

## The use of photo-interviewing: three examples from health evaluation and research

This article reviews the use of photographs as data within the social sciences as well as defining related terminology used over the past century. It then examines the use of photos as stimuli for talking about health settings before presenting three recent case studies where photo-interviewing has been used successfully in health evaluation and research. Advantages and limitations of the method are considered.

### Introduction

Over the last century, the use of photographs as a means by which to obtain qualitative data has waxed and waned. It has swung from being a popular technique to being virtually ignored, and back again. For instance, early anthropologists and sociologists relied heavily on photographs as data until this kind of information was criticised for being 'unscientific' and 'unsystematic'. Silence on the topic existed for about 50 years until the mid-1970s when the work of those such as Ruby (1976), Becker (1978) and Wagner (1979) appeared. At the same time it was suggested that photographs could provide strong evaluation data (Wachtman 1978; Templin 1978, 1982; Brown, Peterson & Sanstead 1980).

However, this period of activity was followed by another decade of virtual silence on the subject. So, it was not until John and Malcolm Collier's classic *Visual Anthropology as a Research Method* (1986) and an ensuing article (1987) that the visual medium gained acceptance as being part of a researcher's or evaluator's data collection repertoire. It occurred simultaneously with the upsurge of popularity of qualitative research methods and so more recently, there has been a considerable renewal of interest in the visual medium for evaluation and research purposes (Ruby 1991; Walker 1993; Hurworth & Sweeney 1996; Prosser 1998; Banks 2001; Emmison & Smith 2001; Rose 2001; van Leeuwen 2000; Hurworth 2003).

Even so, in comparison with other qualitative methods, only a relatively small amount has been written concerning the use of the visual medium for evaluation purposes (Hurworth 1995) and even less about how photographs can be integrated into the interviewing process. This article tries to redress the situation by firstly reviewing developments and terminology associated with photo-interviewing in the social sciences generally, and more specifically how it has been

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applied to health settings. Then three case studies are presented where the technique has been applied to a variety of health-related issues, before drawing some conclusions about the value of the photo-interview technique.

### **An overview of the use of photo-interviewing and associated terminology in the social sciences**

As photo-interviewing has developed, a number of different terms have been coined. These include:

- photo-elicitation
- autodriving
- reflexive photographs
- photo novella
- photovoice.

### **Photo-interviewing and photo elicitation**

Photo-interviewing was certainly used in early anthropological research. As part of data collection anthropologists would show photos to key informants in order to get them to talk about specific cultural matters and rituals. In more recent times this technique has been employed to: examine rural people's attitudes to modernisation (Gates 1976); study a farming community (Schwartz 1989); monitor French-speaking farmers' migration to mill towns in Canada (Collier 1979); look at changes of a town over time (Chiozzi 1989; Modell & Brodsky 1994); ascertain what makes for 'housing adequacy' (Suchar & Rotenberg 1994); discuss work in an American factory (Hareven & Langenbach 1978); and to study ethnic identification (Gold 1986; van der Does et al. 1992).

This use of photographs to provoke a response became known as the '*photo-elicitation technique*' (Harper 1984, 1988; Calderola 1988; Heisley & Levy 1991) and it has been used in a variety of disciplines. For example, psychologists have used the technique to understand behaviours, (Akeret 1973; Entin 1979; Wessels 1985), to see if it assists in memory retrieval (Aschermann et al. 1998) and to carry out studies of group response (Harper 1984; Stokrocki 1984).

Furthermore, photo-elicitation seems to have been of particular use when working with children and young people. In fact Salmon (2001) and Aschermann et al. (1998) report that photographs, used as props, can be useful for recalling and talking about events even when working with children as young as three years old. Examples of use with the young include the work of Weiniger (1998), who used photos as prompts with 24 children aged five to thirteen to elicit attitudes and beliefs about potential careers, and that of Foster et al. (1999) who explored the development of historical thinking in 3rd, 6th, and 9th grades children using a set of historical photographs.

Such an approach was also found to be valuable for evaluations. For instance, Tucker and Dempsey

(1991) applied photo-interviewing to educational program evaluation. Photographs were taken every 20 minutes of teaching in a computer-based learning environment. Certain pictures were selected for discussion later by students to help evaluate the workshop. The evaluators concluded that:

Photo interviewing provided an expedient means of getting inside the program and its context to describe and explain the program and its consequences in terms of participants' realities and meaning systems that oral interviewing did not permit. (Tucker & Dempsey 1991, p. 652)

### **Autodriving**

Meanwhile, Heisley and Levy (1991) used photos of interviewees themselves in order to enhance informant involvement and to elicit enriched qualitative information. This kind of interviewing was termed '*autodriving*', indicating that 'the interview is "driven" by informants who are seeing their own behaviour'. The authors suggest that this approach allowed a:

negotiated interpretation of ... events ... which gives the informant increased voice and authority in interpreting such events and ... provides a perspective of action that makes systems meaningful to an outsider. It also manufactures distance for the informant and so they see familiar data in unfamiliar ways. (p. 257)

### **Reflexive photographs**

Later, Harrington and Lindy (1998) used photographs taken by program participants themselves. In their study 10 students were given a disposable camera to take pictures that would illustrate their impressions of life and courses at a university. This was followed by a reflective interview that revealed both positive and negative reactions. The technique has also been found to be useful in examining cross-cultural issues. Ziller (1990), for instance, describes how students from four nationalities were asked to take photos depicting what the USA meant to them and then to talk about it. Similarly, Douglas (1998) asked black students to photograph their impressions of a predominantly white university and referred to the pictures produced for subsequent interviews as '*reflexive photos*'.

### **Photo novella**

Yet another term for photo-interviewing has been referred to as '*photo novella*' ('picture stories'). This uses photographs as a means of empowering (usually powerless) participants to create narratives about the events and routines that make up day-to-day existence. Such an approach has been used to effect political and program change (Wang & Burris 1994). As with reflexive photography, photo novella does not entrust cameras to researchers, or professional photographers. Rather, it puts them into the hands of marginalised groups who normally have little access to those who make decisions

over their lives. So, photo novella acts as a tool for collaborative, participatory and empowerment evaluations. It allows people with little money, power or status, to document and discuss life conditions as they see them in order to communicate to policy makers where change should occur.

**Photovoice**

More recently, the term '*photovoice*' has been used to replace 'photo novella'. This has been promoted strongly by Wang and Burris (1997) who describe it as a process by which 'people can identify, represent and enhance their community through a specific photographic technique'. Wang et al. (1998) and Wang (1999) also suggest that it can be used for participatory evaluations where an action research approach is desired to effect community change. The technique has been used successfully with African-American women in a project exploring the feasibility of establishing house-sharing arrangements for mutual assistance (Killion & Wang 2000). It also helped homeless men and women to: document their perspectives; promote critical dialogue about issues of concern to them through discussion about their photographs; and to reach policy makers and the public about issues of concern to homeless people through forums such as newspaper articles, a gallery exhibition and a slide show with discussion in a theatre.

**Examples of the use of photo-interviewing in health settings**

So to what extent have the various forms of photo-interviewing been employed in health-related settings, and how has the technique been applied? From reviewing the literature, there seems to have been fairly limited usage in the health arena but the few authors who have written about photography, research and evaluation in this domain have found it to be:

- *a good way to evaluate medical and hospital procedures.* The use of photographs can provide a way of bringing empirical evidence to bear while simultaneously allowing a participative approach. Buchanan (1998), for instance, looked at an acute teaching hospital that was seeking to reduce patient delays for operations. The study focused specifically on photographs of the elective surgical in-patient process from referral to discharge. Photo-elicitation sessions were held with staff and patients and detailed analyses led to the redesign of procedures.
- *a technique by which to carry out participatory needs assessments and health promotion.* A good example of this was reported by Wang, Burris and Xiang (1996) who used the photo novella technique with rural women in China to inform and influence improvements in women's health.
- *a useful tool for nursing research and evaluation.* Hagedorn (1994, 1996) was one of the first to encourage photography as a potentially useful

technique within nursing inquiry, in order to discuss either the familiar or the unknown. Since then others have followed suit.

- *a tool which has a potential for teaching allied health students.* In this regard, Killion (2001) used photo-interviewing as a means to teach nursing students about cultural aspects of health. Meanwhile, Smith and Woodward (1999) describe a photo-elicitation assignment given to health graduates in which students interviewed drug addicts, similar to people portrayed in the photographs, in order to discover what the photographs meant to them.
- *a cathartic/therapeutic strategy.* Hagedorn (1996) states that talking with the aid of photographs can create a cathartic, healing strategy. For example, reflexive photos were used successfully with parents (who took the photos) and children when talking about family experiences of living with a chronic illness. Similarly, Higgins and Highley (1986) carried out photo interviews with mothers of infants with congestive heart failure, and Gerace (1989) introduced discussions about family photographs as a clinical technique with depressed patients calling the approach '*phototherapy*'.
- *a way to get people to talk about more difficult, abstract concepts.* One example of using photos to deal with abstract concepts has been provided by Curry and Strauss (1994) who carried out a visual study to explore social conditions promoting the normalisation/minimisation of significance of sporting injuries. Photographs were taken at university wrestling events and in a hospital operating room. Then quotations, drawn from photo-elicitation interviews with coaches and athletes about the potential short- and long-term effects of injury on continued participation, were extracted.

More recently Bender et al. (2001) carried out interviews using photographic prompts to get people to talk about quality of prenatal care for immigrant Latina women. This provided rich narratives and much more useful information in comparison with the short responses written on a survey. As a result, the authors went on to stress the need for appropriate data collection with certain populations who find articulation through language difficult.

- *a means to get children to open up and talk about mental and physical health.* Examples of use with the young include Salmon (2001) who spoke about how photos assisted children to talk about perceptions of a medical examination, Diamond (1996) where visual images were used to get children to talk about disabilities and Cunningham, Glenn and Fitzpatrick (2000) who showed children photographs to see whether they could recognise and talk about Down syndrome.

## Three recent case studies of the use of photos in health-related research and evaluation

Having looked at the development and potential of photographs in eliciting information, three more detailed case studies associated with the use of photos in health/wellbeing studies are presented. Two took place in Australia while the third took place in the USA. In each instance, information about the project is presented, as well as discussion about data management and outcomes, in order to demonstrate the potential power that the use of photographs engenders. Some issues are also raised.

### Case 1: Photo novella used in nursing research: experiences and nursing history of rural nurses in Australia

#### Purpose of the research

The aim of this particular piece of research was to construct a critical, feminist nursing history in order to record the day-to-day lives of nurses in rural Victoria, Australia, during the 1950s and 1960s. More specifically, the study sought to capture stories and details of nursing tasks, working relationships between the nurses and other health care workers, and the nurses' experiences of living and working in small, and often isolated, rural communities at that time. It was also thought important to allow nurses to reveal the importance of this aspect of their lives. Finally, it seemed imperative to collect and preserve such experiences before associated stories become lost forever (Bennett 1995).

#### The approach

The basic research design aimed to use oral history in order to redress the class and gender biases of traditional history based on written records. By studying issues of importance to women, it could help reverse the invisibility of women's experiences and make their concerns of central importance (Gluck & Patai 1991; Sangster 1994).

In order to do this, the researchers decided to introduce a modified photo novella approach as this would allow a grassroots view of nursing lives. However, the technique had to be modified as participants obviously could not take photographs, because events had passed. But as appropriate photographs were available, there was the potential to stimulate dialogue about the meanings and significance of everyday life many years ago. This dialogue could then provide a rich source of qualitative data that could be used alone or in combination with data collected in other ways (Magilvy et al. 1992).

Naturally, the selection of appropriate photographs was essential for a successful outcome. So, the researchers drew upon their own collections of nursing memorabilia and illustrations in books and journals of the period to identify suitable images. The aim was to find photographs that were taken during the correct era, and which depicted a range of nursing roles and relationships, along with examples of the material culture of nursing. After

much discussion five photographs were selected and during interviews were presented as black-and-white prints, measuring 15 cm x 11 cm. They comprised:

- 1 A Registered Nurse in the regulation uniform of white dress and white veil, loading a large trolley of equipment into an autoclave steriliser.
- 2 A female nurse assisting a male doctor to give an injection to a boy of about six years of age in a schoolroom, with two other boys looking on.
- 3 A young child about 12 months old, arm in a sling, sitting in a large cot and looking at a book.
- 4 A view of the lawn outside a hospital building, showing a nurse with a veil and a cape over her dress, attending a young woman in a wheelchair.
- 5 A steep, rough hillside paddock with a number of cows. This photograph was selected to represent rural isolation.

Participants for the research were identified from the researchers' professional and social networks. They had to be female, be trained and/or have worked as registered nurses during the period 1950 to 1970 in rural Victoria (defined as anywhere beyond the Melbourne metropolitan area). Eventually, 14 participants were selected and a short list of questions to guide the interviews was prepared.

The interviews followed oral history principles and the photographs were shown to participants towards the end of the interviews. Participants were also invited to show their own photographs or other mementos of their nursing careers to the researchers. Interviews were tape-recorded and transcribed verbatim for thematic analysis.

#### Outcomes and evaluation of the photo-interviewing technique

The modified photo novella technique proved a useful means of eliciting extra detailed responses grounded in the reality of the participants' lives as nurses. It also complemented the oral history approach used in the interviews, since it led to extra detail of women's everyday work as nurses. The photographs helped participants recall activities that were so routine, and seemingly trivial, that they had

barely been committed to memory, yet these tasks were central to their work and existence as women and nurses.

Similar to Dempsey & Tucker's (1994) observation, the photographs led to narratives that were more specific, more detailed and more grounded in day-to-day reality than the interviews could have provided alone. For example, participants had talked in general terms about their daily routines, but the picture of the nurse sterilising equipment (Photograph 1) stimulated detailed recall of activities in the days before disposable equipment was used. Nurses had to prepare and clean items such as bandages, linen and syringes every day, and the photograph helped recall the detail of these duties. Furthermore, participants described how the tedious task of turning sheets of cotton wool into small balls or swabs was made easier if the cotton wool was placed on top of the warm steriliser to fluff it up. The job was made easier still if the nurse could persuade patients to do it for her. The consistency of responses to the photograph in comparison with the variety of discourses beforehand suggested that the picture was a key tool in obtaining rich data.

The pictures also aided recall, as participants compared photographs with what they had experienced. This was especially apparent in relation to nursing uniforms. No mention was made of these before the photographs were shown, but Photograph 1 and to a lesser extent Photograph 4 generated discussion about the style of uniforms at the time. This went beyond descriptions of appearance to include emotions associated with the clothing. One participant also recalled the itching and discomfort when wearing starched uniforms, and

the use of soap to soften the collar. Also in response to the photographs, another participant showed a photograph of herself working abroad during that period. She described the complicated English uniform, with detachable collar and cuffs, studs, and an adjustable cap, and remembered her concern about the length of time it took to get dressed correctly as she prepared for her first shift overseas.

#### Some limitations regarding the photographs presented

It should be admitted that not all the photographs were equally effective in promoting discussion. For instance, all participants dismissed the hilly rural scene in Photograph 5 as irrelevant, with the comment that the places they had worked in had been notable for their flatness. Similarly, few participants recalled using a wheelchair like the one shown in Photograph 4, although two participants remembered humorous anecdotes about the problems of moving large or uncooperative patients around the hospital when adequate equipment or assistance was unavailable. Likewise, few respondents identified with the school immunisation shown in Photograph 2, as this was not part of the work of hospital nurses. This suggests that researchers intending to use the modified photo novella technique need to ensure that the images selected are appropriate for the times, places and tasks that they are investigating.

Nevertheless, the final words on the value of the photo novella technique in oral history and feminist studies came from one of the participants who, when looking at the photographs, explained that without them: 'you do forget all these little bits and pieces you did, because you just did it'.

### Case 2: Photo-interviewing as a way to study the motivation of surgeons to tutor during a basic surgical skills course

#### Purpose of the study

In this instance the use of photo-interviewing was used to explore the factors that motivate or discourage surgeons from participating as voluntary tutors for the Royal Australasian College of Surgeons (RACS) Basic Surgical Skills Courses (BSS). These courses are conducted for basic surgical trainees in all states of Australia and in New Zealand during the first half of each year. Tutor recruitment and retention is recognised as a high priority for continued success, and the effectiveness of proposed recruitment strategies is likely to be enhanced if the underlying motivations for surgeons to tutor can be determined.

#### The approach

The method decided upon was based on the protocol for photo-interviewing described by

Dempsey and Tucker (1994) in their evaluation study. This required:

- 1 *Sourcing photographs.* The photographs used in the interviews were selected from a collection of photographs taken by course convenors who had been free to choose what and whom to photograph, and to make decisions regarding composition. These photographs had been taken as a pictorial record of the BSS course for RACS documentation purposes and were *not* taken for evaluation or research purposes. Photographs depicted the setting, tutors, students, equipment and materials.
- 2 *Specific selection of photographs.* The photographic collection was reviewed and each image was categorised into one of five subject categories and labelled. Subject categories

comprised (i) overview pictures, (ii) trainees without tutors, (iii) trainees and tutors, (iv) close-up views of surgeons' hands performing a task and (v) images of equipment or materials. Images in category (v) were not included in the project. Eventually, seven photographs were selected for the study (Table 1). Photographs were chosen to represent differing perspectives within categories and to encompass the content areas of the course. Colour laser prints were made on A4 paper of each image and labelled. No image was modified for the study.

completed the RACS BSS course. All subjects were informed of the purpose of the interviews and all interviews were audiotaped.

- 5 *Analysis.* Tapes were transcribed verbatim. Transcripts were reviewed and coded and data displayed on a Miles and Huberman (1994) style grid. Themes and information relevant to the study question were extracted from the data. Similarities and differences between interviewees were explored.

**TABLE 1: PHOTO SELECTION AND RATIONALE FOR CHOICE**

CLASSIFICATION	RATIONALE FOR CHOICE
<p>Overview</p> <p>1 Photo of the workshop underway at the Royal Australian College of Surgeons (RACS) headquarters in Melbourne</p>	<p>A good view of the whole course set up with multiple surgeons and trainees participating. Taken in the RACS Great Hall.</p>
<p>Trainees</p> <p>2 A single trainee involved in wound debridement</p> <p>3 Two trainees working together with plaster</p>	<p>Images that show trainees without tutors engaged in course activities.</p> <p>Photograph 1 shows an individual concentrating on the task while Photograph 2 shows two trainees cooperating and appearing to enjoy themselves.</p> <p>Content area = musculoskeletal</p>
<p>Surgeon hands</p> <p>4 Two sets of hands working to complete a suturing task</p> <p>5 A single pair of hands on task</p>	<p>Photograph 4 shows close-up images of surgeon hands which are not identifiable as tutor or trainee. The emphasis is on the technique.</p> <p>These images depict a single surgeon while the other is a surgeon and assistant.</p> <p>Content area = open surgery, musculoskeletal</p>
<p>Tutors and trainees</p> <p>6 A tutor with two trainees across the table</p> <p>7 A tutor next to a trainee</p>	<p>These are images of tutors and trainees interacting. The two images have been chosen to depict tutors in different spatial relation to trainees and to include a 'one to one' interaction.</p> <p>Content area = open surgery, minimal access surgery</p>

- 3 *Preparation of the interview schedule.* A set of interview questions was developed to explore factors that motivate tutors (or not) to become tutors. The initial task for interviewees was to 'examine the photographs and comment on whether any of them encapsulated the essence of why surgeons participate as tutors for the BSS course'. Subsequent questions concerned rewards and motivations, disincentives and likely effective strategies for recruitment and retention of tutors.
- 4 *Conduct of interviews.* Individual interviews were conducted with eight people (four surgeons, four trainees). The surgeons chosen to participate were either course convenors or BSS tutors. Trainees were included because they were seen to be important stakeholders in the course and experienced the course and tutors from another perspective. All trainees interviewed had

**Outcomes and evaluation of the photo-interviewing technique**

All surgeons and three of the four trainees initially selected the same image of a tutor giving one-to-one instruction to a trainee with other trainees looking on. Selectors made similar comments about the significance of this photo in that it reflected the one-to-one teaching opportunities, the hands-on nature of the course and the skill transfer from senior to junior surgeons. Also during discussion, interviewees identified four powerful internal motivating factors for participation as tutors:

- (i) satisfaction related to teaching per se
- (ii) the opportunity to contribute to the development of trainees' careers
- (iii) passing on knowledge and skills to the next generation

- (iv) an investment in increasing the quality of patient care through increased surgical skill levels.

Surgeons and trainees emphasised themes (i) and (ii) whereas trainees emphasised theme (iii) and only surgeons discussed theme (iv). Time was the major factor identified by both surgeons and trainees as a disincentive to tutoring for the course. The finding that powerful motivating factors for participation are intrinsic, and that the most significant disincentive is extrinsic, is congruent with teacher motivation in other educational settings. Strategies to recruit and retain tutors need to recognise this.

Overall, photo-interviewing was felt to be an effective method in this exploratory study. The surgeons and trainees interviewed were engaged by the use of images and all referred to a number of them. They used the images to illustrate discussion points and reflect on their own experiences associated with the course.

#### Potential limitations of using photographs

In the context of this study a number of methodological issues warrant discussion. They concern:

##### *The use of archival images*

The study images came from archives and were not collected 'a priori' as study data. This can fall short of the ideal when using images for evaluation or qualitative research. However, in this study images were not collected as primary data for the

study but were used to promote consideration of the study question by the subjects. Images were therefore selected to represent different ways in which tutors and students engage during the course. The archive did not, however, contain any 'negative' representations of this interaction and this may have introduced some 'positive bias' into tutor and student recollections of events. The concordance between subjects in selection of the primary image chosen by the majority and the common themes that emerged, suggests that despite this concern, the photographs were effective at prompting recall, reflection and discussion.

##### *Photographs as reality*

Related to the issue of the positive bias in image selection discussed above is the concept of photographs as reality. For rigorous research, in using images the principle of using only unaltered records must be adhered to. In this study the images were not modified and thus each is a true record of a real event. The set of images, however, was selected to provide the focus for an interview addressing a specific question and so cannot be held up as a record of the reality of the whole course. This means that it would be invalid to use this set to investigate another question.

### Case 3: Photo elicitation with young people—reactions to photographic images in women's health, fitness and sports magazines and the physical self-concept of a group of adolescent female volleyball players

#### Purpose of the research

The purpose of the third study was to explore the effects of magazine photographs that emphasise aesthetic beauty, rather than athleticism, on the way in which a group of adolescent female athletes construct their own physical self-concept.

The interest to do this arose from the fact that for more than two decades readership of women's sports, health and fitness magazines in the United States has increased dramatically (Granastein 1998). While claiming to focus on female fitness and athletic achievement, they perpetuate female stereotypes in which extreme thinness is seen as the desired feminine ideal (Benson 1997; Duncan 1990). Furthermore, the popularity of these magazines has paralleled a growth in eating disorders in the USA and other western nations. Indeed, many point to the mass media as a major sociocultural influence on the development and perpetuation of eating pathology (Stice 1994).

As a consequence, it was thought important to study the role that magazines play in the creation of a sense of 'self' of young people when comparing themselves with the images viewed (Arnett 1995). It was also considered to be particularly interesting to examine the effects on girls who participate in sports, as women's health, fitness and sports magazines are popular among such young women. Such adolescents are likely to have a strong sense of identification with the female athletes and to use them as role models (Martin & Gentry 1997). So, a question arises about what happens to the self-concept of impressionable young sportswomen when media images blur the distinction between athleticism and sex appeal?

#### The approach

In the first phase of the study, the researcher collected full-page photographs of women and female athletes engaged in athletic or fitness-related

activities from September 1988 to December 2000 issues of the following magazines: *Fit, Shape, Sports Illustrated for Women, Oxygen, Women's Sports and Fitness, Ironman, Fitness and Health*. Sixty-five photographs were selected initially. The female athletes from the researcher's university were then asked to code each photograph using a five-point scale (1 = no emphasis on aesthetic beauty to 5 = a complete emphasis on aesthetic beauty). The 25 photographs with the highest average scores (greatest emphasis on beauty rather than athleticism) were then selected for use in photo-elicitation group interviews with athletic adolescents.

Participants in the study were members of junior-level (aged 14–18) club volleyball teams competing under the direction of USA Volleyball (USAV), the national governing body for volleyball in the USA. Forty-one young women from five USAV teams in the State of Utah participated in this study. These volunteers then took part in one of five group interviews which comprised seven to nine players in each session. For each session the subjects were asked to sit in a semi-circle and a tape recorder was placed in the middle of the group. The 25 photographs, which had been mounted on board were then passed, one by one, among the group. A new photograph was not presented to the group until the previous photograph had been seen by each participant.

There was no set question route; rather at the start of each session the interviewer only indicated that he was interested in the players' reactions to each photograph.

As each photograph made its way through the group, the interviewer listened to the participants' individual reactions, as well as to the conversations that emerged among the young women. Based on these comments, the interviewer asked follow-up questions and probed for additional clarification, detail and feeling regarding the participants' reactions. Frequently, young women would refer again to a particular photograph they had seen. The interviewer would then place that photograph in the middle of the group and ask other members to respond to the comments that had just been made.

Each session was tape-recorded and verbatim transcripts produced. The transcripts were then analysed following a grounded theory approach.

#### Outcomes and evaluation of the photo interviewing technique

Frequently, the young women differed in their initial reactions to the photographs. Eventually, through discussion, participants arrived at a shared consensus. These group 'negotiations' allowed the researcher to explore the meaning of, and effects on, the self-concept created by the photographs.

This can be illustrated by one group's reaction to what several of the players said was their 'favourite' photograph. When the interviewer asked why it was a favourite, the conversation often shifted to a discussion exploring how the young often compared themselves and different parts of their bodies, with women in

the photographs and then finally to a debate about what constitutes a 'normal' physical appearance. Discussion led to the discovery that these young women often juxtaposed the concepts of 'normal' and 'perfect', believing that to be normal, even as an athlete, they must be 'perfect' in a beauty sense. As much as they wanted to be recognised for athletic achievement, their physical self-concept emphasised the need for aesthetic appeal.

However, it must be mentioned that one of the useful effects of seeing the photographs was to trigger personal experiences involving sports participation as well as other experiences as consumers of women's media. This led to several, somewhat serendipitous findings such as players' loathing of certain types of tight-fitting athletic uniforms, their disdain for these magazines that they said fail to show the work and effort that goes into athletic success and their frustration with male coaches who fail to recognise their fear of developing too many muscles, particularly in the legs. Through such discussions, it was surprising to learn of their love-hate relationship with their sport and this became even clearer while viewing a photograph of a professional athlete who is also a fashion model.

Overall, the study had been based not only on the method of photo-elicitation but on something called 'Reception Analysis', where meaning from the photograph is constructed as it is received or consumed by an audience. In addition, this meaning can be created and recreated, both intra-personally and interpersonally, through interaction with others (Fingerson 1999). As a result, combining interviewing techniques with the presentation of photographs proved to be an effective method of facilitating group interaction and to the enhancement of the reconstruction of self-concept.

#### Potential limitations of group photo-elicitation

One potential limitation arises from the nature of group interviewing stimulated by photographic images. While group interviewing allowed the researcher to observe interpersonal interactions and meaning negotiation, it is possible that one or two of the more vocal participants may have influenced the discussion and swayed the 'shared' consensus of the group. Although the moderator worked to overcome this problem, one-to-one interviews may have revealed reactions to certain photographs that were overlooked, or unexamined, during group interaction. Perhaps a combination of group and individual interviews would have strengthened the analysis.

A second limitation, involving hypersensitivity to a photograph, became apparent to the researcher when an interviewee had a strong negative reaction to one of the photographs. The image in question (which depicted an extremely thin, almost emaciated track athlete) prompted a young woman to express her own anger and frustration at being accused by friends of being anorexic. While this was an insightful moment, it also appeared to limit her willingness to participate in subsequent discussion.

### An overall assessment of the photo-interview method

While some potential issues have been raised in association with photo-interviewing, (such as difficulties relating to: appropriate photo selection; failing to present negative images; photos only portraying partial reality; the potential to be confrontational; ethics; and issues in recruitment) these seem to be outweighed by positive attributes. Indeed, photo-interviewing can:

- be used at any stage of the research/evaluation process but is particularly useful for pilot and development work
- provide one part of multi-methods triangulation and so provide a check on the rigour and trustworthiness of the research (Becker 1975; Lincoln & Guba 1985)
- be a tool for participatory needs assessment/empowerment evaluation (Wang 1998)
- provide a means of 'getting inside' a program and its context.

It also assists the interviewee by:

- bridging psychological and physical realities
- allowing a combination of visual and verbal language
- reducing or negating the need for written literacy.

The technique can also:

- assist with laying the foundations of trust and rapport
- mean those being researched give their perspective and raise issues that are significant to them so that 'the imagery dredges the consciousness and subconsciousness of the informant' so that the photo's content 'which is an "outside" view can be used projectively with the informant to give us an inside view of our research territory' (Collier 1979).
- produce unpredictable information
- promote longer and more detailed interviews in comparison with normal interviews. This is corroborated by Collier (1979) who stated that:

We found that pictures meant interviews went on longer. Verbal interviews became unproductive far more quickly. Picture interviews were flooded with encyclopaedic information, whereas in the exclusively verbal interview, communication difficulties and memory blocks inhibited the flow of information. (Collier 1979, p. 281)

- be a core technique for enhancing collaborative and participatory evaluation (Wang & Burris 1994) by allowing interviewers and interviewees to examine phenomena and processes together and to arrive at a negotiated interpretation. Caldarola (1988), for instance, commented that:

Photo interviewing became an exceptional source of rapport as well as eliciting detailed information. More importantly the interviews encouraged the informants' active participation in the research process. (p. 140)

Within the cases presented photo-interviewing also: challenged participants; provided nuances; triggered memories; motivated respondents to provide perspectives and explanations; assisted to guard against researcher misinterpretations; and overall led to useful data for each project.

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