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Making Reflection Assignments Meaningful and Enjoyable for **Health Professions Students and Faculty**

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Abstract

Purpose: Recognizing the professional and personal benefits of self-reflection, health professions programs routinely incorporate reflection activities into their curricula. However, designing, administering, and grading engaging, meaningful reflection activities that can be utilized for in-person or online teaching can be challenging for faculty and less than enjoyable for students. This study explored student perceptions of a shared activity using photovoice to stimulate individual and group reflection and discussion of learning during clinical experiences. Methods: Second year, doctor of physical therapy students were asked to reflect on their clinical experiences. During the semester-long assignment, each student completed a photovoice slide representing their experience. Slides were shared and discussed with classmates on the last day of class. Student impressions were captured via anonymous survey. Results: Forty-three students completed the assignment and participated in the post-activity survey. An inductive, semantic thematic analysis was utilized, and independently coded themes were discussed, refined, and externally reviewed. Three primary themes emerged from the survey data: students enjoyed the assignment; the photovoice technique encouraged meaningful, deep reflection; and reflections extended beyond the student and focused on patients. Conclusions: Students reported overwhelmingly positive responses. The photovoice project was personally meaningful, and students enjoyed the freedom to be creative without strict rubric requirements. Students also enjoyed sharing and discussing their reflections and identified this as an important difference from other more traditional reflective assignments. Easily developed and administered photovoice projects are effective at facilitating enjoyable, reflective learning activities that can be shared among classmates or across disciplines in online or inperson learning environments.

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ABSTRACT

Purpose: Recognizing the professional and personal benefits of self-reflection, health professions programs routinely incorporate reflection activities into their curricula. However, designing, administering, and grading engaging, meaningful reflection activities that can be utilized for in-person or online teaching can be challenging for faculty and less than enjoyable for students. This study explored student perceptions of a shared activity using photovoice to stimulate individual and group reflection and discussion of learning during clinical experiences. **Methods**: Second year, doctor of physical therapy students were asked to reflect on their clinical experiences. During the semester-long assignment, each student completed a photovoice slide representing their experience. Slides were shared and discussed with classmates on the last day of class. Student impressions were captured via anonymous survey. Results: Forty-three students completed the assignment and participated in the post-activity survey. An inductive, semantic thematic analysis was utilized, and independently coded themes were discussed, refined, and externally reviewed. Three primary themes emerged from the survey data: students enjoyed the assignment; the photovoice technique encouraged meaningful, deep reflection; and reflections extended beyond the student and focused on patients. Conclusions: Students reported overwhelmingly positive responses. The photovoice project was personally meaningful, and students enjoyed the freedom to be creative without strict rubric requirements. Students also enjoyed sharing and discussing their reflections and identified this as an important difference from other more traditional reflective assignments. Easily developed and administered photovoice projects are effective at facilitating enjoyable, reflective learning activities that can be shared among classmates or across disciplines in online or in-person learning environments.

Keywords: reflection, health professions students, physical therapist education, photovoice

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INTRODUCTION

Engaging in self-reflection has multiple professional and personal benefits, including improved clinical reasoning, increased self-confidence, reduced stress and anxiety, and overall enhanced learning.^{1,2,3} Recognizing these benefits, academic programs routinely implement various self-reflection activities in curricular plans. Teaching self-reflection is especially important in undergraduate, masters, and doctoral health professions programs as it helps prepare graduates for challenging, ambiguous, and constantly changing practice environments common in today's healthcare settings.^{1,3,4} However, designing and executing engaging, meaningful didactic or clinical-related reflection activities can be not only challenging but also time consuming for both students and faculty in health professions education programs. Additionally, designing an activity where final products can be easily shared and meaningfully discussed among classmates during in-person or online sessions can make the process even more difficult. The purpose of this study was to assess the use of photovoice as a teaching strategy to foster individual and large group reflection among doctoral physical therapist students. The study examined (1) perceived student benefit from completing a photovoice assignment, (2) how the photovoice format differed from other reflective assignments, and (3) student experience sharing and discussing their personal photovoice slides with others.

Photovoice is a low-stress, action research teaching strategy that utilizes a visual arts-based methodology to encourage and promote deep self-reflection, creativity, and critical thinking that can result in meaningful changes in student beliefs, attitudes, and behaviors.⁵⁻¹¹ Additionally, students typically respond positively to photovoice activities which may facilitate deeper engagement and learning.^{6,8-13} The foundation of photovoice is based on the work of Paulo Freire, a seminal researcher in the field of critical pedagogy, who believed individuals could raise their critical consciousness or create new meaning of subject matter through the analysis of images.^{5,14}

The first step in developing a photovoice project for health professions students at any level (undergraduate, graduate, doctoral) is to develop a question for students to reflect upon that is directly linked to didactic or clinical content.⁵ Students are asked to document their experience interacting within a certain environment or observing a specific phenomenon by capturing a single photographic image that visually conceptualizes their lived experience.^{5,10,15} Students then write a brief reflection paragraph or caption explaining how their image represents knowledge gained from their learning experience.¹⁴ Each student creates a slide with their image and reflection. Slides are then shared and discussed with classmates allowing students to find commonalities and themes in their work, which reinforces learning and facilitates deeper reflection.⁵ Additionally, reflective discussions among classmates has been shown to help reduce student stress and assist them in considering and managing their own similar experiences.⁷ As photovoice projects are effective at reflecting deep understanding among students going through a specific life experience, photovoice assignments are especially well suited for health professions programs as student cohorts matriculate through didactic and clinical experiences together.^{7,16}

Although on a somewhat limited basis, photovoice has been used as an instructional strategy in the health professions (e.g., medicine, nursing, pharmacy, dentistry, chiropractic, radiation therapy, allied health sciences) across a variety of learning settings including traditional classroom and virtual environments, community settings, service-learning, and clinical experiences.^{6,8-11,13} Andina-Diaz et al. engaged nursing students from two countries in a photovoice project regarding societal impacts of the COVID-19 pandemic.¹⁷ Results showed students demonstrated deep reflection and utilized new knowledge to inform critical thinking regarding health disparities.¹⁷ The activity was so successful, researchers postulated the experience could result in students becoming stronger advocates for and more involved with vulnerable populations in the future. In radiation therapy, Trad conducted a semester-long, serial photovoice project with first-year students focused on the meaning of cancer.¹⁴ Early student reflections focused primarily on loved ones diagnosed with cancer and how those experiences led them to pursue careers in radiation therapy.¹⁴ As the semester progressed and students worked in clinical settings, the emphasis of their photos and reflections deepened, moving beyond personal experiences to encompass broader understandings of the magnitude of cancer and how it affects not only patients but families. Similar to the professional development aspect in the Adina-Diaz study, Trad noted reflecting upon the broader perspective of cancer was an important first step in helping students develop professional values, such as empathy and compassion, necessary for a career in radiation therapy.^{14,17} Jack and Levett-Jones also documented the importance of deep reflection on one's own lived experiences in order to develop empathy and be successful in patient-centered healthcare.¹⁸

Smetaniuk et al employed photovoice to explore physical activity and sedentary behavior among physical therapy students.
Participants documented facilitators and barriers to physical activity and associated behaviors by taking photos of their daily life experiences. Researchers reported the use of photovoice increased engagement in the assignment and improved students' abilities to apply new knowledge to their own life experiences.
A pilot study by Dahl-Michelson, Groven, and Rowe with physiotherapist students in Norway and South Africa used photovoice to document health services in local communities.
The project was designed to increase students' awareness and understanding of different healthcare systems. The report described

the development and implementation of a successful, low-cost, online internationalization project and documented the ease with which photovoice could be creatively and successfully utilized for online instruction.¹⁹

The cohort model in health professions education makes it easy for faculty to develop one-time or serial interprofessional education (IPE) experiences using photovoice as students progress through their programs with increasing higher-level learning expectations and clinical experiences. Lee et al. conducted a study with students from multiple health professions disciplines using a virtual medical center focused on palliative care.⁸ Analysis of photovoice data along with pre- and post-project surveys documented positive change in student attitude regarding IPE and the use of virtual learning environments. Ryan et al. described a health professions IPE service-learning experience in Ecuador where undergraduate and graduate students completed either a reflective essay or photovoice project.⁹ When comparing final products from the assignment, results showed students who utilized the photovoice strategy developed deeper reflections on their experiences and, due to the visual component, a greater respect for the privacy of those they photographed.⁹ Similar results were reported by Skoy and Werremeyer when they compared photovoice to reflective journaling among pharmacy students involved in a medical mission.¹⁰ They, too, found photovoice stimulated deeper student self-reflection attributed to greater connection between students' emotions and learning when images were used to represent lived experiences.¹⁰

METHOD

In this study, a photovoice assignment was incorporated into a sixth semester Doctor of Physical Therapy (DPT) course. During semesters five and six, students completed a 6-8-week, part-time, on-campus clinical experience in the department's physical therapy clinic. Some students also volunteered in the department's pro bono clinic one evening a week during this time. Students were asked to reflect on their clinical experiences and what they learned from patients during their time in the campus clinic. Each student developed one PowerPoint (Microsoft PowerPoint®, Redmond, WA) slide with one image and one caption or brief paragraph that explained the image's relevance (see Table 1 for specific instructions). Images of patients or caregivers were not allowed, and students were given the full semester for reflection and completion of the graded assignment. Students were informed that some slides could be printed on canvas and displayed in the campus clinic lobby. This project received university IRB approval as Exempt.

Table 1: Photovoice Project Student Instructions.

Student Instructions

- Each student will submit 1 PowerPoint slide with 1 picture and 1 textbox (an example slide was provided).
- The picture cannot contain a patient or face but rather some "thing" or place that represents the student's experience with a special patient(s) treated in the campus clinic.
- No patient identifiable information can be used.
- Text should describe what the student learned from treating/interacting with the patient(s).
- Background for the slide should be white, text should be Calibri 20 font.
- Slides will be compiled and shared with the class for group discussion.
- Approximately 10-12 slides will be printed on canvas and displayed in the lower-level campus clinic reception area, in the clinic, and/or other areas within the department.
- Participation in the project is a pass/fail graded component of the class (5% of the total grade). Participation
 in the research component is optional. If you do not wish to participate in the research project, please do
 not submit the post-project anonymous questionnaire. There is no penalty for choosing not to participate in
 the research project.

RESULTS

Forty-three second year DPT students completed the assignment and submitted their slides via email to the course instructor. Individual slides were compiled into one presentation by the instructor and shared with the class via the course learning management system so students could review all submissions. At the last class meeting, slides were presented and discussed by students. A paper-based, anonymous, three-question survey was distributed to students at the end of the discussion asking what they liked about the project and/or how the project was meaningful to them, how the assignment was different from other reflective assignments, and how they felt about sharing their slides with others.

Researchers performed inductive, semantic thematic analysis similar to that described by Braun and Clarke and applied by Macauley, Jette, Callahan, Brudvig, and Levangie. And applied by Pacauley, Jette, Callahan, Brudvig, and Levangie. And a data was collected as a part of the anonymous end-of-semester course evaluations, no demographic data was included. The course instructor, another physical therapist faculty member external to the course, and a faculty member from another health professions program each performed individual thematic analyses using NVivo

(NVivo Pro 12, QRS International) software. Independent initial analyses generated 13 primary themes and 19 subthemes. Student responses from the data set were also independently reviewed and coded. Subsequent review and discussion among the researchers resulted in preliminary consensus on three overarching primary themes: (1) students enjoyed the photovoice assignment, (2) the photovoice technique encouraged deep reflection and was meaningful to students, and (3) reflections extended beyond the student and focused on the patients they treated. Consensus on subthemes was also reached, collapsing the original 19 down to seven. Themes and coding were sent to another health professions faculty member for external review to further strengthen trustworthiness of the data. The reviewer noted a few instances where student responses could fit into either of two subthemes but with obvious patterns within the data, they agreed with the coding and no changes were recommended. Final themes and subthemes are shown in Table 2.

Table 2: Final themes.

	Primary Themes	Subthemes
1.		Liked about the project Different from other reflection assignments Less writing Less structured/formal & low pressure Personal freedom & creativity Visual aspect Sharing with classmates
2.	and was meaningful to students	Meaningful reflection More personal Different from other reflection assignments Shorter Required more thought
3.		Focused on others Sharing with others Comfortable Uncomfortable

Theme 1. Students enjoyed the photovoice assignment. Multiple excerpts supported this theme with many describing how the photovoice technique was different from typical reflection assignments:

I felt like I could actually express my thoughts and not worry about a grade, Having the complete freedom to express myself was liberating and impactful, ...allowed for more creativity – there were just enough boundaries to know what to do & just enough freedom to express what was true for me, I got to be creative!, and Sharing my experiences w/classmates and getting to read about their experience.

Table 3 shows additional excerpts from this theme.

Table 3: Additional theme 1 excerpts.

allowed me to be more myself		
more freedom to truly reflect – not just trying to meet the rubric requirements.		
instead of dreading a long paper, I just got to share briefly & enjoy the reflection.		
Allowed me to see the passion my classmates have for their patients.		
that it required a visual aspect because we spend a lot of time just writing essaysrefreshing!		
no pressure on what to say/how to say anything. Allowed for genuine responses.		
I feel like there is no pressure so it allows me to be more honest and reflective.		

Theme 2. The photovoice technique encouraged deep reflection and was meaningful to students. The photovoice assignment was noted to encourage reflection, and in many excerpts, was perceived as being a meaningful experience.

Made me really think about why I want to be a PT (physical therapist) & what is most important, The lack of formality allowed for true reflection, not what a professor wants from me, I enjoyed being able to add a photo that is meaningful to me, It was a nice form of closure and reminiscence on a meaningful experience, and

...genuinely reflect on my relationship with my patients. I now have a documented reminder of a truly impactful moment with one of my very first patients, I loved it!

Table 4 shows additional excerpts from this theme.

Table 4: Additional theme 2 excerpts.

We had to write the most important stuff because we were limited to 1 page, so I feel like it was more meaningful.

It felt immensely more personal than a standard journal.

..dedicate more effort and thoughtfulness in what I was writing.

I loved it! It made me really reflect on my experience & how much we've both grown. It made me realize how much I connected with my patient.

... allowed me to reflect on aspects of physical therapy and patient interactions that go beyond clinical decision making...reminded me of how powerful and special that relationship can be.

...allowed me to reflect on my very first patients and do a self-assessment of what I actually learned.

...showed me how much I learned in the clinic beyond clinical skills. Also reminded me of how much fun I had!

...allowed me to reflect on a memorable experience that I had in the clinic...reminded me how special the connection with patients can be and that our interaction with each patient can be just as transformative for us...

Theme 3: Reflections extended beyond the student and focused on patients. Multiple student comments centered around patients and how they perceived patients would also benefit from this project. '…helped me focus my attention on someone else rather than a traditional self-reflection journal,' and '…lt made me really reflect on my experience & how much we've both (student and patient) grown.' An aspect of the assignment was that some selected student slides would be printed on canvas and displayed in the clinic lobby for patients, caregivers, and others to view. Thirty-nine of 43 students perceived this to be a positive component of the project and a way to pay tribute to the patients they treated.

I think it is a great idea! It really shows how we care and gives patients an opportunity to be cherished and appreciated, I love it, I think it shows vulnerability and allows the patients to see how they impact us, ...feel like it was a way to pay tribute to my patients, ...not only makes me feel good but also makes the patient feel special, and ...when the patient reads it, only they will know its about them which is something special.

Four students expressed at least some degree of nervousness about the possible display of their slides:

...makes me feel a bit discouraged that it won't be good or meaningful enough to get printed, It did make me a little self-conscious and nervous, but it did make me more purposeful with what I wrote, and I don't think I'm the best writer so yes it makes me nervous.

Table 5 shows additional excerpts from this theme, and Figure 1 provides three examples of completed student photovoice assignment submissions.

Table 5. Additional theme 3 excerpts.

It (printing & hanging the slide) shows how much impact is made by each patient interaction.

.. allows patients to see how they have positively impacted us.

I liked that it gives us the chance to do this for our patients...

Being able to see others' success with their patients and the love they've experienced makes it worthwhile...

like the idea of peoples stories being shared!

It would make me happy to share my experience with other people.

think it makes our clinic unique to see the mutual benefit that exists between the student and the patient.

Figure 1a. First Example of Student Slide



Upon our first meeting my patient shared that he used to run in college and even though he knew he would never run again, he dreamt about it. Those dreams of running made him so happy.

After 8 weeks of physical therapy, my patient ran in a 0.25-mile race with my fellow classmates. He won first place!

I learned in that moment never to put limitations on my patients. The human spirit is capable of the most miraculous achievements.

Every time I put on my running shoes, I think of him crossing the finish line and I know in my heart anything is possible.

Figure 1b Second Example of Student Slide

My patient never let his circumstance dull his shine.

Strapped in a red harness, walking on the treadmill to the beat of "Schoolin' Life" by Beyoncé, our favorite artist, my patient continued to progress towards his goal of walking independently. Initially, I was intimidated by the severity of his condition, but the more I worked with him, the more I realized that he was not. He came to every session motivated and willing to break a sweat- even more so if Beyoncé was playing in the background. Despite the hardships that my patient faced, he continued to let his personality radiate though in every conversation and every laugh we shared. Much like glitter, my patient's positive and bright spirit was hard to ignore. When faced with a challenge, my patient taught me to never give up no matter the circumstance and to never dull your shine.



Figure 1c. Third Example of Student Slide

A patient I treated in the clinic was an avid wine drinker and one of his goals was to lift a glass of wine independently. We therefore tailored interventions to specifically train for and ultimately achieve this. This inspires me to be patient-centered and to fulfill the goals that will make lasting impacts on quality of life, no matter how untraditional they may be.



DISCUSSION

Published research demonstrates photovoice projects are effective at reflecting deep understanding among students going through a specific life experience, which lends the use of this tool particularly well to the cohort structure common in many health professions programs. ^{7,16} However, considering limited published studies, it appears healthcare educators have shown somewhat limited interest in implementing photovoice reflection activities in their curricula. The variety of topics and settings where photovoice has been successfully used in healthcare education shows how easily this tool can be applied in online or in-person learning environments. ^{17,19}

Similar to previously published findings, students in this DPT study overwhelmingly reported positive responses to using photovoice. 6,13,19 The number of comments from students indicating they enjoyed the reflection assignment was unexpected as it is the researchers' experience that students rarely report they 'enjoyed' a reflection assignment. Several students wrote 'I loved it' in their comments with one writing they were 'eager to complete this assignment.' Regarding the purposes of this study (student benefit, photovoice compared to other reflection-focused teaching techniques, and student perceptions on sharing their work), data across the primary themes allows for assessment of all three areas.

Student Benefit. Data clearly support students perceived the assignment as beneficial. Similar to previously published studies, ⁵⁻¹¹ student responses in this project also described the photovoice assignment as encouraging deep student reflection due to the brief nature of the writeup, the choice of a representative image, and the freedom of developing a project without the 'worry' of following a prescribed rubric. The Pass/Fail grading for this assignment was based on following instructions, on-time submission of the photovoice slide, and participation in the group discussion. The number of comments regarding the freedom and reduced stress students experienced by not having a rubric was surprising as rubrics are typically used to reduce stress by providing explicit guidelines. One student described this freedom as 'liberating,' and others wrote about how they enjoyed the freedom to be 'creative,' expressing thoughts by writing poems and using images. The high level of active engagement in this project and report of perceived student benefit from individual reflection and learning through sharing experiences echoed student feedback documented in other health professions-related photovoice studies. ^{10,11,19} Likewise, current researchers also found project development, administration, and grading to be a simple, low maintenance, low stress experience. ^{8,9,19}

More than one student commented on how photovoice allowed them to feel more 'myself,' 'honest,' and how they were able to speak 'from the heart.' The ease of sharing their slides with each other via a PowerPoint (Microsoft PowerPoint®, Redmond, WA) slide deck was another benefit of using photovoice. In many reflective assignments, students' thoughts are typically shared only with an instructor through written work. In line with studies published by Lee et al., Ryan et al, Skoy and Werremeyer, and Smetaniuk

et al,⁸⁻¹¹ multiple students in this study commented on how they appreciated viewing their classmates' slides and learning how each was impacted by their patient experiences. Additionally, the researchers believe the assignment topic, reflection on experiences with patients in the on-campus clinic, combined with the photovoice technique, contributed to perceived student benefit. Multiple students reported they enjoyed the opportunity to think deeply about what they learned, how they grew as student clinicians, and how much they enjoyed working with patients. Selecting a good topic on which to focus a photovoice assignment is vital to project success.⁵

Different from Other Reflection Assignments. Students also appreciated how the photovoice project was different from other more traditional types of reflection assignments. Although not specifically mentioned in previous literature, several students in this study commented on how the limited writing space of the brief narrative made them reflect more deeply about what they wanted to say instead of 'rambling to take up space' as with longer assignments. Having all slides available for the class to review also generated more focused effort. Surprisingly, there were no comments from students regarding feelings of anxiety or added pressure related to sharing slides with their classmates. Researchers believe student comfort in sharing their work was somewhat due to the cohort nature of the program as students knew each other fairly well and this project and associated sharing and discussion likely facilitated deeper comfort.

The visual component of photovoice was another meaningful difference in comparison to journaling and reflective essays. Selecting an image that represented their experience not only stimulated deeper reflection, but also made the assignment more 'personally meaningful.' These data align with results from Skoy and Werremeyer and Ryan et al. who reported deeper student reflections with photovoice compared to traditional reflection assignments due to greater connection between students' emotions and learning when images were used to represent lived experiences. 9,10 Researchers believe students knowing their slides would be shared with others played a role in facilitating deeper reflection and more thoughtful work with the photovoice assignment.

Students' Perceptions on Sharing their Photovoice Slides with Others. As reported above, students wrote only positive comments about sharing their photovoice slides with classmates. However, four students reported some nervousness with some slides being printed and displayed in the on-campus clinic lobby. Comments mainly focused on concerns that their slide would not be chosen for display rather than nervousness about actually having them displayed. The remaining 39 students reported very positive feelings about the possibility of having their slides formally displayed for patient, caregiver, and visitor viewing. Many felt this was a 'sentimental' way of showing gratitude or paying 'tribute' to patients seen in the clinic (Figure 2 shows canvas-printed slides displayed in the clinic lobby). Some students indicated they created their slides with the idea that their patients would view them. One student wrote, 'I love this idea & think it's a great tool for us as students & a great display for patients,' and another said, 'I love it! I think it shows patients how much they mean to us.' Results from this study corresponded well to previously published literature indicating that sharing experiences through photovoice fosters deeper individual and group reflection and learning. 13,17 Researchers believe this project and the final display in the clinic lobby also contributed to feelings of belonging and pride among students. Several wrote about how the display was 'unique' to their program and represented the special relationship of patient and therapist. Incidental to this study, faculty have since received many positive responses from patients and caregivers regarding the display of photovoice slides. Even though there are no patient identifiers on the slides, some patients feel they have found 'their' slide. One patient uses 'her' slide at the far end of the wall as a goal when working on gait. Patient perception of the slides might be a good future study.

Figure 2. Clinic Lobby Wall



Another future study idea is incorporating photovoice into IPE experiences with physical therapist students. Haffejee and Loren document photovoice as a learning strategy that stimulates discussion, facilitates student-to-student learning, and broadens engagement, all of which are necessary for successful IPE activities.^{5,6} While there are some health professions-related studies documenting successful photovoice IPE projects, literature review showed the current study to be one of only three instances of IPE studies involving physical therapist students.^{8,9}

When developing a photovoice project, faculty need to be very clear about the use of de-identified images. In this study, researchers did not allow students to use images of people to protect privacy. Review of the literature shows that typical photovoice projects require students capture their own images.^{6,9,17,19,22} In this study, while several students did create their own images, others used stock photos, which would be appropriate if permission was obtained and properly cited. The need to be more specific with citations if stock images are used was a good lesson learned for the next iteration of the assignment.

Overall, data support that the utilization of photovoice for this assignment was perceived by students to be an enjoyable, low-stress method of facilitating deep reflection on a significant lived experience in their professional education. Students found meaning not only in the creative process but also in their final products. Sharing those products with each other and those outside the classroom facilitated further learning and broadened engagement in the assignment. From a faculty perspective, using photovoice was also enjoyable and low stress and developed into a meaningful, much-loved student project that extended beyond the classroom.

Limitations. The main limitation in this study was the use of only one cohort of students for the study. The next iteration of the project will focus on a different topic and include students and faculty from other health professions disciplines within the college. Based on literature review and experience with the current project, researchers expect the upcoming IPE-focused photovoice project to be well received by faculty and students. Expanding the project to include students from different health professions programs from different learning institutions would be another research opportunity in the future.

CONCLUSIONS

Students reported overwhelmingly positive responses. The photovoice project was personally meaningful, and students enjoyed the freedom to be creative without strict rubric requirements. Students also enjoyed sharing and discussing their reflections and identified this as an important difference from other more traditional reflective assignments. Easily developed and administered photovoice projects are effective at facilitating enjoyable, reflective learning activities that can be shared among classmates or across disciplines in online or in-person learning environments.

Declaration of Interest Statement

The authors report no conflict of interest.

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