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**New ways to promote public health: lessons from the international Ice Bucket Challenge.**

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**Questa è la versione pre-print (prima bozza) dell'articolo "New ways to promote public health: lessons from the international Ice Bucket Challenge" degli autori Gualano MR, Bert F, Gili R, Andriolo V, Scaioli G, Siliquini R., pubblicato come Short Communication sulla rivista Public Health.**

**Title**

The “Ice Bucket Challenge”: wondering the impacts of social networks’ use to promote public health interventions.

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## **Main text**

In July and August 2014 a particular media phenomenon called “Ice Bucket Challenge” (IBC) interested millions of people all over the world, with the aim of promoting awareness and gathering funds for Amyotrophic Lateral Sclerosis (ALS).

The ALS, also known as Lou Gehrig disease, is a neurodegenerative fatal disorder which involves cerebral and spinal cord motor neurons in people between 40 and 70 years old. It is clinically characterised by a progressive paralysis which leads to respiratory failure and death within 3 to 5 years from the diagnosis. Reports suggest that in the USA about 10,500 people have ALS [2]. In Europe, the incidence is about 2.08 cases per 100,000 per year and the prevalence is about 5.40 cases per 100,000. Although the prevalence increased thanks to better medical assistance and treatments, to date no effective therapy exists and the course of ALS is still considered invariably fatal [1,2]. Further studies are therefore necessary to identify the pathogenic pathway in order to achieve a definitive cure.

With the intent to collect money to support research in this field, Pete Frates, ex baseball-player and affected by ALS himself, launched the so-called “Ice Bucket Challenge” initiative. It consists in nominating friends or famous people and challenging them to donate money for ALS or throwing a bucket of ice water over their head, and posting the video on social network [3]. The phenomenon spread all over the world and immediately became viral. For example, only in the USA, it involved more than 3 millions of donors and raised 110.1 million of dollars, 35 times more than the funds raised in the same period in 2013 [4].

It is undeniable that a donation campaign spreading through the social networks could have an immediate and widespread availability, being able to bring information, knowledge and to promote research and support activities. Among these, Facebook, one of the most known social network, developed a huge online network, with 149 million of users monthly connected only in USA, each of them connected with an average of 214 people [5].

The IBC campaign has been the object of much criticism, such as the intention of the donors not to support a charitable cause but rather to achieve media visibility, or the “one-off” nature of the phenomenon rather than a long-lasting and reliable one [6].

Given the great success of this initiative, the present commentary aims to discuss the possible factors which determined it, in order to evaluate how and if social networks could be used to promote public health campaigns.

There are several factors contributing to the success of the IBC initiative. First of all, the involvement of well-known people from different contexts, from sport to politics to show business, allowed to catch the attention and the interest of the people encouraging their

participation in the game: indeed, on one side there are the fun and curiosity triggered by the idea of seeing famous people throwing ice water over their heads, and on the other side there is the possibility to involve people with institutional roles who are usually unapproachable via conventional routes.

Another possible reason of the success could be the ironic nature of the performance which gratifies participants as their videos are increasingly shared by means of social networks.

Interestingly, a key element is the nomination process: every challenged person must nominate other people, thus allowing and promoting an exponential spread of the phenomenon. Since the nomination is public and everyone would be able to see a refusal, the nominated person feels amicably pushed to take part in the game.

Nevertheless, besides these strengths, there is a criticism related to the utilization of social networks. Indeed, given that a phenomenon defined as “digital divide” (the gap between people who access social networks and people who don’t because of age and social, cultural and economic status) affects the access to the web, the awareness and funding campaign can only partially reach potential supporters and donors [7,8].

Concerning the opportunity to use the social networks to promote public health intervention programs, it would be desirable that campaigns like IBC could be performed not only for incurable diseases which make the public feel impotent, but also to increase awareness of the possibility to prevent certain common pathologies just by conducting a healthy balanced lifestyle as opposed to an unhealthy, unbalanced one. In this regard, in order to introduce healthy habits, of significant importance is the advantage of the use of social networks to facilitate these changes in behaviour, since the messages can be easily transmitted among friends or relatives: this promotes the enforcement of positive behaviour models.

Another advantage of the IBC's brilliant communicative idea arises from its comparison with the common public health campaigns, which usually tend to leave passive messages scaring people with the bad consequences of certain harmful behaviour. On the contrary, by focusing on a playful, ironic task, IBC leads to an active and pleasant involvement of the public, allowing them to intentionally achieve the intended messages.

It is not however possible to foresee if, with the use of social network to promote public health campaigns, the message left would be long lasting, or rather only due to the instant success: we have to consider the diversity of requirements between the fund-raising campaigns and the public health intervention programs. Indeed, for these latter ones, the condition for success (which is, ideally, the abolishment of harmful behaviours and the introduction of healthy ones) is that the intended message would last for a long period to

really produce a change. Instead, for the fund-raising campaigns may be rather sufficient an effect limited to the short period, as they aim at a collection of money: it could therefore be acceptable a "one-off" nature of the initiative with the purpose of raising the most money as possible.

On account of this, nowadays it is impossible to predict the real impact and efficacy of the social networks' use, if used alone, as communication instruments for public health intervention programs. In the current literature there is not sufficient evidence supporting their efficacy, despite their high potential is claimed by several studies [9,10].

In conclusion, despite the above mentioned limits, the social networks have shown to have such a great potential. It would be desirable to encourage their utilization as complementary tools beside the existing awareness campaigns.

### **Conflict of Interest**

The Authors declare they have no conflict of interests.

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