



Case Report

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A Campaign to Improve Seasonal Influenza Immunization Compliance in a University Nursing Health and Wellness Clinic: A Case Study

Helen Reyes¹, Collette Loftin¹, Vicki Hartin¹, Teresa Smoot¹, J Dirk Nelson^{2*}, Priscella Correa¹ and Cynthia Dowell¹

Affiliation

¹Department of Nursing, West Texas A&M University, Canyon, USA

²College of Nursing and Health Sciences, West Texas A&M University, Canyon, USA

*Corresponding author: J. Dirk Nelson, College of Nursing and Health Sciences, West Texas A&M University, Canyon, USA, Tel: 806.651.3501, Fax: TX 79015, E-mail: jdnelson@wtamu.edu

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Abstract

Seasonal influenza can result in enormous physical and economic burdens. Healthy People 2020 report that substantially fewer than the recommended 70% in most age groups actually receive the immunization (Bekkat-Berkani & Romano-Massotti, 2018). The purpose of this study was to ascertain whether the WTAMU Nursing Health and Wellness Clinic seasonal flu campaign was considered effective and advantageous to those who received it on campus. A brief survey was developed for distribution to those who received the influenza immunization during the 2018-2019 flu seasons. Making the flu vaccine convenient and inexpensive/free has been an effective mechanism to improve immunization acceptance in our community. Response rate for the survey was 61% or 106 individuals with 44%, reporting that they would not have sought out the seasonal flu immunization had it not been made available on the university campus. More importantly, when the 106 participants were asked where on campus they received their immunization, only 41% physically came to the nursing clinic, while 59% were provided the vaccine in their office or departmental workplace. Of those individuals receiving immunization in their office or workplace, 38% reported that had it not been provided in this setting, they would not have gone to the nursing clinic or elsewhere to be immunized. Of those responding to the survey, 61% reported having received an influenza immunization during the 2017-2018 seasons. The remaining 39% of respondents either could not recall or denied receiving the vaccine. However, when asked about their intentions to be immunized in the 2019-2020 season, 90% of the participants related positive intention to receive the seasonal flu immunization.

Keywords: Seasonal Influenza, Immunization, Nursing Health.

Abbreviations: CDC-Centers for Disease Control and Prevention, WTAMU-West Texas A&M University, NHWC-Nursing Health and Wellness Clinic.

Introduction

Seasonal influenza is a serious disease resulting in considerable illness, mortality, and financial burden [1]. It is well known that the most effective and readily available method for reduction in morbidity, loss of life, and monetary demand is the influenza vaccine, developed more than 80 years ago [2]. Even so, many healthy individuals do not consider seasonal flu to be a dangerous healthcare risk and find it troublesome to seek out vaccination due to hectic lifestyles. The Centers for Disease Control and Prevention (CDC) recommends 70% of individuals over the age of 6 months be vaccinated annually against seasonal influenza, although it is historically recognized that this percentage is not met [3,4].

The flu season of 2017-2018 was inordinately harsh in the United States, the disease accounted for approximately 45,000,000 illnesses, 21,000,000 healthcare provider visits, 810,000 hospitalizations, and 61,000 deaths [5]. The financial costs can be overwhelming including lost wages, medical expenses, and severe ongoing health consequences.

Challenger, Gray and Christmas, Inc. (2018) [6] estimated that over \$21 billion would be lost due to workers becoming ill with influenza. Putri, Muscatello, Stockwell, and Newall (2018) [7], reported in the 2014-2015 flu season, the burden to the healthcare system and society was estimated at \$11.2 billion.

West Texas A&M University (WTAMU) is centrally located in the panhandle of Texas with over 10,000 students, 335 full-time faculty, and 476 full-time staff members. The university has the unique advantage of a Nursing Health and Wellness Clinic (NHWC) located on the campus staffed by Department of Nursing faculty who volunteer their services. The NHWC provides wellness and preventive services, and minor illness treatments to employees and their dependents covered by the institution's provided insurance. The NHWC was established in early 2018. During the NHWC's inaugural year, as faculty and staff were initially seen, they were asked to complete a health screen regarding prior influenza vaccines. It was noted that many could not recall or admitted to not being immunized.

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It became evident, through these conversations, that receiving the flu vaccine was not a priority, and appeared that these individuals were neither worried about getting the flu nor motivated to prevent it. In response to this, a seasonal influenza immunization campaign was undertaken by nursing faculty in conjunction with undergraduate students registered in a community health course.

A university-wide email blast was sent offering the services of the NHWC for flu vaccinations. Because the response rate was lower than which was anticipated, NHWC faculty and students decided to implement a pilot program, whereby they would take the immunizations to the university faculty and staff. This initiative began in the university library. Response to this endeavor was overwhelmingly positive, and as other faculty and staff learned of the event, inquired about having the immunizations brought to their departmental workplaces. Over the following week, a number of additional departments were contacted and enthusiastically agreed to receive the flu vaccine at their locations. During October, 2018, 189 faculty, staff, and eligible family members received immunization through the NHWC.

In the months that followed, multiple faculty and staff approached nursing faculty to thank them for the opportunity to receive the flu vaccine in a convenient setting, i.e. their office or departmental workplace. Discussions followed concerning the need for an evaluation survey to determine the effectiveness of the influenza immunization campaign endeavor.

Methods

The purpose of this article is to disseminate the findings of a study describing the efforts of the WTAMU NHWC regarding improved seasonal influenza immunization compliance on campus. Anecdotal evidence via informal conversations led the nursing faculty to hypothesize that non-nursing faculty and staff may not have sought immunization elsewhere had this attempt not been made. Therefore, the aim of this study was to survey those who received their immunization on campus or at the NHWC to determine whether this population would have sought their flu vaccine elsewhere, had it not been made available in this manner.

Community health nursing students were included in this campaign. Along with providing the actual immunizations, they furnished educational facts regarding seasonal influenza and the immunization. Students educated the community participants on the type of vaccine they were receiving (quadrivalent), length of time for antibodies to develop, the need for continued preventative measures (hand hygiene, avoidance of those with a cough, etc.), seeking healthcare immediately if flu is suspected, and potential lessened severity if influenza is contracted after immunization. Students and nursing faculty were available to answer other questions when asked.

A case study methodology was selected to evaluate and explore the outcomes of this immunization campaign. A brief seven item survey was developed for distribution to those who received the influenza immunization through the campaign efforts. After development, four nursing faculty members reviewed the survey and agreed the instrument measured the concepts intended for this evaluation, ensuring face validity. A small group (n=5) representing the population immunized on campus pilot tested the survey and minor corrections were made. Institutional Review Board approval was sought and received prior to deployment of the evaluation survey for this case study.

The survey was sent electronically utilizing Qualtrics. Four of the initial 189 individuals were excluded due to being less than 18 years of age. Otherwise, all recipients of the vaccine were included in the sample. Of the 185 surveys electronically distributed, 10 were returned as undeliverable.

In total, at the end of flu season, 175 individuals were sent the electronic survey. A follow-up reminder was sent two weeks later in an effort to encourage non-responders to complete and return the survey. Demographic and contact information was collected at the time of immunization as a routine component of our immunization campaign; however, no identifiable data was collected on the Qualtrics survey.

Findings

We received 106 completed surveys for a response rate of 61%. Of the 106 respondents, 44% reported that they would not have sought out the seasonal flu immunization had it not been made available on the university campus. More importantly, when asked where on campus they received their immunization, only 41% physically came to the NHWC, while 59% were provided the vaccine in their departmental workplace. Of those individuals receiving immunization in their office or workplace, 38% reported that had it not been provided in this venue, they would not have gone to the NHWC or elsewhere seeking the vaccine.

When asked about whether they had previously been immunized, 61% individuals reported having received an influenza immunization during the 2017-2018 seasons. The remaining 39% of respondents either could not recall or denied receiving the vaccine. However, when asked about their intentions to be immunized in the 2019-2020 season, 90% of participant's related positive intention to receive the seasonal flu immunization.

Finally, when asked whether they became ill with the flu after immunization, 92% replied no. Of those individuals who reported becoming ill after receiving their immunization (n=9), 6 stated that they tested positive for influenza virus. One person was diagnosed by a healthcare provider with no testing and 2 reported self-diagnosis. Although we did not collect data on the severity of the illness for those surveyed who reported contracting the flu, research indicates that immunization lessens the severity of the symptoms [8].

Limitations

A limitation of this study is that it was completed in a single campus setting in one Texas region. The sample size was small, and thus the number of employees/family members that received the flu vaccination off campus was equivocal.

Discussion

Influenza immunizations are often considered part of workplace wellness programs and when best practice principles are applied, healthier outcomes are more likely to ensue [9]. Innovative approaches to improving influenza vaccination rates have been shown to be effective in workplace wellness settings [8]. Some examples of unique approaches used by employers include free or low-cost vaccinations, availability during working hours, and multi-day vaccination events [8]. According to Naleway, et al., (2014) [10] very few participants in their study of healthcare personnel reported not knowing where to go for a seasonal flu vaccination and 35% of their participants reported that while they meant to get their flu shot, they did not. Thus, knowing where to get the flu vaccination and having intentions to get a flu vaccination does not always lead to receiving the immunization.

It is noteworthy that even with the harsh flu season (2017-2018) which preceded this campaign, relatively few individuals on our campus sought out influenza information or immunization through the NHWC. Anecdotally, there appeared to be a prevailing apathy and lack of reliable information regarding seeking preventative care in terms of seasonal flu. This presented a perfect opportunity to pair community health nursing students with the NHWC.

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In an effort to encourage participation in the campaign, university provided insurance was billed and no employee or family member was charged copay. Patient's behaviors regarding vaccinations can be strongly influenced by nurses [11]. Patient education concerning influenza vaccine risks and benefits along with scheduling adherence are improved by implementing a reminder system [12,13]. Hence, we sought to improve adherence through actively promoting the influenza campaign via multiple emails. These were sent inviting participation through the NHWC and in various departmental workplaces. Subsequently, this allowed campus faculty and staff to become more aware of the other services offered at the NHWC.

Many of the employees who received their immunization shared that they had previously considered obtaining the vaccine to be burdensome and of little value. This provided an opportunity for our community health nursing students to become more closely involved in teaching about the importance of herd immunity and preventive care, as well as the potential complications of contracting the flu. Employees and staff were openly welcoming and extremely receptive to being cared for by students. Our students realized that they were a critical part of the effort to prevent influenza and possibly save lives in our campus community.

Coincidentally, as this project was being completed and the 2019-2020 seasonal influenza campaign was beginning, multiple individuals approached clinic nursing volunteers to schedule their departmental visits for immunization administration. This increasing enthusiasm was attributed to the success of the prior year's campaign. It is believed that these concerted efforts have yielded a positive trend toward not only flu vaccination, but other wellness services provided to employees by the NHWC on the university campus. Plans are to continue annual influenza campaigns with increased outreach and timely departmental notification for a more robust impact on the health and wellness of our community.

The case study of this flu immunization campaign notes the importance of having an evaluation methodology. Through the evaluation survey, we were able to identify that faculty and staff across campus who had the intention to receive an influenza vaccination found it difficult to schedule time to do so. Thus, the use of innovative measures aided the NHWC faculty and students in increasing participation in our campus population [8].

Recommendations/Conclusions

Results from this study have informed how we intend to move forward with future flu vaccination campaigns. Making the flu vaccine convenient and inexpensive/free has been an effective mechanism to improve immunization acceptance in our community. Additionally, actively promoting the campaign via email and public educational announcements has been valuable.

It is recommended that future campaigns strongly consider convenience and cost effectiveness in plans for providing seasonal influenza vaccine for their communities. Suggestions for future research should include evaluation of effectiveness of student led teaching and identification of the percentage of the overall campus faculty and staff receiving seasonal influenza immunization outside of the NHWC's campaign. In an effort to reach 70% flu shot coverage as recommended by the CDC, robust efforts will be required by the nursing faculty and NHWC.

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Appendix

Seasonal Influenza Immunization Campaign Survey Items

1. If the seasonal flu vaccination had not been offered on campus, would you have gone elsewhere to get it? (Walgreen, local pharmacy, etc.)
2. Did you receive a seasonal flu immunization during 2017?
3. Do you intend to get the seasonal flu vaccine this fall (2019)?
4. Where did you receive your flu immunization? (nursing clinic or departmental workplace)
5. Had the immunization not been provided to you in your office or workplace, how likely would you have been to obtain the flu shot elsewhere? (This question was only offered to those who responded to having received immunization in their departmental workplace and not the nursing clinic)
6. After receiving the seasonal flu vaccination on campus, did you become ill with the flu?
7. If you reported that you became ill with the seasonal flu, which of the following is correct? (tested by healthcare professional with positive results, not tested but diagnosed by healthcare provider, self-diagnosed)