PEARLS (Perspectives on Equity Advancement: Research and Learning Symposium), a Case Report in Promoting DEI in a Medical School Setting

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Abstract: PEARLS (Perspectives on Equity Advancement: Research and Learning Symposium) was a student-led, faculty-mentored, year-long initiative culminating in a symposium with three components: (1) “Change Agents”, where faculty leaders presented their research and advances in DEI and the impact on the community; (2) The “15% Better” initiative, which promoted individual commitments to improving DEI in the Frank H. Netter School of Medicine at Quinnipiac University through reflection on a monthly prompt and review of selected educational resources; and (3) “Grand Rounds Pitches” where student-designed scholarly DEI initiatives received competitive seed grants alongside a mentorship team that help support their project to completion. The 2022 post-event survey (RR 58%) showed that 100% of respondents felt inspired to engage more deeply in DEI after seeing the faculty’s work, felt committed to at least one action that furthers their learning or promotes DEI broadly, and were better able to describe student-led DEI projects. In total, 94% of respondents felt more connected to faculty and students advancing DEI in the school of medicine community and 91% felt a greater sense of belonging. The 15% Better initiative strengthened the belief that small individual DEI commitments can result in substantial positive changes for 73%, while 27% already believed this. In total, 61% were more likely to engage in DEI efforts this year and 36% already planned to engage. Qualitative data highlighted themes of inspiration, positive impact, and actionable change. PEARLS stands as an easily reproducible way for higher education institutions to engage their community in DEI strategies through its foundational elements of promoting belonging, fostering inspiration, and encouraging commitment to action.

Keywords: DEI; equity advancement; symposium; change agents; 15% better; grand rounds pitches

1. Introduction

The COVID-19 pandemic uncovered both new and old health disparities in the United States and highlighted a need for internal reflection to eradicate systemic inequalities. Surveys distributed nationally within the U.S. on health attitudes like the COVID-19 and the Experiences of Populations at Greater Risk Survey [1] indicate that, while the initial wave of the pandemic and the new awareness of racial injustices in 2020 brought these concerns to the forefront of many people’s minds, the sense of urgency felt then will wane with time if it is not rekindled. The proportion of survey respondents who felt that people of color faced disparate impacts from the COVID-19 pandemic, or that disproportionately poor healthcare outcomes for people of color were a result of systemic racism, steadily declined from July 2020 to September 2021 [2]. Despite this decline, nearly 66% of respondents remain interested in remedying perceived health disparities. As such, it has become clear that there is a need and a desire for timely initiatives which capitalize on the nation’s rediscovered commitment to racial and social justice.

Many institutions in medical education, including the American Association of Medical Colleges [3], have since identified the need for dedicated attention to diversity, equity,
and inclusion (DEI). Intentional steps to establish DEI-specific programs, academies, and offices have exploded in medical schools and professional societies in the United States in recent years. These programs have been shown to increase scholarly activity in DEI [4], improve learners perceived self-efficacy as leaders in DEI academic work [5], and encourage thoughtful reflection on progress and DEI quality improvement initiatives for these institutions [6]. Additional studies have shown that students who engage in a diverse learning environment develop more positive feelings about diversity [7,8]. In recent years, the need to cultivate physicians who participate in social justice as a part of their career is becoming clearer, as the field continues to critically examine medical education and the effects of systemic discrimination throughout the institution’s history [9].

As the pandemic progressed, medical students at the Frank H. Netter MD School of Medicine (“Netter”, located at Quinnipiac University in North Haven, Connecticut), noticed a heightened readiness amidst our community to engage with positively transforming work. In response, the Equity Inclusion and Diversity Collective (EID-C), a student group at the Netter School of Medicine, devised a new event, Perspectives on Equity Advancement Research and Learning Symposium (PEARLS), to incite innovation within our community by generating, supporting, and inspiring solutions that advance DEI.

PEARLS is a novel, easily reproducible initiative that inspires equity advancement via three avenues: (1) sharing the current efforts made by faculty change-makers in DEI, (2) generating innovative solutions in DEI via the 15% Better Initiative [10], and (3) presenting student grand round pitches. Faculty change-makers were invited to speak on their work in DEI so that attendees can learn from the positive efforts already occurring within our community. The 15% Better Initiative was created in order to generate new engagement by encouraging small personal actions that all community members can do immediately to advance DEI and precipitate change, such as learning about a new person’s story or reflect or reflect on one thing you wish others could know about you. Lastly, students were selected to present during the DEI grand rounds, where they pitched scholarly proposals to an audience and received feedback. Students who were selected for this presentation received grant funding and mentorship for the following year to support their projects.

PEARLS also augmented Netter’s existing Educational Program Objectives (EPOs) [11] for both the organizers and attendees of the event. Student organizers, supported by faculty mentors, identified DEI service and scholarly work as an opportunity for positive advancement and an area of much-needed growth. Accordingly, student organizers developed the skills to produce the event itself and define measurable outcomes for quality improvement initiatives in future iterations of the event (ALS 1–5). Devising such an event allowed for student organizers to participate in collaborative professional and personal identity formation as a part of overcoming logistical and ideological obstacles during the process (PPD 1–7).

For attendees, the faculty change-maker presentations were excellent opportunities for students to see how established professionals select, engage in, and complete scholarly work that furthers DEI and engages in efforts to reduce health disparities (SBP 5, 6). Additionally, students who presented their pitches during the grand rounds individually identified resource barriers, applied principles of partnership development, and in many cases had already begun to actively engage local and regional communities to address these disparities (KP 4, 9; CPCR 1–3).

In this Case Report, we present a schematic of the PEARLS event held at the Netter School of Medicine in March 2022 and the results of its implementation.

2. Model Creation and Objectives

2.1. Model Creation and Community Wide Goals

PEARLS was developed to improve DEI at both the community and individual levels. This involved the creation of an evidence-based model to inform the development of PEARLS.
PEARLS's primary objective, as demonstrated at the top of Figure 1, was to continue to shift our community and set of individual constituents towards a state of belonging. We drew heavily on the definitions that state:

“Othering is a set of dynamics, processes, and structures that engender marginality and persistent inequality across any of the full range of human differences based on group identities . . . ” while, “Belongingness entails an unwavering commitment to not simply tolerating and respecting difference but to ensuring that all people are welcome and feel that they belong in the society [12].”

Figure 1. Model for the Frank H. Netter MD School of Medicine Initiative on the Promotion of Equity Advancement and Belonging within Community and Individuals.

To promote a state of belonging, we drew from the principles of the WIN Theory of Change [13]. The WIN Theory of Change identifies an essential counterpart to a history of systems change theory solely focused on adversity and urgent needs. The WIN Theory of Change aims to transition communities from legacies centered on trauma and exclusion to those legacies centered on inclusion and belonging. It suggests communities that nurture via dignity and inclusion, invest in the vital conditions for thriving (such as civic engagement), and exhibit shared stewardship will achieve greater health equity and well-being. The WIN Theory of Change was selected as a model for a medical school setting, as their theories include moving away from treating sickness and moving towards an environment of thriving, focusing on well-being for both patients and physicians [13]. The PEARLS mission seeks to create a space for belonging and well-being in a medical education setting, while acknowledging the history of othering and exclusion in medicine and the world, mirroring the WIN Theory while specifying it for medical education. We designed PEARLS as a call to action for those in our community who were willing to join together as shared
stewards committed to civic engagement both within the Netter community and in the greater New Haven-area community with the aim to shift the community toward nurturing legacies centered in inclusion and belonging [13].

2.2. The Role of Individuals as Shared Stewards

At the inception of the PEARLS initiative, founders performed a literature review on the history of exclusion and created internal awareness for the communities that had historically been othered. It was envisioned that through PEARLS, individuals in our community could contribute to the shift toward belongingness by 1. promoting awareness of DEI, 2. sharing inspiration, and 3. committing to action and advocacy.

First, each project presented throughout the initiative highlighted awareness of an area of diversity, equity, and inclusion. Secondly, our initiative aimed to inform change from a position of strength and chose to amplify the voices of those in our community who are excelling and contributing to DEI in a positive way. Illuminating these voices created the potential for those excelling to inspire others and connect the community of stewards who share a common goal. Thirdly, we encouraged individuals to make large and small commitments and take action. Our 15% Better Initiative incited small changes that in total would summate to community wide change while our Student Grand Round Pitches (SGRP) were institutionally funded, scholarly projects that would make larger, more longitudinal impact.

Our initiative culminated with a Research and Learning Symposium where we shared and learned from the community and individuals. Individuals were expected to leave the Symposium with an improved ability to: identify medical school faculty who are developing initiatives to advance DEI in medical education, explain at least 3 individual actions/initiatives that promote DEI, commit to at least one action that furthers their own learning in DEI or promotes DEI more broadly, describe student-led scholarly DEI projects at the medical school, and connect with the medical school community that is working to advance DEI. Attendees of the symposium were sent a follow-up survey after the event to measure how well these objectives were met.

3. SGRP Implementation

The Student Grand Round Pitches (SGRP) portion of PEARLS was designed to encourage and showcase medical students who are engaging in DEI work in the community. The Frank H. Netter MD School of Medicine Inclusion and Diversity Council (IDC) offered a grant of $3000 to allocate to students to help them accomplish their goals, and receipt of the SGRP grant also included mentorship and support from the EID-C and IDC, to fully help nurture the projects beyond a monetary means. The initial goal was to fund three projects with $1000 each. PEARLS SGRP council members met weekly to create a Microsoft application form to allow students to submit their proposals for review. PEARLS planning team members who were a mix of faculty, first-year medical students, and second-year students advertised the application to Netter medical students as an opportunity for students interested in DEI to receive funding and an opportunity for dissemination.

Applicants utilized the standardized Microsoft application forms to submit their project proposals. Proposals (n = 5 were received) were scored by a committee of PEARLS leaders blinded to project submitter names. One committee member not involved in grading was unblinded to communicate with project submitters to answer questions and deidentify projects. SGRP project submissions were evaluated by a holistic and numerical rubric based on a grant proposal rubric released by the Northern New York Library Network [14] (found in Supplemental Figure S1). The final rubric creation was drafted and voted on by EID-C PEARLS leadership. Each potential project submitted a proposal to a vetted template (Supplemental Figure S1). Each project was evaluated in seven content areas: innovation, justification, relationship to PEARLS strategic vision and/or community’s goals, feasibility, efficiency of tactic/approach, assessment of impact, and sustainability. Proposals were evaluated by quantitative and narrative methods. Each grading committee member (n =
6) first scored each project in the seven content areas by providing a score between 0 to 4 and then tallying all area scores into an overall project score. In addition, each content area and the overall project had a section on the rubric for narrative comments for holistic grading. The grading committee met to discuss project scores and narrative comments with unblinding of projects occurring after scoring. Narrative comments and grader scores were then shared with each project submitter after the grading period ended, and acceptances were granted, pending the submitter’s ability to address committee concerns. Four projects moved onto present out of the 5 initial submissions. Three of the 4 received funding amounting to $1000 to cover project costs as outlined in a budget sheet each submitter completed in their proposal (Supplemental Figure S1). Compensation was waived for the fourth project, which was a school-based research capstone with its own funding.

Leading up to the event, SGRP team members offered support to SGRP recipients in order to develop and refine presentations and prepare for the event. On the day of PEARLS, three of the recipients were in attendance to present, and one recipient pre-recorded their presentation which was played for the attendees. After each presentation, audience members had the opportunity to engage with the presenters to offer feedback. This feedback included encouragement, connections to other community organizations, other dissemination opportunities, and suggestions for alternative methods or outcomes. At the closing of PEARLS 2022, recipients received $1000 and were instructed to prepare for a check-in from a team member of PEARLS during the next academic year, at which time the PEARLS team would be updated on the students’ progress and offer further support if needed. The goal is to have PEARLS 2022 SGRP award recipients share updates on their work at PEARLS 2023, to highlight the impacts of students in the community, especially when given funding and support. In summary, SGRP is a unique format for student grant recipients designed to encourage work advancing DEI and limit obstacles by providing funding and mentorship to students and encouraging dissemination in a collegial environment.

4. Implementation of the 15% Better Initiative

The 15% Better Initiative addressed the increased need and readiness at the Netter School of Medicine for change and engagement in eradicating systemic inequities. Specifically, the initiative was developed to provide guidance and inspiration for those who are interested in advancing diversity, equity, and inclusion, but are unsure of where or how to start. The model implemented was inspired by the literature, “The Power of Liberating Structures” [10], which outlines the significance of liberating structures that promote change and transformation in an accessible way for everyone. As endeavors to incorporate the 15% Better framework have been documented in other fields of practice, (media/psych, business, education, retail, etc.), this initiative was created to support the Netter, Quinnipiac University, and North Haven communities.

15% Better was implemented in monthly installments in the form of a Canva poster that was emailed to the community. The Canva consisted of three components centered around a monthly theme: a word cloud, a brief reflection, and a compilation of resources that had been reviewed by a team of faculty and staff. The review team worked to develop resources that were accessible, integrative, and wide-reaching, offering articles, podcasts, YouTube videos, etc. The prompts for both the word cloud and reflection were written and reviewed by the 15% Better team members, with the intention of encouraging individual reflection and specific actions or commitments from community members, however small, and emphasizing that anyone could engage with DEI work and create sustainable change. The themes for November 2021, December 2021, and January 2022 were, “Allyship”, “Intergenerational Legacies Centered in Inclusion and Belonging” and “The Intersection of Culture and Personal Identity”, respectively. The themes were selected by a diverse student and faculty team and offered an opportunity to center celebration and awareness about identity and culture while encouraging members of the community to be action oriented. Figures 2–4 demonstrate the Canvas and word cloud responses that were sent and received in Novem-
ber, December, and January. Figure 5 includes each month’s theme, short response, and word cloud prompts in a consolidated table.

A final word cloud and prompt were offered to members of the audience during the PEARLS event. The intention of this final iteration of the 15% Better Initiative was to inspire post-event action and engage audience members who had not previously engaged with the monthly activities. As a collaboration between Netter’s Student National Medical Association (SNMA) chapter and EID-C, the following question was posed to the audience: “How can I contribute to building community and belonging?” Audience members were able to submit their responses live, and the word cloud was generated on the screen of the event space so that participants could watch other community members’ answers appear in real time.

Figure 2. (a,b) Monthly Canva circulated through the Quinnipiac Community for November: “Allyship” (c) Word cloud response to the question “How does an ally support others?” The size of the text correlates to the number of times the word was used in a response.
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Figure 3. (a, b) Monthly Canva circulated through the Quinnipiac Community for December: “Intergenerational Legacies Centered in Inclusion and Belonging” (c) Word cloud response to the question “What do you feel when you feel like you belong?” The size of the text correlates to the number of times the word was used in a response.

Figure 4. (a) Monthly Canva circulated through the Quinnipiac Community (single page) for January, “The Intersection of Culture and Personal Identity” (b) Word cloud response to the question “How do your surroundings best support you and your cultural identity in being your authentic self?” The size of the text correlates to the number of times the word was used in a response.
5. Change Agents Implementation

Three faculty members from the Frank H. Netter MD School of Medicine were selected to speak during the ‘Change Agents’ segment, which featured faculty who have been engaged in research or non-research projects within a clinical or school-based academic setting to advance DEI within their respective roles. To select presenters, PEARLS team members sent a message to all faculty at Netter, and additionally reached out to specific faculty who were known to be active in DEI research. The selected speakers intentionally covered a variety of topics, some of which were specific to the medical system and one which was not. Each was tasked with not only discussing their involvement and findings, but heavy emphasis was also placed on delivering relevant, actionable advice to audience members [who consisted of faculty members alike, medical students, and others] to use in their own professional environments. On the symposium day, the three faculty members each gave a 5–7-min presentation, followed by a Q&A session. The brief presentation slots allowed for further discussion time in other arenas of the conference, to divide the event equitably between each element. Topics included: a pathway to medicine program, incorporating Social Determinants of Health (SDoH) into the care of hospitalized children, and SDoH in medical education (official titles of the presentations and their authors are listed below).

- **In the Pipeline vs. On the Pathway** by Dean Charles Collier, MS
- **Incorporating Social Determinants of Health and Anti-Racist Practice into the Care of Hospitalized Children** by Dean Steve Paik, MD, EdM
- **Social Determinants of Health Education: A National Survey of US Medical Schools and PA Programs** by Dr. Anna-Leila Williams, PhD, MPH

6. Outcomes

6.1. 15% Better: Word Clouds and Narrations

Allyship was the theme for the first month (November 2021) that the 15% Better initiative was implemented (Figure 2). The short response question was “What is one small thing you can do tomorrow without any additional resources to become a better supporter of a friend or colleague who is in need of allyship?” We received 19 responses, 10 responses...
identifying that they were submitted by a student and 7 identifying that they were not students while 2 chose not to identify themselves as either. Some noteworthy responses include “Listen, understand and empathize”, “Learn how to address microaggressions appropriate in the moment and afterwards”, and “Reading and learning about different perspectives in order to be able to provide better support”. The word cloud prompt for November was “How does an ally support others?” We received a total of 38 responses, 27 via website submission (polleverywhere.com) and 11 through text submissions. Notable word submissions from the word cloud were: Listening (15 submissions), empathy (3 submissions), and privilege (both using and checking privilege; 2 submissions) (Figures 2c and 6a). In all word clouds, the size of the text correlates to the number of times the word was used in a response.

For the second month, December 2021, intergenerational legacies centered on inclusion and belonging was chosen as the theme (Figure 3). The short response question was “What is one thing you wish you could tell the world about your background?” We received 14 responses, 11 from students and 3 who were not students. Some noteworthy responses include “My parents are from generations of fishermen, but don’t know how to swim!”, “I am a scientist and a woman of faith”, and “I think food and music are the focal points of my background I would love to share”. The word cloud prompt for this month was “What do you feel when you feel like you belong?” We received 56 responses, all submitted through the website. Notable word submissions from the word cloud were: Comfortable (4 submissions), happy (3 submissions), love/loved (4 submissions), connection/connected (2 submissions), and free (both free to express and free to be vulnerable; 2 submissions) (Figures 3c and 6b).

For the final month that the 15% Better initiative was implemented (January 2022), the intersection of culture and personal identity was chosen as the theme (Figure 4). For the short response portion, respondents were asked to write a few lines finishing the sentence “Where I’m from . . . ” We received 8 responses, 4 from students and 4 from community members. Some noteworthy responses include “I am from loud. Loud people, loud music, loud, beating hearts”, “I am from the neighborhood of playing in the streets until called for dinner”, and “I’m from a small town of kind people. . . we called our town a bubble because it was very protected”. The word cloud prompt for this month was “How do you your surroundings best support you and your cultural identity in being your authentic self?” We received 30 responses, all submitted through the website. Notable word submissions
from the word cloud were Curiosity (3 submissions), allyship (3 submissions), and no judgment/assumptions (2 submissions) (Figures 4b and 6c).

It should be noted that respondents were able to submit multiple submissions, so the number of responses each month does not indicate the number of people who engaged in the initiative. There were no limits as to how many times respondents engaged with this survey.

Figures 6d and 7 display the responses from audience members during the live PEARLS event word cloud, where the question asked was “How can I contribute to building community and belonging?”. The most common responses were Love (8 submissions), listening/active listening/listen (10 submissions), and support (6 submissions).

6.2. Assessment Survey

After the PEARLS symposium, attendees were sent a follow-up survey to evaluate the effectiveness of the symposium in meeting our learning objectives. In total, 38 responses were received, out of 66 attendees, for a response rate of 58%. The first section of questioning was a Likert scale, where respondents could select how strongly they agreed with some of the intended outcomes of the PEARLS conference. As seen in Figure 8a,b, 100% of attendees who indicated their opinion (n = 6 selected “N/A”) agreed that the learning objectives of PEARLS were met and that the conference provided them with skills or knowledge for their role in medical school. Similarly, 100% felt that they were better able to identify Netter faculty who are developing initiatives to advance DEI (Figure 8c), and the same number reported feeling inspired to engage more deeply in DEI work after hearing the Change Agents speak (Figure 8d). In total, 96.9% reported feeling better able to explain actions or initiatives that promote DEI (Figure 8e), and 100% reported feeling able to commit to at least one action that further promotes their learning in DEI or advances DEI more broadly (Figure 8f). As far as the Netter community-related objectives, 100% of respondents felt better able to describe student-led scholarly DEI projects at Netter (Figure 9a), and 93.8% of respondents felt more connected to members of the Netter community working to advance DEI (Figure 9b). In total, 90.6% of respondents reported feeling a greater sense of belonging to the Netter community in general (Figure 9c) and 93.8% of respondents felt engaged through the event (Figure 9d).
The next two questions on the survey were intended to gather information on the potential effect that PEARLS would have on student beliefs and actions. In total, 72.7% of respondents indicated that more advertising would have improved attendance at the event. In total, 10.5% indicated that the length of speaking relative to break time could be better. In total, 5.3% (one respondent) thought that more time for the faculty Change Agents and the remaining 5.3% (one respondent) thought that the timing of the event could be improved, with 15.8% saying that they would have liked to have had more time for the symposium in the future and providing the space for respondents to leave any other comments. When asked what the most impactful part(s) of PEARLS were, 77.3% (n = 22 responses to this question) of respondents mentioned the Student Grand Round Pitches and 27.3% of respondents referenced holding the symposium at a different time of day or on a different day, with concerns related to scheduling and attendance. In total, 21% indicated that the symposium in the future and providing the space for respondents to leave any other comments was with a background in visual arts, who was invited to create a piece of art representing the PEARLS event was to include an artist in residence. This was a Netter medical student with a background in visual arts, who was invited to create a piece of art representing the PEARLS event. The artwork was displayed at the event, as seen in Figure 10. November 2021.

15% Better initiative word cloud responses (seen in Figures 2c and 6a). One respondent, or 3%, reported not intending to engage in DEI efforts over the next year and PEARLS having no effect on their intentions. One respondent, or 3%, reported not intending to engage in DEI efforts over the next year and PEARLS having no effect on their intentions. No respondents reported PEARLS having a negative effect on their belief on this subject. In total, 60.6% of respondents reported PEARLS having no effect on their belief that small individual commitments related to DEI can result in the substantial positive change (i.e., 15% Better) in their community. The remaining 27.3% of respondents selected that there was no effect from PEARLS on this belief because they already held this belief. No respondents reported a negative effect from PEARLS on their beliefs on this subject. In total, 60.6% of respondents reported PEARLS having no effect on their likeliness to engage in DEI efforts because they already planned to engage in DEI. One respondent, or 3%, reported not intending to engage in DEI efforts over the next year and PEARLS having no effect on their intentions.

The final set of questions was open-ended, asking respondents about the parts they found the most impactful about the symposium, what they recommended to improve
the symposium in the future and providing the space for respondents to leave any other 
comments. When asked what the most impactful part(s) of PEARLS were, 77.3% (n = 22 
responses to this question) of respondents mentioned the Student Grand Round Pitches 
portion of the event. Other major themes were the 15% Better initiative (18.2%) and 
faculty Change Agents (27.3%). In total, 9.1% of respondents referenced being impacted 
by the amount of feedback and engagement seen from faculty to the student presenters. 
When asked about ways to improve the event (n = 19 responses to this question), 21% of 
respondents referenced holding the symposium at a different time of day or on a different 
day, with concerns related to scheduling and attendance. In total, 21% indicated that the 
timing of the event could be improved, with 15.8% saying that they would have liked more 
time for the faculty Change Agents and the remaining 5.3% (one respondent) indicated that 
the length of speaking relative to break time could be better. In total, 10.5% of respondents 
indicated that more advertising would have improved attendance at the event.

7. Artist in Residence

In an effort to embody inclusion in as many ways as possible, a final element of the 
PEARLS event was to include an artist in residence. This was a Netter medical student 
with a background in visual arts, who was invited to create a piece of art representing the 
November 2021 15% Better initiative word cloud responses (seen in Figures 2c and 6a). The 
artwork was displayed at the event, as seen in Figure 10.

8. Discussion

8.1. Discussion of Results

The inaugural PEARLS event can be considered, overall, a great success in engaging 
the community and spreading awareness about DEI efforts in a medical school setting. 
Although there was relatively low attendance, given that Netter is a school of 395 students 
and 35 full-time medical faculty and there was a total of 66 attendees that night, the self-

Figure 10. Painting by the Artist in Residence, based on responses seen in Figures 2c and 6a, plus artist’s interpretation.

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Although there was relatively low attendance, given that Netter is a school of 395 students 
and 35 full-time medical faculty and there was a total of 66 attendees that night, the self-
selection of attendees made the environment of the event one where each viewer and 
each presenter was in attendance deliberately and wholeheartedly. This can be seen in 
the survey data collected. Of the 66 attendees of the event, including participants and the 
planning team, 38 responses were received from the feedback survey, leading to a response 
rate of 58%. As demonstrated in Figures 8 and 9, 100% of those who filled out the survey 
agreed with most of the goals and metrics posed in the survey. Although it was not a 100%
response rate, it can be inferred that many attendees felt engaged with the community and inspired to enact change through the event.

Attendees overall reported benefiting from the student Grand Round Pitches and were inspired by the dialogue between students presenting and others in the audience. The SGRP section of the event was structured such that students were presenting pitches, not fully polished proposals, and the audience was able to provide feedback to the students immediately following each pitch. This feedback included encouragement, connections to other researchers that were doing work in a similar field, and several faculty members suggested that students take their projects to a larger scale to maximize their impact on the community at Quinnipiac University as well as the greater medical education community.

Another element which attendees reported enjoying was the group word cloud, the final portion of the event, as a part of the 15% Better initiative. All attendees were able to submit words to the cloud and watch as the cloud grew in real time on the projected screen. The Change Agents portion was also well-received, with many responses stating that faculty work in DEI was previously not known, and students were happy to hear from some faculty in administrative roles. This positive feedback about 15% Better and the Change Agents presentations encourages the idea that members of a medical school community can become closer to one another and inspired by one another when given an opportunity for open dialogue and learning in a safe and supportive environment.

Previous research has suggested that attitudes towards diverse environments were more positive if students from diverse backgrounds interacted in educational environments [7,8]. PEARLS has offered a platform for students and faculty of a variety of backgrounds and allowed for dialogue between those currently pursuing DEI research and action, and those potentially interested in the field of DEI. Results from the post-event survey suggest that audience members were engaged and felt more likely to involve themselves in DEI-promoting work (Figure 8a, c). Other medical education conferences to increase inclusivity in the education setting have attributed their success to elements such as engaged faculty members and audience dialogue [15], and ours is much the same. However, reports such as LeBlanc et al. [15] have focused on inspiring audience members to consider DEI initiatives, whereas PEARLS is providing actionable engagements for both the SGRP recipients and suggestions for the greater community through the 15% Better initiative. To our knowledge, there are no other case reports detailing student-led symposium-style initiatives aiming to advance DEI and build community at the medical school level.

8.2. Limitations of Findings

One limitation which must be stated is that the planning team, who attended the PEARLS event, as well as the speakers at the event, were not clearly instructed whether to fill out the post-event feedback form. Therefore, some quantity of responses may be attributed to attendees who were on the planning committee, potentially reflected in a more positive feeling about the event. Additionally, the event was held between 5:00 and 8:00 pm which could have limited attendance due to the faculty member or student obligations outside of traditional school or business hours.

The year-long commitment to the 15% Better Initiative was also expectedly low, as community members were unfamiliar with the initiative. The Canva documents were circulated among the school community primarily via email, and planning team members speculate that the participation may have been higher if students and faculty had been told verbally about the initiative and its implications and engaged during class time. To test this hypothesis, the planning team inserted a component of the 15% Better initiative into the symposium day, where response rate and participation dramatically increased upon engaging participants in real time rather than requiring their response through the email chains. Similarly, the relatively low number of applicants to the Student Grand Round Pitches may be attributed to students not knowing about the opportunity to receive funding and to speak at a conference. The Change Agents section of the event was constrained
mostly by time, as all speakers were told to limit their presentations to ten minutes. Many attendees reported wishing these speakers had had more time, as the explanation of the background, methodology, and results were challenging for presenters, especially given the intricacies often present in explaining and conducting research in the DEI space.

9. Conclusions

PEARLS developed a three-part model that focused on community and student-driven Diversity Equity and Inclusion initiatives directed at enacting change within the Netter community and the New Haven, CT community at large. This model is particularly important with the rapidly changing social climate triggered by the pandemic which exposed preexisting and systemic issues impacting different racial and social-economic groups. Hence, there is an increasing interest and need to raise physicians that are culturally sensitive, competent, and driven toward social justice and change. The multilevel approach which was driven by students and supported by faculty posed a strength in this model and encouraged team dynamics. This increased sense of ownership amongst students who served as leaders of this initiative and facilitated students to connect with a common collective.

PEARLS was especially successful in accomplishing its aims of raising awareness for current student and faculty-led DEI initiatives via Change Agents and Student Ground Round Pitches as participants reported feeling inspired by these initiatives and felt better equipped with knowledge of faculty involved in advancing the DEI in the community. In addition, through the 15% Better Initiative, students and faculty were provided educational resources, and encouraged to make small changes within the community which resulted in students reporting an increased sense of belonging and ability to commit to student-led DEI projects at Netter.

Short-term goals for PEARLS 2023 include expanding community awareness through increased advertising, encouraging greater student involvement in programming and planning, and optimizing the timing of the event to allow for maximum impact on the community without increasing the length of the event so that attendees remain engaged as much as possible. We anticipate that as PEARLS continues to become known in the Netter community, engagement and attendance will increase, as well as participation in the initiatives throughout the academic year. An additional goal is to expand beyond the medical school and to engage in an interprofessional manner with the wider Quinnipiac University community. To ensure both sustainability and expansion of PEARLS, immediately following the symposium, medical students and faculty began planning for PEARLS 2023, and developed strategies for recruiting incoming students from medicine and other health sciences disciplines.

The model described in this paper contributes to the development of programming within medical education that equips medical schools with a blueprint to integrate DEI education within their curriculum. Although further work to amplify change is needed, engagement in PEARLS by other medical institutions has the potential to equip medical students and faculty to meet the needs of patients from all cultural backgrounds and provide a positive stimulus for physician involvement in DEI.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/educsci12090586/s1, Supplemental Figure S1: SGRP application, rubric, and budget sheets.

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Abbreviations

DEI (diversity; equity; and inclusion); EID-C (Equity Inclusion and Diversity Collective); PEARLS (Perspectives on Equity Advancement Research and Learning Symposium); SGRP (Student Ground Round Pitches); SNMA (Student National Medical Association).

References


