



# Evaluating a Volunteer Recognition Program to Improve Volunteer Retention at a Student-Run Free Medical Clinic

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## Abstract

**Background:** The Lighthouse Free Medical Clinic (LFMC) provides healthcare to uninsured and underinsured patients in Buffalo, New York. Volunteer teams consisting of medical students, residents, and attending physicians run the clinic, which operates every Friday from 5-9 PM. Recruiting upperclassmen volunteers can be challenging due to demanding clinical requirements. Currently, students do not receive recognition for volunteering. To address this, we introduced a recognition program for upperclassmen who volunteer five or more times in an academic year. Up to five students receive a *Lighthouse Distinguished Service Award* and are recognized during the annual fundraising gala.

**Methods:** Frequency of clinic volunteers were documented from June 2022 to June 2024. To determine a reasonable volunteer target, we reviewed data from June 2022 to June 2023, finding that 16 students volunteered three times, 8 volunteered four times, and 2 volunteered five or more times. Consequently, we believed that given the added incentive of the *Lighthouse Distinguished Service Award*, five or more times was a reasonable target for the designation.

**Results:** Following the introduction of the award in June 2023, 8 students volunteered three times, 10 volunteered four times, and 16 volunteered five or more times—compared to only 2 students reaching the five-shift threshold in the previous year ( $p < .001$ ). The total number of shifts covered over the academic year also increased from 242 to 332, corresponding to a significant rise in the average number of shifts per student, from 1.57 to 2.37 ( $p < .01$ ).

**Conclusion:** This initiative successfully increased volunteer continuity at the LFMC and offers a framework for other organizations to assess and improve volunteer retention in their own clinics.

## Introduction

Student-run free clinics (SRFCs) play a crucial role in providing healthcare services to underserved communities while offering medical students valuable hands-on experience in clinical care and clinic management, ultimately fostering their growth as future healthcare providers.<sup>1,2,3</sup> A survey of 124 Association of American Medical Colleges allopathic schools found that 52% have at least one student-run clinic, and these clinics rely heavily on student volunteers.<sup>4</sup> For instance, clinics like the Interprofessional Community Clinic at Chicago Medical School, the Student Health Alliance Reaching Indigent Needy Groups at the University of Nebraska Medical Center, and the Robert R. Frank Student Run Free Clinic at Wayne State University rely on medical student volunteers to provide essential services like blood pressure screenings, purified protein derivative (PPD) testing, and blood glucose testing, under the supervision of faculty.<sup>5,6,7</sup> In these settings, students not only gain the opportunity to improve clinical skills and provide health education but also document patient encounters, perform point-of-care testing, and gain insight into the social and behavioral barriers to

healthcare.<sup>8,9</sup> Beyond clinical responsibilities, students manage patient follow-ups, staffing, and quality improvement, all of which are essential for smooth clinic operations.<sup>10</sup> Building on this, the Lighthouse Free Medical Clinic (LFMC) is an example of how SRFCs address local healthcare challenges while providing hands-on learning experiences for medical students.

The LFMC was founded in 2001 by medical students from the Buffalo Jacobs School of Medicine and Biomedical Sciences. Over the past two decades, the LFMC has provided healthcare to uninsured and underserved patients in Buffalo, New York. The LFMC offers several medical services, including physical exams, sick visits, PPD skin tests, and sexually transmitted infection testing. All services are available to any patient, regardless of insurance or residency status. On average, the clinic sees 15 to 20 patients per night for medical and laboratory services. The clinic is run entirely by medical volunteer teams consisting of medical students, residents, and attending physicians. Each patient encounter begins with a paired team of an M1/M2 (first- and second-year medical student [underclassman]) and an M3/M4 (third- and fourth-year medical student [upperclassman]), who present the patient to a resident or attending physician. The entire team then collaborates to complete the visit. As such, upperclassmen volunteers play a vital role in clinic operations, but recruitment is challenging due to the clinic's Friday evening hours (5-9 PM) and their demanding clinical schedules. Consequently, patient scheduling is often limited by upperclassmen availability.

Given these challenges, we explored strategies to enhance volunteer engagement, including the use of recognition-based incentives. Awards have been shown to enhance motivation and participation across various contexts. Research on school-based awards suggests that recognition increases students' determination, motivation, and persistence.<sup>11</sup> For example, a study of Global Schools Group institutions found that awards strongly improved academic excellence, accounting for 67.7% of the variance in performance.<sup>12</sup> Likewise, in professional settings, recognition-based awards enhance workplace productivity and improve employee retention.<sup>13</sup> Behavioral psychology research further supports that external rewards reinforce positive behaviors in children and adolescents.<sup>14</sup> While some studies suggest that extrinsic rewards can diminish intrinsic motivation, a phenomenon known as the over justification effect, this outcome is not universal.<sup>15,16</sup> Well-structured rewards that acknowledge competence and autonomy may enhance rather than undermine motivation. Based on this, we implemented the *Lighthouse Distinguished Service Award*, aimed at enhancing upperclassmen engagement and ensuring consistent volunteer participation at the LFMC.

## Methods

### *Setting and Sample*

This project was undertaken as a quality improvement initiative and was deemed exempt from approval by the University at Buffalo Institutional Review Board per their policies. Our sample consisted of all upperclassmen medical student volunteers at the LFMC from June 2022 to June 2024 (n=294). Names and frequency of clinic volunteers were documented over this time. To determine a reasonable number of times in a given year that a student may volunteer, we analyzed volunteer participation from June 2022 to June 2023 (n=154). During this period, 16 students volunteered three times, 8 students volunteered four times, and 2 students volunteered five or more times (Table 1). Consequently, we determined that, with the added incentive of the *Lighthouse Distinguished Service Award*, volunteering five or more times in an academic year was a reasonable target.

### *Award Details*

In June 2023, we introduced the *Lighthouse Distinguished Service Award*. An announcement was sent to the upperclassmen email lists informing them about the award (see Appendix A for the announcement). Following the initial announcement, the award was consistently promoted throughout the academic year via class-wide emails in an effort to maintain awareness and interest (see Appendix B for reminder message). To be eligible for the award, a student must be an upperclassman

**Figure 1.** Service award certificate



and volunteer five or more times in an academic year. Awards are granted to up to five people each year (see Appendix C for award recipient message). If more than five people in a given year volunteer five or more times, the award is given to those with the highest volunteer frequencies. To express our gratitude for their continued commitment to the clinic, students receive a certificate (Figure 1) along with a complimentary ticket to our annual fundraising gala.

### *Statistical Analysis*

Statistical analyses were conducted in SPSS (Version 30.0, IBM Corp, Armonk, NY). Descriptive statistics and the Chi-square test were used, as at least 80% of the cells had expected frequencies of five or greater, meeting the test's assumptions. To compare the average number of shifts between pre-award and post-award groups, a Mann-Whitney U test was performed, as the data were not normally distributed. Statistical significance was defined as  $p < .05$ .

### **Results**

Our sample consisted of 154 upperclassmen medical students prior to award implementation (June 2022-June 2023) and 140 upperclassmen medical students following award implementation (June 2023-June 2024). After the award was introduced, 8 students volunteered three times, 10 students volunteered four times, and 16 students volunteered five or more times. This distribution reflects a statistically significant increase in volunteer frequency, indicating a non-random association between award implementation and student participation (Table 1; Chi-squared,  $p < .001$ ).

Of the 16 students who volunteered five or more times during the award year, 3 volunteered exactly five times. The remainder exceeded the minimum: 2 volunteered six times, 2 volunteered seven times, 3 volunteered eight times, 3 volunteered nine times, 1 volunteered ten times, 1 volunteered twelve times, and 1 volunteered thirteen times. The award was ultimately distributed to the students with the highest number of volunteer shifts.

**Table 1.** Volunteer frequencies pre-award and post-award implementation

Upperclassmen Volunteer Frequencies (n, %)							
	1	2	3	4	5+	Total	p-value
Pre-Award	106 (68.8)	22 (14.3)	16 (10.4)	8 (5.2)	2 (1.3)	154 (100.0)	< .001*
Post-Award	71 (50.7)	35 (25.0)	8 (5.7)	10 (7.1)	16 (11.4)	140 (100.0)	

\*Chi-square Test. P < .05 was statistically significant.

**Table 2.** Yearly change in clinic shift participation

	Pre-Award	Post-Award	% Change	p-value
Number of Students	154	140	-10.0%	< .01*
Total Shifts Covered	242	332	+37.2%	
Average Shifts per Student	1.57	2.37	+51.0%	

\*Mann-Whitney U Test. P < .05 was statistically significant.

Despite a decrease in the total number of student volunteers during the post-award implementation academic year, the total number of shifts covered increased from 242 to 332. This corresponds to a statistically significant rise in the average number of shifts per student, from 1.57 to 2.37 (Table 2; Mann-Whitney U test, p < .01).

### Discussion

SRFCs rely heavily on student volunteers, with upperclassmen playing a crucial role in operations and education.<sup>4</sup> Their presence enhances the clinical education of preclinical students by providing mentorship and improving comfort with patient interactions and clinical skills.<sup>17</sup> They serve as a bridge between preclinical students and attending physicians, facilitating a more effective learning environment and improving overall efficiency.<sup>18</sup>

At the LFMC, we have observed that consistent upperclassmen volunteers enhance the clinic’s efficiency and reliability. To encourage sustained participation in clinic, the *Lighthouse Distinguished Service Award* was introduced, and our results suggest that it effectively increased upperclassmen involvement. Prior to its implementation, consistent volunteer participation was relatively low. Following the introduction of the award, we observed a marked increase in the number of students volunteering five or more times, with some participating in more than ten shifts. Additionally, both the total number of clinic shifts covered over the academic year and the average number of shifts worked per student increased. This trend suggests that the award served as a clear and tangible incentive for students to engage more consistently with the clinic. Notably, the decrease in one-time volunteers suggests that the award not only served as an immediate motivator but also fostered a broader commitment to continued engagement. By establishing a clear target for eligibility, the award encouraged students to exceed the minimum requirement, deepening their involvement with the clinic.

While formal recognition can be effective, medical students are motivated to volunteer in SRFCs by a variety of intrinsic and extrinsic factors. One key motivation is exposure to underserved populations, which deepens their understanding of health disparities and social determinants of health, strengthening their commitment to addressing health inequities in their future careers.<sup>19,20</sup> Additionally, SRFCs provide hands-on clinical experience, allowing students to perform essential tasks such as taking patient histories and conducting physical exams. These experiences enhance clinical skills while improving communication with diverse patient populations.<sup>21,22</sup> Volunteering in SRFCs also fosters personal and professional growth, helping students develop qualities like empathy, leadership,

and civic responsibility.<sup>23</sup> Many report improved self-awareness, decision-making, and interpersonal skills—qualities essential to becoming well-rounded physicians.<sup>24,25</sup> In addition to educational and altruistic motivations, students may also be influenced by how volunteerism is perceived in the residency application process. Residency programs highly value service and leadership, and volunteering in SRFCs provides students with an opportunity to highlight these qualities in their Electronic Residency Application Service (ERAS) submissions.<sup>26,27</sup> While all student volunteers may list their clinic participation, the *Lighthouse Distinguished Service Award* offers an additional way to distinguish themselves, further emphasizing their commitment to serving vulnerable communities.

Beyond awards, several other institutional strategies have been explored to incentivize sustained student participation in SRFCs. For example, over 30% of clinics offer elective credit for student volunteers.<sup>2</sup> Some SRFCs are also integrated into longitudinal clerkship programs, particularly those designed to increase the number of medical students pursuing careers in primary care or working with underserved populations.<sup>28</sup> In these programs, participation in SRFCs is a required component. Many medical schools also implement service-learning requirements focused on addressing community needs, through which students can earn credit or fulfill hours by working in free clinics.<sup>29</sup> These various approaches offer alternative strategies for encouraging sustained student engagement in SRFCs.

### Limitations

While our findings suggest a positive impact of the *Lighthouse Distinguished Service Award*, several limitations must be considered. Most notably, there are confounding factors that may influence upperclassmen to continue volunteering beyond the impact of the award. The LFMC fosters a sense of community and benefits from exceptional leadership, including student managers, faculty, and other allied health volunteers. It provides an environment where students can build lasting relationships with attendings, residents, and even patients, which may encourage ongoing participation. Additionally, other motivators such as hands-on learning opportunities, professional development, or a personal commitment to underserved populations may also contribute to ongoing involvement.

Another key limitation is the inability to control changes in student cohorts or recruiter enthusiasm between the study years. Although the award was the primary intervention and volunteer recruitment procedures remained consistent—weekly emails, with clinic managers maintaining similar communication styles and enthusiasm levels—subtle differences in recruitment approaches or peer encouragement may have influenced the observed outcomes.

Furthermore, the study took place at the LFMC associated with the University at Buffalo and may not be generalizable to other SRFCs. Finally, there is no similar reported data on SRFC volunteer frequencies to which our results can be compared. Nevertheless, we believe our methodology effectively assessed the impact of a volunteer recognition program and provides valuable insights into strategies for enhancing student engagement in SRFCs.

## Conclusion

Following the introduction of the *Lighthouse Distinguished Service Award*, we observed an increase in both the frequency of upperclassmen volunteer participation and the total number of clinic shifts covered over an academic year. By encouraging consistent engagement, this initiative fosters a core group of experienced volunteers and promotes greater continuity in clinic operations. This recognition-based approach may serve as a replicable framework for other organizations seeking to assess and improve volunteer retention in student-run clinics.

### Disclosures

The authors have no conflicts of interest to disclose.

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