. In other words, 65% of all the tweets addressed health promotion messages, recommendation and news.

It was observed that among the health promotion tweets, the Ministry allocated the highest space to healthy life styles. The percentage was 81% among all the health promotion tweets. Healthy life style messages included healthy and balanced nutrition, decreasing salt consumption, increasing physical activity, importance of resting and sleeping, personal hygiene (tooth and body), safe motherhood and child development (immunization), safe sexual behaviour, violence prevention, tobacco control, alcohol and substance use, injury and poisoning prevention, rational use of medicines, prevention of unlicensed herbal remedy, building health living environment and conditions, avoiding sun light exposure, advocacy and campaigns like organ donation.

16% of the tweets were allocated to prevention of chronic and communicable diseases of the overall health promotion tweets. These tweets addressed specific diseases such as cancer, tuberculosis, HIV/AIDS, Hypertension, Parkinson, Alzheimer, Hepatitis, Diabetes, Rabies and Chronic Obstructive Pulmonary Disease.

And finally, among all health promotion tweets 3% addressed the health literacy tweets. These included health education messages, utilization of health

institutions and services and, empowerment of personal skills.

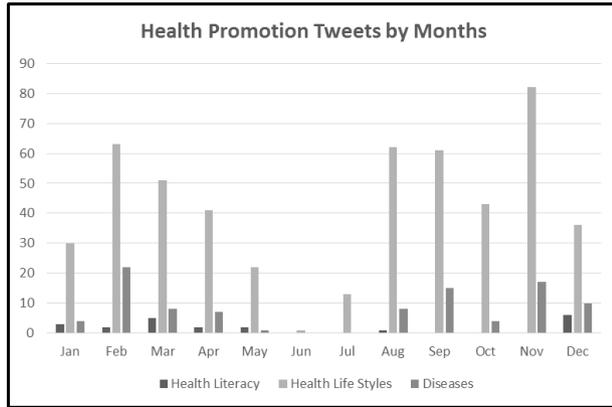


Fig.7 Health Promotion Tweets by Months

V. CONCLUSION

Social media provides health institutions with great opportunities to disseminate and share health messages in a timely and accessible manner. Today, not only in Turkey but all around the world people who have Internet access spend considerable time for social networking. In this regard, social media can be an engaging platform for individuals to talk about their health and for health related discussion.

Being aware of these opportunities, public health institutions are increasingly integrating social media activities in their communication strategies and media. This study examined the use of a popular social media platform activity of the Ministry of Health of Turkey and found out that the Ministry used Twitter actively on daily basis. As the study focused on how health promotion messages were shared, it was observed that

the majority of the content of 957 tweets posted in a period of one year addressed information, messages or recommendations addressing health promotion. Health organizations can take advantage of this effective of social media to share health promotion resources and to facilitate discussions [6].

During the period of the study, it was observed that the Ministry used Twitter mainly for two purposes: health promotion and institutional topics. Institutional use of the platform was an important tool for the Ministry to convey its organizational activities and other information which the Ministry deemed convenient to share with its followers. For example, as a part of this strategic use, the Ministry preferred sharing tweets for celebrating its workers on special occasions like “Nurse’s Day”.

The Ministry of Health of the Republic of Turkey has been implementing a number of health promotion campaigns addressing tobacco control, obesity, organ donation within the recent years, including the year of this study. The priority given to health promotion in its strategies, was also reflected in the percentage of tweets allocated to health promotion issues. Reserving 65% of overall tweets to health promotion messages was found out to be in parallel with this strategy with which the Ministry aimed to facilitate and share health promotion resources.

The health promotion tweets of the Ministry were reinforced and increased on special public health days, when it generated special ‘hashtags’ addressing a certain topic relevant to the day in question. For instance, while promoting “World Tobacco Day”, the Ministry opened a special hashtag, initiated a discussion and offered recommendations or highlighted the success in the Ministry’s activities addressing tobacco control. Similarly, the Ministry

started several “Questions and Answers” sessions during other special occasions or days to draw attention on the topic. Mostly led by experts of the relevant fields, took questions from followers and answered them with providing health promoting messages and recommendations.

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And finally, one of the important findings of this study can be encouraging for the Ministry of Health as it was observed that 95% of the tweets of the Ministry of Health were retweeted by its followers. This showed that the tweets were accepted by the followers and Ministry of Health, in this regard, can benefit from Twitter for the dissemination of health promotion messages as well as outbreak communication. However, the Ministry of Health did not use this platform at all for any outbreak communication messages during this one year period.

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