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Interprofessional experiential learning enhances cancer research training documented through photovoice methodology

Deirdre McKay¹, Connie P. Tran, Tiffany Bui, and Anthony D. Phan²

¹Oregon Health and Science University

²Portland State University

Keywords

Representation; Workforce; Self-determination theory; Diversity, Equity, Inclusion; Mentoring; Problem-Based Learning; Public Health; Burnout, Psychological; Mental Health

Abstract

The Knight Scholars Program (KSP) is a cancer research training program for historically underrepresented high school and undergraduate students in Oregon (Marriott et al., 2022). Scholars pursue a ten-week summer training program where they participate in four shadowing threads (e.g., clinical, public health, outreach, and research) that inform scholars' interests and paths. Scholars are supported by near-peer mentors in an interrelated Leadership Training Program in Cancer Research Mentoring (Huerta et al., 2022). Scholar impacts were assessed using photovoice, a qualitative methodology where scholars choose photos and write narratives to highlight the most significant experiences during their training. Photovoice narratives were analyzed thematically (Villalobos et al., 2023) before analysis using the same theoretical framework used to design the Knight Scholars Program. Specifically, Self-Determination Theory (SDT) describes motivation to achieve competence, relatedness, and autonomy within an area, such as cancer research (Marriott et al., 2022). Our findings underscore that photovoice is easy to use with youth and offers an engaging approach for documenting contextual factors associated with research training. Our photovoice results demonstrate that SDT is strongly reflected in photovoice narratives of trainees in the Knight Scholars Program. Specifically, scholars' competency was enhanced as they built their science identity and visualized themselves as researchers and STEM professionals in the future. Scholars experienced relatedness by building social connections with each other and near-peer mentors, as they helped each other navigate academic and research cultures. Autonomy was reflected in scholars' description of next steps, including an understanding of the work required to achieve their interests as they step out of their comfort zones, recognizing that they have flexibility to pursue different types of opportunities.

Scholars also described an awareness of mental health and self-care considerations for mitigating burnout, which they described enabled them to grow sustainably while in the program. Photovoice analyses were shared with scholars as part of a member checking process, with scholars reiterating the personal growth they experienced as they created bonds and connections that supported them as they grew professionally and reflected on what they wanted from a career. Overall, scholars reported that they found science more approachable as a result of the humanization of cancer research. Scholars described that they understood the importance of research and how communities are helped and benefited as a result of their program participation. These findings are discussed in the context of trainee recruitment and retention for supporting diversity, equity, inclusion, and accessibility goals. Our findings underscore the strong benefits of humanizing research by showing the progress rather than perfection.

Learning objectives:

At the end of the session, learners will:

1. Understand how to apply photovoice to study a research question
2. Identify factors that support student training in cancer research in accordance with Self-Determination Theory.
3. Source web locations for learning more about the program and its results.