


Photo-experiencing and reflective listening: A trauma-informed photo-elicitation method to explore day-to-day health experiences

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Abstract

Despite the promise of photography in research, few methods offer a guide to leverage this medium in conjunction with experience sampling to facilitate individual reflection while capturing the experiences of participants as they interact with their social world. The purpose of this paper is to introduce a new photo-elicitation method to add to the photography research repertoire, Photo-experiencing and Reflective Listening (PEARL). PEARL leverages the benefits of experience sampling, mindful self-awareness, and trauma-informed interviewing to document daily health experiences. After engaging in an at-home photography activity, participants meet for a one-on-one interview to share and cluster their photographs to discuss key themes and needs going forward. Using a study aimed to understand the recovery experiences of survivors of sexual violence, we illustrate how PEARL can be applied to study a population of interest. The products developed through PEARL provide rich opportunities for analysis, dissemination, story amplification, and action, making it a research method helpful for those interested in improving health equity and catalyzing social change. Because of the high satisfaction voiced by the participants of this approach, PEARL shows promise as a therapeutic data collection method, where the participants leave with some benefit through new awareness gained.

KEYWORDS

mental health, multimodal research, Participatory action research, qualitative research, resilience, stigma, stress, trauma, violence

1 | BACKGROUND

Photography is an underutilized research method that can allow health researchers to see the world through the eyes of study participants. Participant-generated photographs produce a different kind of data because its visual nature can evoke feelings, memories, and information that may be able to channel a deeper part of human consciousness than words alone (Glaw et al., 2017; Harper, 2002). Despite the promise of using photography for research, there are

few methods that leverage this medium to offer one-on-one reflection, while intentionally capturing participant lived experience in real time. Hence we propose a new method to add to the photo-elicitation research repertoire, Photo-experiencing and Reflective Listening (PEARL).

PEARL is a process by which individuals explore their reactions to the world around them and then reflect on these experiences with a trained, compassionate witness. It has been developed through a trauma-informed, intersectional feminist lens with the goal to

create new knowledge and amplify the day-to-day experiences of others. PEARL uses the benefits of experience sampling, mindful self-awareness, and trauma-informed interviewing to allow an individual to look at their environment in a new way; to notice the people, situations, and structures that influence their thoughts and feelings about a particular topic. The purpose of this manuscript was to highlight the potential of using photography for research while emphasizing the unique gap PEARL fills. First, we describe the uses of other photography-based research methodologies. Next, we examine the underpinning principles of the PEARL method and how it can be used in nursing research.

1.1 | Photography to promote self-reflection and mutual understanding

Auto-photography is an ethnographic research method used to create a safe container in which the researcher and the reader can see the world through participants' eyes (Glaw et al., 2017). Auto-photography has been found to be particularly empowering for individuals who have historically been marginalized by allowing them to share their experiences with a research team via chosen images, rather than verbal speech alone (Noland, 2006; Thomas, 2009). PhotoVoice, defined as "a process by which people can identify, represent, and enhance their community through a specific photographic technique" (Wang et al., 2000 p. 82), is derived from auto-photography and leverages the power of group dynamics to explore shared lived experiences. PhotoVoice has been used to document community strengths and concerns, while promoting critical dialogue about important issues through group discussion to promote social change (Catalani & Minkler, 2010; Wang & Burris, 1997). By illustrating the problem, promoting care for the self and others, and harnessing community resources, PhotoVoice has been historically successful in promoting awareness of social justice-related issues, while challenging internalized beliefs and stereotypes that perpetuate stigma. While an important research method, PhotoVoice may not be appropriate for all populations and research questions, particularly for topics more personal in nature or for those who wish to keep their identities hidden from others. Because of this, additional photography research methods are needed to capture the voices of individuals who may have a lot to say, but may fear saying these things to a larger group.

Photo-elicitation is the use of photographs as a stimulus within an interview setting to facilitate a verbal discussion about a particular phenomenon (Harper, 2002; Thomas, 2009). Photo-elicitation is typically conducted on the individual level, and is a particularly promising method to conduct research on sensitive topics, particularly when it is participant driven (e.g., Van Auken et al., 2010) as it has been described as a methodology that enhances participant empowerment by making meaningful experiences visible while altering historical power dynamics between the researcher and participant (Copes et al., 2018; Oliffe & Bottorff, 2007; Lapenta, 2011). Recently, photo-elicitation has been used to evaluate psychological

wellbeing (e.g., Bornioli et al., 2018), the psychosocial impacts of illness or disability (e.g., Singh et al., 2020), and the lived experiences of specific populations of interest (e.g., Kahu & Picton, 2020).

While it has been used in diverse ways in the scientific literature to date, most studies using this method ask participants to take photographs to intentionally "represent," or "tell their story" related to the study topic (i.e., Kantrowitz-Gordon and Vandermause, 2016; Rayment et al., 2019; Van Auken et al., 2010), rather than asking participants to document experiences and emotions as they arise in real time (i.e., using photo-elicitation as an experience sampling technique). Additionally, few resources provide step-by-step instruction on best practices to use photo-elicitation and there is great variation in the scientific field on how this method is applied, creating a need for greater clarity in the description of using these methods in research (Tishelman et al., 2016).

1.2 | The current method

The purpose of PEARL is to leverage the power of photo-elicitation to facilitate participant self-reflection by providing a photographic, real-time medium in which participants can observe and capture moments in their daily lives. Moreover this method provides a structured process in which the participant can analyze, understand, and voice how moments impact them and their health. Through PEARL, the researcher and the participant work together to build shared understanding of the phenomenon under study, supporting the participant's process of self-discovery. Specifically, the method provides opportunities for the participant to notice and document emotions and situations as they emerge in real time, reflect on how their environment and social context influences their thoughts and feelings, and share these insights with a trained research team member to promote deeper understanding of the phenomena of interest.

2 | UNDERPINNING PRINCIPLES

2.1 | Experience sampling to understand daily life

Experience sampling has become an increasingly popular research method, broadly defined as sampling immediate experiences in one's natural environment (Beal, 2015). While typically experience sampling designs involve repeated assessments, studies applying this family of methods range in procedure. Through capturing phenomena when and where the "action takes place," this method strives for high ecological validity by leveraging the immediacy of one's experience (Beal, 2015; Hofmann & Patel, 2015; Larson & Csikszentmihalyi, 2014). Especially when attempting to understand complex psychological constructs, repeated observations within persons through experience sampling can be helpful to make meaning of these experiences (Reis & Gable, 2000). PEARL attempts to leverage the benefits of experience sampling listed above and can be

used in combination with many other data sources (e.g., laboratory assessments, semi-structured interviews, physiological measures, survey instruments), yielding significant potential for conceptual integration and greater understanding of a phenomena of interest.

Most experience sampling approaches require individuals to respond to assessments or prompts in the moment directly after situations or feelings occur or at predetermined points throughout the day (Conner et al., 2009). While this preserves the immediacy of one's experience, there are certain situations where it may be more beneficial for participants to capture their experiences in real time, and use these cues to help process and interpret their experiences later. In the case of the PEARL, particularly when using prompts that ask participants to capture moments that are emotional in nature, immediate participant interpretation through journal writing or app-prompted cues may not be feasible, safe, or the most effective to make meaning of one's experiences as a whole. Thus, the PEARL asks participants to create a "mental bookmark" through a captured photograph, but does not ask them to formally reflect on that event until they are in the interview with a researcher trained in trauma-informed methods. By leveraging the benefits of capturing moments as they arise in combination with retrospective interpretation and reflecting listening, the PEARL aims to facilitate new awareness, grounded in the moment-to-moment experiences of its participants to build a more nuanced understanding of a phenomenon.

2.2 | Mindful self-awareness

Mindfulness, originating in Buddhist psychology, is a consciousness in which individuals pay attention to the present moment (Brown et al., 2007; Kabat-Zinn, 2003). The important origins of this technique have been detailed elsewhere (e.g., Singla, 2011), however, we will summarize its underpinnings as it has been applied in research and clinical settings. In modern Western society, mindfulness is practiced, cultivated, and applied in diverse contexts (Xiao et al., 2017), used to explore and transform the self by building awareness of one's lived experience as it happens moment by moment (Schmidt, 2011). Mindfulness is a state of consciousness in which individuals pay attention to the present moment with an accepting and nonjudgmental attitude (Brown et al., 2007; Kabat-Zinn, 2003). Recently, researchers have started acknowledging the potential salutary effects of mindfulness for well-being and have sought to understand it in a variety of ways (e.g., Allen & Kiburz, 2012; Glombet al., 2011; Hülshager et al., 2013).

Through PEARL, participants are asked to mindfully document moments as they arise relating to a photography focusing prompt such as x. In this way, participants are able to recognize their experiences relating to the phenomena in the present moment, in attempt to highlight inner-self processes that may not be captured in typical semi-structured interview formats. A growing number of studies have been conducted surrounding the relationship between

practicing mindfulness and the self, linking it to self-consciousness (Evans et al., 2009; Ghorbani et al., 2010), self-concept (Crescentini and Capurso, 2015), and self-referential processing (Farb et al., 2007; Tang et al., 2015) among others. In this way, participants are able to gain new insights of their experiences, and share these insights in real time with the research team.

2.3 | Trauma-informed interviewing

While the researcher may not plan to use the PEARL to evaluate topics in trauma-exposed populations specifically, due to the high prevalence of trauma in society in general, a trauma-informed approach underpins the PEARL procedure and implementation. This allows for participant autonomy, a key to trauma-informed interviewing, and attempts to level typical research power dynamics by letting the participant choose the content to be discussed in the interview itself. PEARL prioritizes a clear and transparent consent process and choice and control throughout the interview activities (De Haene et al., 2010; Newman & Kaloupek, 2009). Additional principles PEARL is grounded in include (1) providing space for autonomy, (2) therapeutic use of narrative, and (3) building relational trust (De Haene et al., 2010). We aim for the interviewer to take the role of a compassionate witness—providing validation of participants' experiences, ensuring appropriate gradual intensity of questions, recognizing and respecting participant discomfort, and providing resources to all participants upon conclusion of their interview (Collogan et al., 2004; De Haene et al., 2010; McIntosh & Morse, 2009).

With these principles in mind, below we provide step-by-step instruction on how one might use PEARL along with an example of a previously published study using this method (source deleted for blinded review) to highlight how this might be applied with a particular research question (See Figure 1 for details).

3 | USING PEARL FOR A RESEARCH QUESTION OF INTEREST

3.1 | Step one: Selecting a photography focusing prompt

PEARL can be used in conjunction with other methods or as its own stand-alone method. PEARL asks individuals to go out into their social world and observe and photograph moments as they arise in their life. In this way, it provides a great medium to reflect on day-to-day thoughts, feelings, or experiences. Given the differing recruitment modalities that can be used for the PEARL, the photography focusing prompt should be able to be read on its own and followed without much need for clarification by study staff. For this reason, pilot test the PEARL prompt within the intended study population, to solicit feedback and ensure future participants are responding to the prompt in the way you intend.

PHOTO EXPERIENCING AND REFLECTIVE LISTENING (PEARL)

A qualitative photo-elicitation method with underpinning principles related to experience sampling, mindful self-awareness, and trauma-informed interviewing developed from a feminist lens.

STEP ONE

Selecting a photography focusing prompt



STEP TWO

Creating an interview guide that contextualizes photographs and groups them together to understand key thematic domains.



STEP THREE

Holistic and cross-sectional analysis using modified meta-ethnographic principles.



STEP FOUR

Creative dissemination of findings to key stakeholders



understand what healing looks and feels like for you on a daily basis through capturing experiences you encounter in your life that influence your healing journey.

3.1.2 | Task

The photography task should be focused on the question of interest. Allow participants to take as many photographs as they desire, but ensure they only submit 7–10 of these photographs to the research staff (7–10 photographs is advised after pilot testing by the first and senior author). This will allow participants to go through the cognitive process of selecting which photographs feel most important. It also provides enough photographs for participants to cluster, without being too burdensome for meaningful discussion of each. Equally important is reassurance to participants that they are able to be creative and interpret the prompt in the way that seems appropriate for them. Flexibility and promoting participant autonomy is an important underpinning principle of this process.

Continuing with our sexual violence example, below is an example of how a task may be phrased.

The Task: Within the next week, observe your environment and take photographs with your personal cellphone or camera of moments that feel healing to you (for example, moments you feel connected, whole, or well), as well as well as darker moments (for example, moments you feel overwhelmed, ashamed, or fearful) throughout the upcoming week. There is no right or wrong way to do this. The goal is to understand your day-to-day experience navigating recovery as a survivor of sexual violence.

Depending on the populations in focus, the mechanism in which participants take photographs may differ. Some studies may want to use participants' personal cellphones or cameras, while others may want to provide disposable cameras to participants that they can collect at a secure location.

3.1.3 | Submission and upload instructions

Clear upload instructions for individuals are essential to minimize participant burden and confusion. This can be done by creating an online form where participants can upload their materials via a given link or by inviting them to a secure research drop box where they can upload their materials. If available, it may be helpful to provide contact information for participants to communicate with study staff throughout this process if issues arise. As with any study, privacy and data security are essential for the safe storing of photographs uploaded.

FIGURE 1 Creating a study using PEARL [Color figure can be viewed at wileyonlinelibrary.com]

3.1.1 | Purpose

Photography focusing prompts start with a statement of purpose. Purpose statements should include an appropriate definition and frame for the concept you are asking participants to capture. It is also important to emphasize the documentation of experiences as they come up, to ensure participants do not force themselves to experience things they might not typically encounter as a means to create content. For example, if you aimed to understand the day-to-day healing experiences of survivors of sexual violence you may say:

Example: Healing after sexual violence is a multi-dimensional process filled with high and low moments in our lives. The purpose of this activity is to

3.2 | Step two: Creating an interview guide

When creating the interview guide, there are five main sections: (1) Introduction, (2) Activity recap and selection process, (3) Contextualizing photographs, (4) Grouping and reflection, (5) Looking forward and conclusion.

3.2.1 | Introduction

In the introduction it is important to thank the participant for taking the time to complete the photography activity and to remind them that the interview is for research. While you may discuss their life and feelings in relation to the photographs that they took, this interview is not meant to replace any mental health care that the individual may need. Because of this, it is important to remind the participant of this and to give them a resource list with local mental health and other topic relevant resources if they want to follow up. It is also important to let the participant know how long the interview will take to complete so they are not self-conscious of the time they are using to discuss (about an hour to an hour and a half depending on the number of photographs submitted).

3.2.2 | Activity recap and selection process

The interview starts by asking participants to tell the researcher a little more about themselves and what their typical week is like. This gives the researcher insight into who the participant is in the

world and what occupies their time. Next, remind the participant of the PEARL prompt, and ask them how their experience was taking the photographs the past week. Additionally ask how they selected the final photographs to provide greater insight into their process.

3.2.3 | Contextualizing photographs

To begin the photograph discussion, have the participant pick the photograph they would like to start with, and have them turn the rest of the photographs face down in order to give each photograph the attention it deserves. For each photograph, ask the participant (1) the story behind the photograph, (2) some feelings that they felt while taking the photograph, (3) how the photograph relates to the phenomena of interest, and (4) to think of a caption or title for the photograph that they can write along the bottom of the photo print. Once a photograph is discussed, it remains face up for the participant to view as they select the next photograph. Once all are discussed, move onto the grouping and reflection stage.

3.2.4 | Grouping

Once all photographs have been discussed, participants are asked to pile sort, cluster, and create some order to their photographs so that they and the researcher can pull out important elements and key themes (See Figure 2 for example). Participants can sort



FIGURE 2 Example of photograph grouping [Color figure can be viewed at wileyonlinelibrary.com]

photographs into piles, a continuum, a hierarchy, etc. It is important to remind participants that there is no right or wrong way to do this, as long as they can explain their thought process to you. Pile sorting is a research data collection technique that enables individuals to gain information about conceptual dimensions of larger phenomena (Morse & Field, 1995; Neufeld et al., 2004), used in this case to identify conceptual domains of the phenomena of interest. After they have completed this task, ask the participant to tell you how they organized the photographs and how they would title each cluster or section. Then, questions more specific to the phenomena of interest can be asked including 1) if the participant is made aware of any emerging themes, 2) what surprises them, 3) what elements of the topic of interest do they notice are not captured in their photographs, etc. General reflections can additionally be asked based on the phenomena of interest. Examples of these questions from our sexual violence example can be seen below:

1. What has your healing journey been like in general up to this point?
2. What are some things you are currently doing that support your healing?
3. What are things you may want to work on in the future to prioritize your healing?
4. Is there anything in your environment that creates barriers to your healing process?

The participant's responses to the questions in this section should be written down as reflective summary that will be photocopied and given back to the participant in the end, to allow them to recall insights gained through this experience after the research encounter is over.

3.2.5 | Looking forward and conclusion

Depending on the nature of the topic, the conclusion of the interview may vary. One way the interview may conclude can surround a reflective summary of the insight gained through the one-on-one discussion. This may involve highlighting the photograph that resonates most with their overall experience, creating a personal definition or conclusion statement for the phenomena of interest, or asking the participant what advice or solutions they may suggest going forward. Examples using the sexual violence example are below:

1. Select the photograph that feels most representative of your healing thus far and write on the back what healing means to you based on what we discussed today.
2. Thinking about what we discussed today, what advice would you give someone who is feeling stuck in their healing process?
3. What are 1-2 goals you want to work on to continue to prioritize your healing?

Whichever conclusion method is chosen, it is important to ask participants if there is anything else that they wish to discuss and provide them therapeutic resources for potential follow up if needed. It is also important that the participant leave with the copies of their photographs, copies of the consent forms, the resource list, and a copy of their reflective summary to allow them to reflect back on what they discussed on their own or with a provider.

3.3 | Step three: Interviewer training

Interviewer training will differ slightly based on the topic of interest and professional experience of the interviewer. In general, training guides should include an overview of the study and relevant background information, how to conduct a trauma-informed interview, study procedures and protocols, role playing on reflective listening, along with an overview of the interview guide. It is important that interested interviewers (1) watch an interview being conducted on a participant or volunteer and debrief, (2) go through the interview process themselves as a participant to understand what it would feel like to participate in this study (whether or not the topic is actually relevant to them), and (3) conduct an interview on another member of the study team with a trained observer to give them feedback. Feedback can be given in the form of a formal debrief, a rubric, or an audio or video recorded session with a reflective and dialogic engagement (Ravitch & Carl, 2020).

3.4 | Step four: Holistic and cross-sectional analysis using modified meta-ethnographic principles

Recorded interviews should be transcribed and used in tandem with the photographs for data analysis. In order to analyze these data, holistic and cross-sectional analyses should be conducted. This analysis structure has been used previously in PhotoVoice and photo-elicitation studies (see Burles & Thomas, 2013 for example). Holistic analysis involves looking at individual cases (participants) within the data set to understand the 'particular in context' (Mason, 2017, p. 165). Cross-sectional analysis enables the identification of similarities and differences in participant themes while creating a group narrative based on aggregated data (Mason, 2017).

To analyze PEARL data in this way, we use an analytic approach derived from meta-ethnography (Noblit & Hare, 1988). Thematic clusters generated by study participants should serve as "first-order constructs" and the interpretations of other themes by study authors should serve as "second-order constructs" (Noblit & Hare, 1988). These constructs are then compared and contrasted by the research team before being translated to produce new insights or "third-order constructs" (Noblit & Hare, 1988) which in this case serve as themes for the group narrative. By using both of these approaches, researchers can develop a comprehensive understanding of each participant's experiences, as well as to identify common experiences and differences in experience across participants excellent.

3.4.1 | Holistic analysis

Several close readings of the transcripts contribute to a preliminary sense of the interviews prior to in depth analysis. Next, the study team extracts the thematic categories each participant created in their pile sorting activity. The participant-generated themes serve as first order construct codes. Researchers then perform thematic analysis on interview transcripts as a whole (see Guest et al., 2011 for instructions on how to do so) to generate second order construct codes that may have been implied but not explicitly stated by participants. Second-order and first-order constructs should be synthesized into one final code list to be used for cross-sectional analysis.

3.4.2 | Cross-sectional analysis

The code list developed through holistic analysis should then be applied to all participants. First- and second-order constructs should then be grouped together into "piles" or categories of shared meaning ("reciprocal translation") with contradictory experiences also being identified ("refutational translation" France et al., 2019; Noblit & Hare, 1988). Third order constructs are identified through abstracting first- and second-order constructs upwards to main categories, allowing "systematic comparison" and "conceptualizing" (France et al., 2019; Strauss & Corbin, 1998). These third-order constructs will serve as main thematic findings.

3.5 | Step five: Creative dissemination of findings to key stakeholders and communities

The power of research is the power of story-amplification and photographs have the ability to visually display research findings in a digestible way for clinicians, policy makers, and the public at large. Because of this, while we encourage this research method to be used for scientific manuscripts and conference presentation purposes, we also expect the findings gathered through this method to be translated for the public in an accessible way. This can be done creatively however the investigators deem appropriate, with the participants' consent and in consultation with the communities they intend to serve. An example of this is detailed below.

In studies where it may not be appropriate to member check as a group, due to participant desires for confidentiality, consultation from a community advisory board of individuals who meet study criteria, but did not participate in the study is necessary to ensure credibility of the findings. If possible, however, provide participants the option to meet in a larger group once analysis is complete to discuss key themes found and photographs that will be shared to the public. This can provide an opportunity for community building, should participants want to meet others with similar lived experience, but also allows for participants to decline should they want their identities to remain unknown to the rest of the group.

It is best practice that if the researchers intend to display photographs to the public in some way, that they let participants know

about their plans ahead of time, and allow them to be a part of the creation of the public display if they desire. In our sexual assault healing example, we created an interactive photography exhibit to be viewed by the public using a team of survivor volunteers and other experts in the space. While we will not go into the construction of such an event in this paper, it is important to consider the target audience, appropriate supports for those in attendance, and protocol for informing participants about how their photographs are being used good.

3.6 | Ethical considerations

There are many ethical considerations to reflect on when using participants' personal, visual data in research and public dissemination, and it is important to have clear an open communication with IRB support staff and participants about what you plan on doing with this data. We have found it easiest to request that participants not photograph any human subjects or anything identifiable (i.e., their address, phone number, etc.) to protect their privacy and confidentiality. We have also found that providing an additional consent where they can opt out of the publication of some photographs, while giving permission for others gave participants feelings of security and autonomy over this experience. Overall, it is important when discussing sensitive topics to allow the participant to be in control of the interview at all times and to provide resources at the conclusion of the interview. Interviewers should also be well trained in the interview methodology, reflective listening, and trauma-informed interviewing techniques (see Richards & Schwartz, 2002; Newman & Kaloupek, 2009; and De Haene, Grietens, & Vershueren, 2010 for examples of this). This includes the trauma-informed interviewing principles mentioned above stellar.

4 | PARTICIPANT EXPERIENCES

Details of a previous study using this methodology to understand the recovery process after campus sexual violence can be found in (source deleted for blinded review). After their interview, 17 of the 19 participants in this study completed an interview evaluation on a 3-point Likert scale ("not at all," "somewhat," or "fully") to understand the potential of this new interview method and the potential of new awareness gained. Participants were asked how much they agreed with the following statements: 1) if the interview was the correct approach to discuss the topic at hand, 2) if the interview covered the most important aspects of the topic for them, 3) if the interview helped them understand how to improve their situation, 4) if the interview gave them new ways of looking at their problem, 5) if the interview gave them a different idea about what their problems were, and 6) if the interview gave them a good understanding of changes they needed to make. Results can be seen in Table 1.

Participants were left a blank comment space after each question, to elaborate on their rating if desired. Participant comments about the method both in the interview itself and within the evaluation form can be found in Table 2. Each comment represents the

Question	Participant Responses (N = 17)		
	Not at all	Somewhat	Fully
This interview helped me understand how to improve my situation.	0	1	16
This interview gave me new ways of looking at my problem.	0	2	15
This interview gave me different ideas about what my problems are.	1	4	12
This interview gave me a good understanding of changes I need to make.	1	2	14
This interview was the correct approach for understanding this topic.	0	1	16
This interview covered the most important aspects of my experience.	0	0	17

TABLE 1 Participant evaluation of PEARL (N = 17)

TABLE 2 Examples of participant-driven insights gained through PEARL

New realizations	<p>"I was surprised that so many photographs were just very like introspective by myself. I was expecting more of them to be like... I guess not. Like, I was expecting more of them to be with other people...But a lot of them weren't...Most of them weren't. So, I think actually they all are (giggle)."</p> <p>"it was kind of nice to go deeper into it and talk about it because I'm kind of realizing some things while talking about it."</p> <p>"But these photos... Like, it's so easy to get trapped in your own head and forget how blessed you are and these just kind of like... I mean I have a trampoline in my backyard. You know, like it's pretty... and I can go over to Lake Michigan if I want and take a picture of running on the beach. Like, I don't know. Like, I am blessed and it's something that I don't want to forget so it's kind of interesting to have that like right in front of me. You have this and you can go to Yosemite and enjoy it, so."</p>
Visual means as a way to look at problems differently	<p>"It was cool to show things visually. I usually talk about problems rather than map them out. This covered the biggest themes in succinct way."</p> <p>"When I was taking pictures I kind of like brought to mind like, "Hey. Like wow. That's actually a way that I think about like my darker healing moments." Like, I didn't really like... I guess I hadn't like really visualized like the way that my mind like manifests them until like I did this project so it was more so like I didn't realize that that was like the way that I think about like my darker healing moments. So, I guess like that kind of surprised me."</p> <p>"I did not realize before how much I prioritized some things over others when it comes to healing. I thought the photos were a clever technique. I also loved that we got to keep the photos. I think it's a fun reminder of the healing process to take home after the study is over."</p>

thoughts of a different participant. Overall, participants enjoyed the uniqueness of the photography approach, and found it a non-triggering way to engage with difficult material, despite many feeling hesitant about research in the first place.

5 | DISCUSSION

This paper discussed a new method photo-elicitation method that can be used in health research, PEARL, to highlight and explore participants' day-to-day health experiences and interactions related to a phenomenon of interest. The step-by-step method provided serves as a study design framework to leverage participant narratives, photographs, and reflections to provide a greater understanding of a population's lived experience. Ultimately, promoting participant autonomy and actively listening to the participant's thoughts and feelings is critical to this method's success. This requires quality interviewer training and supervision throughout the study period.

Additionally, the compelling nature of participant-generated photographic content creates an additional opportunity for accessible dissemination, and the potential to amplify lived experience to cultivate empathy and create social change.

It is important to note that while this interview may feel therapeutic, it is not intended to serve as therapy. Thus, it is important that the researcher not bring in new insights or awareness into the PEARL discussion that the participant has not raised themselves. It is also important to provide resources after the interview, should the participant want to explore the phenomena of interest further with a trained professional. While the interviewer may feel well trained in bridging gaps and guiding the participant to make connections, it is important for the interviewer to not inject their own observations or insights during the interview to avoid contamination of the data gathered. That being said, this method challenges current research paradigms, as it embraces the potential therapeutic benefits of narrative and mindful self-awareness to allow for a deeper understanding of a phenomena of interest as well as the potential for

mutual benefit (e.g., Church & Quilter, 2020). The knowledge and awareness gained by the participant-centered nature of the PEARL research process may also encourage future research engagement and retention (Castillo et al., 2012), particularly for individuals who are skeptical, historically marginalized, or who have little experience with research. The key distinction is that new knowledge and awareness gained should be entirely participant-driven and should not be influenced by an interviewer's observations or comments. We think of the interviewer as setting the guide rails for the discussion, but the participant controls the pace and direction of the conversation.

With careful application, PEARL is an innovative, visual, experience sampling method to explore a public health phenomena of interest. It allows researchers to get a glimpse of participants' worlds outside of the research space and collects both visual and narrative data grounded in participant experience. The participant-centered and trauma-informed approach of PEARL makes it particularly approachable for those who do not often engage in research, as it allows them to lead the conversation and set the stage for what will be discussed in the interview ahead of time. While this method has many benefits, there are also some limitations. This includes telling the story of the photograph retrospectively, access issues to cameras and other technology, and the potential of capturing a not-so-typical week for participants depending on the time in which you ask them to photograph their experience. While these limitations may be able to be addressed through modifications and creative brainstorming, they are important to note as you decide whether or not this method is appropriate for your intended research question.

6 | CONCLUSIONS

Ultimately, PEARL aims to allow researchers to gain insight into a health phenomenon of interest that may either be difficult to describe with words alone or may benefit from visual representation through the eyes of participants. Nurse researchers are uniquely positioned to use this method appropriately, as they have training in the holistic understanding of a person as well as in the therapeutic listening strategies needed for the successful implementation. By promoting participant autonomy, listening compassionately and without judgement, and amplifying the voices and perspectives of those interviewed, nurse researchers can create an welcoming environment for many who may be skeptical of the research process. PEARL helps to create a symbiotic relationship, wherein researchers can promote participant reflection, while witnessing and documenting their experiences as they navigate the world in which they live.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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REFERENCES

- Allen, T. D., & Kiburz, K. M. (2012). Trait mindfulness and work-family balance among working parents: The mediating effects of vitality and sleep quality. *Journal of Vocational Behavior, 80*(2), 372-379. <https://doi.org/10.1016/j.jvb.2011.09.002>
- Beal, D. J. (2015). ESM 2.0: State of the art and future potential of experience sampling methods in organizational research. *Annual Review of Organizational Psychology and Organizational Behavior, 2*(1), 383-407.
- Bornoli, A., Parkhurst, G., & Morgan, P. L. (2018). The psychological well-being benefits of place engagement during walking in urban environments: A qualitative photo-elicitation study. *Health and Place, 53*, 228-236. <https://doi.org/10.1016/j.healthplace.2018.08.018>
- Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry, 18*(4), 211-237. <https://doi.org/10.1080/10478400701598298>
- Burles, M., & Thomas, R. (2013). 'But they're happening to you at the wrong time': Exploring young adult women's reflections on serious illness through photovoice. *Qualitative Social Work, 12*(5), 671-688.
- Castillo, A. G., Jandorf, L., Thélémaque, L. D., King, S., & Duhamel, K. (2012). Reported benefits of participation in a research study. *Journal of Community Health, 37*(1), 59-64. <https://doi.org/10.1007/s10900-011-9416-0>
- Catalani, C., & Minkler, M. (2010). Photovoice: A review of the literature in health and public health. *Health Education and Behavior, 37*(3), 424-451. <https://doi.org/10.1177/1090198109342084>
- Church, S., & Quilter, J. (2020). Consideration of methodological issues when using photo-elicitation in qualitative research. *Nurse Researcher, 28*(4).
- Collogan, L. K., Tuma, F., Dolan-Sewell, R., Borja, S., & Fleischman, A. R. (2004). Ethical issues pertaining to research in the aftermath of disaster. *Journal of Traumatic Stress, 17*(5), 363-372. <https://doi.org/10.1023/B:JOTS.0000048949.43570.6a>
- Conner, T. S., Tennen, H., Fleeson, W., & Barrett, L. F. (2009). Experience sampling methods: A modern idiographic approach to personality research. *Social and personality psychology compass, 3*(3), 292-313.
- Copes, H., Tchoula, W., Brookman, F., & Ragland, J. (2018). Photo-elicitation interviews with vulnerable populations: Practical and ethical considerations. *Deviant Behavior, 39*(4), 475-494. <https://doi.org/10.1080/01639625.2017.1407109>
- Crescentini, C., & Capurso, V. (2015). Mindfulness meditation and explicit and implicit indicators of personality and self-concept changes. *Frontiers in Psychology, 6*, 44. <https://doi.org/10.3389/fpsyg.2015.00044>
- De Haene, L., Grietens, H., & Verschuere, K. (2010). Holding harm: Narrative methods in mental health research on refugee trauma. *Qualitative Health Research, 20*(12), 1664-1676. <https://doi.org/10.1177/1049732310376521>
- Evans, D. R., Baer, R. A., & Segerstrom, S. C. (2009). The effects of mindfulness and self-consciousness on persistence. *Personality and Individual Differences, 47*(4), 379-382. <https://doi.org/10.1016/j.paid.2009.03.026>
- Farb, N. A., Segal, Z. V., Mayberg, H., Bean, J., McKeon, D., Fatima, Z., & Anderson, A. K. (2007). Attending to the present: Mindfulness meditation reveals distinct neural modes of self-reference. *Social Cognitive and Affective Neuroscience, 2*(4), 313-322. <https://doi.org/10.1093/scan/nsm030>
- France, E. F., Uny, I., Ring, N., Turley, R. L., Maxwell, M., Duncan, E. A. S., Jepson, R. G., Roberts, R. J., & Noyes, J. (2019). A methodological systematic review of meta-ethnography conduct to articulate the complex analytical phases. *BMC Medical Research Methodology, 19*(1), 1-18. <https://doi.org/10.1186/s12874-019-0670-7>
- Ghorbani, N., Cunningham, C. J., & Watson, P. J. (2010). Comparative analysis of integrative self-knowledge, mindfulness, and private self-consciousness in predicting responses to stress in Iran. *International*



- Journal of Psychology*, 45(2), 147–154. <https://doi.org/10.1080/00207590903473768>
- Glaw, X., Inder, K., Kable, A., & Hazelton, M. (2017). Visual methodologies in qualitative research: Autophotography and photo elicitation applied to mental health research. *International Journal of Qualitative Methods*, 16(1), 1609406917748215. <https://doi.org/10.1177/1609406917748215>
- Glomb, T. M., Duffy, M. K., Bono, J. E., & Yang, T. (2011). Mindfulness at work. In *Research in personnel and human resources management*. Emerald Group Publishing Limited.
- Guest, G., MacQueen, K. M., & Namey, E. E. (2011). *Applied Thematic Analysis*. Sage Publications.
- Harper, D. (2002). Talking about pictures: A case for photo elicitation. *Visual Studies*, 17(1), 13–26. <https://doi.org/10.1080/14725860220137345>
- Hofmann, W., & Patel, P. V. (2015). SurveySignal: A convenient solution for experience sampling research using participants' own smartphones. *Social Science Computer Review*, 33(2), 235–253. <https://doi.org/10.1177/0894439314525117>
- Hülshager, U. R., Alberts, H. J., Feinholdt, A., & Lang, J. W. (2013). Benefits of mindfulness at work: The role of mindfulness in emotion regulation, emotional exhaustion, and job satisfaction. *Journal of Applied Psychology*, 98(2), 310. <https://doi.org/10.1037/a0031313>
- Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, 10(2), 144–156. <https://doi.org/10.1093/clipsy.bpg016>
- Kahu, E. R., & Picton, C. (2020). Using photo elicitation to understand first-year student experiences: Student metaphors of life, university and learning. *Active Learning in Higher Education*, 1469787420908384. <https://doi.org/10.1177/1469787420908384>
- Kantrowitz-Gordon, I., & Vandermause, R. (2016). Metaphors of distress: Photo-elicitation enhances a discourse analysis of parents' accounts. *Qualitative Health Research*, 26(8), 1031–1043. <https://doi.org/10.1177/1049732315575729>
- Lapenta, F. (2011). Some theoretical and methodological views on photo-elicitation. *The SAGE handbook of visual research methods*, 201–213.
- Larson, R., & Csikszentmihalyi, M. (2014). The experience sampling method. *Flow and the Foundations of Positive Psychology* (pp. 21–34). Springer.
- McIntosh, M. J., & Morse, J. M. (2009). Institutional review boards and the ethics of emotion. *Qualitative Inquiry and Social Justice*, 81–107.
- Mason, J. (2017). *Qualitative researching*, 2nd ed.. Thousand Oaks, CA: Sage.
- Morse, J. M., & Field, P. A. (1995). *Nursing research: The Application of Qualitative Approaches*. Nelson Thornes.
- Neufeld, A., Harrison, M. J., Rempel, G. R., Larocque, S., Dublin, S., Stewart, M., & Hughes, K. (2004). Practical issues in using a card sort in a study of nonsupport and family caregiving. *Qualitative Health Research*, 14(10), 1418–1428. <https://doi.org/10.1177/1049732304271228>
- Newman, E., & Kaloupek, D. (2009). Overview of research addressing ethical dimensions of participation in traumatic stress studies: Autonomy and beneficence. *Journal of Traumatic Stress: Official Publication of the International Society for Traumatic Stress Studies*, 22(6), 595–602. <https://doi.org/10.1002/jts.20465>
- Noblit, G. W., & Hare, D. R. (1988). A meta-ethnographic approach. *Meta-ethnography: Synthesizing Qualitative Studies*. : SAGE Publications.
- Noland, C. M. (2006). Auto-photography as research practice: Identity and self-esteem research. *Journal of Research Practice*, 2(1), M1.
- Oliffe, J. L., & Bottorff, J. L. (2007). Further than the eye can see? Photo elicitation and research with men. *Qualitative Health Research*, 17(6), 850–858. <https://doi.org/10.1177/1049732306298756>
- Ravitch, S. M., & Carl, N. M. (2020). *Qualitative research*. Sage Publications Limited.
- Rayment, G., Swainston, K., & Wilson, G. (2019). Using photo-elicitation to explore the lived experience of informal caregivers of individuals living with dementia. *British Journal of Health Psychology*, 24(1), 102–122. <https://doi.org/10.1111/bjhp.12342>
- Reis, H. T., & Gable, S. L. (2000). Event-sampling and other methods for studying everyday experience. *Handbook of research methods in social and personality psychology*, 196.
- Richards, H. M., & Schwartz, L. J. (2002). Ethics of qualitative research: Are there special issues for health services research? *Family Practice*, 19(2), 135–139. <https://doi.org/10.1093/fampra/19.2.135>
- Schmidt, S. (2011). Mindfulness in east and west—is it the same? *Neuroscience, consciousness and spirituality* (pp. 23–38). Springer.
- Singh, H., Scovil, C. Y., Yoshida, K., Oosman, S., Kaiser, A., Jaglal, S. B., & Musselman, K. E. (2020). Capturing the psychosocial impacts of falls from the perspectives of wheelchair users with spinal cord injury through photo-elicitation. *Disability and Rehabilitation*, 1–10. <https://doi.org/10.1080/09638288.2019.1709911>
- Singla, R. (2011). Origins of Mindfulness and Meditation Interplay of Eastern and Western Psychology. *Psyke & Logos*, 32(1), 20.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research techniques*. Sage publications.
- Tang, Y. Y., Hölzel, B. K., & Posner, M. I. (2015). The neuroscience of mindfulness meditation. *Nature Reviews Neuroscience*, 16(4), 213–225. <https://doi.org/10.1038/nrn3916>
- Thomas, M. E. (2009). Auto-photography. In R. Kitchen, & N. Thrift (Eds.), *International encyclopedia of human geography* (pp. 244–251). Elsevier Academic Press, Elsevier.
- Tishelman, C., Lindqvist, O., Hajdarevic, S., Rasmussen, B. H., & Goliath, I. (2016). Beyond the visual and verbal: Using participant-produced photographs in research on the surroundings for care at the end-of-life. *Social Science and Medicine*, 168, 120–129. <https://doi.org/10.1016/j.socscimed.2016.09.012>
- Van Auken, P. M., Frisvoll, S. J., & Stewart, S. I. (2010). Visualising community: Using participant-driven photo-elicitation for research and application. *Local Environment*, 15(4), 373–388. <https://doi.org/10.1080/13549831003677670>
- Wang, C., & Burris, M. A. (1997). Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Education and Behavior*, 24(3), 369–387. <https://doi.org/10.1177/109019819702400309>
- Wang, C. C., Cash, J. L., & Powers, L. S. (2000). Who knows the streets as well as the homeless? Promoting personal and community action through photovoice. *Health Promotion Practice*, 1(1), 81–89. <https://doi.org/10.1177/152483990000100113>
- Xiao, Q., Yue, C., He, W., & Yu, J. Y. (2017). The mindful self: A mindfulness-enlightened self-view. *Frontiers in Psychology*, 8, 1752. <https://doi.org/10.3389/fpsyg.2017.01752>

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