

## Using a social media campaign to promote public health awareness among pharmacy students

### Uso de una campaña en redes sociales para promover el interés en salud pública en estudiantes de farmacia

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#### ABSTRACT

**Introduction:** To describe pharmacy students' perceptions about an innovative teaching activity planned to introduce the concept of public health and its relationship with pharmacy.

**Method:** Elements of Public Health' students had to take at least one picture illustrating how public health impacts their communities or place of residence. To do so, they received a Spanish This is Public Health campaign sign that had to be used to create a post in their personal Facebook profiles. At the end of this activity, students completed a brief survey evaluating their perceptions.

**Results:** The This is Public Health campaign allowed students to comprehend public health concepts and recognized its relationship with pharmacy. Moreover, using this didactic strategy increased their interest and motivation towards public health-related topics. Students were able to identify the use of social media as a good way of presenting health information to their contacts.

**Conclusions:** It is possible to motivate pharmacy students to know more about their role in public health activities using innovative teaching strategies. Public health educators need to integrate these strategies with classic classroom lessons and activities, accordingly to the changing learning needs of students that are growing up within a more technological background.

**Keywords:** Public Health; Pharmacy Education.

#### RESUMEN

**Introducción:** describir las percepciones de estudiantes de farmacia acerca de una actividad educativa innovadora propuesta para introducir el concepto de salud pública y su relación con la profesión.

**Método:** los estudiantes del curso Elementos de Salud Pública tomaron al menos una fotografía que ilustró el impacto de la salud pública en su comunidad o lugar de residencia. La fotografía se tomó acompañada con un rótulo en español de la campaña "Esto es Salud Pública" y se colgó en una publicación en el perfil personal de Facebook de cada estudiante. Al final de esta actividad, los estudiantes completaron una breve encuesta que evaluó sus percepciones sobre el desarrollo de la misma.

**Resultados:** El uso de la campaña "Esto es Salud Pública" permitió que los estudiantes comprendieran conceptos de salud pública nuevos para ellos y reconocieran su relación con farmacia. El uso de esta estrategia didáctica incrementó su interés y motivación hacia aspectos relacionados con la salud pública. Los estudiantes pudieron identificar el uso de redes sociales como una buena forma para presentar información de salud a sus contactos.

**Conclusiones:** Es posible motivar a estudiantes de farmacia a conocer más sobre su rol en actividades de salud pública utilizando estrategias didácticas innovadoras. Los educadores en salud pública pueden integrar este tipo de estrategias, junto con lecciones y actividades de enseñanza clásicas, en respuesta a las cambiantes necesidades de aprendizaje de estudiantes que se desarrollan en un medio ambiente pleno de tecnología.

**Palabras clave:** Salud Pública; Educación en Farmacia.

## INTRODUCTION

Public health is a social multidisciplinary practice that seeks the well-being of people promoting better health and preventing diseases, through the research of health-related problems and risks, and community active engagement<sup>(1)</sup>, involving different healthcare professionals like pharmacists<sup>(2,3)</sup>.

There is a generalized lack of understanding of the full concept, and the implications public health has on the well-being of individuals, families, and communities, leading to poor leadership of different professionals in the field<sup>(4,5)</sup>. Teaching public health to pharmacy students represents an important task due to the need of involving them in disease prevention and healthy lifestyles promotion, at the individual and community levels<sup>(2,3,5,6)</sup>. Pharmacists, as accessible professionals with a solid academic background in areas such as pharmacotherapy, epidemiology, access to care, and prevention services, play an important role in public health and community active engagement<sup>(7)</sup>.

The School of Pharmacy of the University of Costa Rica included, since 1999, an undergraduate course named Elements of Public Health, dedicated to exploring public health and epidemiology concepts. This course is on the third year of a five and a half years' curriculum- and addresses basic concepts of health promotion, social determinants of health, disease prevention, and epidemiology, through traditional lectures. Nonetheless, since 2015, a series of innovating teaching activities have been introduced to engage students in more experiential learning, to increase their understanding of basic public health theories and concepts.

One of these innovative activities is the "This is Public Health" (TIPH) campaign. It was created by the American Association of Schools and Programs of Public Health to promote public health locally and globally through social media, by exposing different actions that can affect individuals, families, and populations' health<sup>(8)</sup>. Although this campaign has been implemented in more than 30 countries and has a vast number of uses that are evident in social media channels, only three studies had addressed its use to promote public health awareness in different university and community settings<sup>(5,9,10)</sup>.

In this study, we describe pharmacy students' participation in the TIPH campaign as part of the course's nontraditional teaching activities planned to help them understand the concept of public health, and how pharmacists can contribute to promoting health improvement and disease prevention.

## METHODS

This descriptive study addresses a new way of presenting pharmacy students to the concept of public health and the role of pharmacists in raising public health awareness, using social media as a platform to present their work. The results of this analysis included perceptions from third and fourth-year students, enrolled during the first semester of 2016 in the Elements of Public Health course (EPHC) at the School of Pharmacy of the University of Costa Rica.

Instructions and background to complete this activity were provided during the first day of class. As an introduction, students received a lecture on Social Determinants of Health and a full description of the TIPH activity to be completed during the following week. EPHC professors stated the aim of this activity as promoting the role of public health in the community and to evidence the role of pharmacists in this area.

Due to the total number of students enrolled (n=82) and professors assigned to provide guidance (n=2), students were instructed to work in groups of approximately 10 people. Each group member had to publish at least one picture illustrating how public health impact their community or current place of residence. To do so, they used a Spanish-TIPH sign (available at <https://thisispublichealth.org>) to create a post on their personal Facebook profiles. Each post had to include a full description of why the picture was selected, and how it was related to public health and pharmacy. Students were also asked to use the hashtags #saludpublicafarmaciaUCR and #thisispublichealth to allow the follow-up of every post.

After a week, the TIPH photos were presented and a discussion on the main findings was conducted during the regular class. At the end of this activity, students completed a brief survey evaluating their perceptions on the adequacy of the didactic strategy to learn new concepts on Public Health (Questions 1-3), its impact on their interest in Public Health (Questions 4-5), the time spent on completing it (Questions 6-7), and its use to promote public awareness on health issues (Questions 8-9). This form was made based on previous published studies<sup>(11)</sup> and answers were provided using a 5-point Likert-scale (1 = strongly disagree to 5 = strongly agree).

Responses were entered and analyzed using Microsoft Excel® 2016. Participant's characteristics and evaluation statements are presented in terms of frequencies and percentages. The scale in questions 6 and 7 was reversed since most of the responses corresponded to strongly disagree.

This manuscript has been reviewed and approved by the University of Costa Rica Ethics Committee.

## RESULTS

A total of 82 students were enrolled in the EPHC during the first semester of 2016, of them, 95.12 % (n=78) completed the final evaluation. Overall, students were 22 years old (mean 22.01, SD 1.91), mainly women (n = 55, 70.5%), and taking classes on their third (n = 29, 37.2%) or fourth year (n = 47, 60.3%) of the pharmacy program.

As shown on items 1 to 3 of table 1, most of the students thought the TIPH activity allowed them to comprehend the concept of public health, and its relationship with pharmacy (Means 4.5, 4.2, respectively). Nearly all students strongly agreed or agreed on the importance of public health cam-

paings in their future practice as healthcare professionals (n = 71, 91%). Furthermore, 4 out of 5 students strongly agreed or agreed with the statements that the activity increased their interest in public health (item 4, 84.6%) or motivated them to know more about it (item 5, 82.1%).

Time availability is a common concern our students have when completing extra class assignments. However, more than half of respondents (59.0%) strongly disagreed with the following statement "...took time that I have rather used for other activities". Finally, almost all students strongly agreed or agreed (n = 72, 92.3%) that the use of the TIPH campaign and social media tools are good strategies to present health-related information to people outside the academia.

Table 1. Student's opinions after implementing the This is Public Health activity.

The activity...	Mean (SD)	Strongly agreed No (%)
1. ...allowed me to discover the concept of Public Health.	4.5 (0.7)	46 (59.0)
2. ...allowed me to know the importance and relation of Public Health with Pharmacy.	4.2 (0.8)	31 (39.7)
3. ...will be useful in my professional training.	4.3 (0.6)	31 (39.7)
4. ...increased my interest in the topics of the course.	4.3 (0.7)	35 (44.9)
5. ...was really interesting and motivate me to know more about Public Health.	4.1 (0.7)	27 (34.6)
6. ...took time that I have rather use for other activities.	1.7 (1.0)	46 (59.0)*
7. ...it's no necessary and I will prefer to have a different activity.	1.5 (0.7)	50 (64.1)*
8. ...allowed me to use social media to bring to the light health topics to family, friends, and others.	4.6 (0.6)	54 (69.2)
9. ... has made that people outside the University asked me about the photos I posted.	3.6 (1.3)	24 (30.8)

Scale: 1 strongly disagree, 2 disagree, 3 neutral, 4 agree, 5 strongly agree.

\* Reverse scored for strongly disagree

## DISCUSSION

Studies had demonstrated that pharmacy students have a good perception of public health courses<sup>(12)</sup>. Teaching public health represents an opportunity to implement diverse didactic strategies as poster presentations<sup>(13)</sup>, public health research projects<sup>(14)</sup>, or, as we present in this paper, the use of social media and international campaigns to promote pharmacy students' learning of their future role as healthcare professionals. Indeed, the use of this didactic strategy provided a good starting point for our students to feel motivated about public health and the new concepts they were about to learn, as more than half of them considered it a way to increase their interest in the topics to be covered during the semester.

We successfully used the Spanish-TIPH sign as part of a didactic strategy to promote public health awareness among pharmacy students at the University of Costa Rica. The TIPH campaign has been previously used to promote public health activities in different community settings<sup>(5,9,10)</sup>, however, as Dundas et al<sup>(10)</sup> have discussed, there is a need for evidence to support its implementation in other settings, such as academia. Consequently, this paper contributes to the body of research supporting the use of the TIPH campaign in academic settings and, to the best of our knowledge, it is the first to show results of using this initiative among pharmacy students in a Latin-American university.

Nowadays, the importance of pharmacists and their impact on public health is recognized<sup>(15,16)</sup>. Therefore, pharmacy students need to be challenged to get involved with

their communities and to be part of health promotion and disease prevention activities; this can be done by creating opportunities to develop skills and acquire knowledge on public health, through different approaches. Using innovative didactic strategies is a way in which the academia can respond to students that have grown up in an era of technology and social media use<sup>(2,17)</sup>.

The academic workload for students between the third and fourth year at the School of Pharmacy of the University of Costa Rica is generally high<sup>(18)</sup>, hence being a challenge to carry academic activities other than classroom lectures and written tests, independently of the course taken. Therefore, this activity was planned to be completed at the beginning of the semester when students have more time available, and their stress levels have proven to be lower<sup>(18)</sup>. As reflected in students' opinions, time to carry the activity out was not an issue; moreover, students considered worth doing innovative and non-traditional activities in this and other courses of our Pharm D degree. Students' willingness to participate in the activity could also be related to the fact that they are more comfortable with learning new concepts through blended approaches and with the use of social media for educational purposes, as demonstrated in other studies<sup>(19,20)</sup>. Moreover, students who were part of this activity were able to take a glimpse of the power of social media to raise health awareness and professional recognition among their friends, families, and communities.

This study presents the results on the opinion of a cohort of pharmacy students at the University of Costa Rica on using social media to raise awareness on Public Health. Their perceptions on this issue may not be representative of all pharmacy students or courses in our school, thus further research must be conducted to overcome this limitation.

## CONCLUSIONS

It is possible to motivate pharmacy students to know more about their role in Public Health activities using innovative teaching strategies. Public health educators need to explore integrating these strategies with classic classroom lessons and activities, in response to the changing learning needs of students that are growing up within a more technological background.

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