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Faculty of Health Sciences

Visual methods in health dialogue and public health work

An action research approach to improve school nurses' work with adolescents

Hilde Laholt

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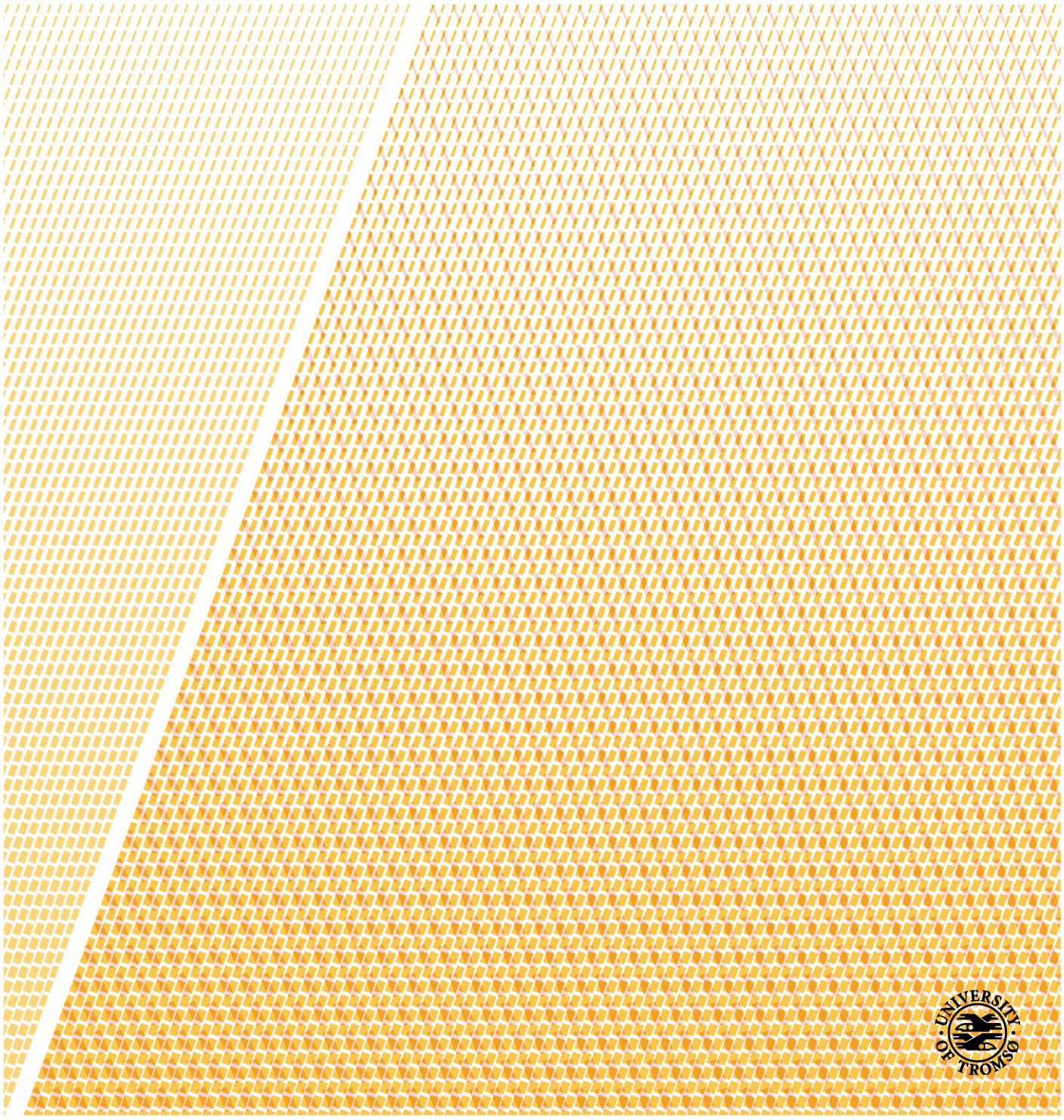

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Contents

Abstract

Background. School nursing involves relationships and understandings based on young people's needs. Visual technologies have become a central part of young people's life and context: they use their phones to communicate and shape their relationships and they turn to social media when inquiring about health issues. Visual methods in health communication thus draw on existing practices, and are well documented as research methods to elicit experiences of illness, health behaviour, emotions and other unarticulated and fuzzy aspects of life.

Aims. Our aim was to explore whether visual methods could improve the health dialogue and work of public health nurses (PHNs) in schools. We were particularly interested in examining how PHNs could relate to adolescents in terms of the challenges of using visual technologies and social media in a school nursing context. We had three objectives. First, we examined existing practice and knowledge of visual methods. Second, we developed a training programme in collaboration with the PHNs to develop their skills in utilizing visual methods. Third, we evaluated and adjusted the training programme.

Methods. We used a qualitative action research approach with a critical design involving focus groups in combination with participant observations and workshops on the use of visual methods. We involved PHNs working in school health services in Tromsø, a city in northern Norway. We utilized focus groups in order to investigate PHNs' previous experience and knowledge of visualization. The project also included a workshop series with the purpose of developing skills in how to use visual methods in school health services. Following the action research design we used focus group discussions (FGDs) to explore PHNs' experience of the workshops and of using visual methods in school health dialogues and public health work. Forty of about sixty PHNs in Tromsø participated in the study. FGDs were audio recorded and transcribed verbatim and we documented the workshops through field notes. We collected

the data from January to October 2016. Systematic text condensation was used for analysis of the texts and field notes, and visual meaning making for analysis of drawings made by the PHNs.

Findings. We found that visual methods could improve the school health dialogue and school nurses' public health work because visualization draws on a preferred form of communication for young people, but this presupposed that participant-generated methods were part of the communication. PHNs' ethical practice included being aware of new ethical issues that arose from adolescents' use of visual technologies and social media. When uncertainty or indecision remained, the PHNs resolved ethical challenges through discussion and collaboration with fellow nurses and other professionals. The provision of training in visual methods would enhance PHNs' professional toolbox and improve their efforts to promote adolescent health in a school nursing context.

Conclusion. PHNs were able to connect to the young people and their context in new and constructive manners by using visual methods. Visual technologies represented both benefits and challenges when used in a school nursing context. We recommend PHNs and other health or social care workers to employ visual methods in their practice and we see the need to study how this affects young people's experience of school nursing, communication with professionals and health behavior.

List of articles

Article I: Laholt, H., Guillemin, M., McLeod, K., Olsen, R.E. & Lorem, G.F. (2017) Visual methods in health dialogues: A qualitative study of public health nurse practice in schools. *Journal of Advanced Nursing*, 73(12), 3070-3078. https://doi:10.1111/jan.13371

Article II: Laholt, H., McLeod, K., Guillemin, M., Beddari, E. & Lorem, G. (2018) Ethical challenges experienced by public health nurses related to adolescents' use of visual technologies. *Nursing Ethics*, https://doi.org/10.1177/0969733018779179

Article III: Laholt, H., McLeod, K., Guillemin, M., Beddari, E. & Lorem, G. (2019) How to use visual methods to promote health among adolescents: A qualitative study of school nursing. *Journal of Clinical Nursing*, https://doi.org/10.1111/jocn.14878

1 Introduction

Working with young people in a health care context is challenging, and we know that there can be communication and other barriers between public health nurses (PHNs) and teenagers. However, what can be done to improve PHNs' ability to promote health for young people in a school nursing context?

1.1 Visualization in school nursing

School nurses' health promotion work presupposes relationships and understandings based on young people's needs. Visual technologies such as smartphones are a central part of young people's lives, and such devices are often their preferred communication means (Pink, 2012; Vanden Abeele, 2016). Young people use their phones to communicate and shape their relationships. They are also increasingly turning to digital media to answer their health questions (Wartella, Rideout, Montague, Beaudoin-Ryan, & Lauricella, 2016). Visual methods such as image and graphic elicitation draw on existing practices, and are well documented in research to create insight in how people understand illness and how they make sense of their world, especially regarding sensitive issues, emotions and taboos (Guillemin, 2004b; Harris & Guillemin, 2012). Graphic elicitation or drawing has been found useful in enabling young people with challenges to communicate their thoughts (Coad, 2007). Personal photos and other images are also widely used in therapeutic dialogue and counselling (Ginicola, 2012; Stevens & Spears, 2009; Weiser, 2004). Visual methods such as photovoice and digital storytelling have been found to be beneficial in public health contexts (Gubrium, Hill, & Flicker, 2014; Wang & Burris, 1994). Smartphones and social media are becoming a feature of professional interactions between school nurses and young people. One example from Norway was a PHN that used anonymized snap stories to provide feedback to teenagers (Engvik, 2019). Another example is a photovoice project conducted by adolescents in

Drangedal, a rural area of southern Norway (Wilhelmsen, 2015). These examples involve different kinds of visualization. However, we know that there are challenges associated with the increasing use of visualization, technology and social media in relationships with young people (Laholt, McLeod, Guillemin, Beddari, & Lorem, 2018).

1.2 The public health nursing profession

The public health nursing profession was established in Norway in the 1920s (Schiøtz, Skaset, & Dimola, 2003). From the outset, nurses cooperated with volunteer organizations to perform preventive work. In 1914, the Norwegian Women's Public Health Association (NKS) established child health clinics for mothers and children in Oslo. The Norwegian school health service was based on the School Act of 1860, and the first school health service was organized in 1918.

From the 1920s until today, Norwegian society has seen strong development and has become a welfare state (Schiøtz et al., 2003). The social and economic changes have influenced children and young people's health and wellbeing. PHNs' work and role have changed alongside developments in society, due to the needs of the individual child, pupil and the target populations for preventive and health promotion services. The PHN role has changed from being the expert that gave advice to non-experts to more equality with the aim of sharing knowledge with the target group and focusing on user involvement.

Norwegian PHNs have a key role in health promotion and disease prevention through their work in child health clinics (0-5 years), adolescent health clinics (13-20 years) and school health services (6-20 years) (Norwegian Directorate of Health, 2017). The regulations require

school health services in all primary, secondary and high schools (pupils 6-20 years) (Health and Care Services Act, 2012; Regulations on Child Health Clinics and School Health Services, 2018). PHNs abide by the ethical guidelines of the Norwegian Nurses Organisation (International Council of Nurses, 2013). They have limited authority in medical tasks, such as prescribing and giving contraceptives to adolescent girls (16-20 years) and giving vaccinations as recommended by the national childhood vaccination programme (Health Personnel Act, 2001; Norwegian Institute of Public Health, 2019).

The Norwegian guideline for school health services recommend individual and group health dialogue in different levels and grades in topics like health and lifestyle, nutrition and eating habits, friendship and bullying, puberty development, sexual health and identity, alcohol and drugs, use of social media, and violence (Norwegian Directorate of Health, 2017). PHNs also offer drop-in dialogues in school where pupils and their parents can meet the nurse, ask questions and discuss relevant issues related to health, wellbeing, development and pupils' situation in the school system. Focusing on the school environment and school pupils' health in terms of public health is also an important part of school nurses' work. Being pupils' spokesperson and advocate is associated with their 'societal role' in schools.

PHNs working in school health services are used to working and making decisions alone. However, when necessary they refer pupils to their doctor, other health professionals or the social services (Norwegian Directorate of Health, 2017). PHNs also collaborate with pupils' parents and teachers and other school nurses. The main goal of school nursing is similar across geographical settings, but programmes and resources differ between counties (Holmes et al., 2016; Norwegian Directorate of Health, 2017).

The Norwegian PHN title was ‘helsesøster’ (health sister) until 2018; however, with the aim of creating a gender-neutral title, the Ministry of Health and Care Services formally changed the title to ‘health nurse’ on 01.01.2019 (Ministry of Health and Care Services, 2019). The health nurse education programme leads to a qualification as a nurse in health promotion and preventive work aimed at children and adolescents 0-20 years (Ministry of Education and Research, 2018). The admission requirement is a nursing qualification and a minimum of one year’s practice as a registered nurse. Norwegian PHNs abide by the ethical guidelines of the Norwegian Nurses Organisation, and the Child Welfare Act emphasizes that in health care services all considerations shall be in the best interest of the child (International Council of Nurses, 2013; Norwegian Nurses Organisation, 2016; Child Welfare Act, 1992). Nevertheless, there are ethical challenges due to the increasing use of visual technologies by young people, as well as problems related to how PHNs navigate and resolve such challenges (Laholt et al., 2018).

1.3 The digital youth culture

Adolescence represents an important biological and psychological development phase (von Tetzchner, 2012). This phase is affected by social, environmental and cultural factors. We are living in a visual culture, and visual technologies and using social media are part of today’s adolescence (Pink, 2012; Vanden Abeele, 2016). Almost all Norwegian teenagers have access to mobile phones: between 85 and 95%, depending on age (Norwegian Media Authority, 2016). They use social media such as YouTube, Instagram, Snapchat and Facebook to communicate and share their lives. Boyd (2015) studied how teenagers in the USA used social media, titled his book ‘It’s complicated’. A large national self-report survey from the USA investigated how a representative sample of teenagers used the Internet, mobile applications and wearable health devices in their search for health information (Wartella et al., 2016).

Young people are increasingly turning to digital media to answer their health queries in areas such as nutrition, body image and physical activity. Studies from the UK and Australia have confirmed this picture (Goodyear, Armour, & Wood, 2018; Lupton, 2018). Social media can enhance increased knowledge and understanding of health issues; however, Goodyear et al. (2018) concluded that young people might need guidance from adults in their health-related use of social media. A survey from Boston Hospital in the USA showed that a minority of young people wanted to share or connect online with their health care team (Hausmann, Touloumtzis, White, Colbert, & Gooding, 2017). Wartella et al. (2016) showed that young people relied on interpersonal sources when seeking sensitive health information, but also used technology to a great extent. Parents were the most frequent sources of health information. Doctors and nurses were also important sources. This could imply that visual technologies and social media do not replace interpersonal sources but supplement them. Youth culture is changing and visualization is becoming one of its characteristics (Pink, 2012). The public health nursing profession has to relate to this context, since PHNs aim to promote young people's health (Laholt, Guillemin, McLeod, Beddari, & Lorem, 2019; Laholt et al., 2018). This implies that professional practices involved with young people must adjust to the trends and challenges of youth culture.

2 Knowledge areas in this study

The purpose of this chapter is to elaborate on the research context and describe the status of knowledge and theoretical perspectives that formed the background of this study.

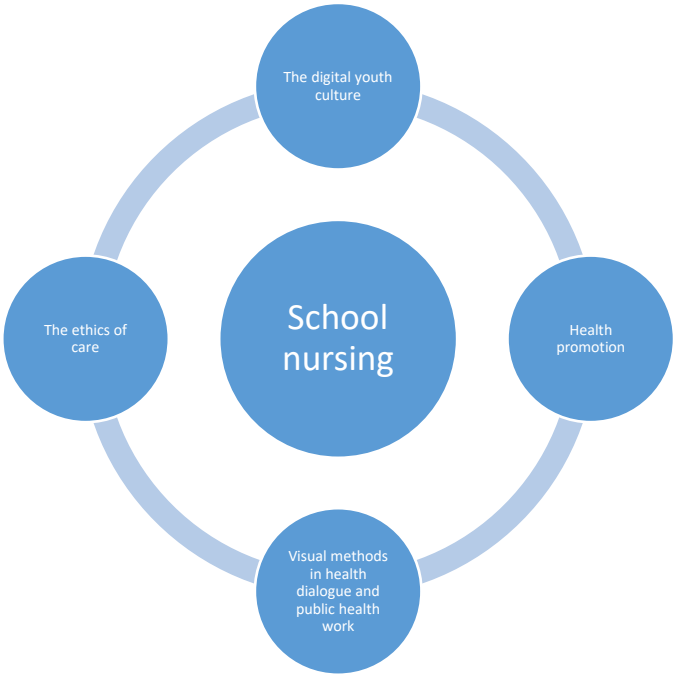

Figure 1 Knowledge areas

2.1 School nursing

The PhD candidate (HL) performed literature searches to ascertain the status of knowledge relevant to the aims of this study. This involved a simplified qualitative approach that emphasized systematic searches, selections and interpretations of the meanings and impacts of the studies in their respective fields (Ferrari, 2015). The searches were performed in the large databases CINAHL and PubMed, the education database Eric, the interdisciplinary database Web of Science and SweMed. The search was conducted on 20 February 2019, using the terms ‘school nursing’ AND ‘visualization’. Our first article was the only result (Laholt,

Guillemin, McLeod, Olsen, & Lorem, 2017). The search term 'school nursing' was then used without visualization, which resulted in 428 articles in academic journals. We were familiar with several of these. Examples were the 'school nurses' educating role' (Klinkhamer, 2012) and the 'school nurse dialogue' (Golsäter, Fast, Bergman-Lind, & Enskär, 2015; Golsäter, Lingfors, Sidenvall, & Enskär, 2012). In PubMed, my search resulted in 137 articles. Examples were 'the school nursing role and responsibility' (Krause-Parello & Samms, 2011), 'school nurses' educating role' (Klinkhamer, 2012) and 'public health interventions in school nursing' (Anderson et al., 2018; Schaffer, Anderson, & Rising, 2016). A new advanced search combined 'school nurse' AND 'health dialogue' AND 'visual methods'. This resulted in Article 1 (Laholt et al., 2017). A new search with the search terms 'school nurse' AND 'health dialogue' resulted in 260 articles, including articles II and I in this study (Laholt et al., 2017; Laholt et al., 2018). The reference list of Ginicola (2012) was used to find articles on how images and other visual tools were used in counselling and therapeutic dialogue (Ginicola, Smith, & Trzaska, 2012; Riley & Manias, 2004; Weiser, 2004). My reading and following useful leads resulted in several articles focusing on visual methods used as a public health strategy (Gubrium et al., 2014; Lambert, 2013; Wang & Burris, 1994).

My reading also resulted in two relevant PhD studies that explored Norwegian public health nursing services. Clancy (2009) explored the Norwegian public health nursing role. She interviewed PHNs, adolescents, parents, local politicians and administrators to explore their views on this service. Clancy also observed consultations in child health clinics, adolescent health clinics and school health services. This study presented ethical responsibility and focus on the other as fundamental to public health nursing (Clancy, 2009; Clancy & Svensson, 2007; Lévinas, 2003). Dahl (2015) studied professional identity in public health nursing through an examination of the Norwegian PHN curriculum and in-depth interviews with 23

Norwegian PHNs. This study presented a diverse and complex public health nursing mandate and practice that posed challenges to the constitution of PHN identity.

2.1.1 Health promotion

The role of health promotion in school nursing is to provide appropriate skills to enable pupils to deal with life's challenges (Norwegian Directorate of Health, 2017). Health promotion is a process where the focus is on the positive, dynamic and empowering aspects of health (Eriksson & Lindstrom, 2008; Ottawa Charter for Health Promotion, 1986). The theory of salutogenesis developed by Aaron Antonovsky (1987) has influenced PHNs' health promotion work. Salutogenesis refers to people's own abilities to deal with the challenges life has to offer. Antonovsky saw health as a continuum, not a dichotomy between sick and healthy. His main questions was: What creates health? (Antonovsky, 1987, 1996). Life presents several problems for young people, including loneliness, eating problems, school bullying and illness. Many teenagers react to such challenges with uncertainty (American Psychological Association, 2014). However, we also know that many young people cope well despite facing stress and multiple risk factors. Resilience is a person's ability to adapt suitably to stress and adversity. Encouraging resilience in a health promotion context includes changing from a risk-oriented focus to a resource-based approach (Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003).

Empowerment is a key goal in school nurses' health promotion efforts. The theoretical foundation of empowerment goes back to the work of Paulo Freire (1973). Freire developed his idea of the 'pedagogy of the oppressed' based on programmes from the slums in Brazil. He based his work on taking action against social determinants of health, focusing on social justice and equality. Nutbeam (1998) defined empowerment as 'the process where people gain

control over actions and decisions affecting their health'. However, choices depend on the environment, including socioeconomic factors and the person's family and other resources. The essence of empowerment in health promotion is to respect adolescents as active participants.

2.1.2 Visual methods in health dialogue and public health work

One main element in our project was to explore whether visual methods could improve PHNs' work with adolescents in a school nursing context. Visual methods such as graphic and photo elicitation, the use of artefacts and photovoice are well documented as research methods (Clark-Ibánez, 2004; Guillemin, 2004b; Rose, 2012). Such tools can create insight into how people understand illness and how they make sense of their world, especially regarding sensitive issues, emotions and taboos. The use of visualization tools can allow the professional and young person to understand each other beyond the use of words (Ginicola, 2012). Using visualization in dialogue creates a more complete communication process and allows people to communicate meanings and emotions that cannot easily be verbalized. Personal snapshots can assist people in exploring complex aspects of their lives and emotions. Using images in conversations is a visual language, an alternative form of communication. Visualization can enable more open sharing as part of the dialogue.

Wang and Burris (1994) created the photo novella also known as photovoice, where people create and discuss images with the aim of improving important matters in their lives or societies. In the original photovoice projects, participants were given traditional cameras and learned how to take photographs (Wang & Burris, 1994; Wang, Yi, Tao, & Carovano, 1998). The participants discussed and analysed the images in groups, and presented the material in an exhibition. Photovoice allowed people to convey meaning and emotions that were difficult to

express through the conventional verbal dialogue. Using the photovoice method could help to engage marginalized people by giving them a voice to communicate coping strategies and concerns to service providers and policymakers. Taking photographs and showing them in an exhibition could promote peoples' self-awareness and creativity. This process could help people to look at issues in a different way and to play a more active role in knowledge production.

School nurses' work involves relationships and understandings based on young people's needs. It was therefore relevant to find studies about youth culture and adolescents' use of visual technologies and social media. Research by Vanden Abeele (2016) explored 'the mobile life styles' and Pink (2015), Hjorth and Pink (2014) and Pink (2012) have explored the 'digital youth culture'. The reference lists of these articles lead to studies on 'the social lives of networked tweens', and 'teens' social lives and media' (Chassiakos, Radesky, Christakis, Moreno, & Cross, 2016; Madden et al., 2013; Wartella et al., 2016). The Norwegian Media Authority (2016) has reported on Norwegian adolescents' use of visual technologies and social media. Boyd (2015) presented the networked life of teenagers in the USA as 'complicated'. Studies have investigated how teenagers in the USA, UK and Australia used the Internet to search for health information on issues such as nutrition, physical activity and body image (Goodyear et al., 2018; Lupton, 2018; Wartella et al., 2016). A survey from Boston Hospital in the USA showed that a minority of young people wanted to share or connect online with their health care team (Hausmann et al., 2017). Wartella et al. (2016) showed that young people mainly used technology to acquire health information; however, they still relied on people rather than technology in the case of sensitive health issues.

The status of knowledge revealed many studies focusing on the fields of public health nursing, school nursing, health promotion and the school health dialogue. There were several studies on the use of visual methods in research and as a public health strategy. There were many studies of youth culture and adolescents' use of visual technologies and social media. My searches for knowledge relevant to the aims of this study resulted in our three published articles (Laholt et al., 2019; Laholt et al., 2017; Laholt et al., 2018). Nevertheless, future research could focus on other professionals involved with young people, such as teachers, to explore the potential of visualization, especially digital technology and social media. New studies could focus on how PHNs and young people experience the use of social media in school health contexts, and how visual technologies could be used in communication and relationship building between health professionals and pupils. Future research should document the effects of visual methods on the quality of the school health dialogue, health outcomes and school nurses' societal role in the field of public health.

2.2 The ethics of care

PHNs working in school health services focus on health promotion and care, respecting each individual's situation and based on collaboration with pupils, their families and other professionals (Ivanov & Oden, 2013; Norwegian Directorate of Health, 2017; Norwegian Nurses Organisation, 2016). Visual technologies and social media are increasingly becoming a feature of professional interactions between PHNs and adolescents (Laholt et al., 2018). Nevertheless, there are challenges associated with using visualization in school health services. We considered Annemarie Mol's (2008) idea of 'the ethics of care' as useful to understand how PHNs navigate ethical issues as part of their practice (Laholt et al., 2018). Mol contrasts different ways of dealing with disease exemplified by a patient history of diabetes. The focus is on the manner health professionals respond to the non-human and

human aspects of a situation. Mol's idea forms part of the actor network tradition (ANT) (Latour, 2005; Mol, 2010). Mol (2010) claims that ANT is not a theory but more of an ontology. In ANT, technologies are actors because they have the potential to mediate and transform social relationships and interfere with who we are. ANT opens up the possibility of hearing, seeing, sensing and analysing social life, and caring about, not neglecting social relationships.

Mol proposes that solutions to problems should be formulated in local practice (Mol, 2008). Ethical work involves attending carefully to what happens in practice, reflecting on the outcome, and making adjustments. In biomedical ethics, respect for patients' autonomous choices is fundamental, and in arriving at the best ethical decision, ethical principles are weighed up, maximizing good choices and consequences, and minimizing bad ones (Beauchamp & Childress, 2013; Veatch, 2016). Mol (2008) argues that it is unproductive to apply general or universal principles of what is good from the outside, and then judge the situation (Beauchamp & Childress, 2013; Mol, 2008). The focus is on the broader process in which the patient or user of health care services is embedded in, which also includes technology. Mol presents care as shared work, involving not only professionals but also patients, in our case pupils, their families, teachers and other professionals, as well as visual technologies (Mol, 2008). In this instance, the ethical terrain expands to include how PHNs respond to all components of the encounter, including the action of the visual materials shared by the young people. The ethics of care also involves the combination of adaptability and perseverance when health practitioners integrate new types of knowledge, and need cooperation with other professionals. Mol's idea is relevant to explore the complexities and nuances of health professionals responding to ethical challenges and practical problems in a changing health care practice. The combination of knowledge-based practice and the ethics of

care provides a type of expertise that uses new tools and manages challenging situations in a professional and ethical manner.

3 Aims and research questions

Our aim was to explore whether visual methods could improve the health dialogue and PHNs' public health work in schools. We were particularly interested in examining how PHNs could relate to adolescents and the challenges of using visual technologies and social media in a school nursing context. We had three objectives. First, we examined existing practice and knowledge of visual methods. Second, we developed a training programme in collaboration with the PHNs to develop their skills in utilizing visual methods. Third, we evaluated and adjusted the training programme.

The aims of this study are covered by the research questions in the three published articles, which are as follows:

Article I: How do PHNs see their role when talking to young persons and how do visual methods work in this setting?

Article II: How do school nurses identify and resolve the ethical challenges involved in the use of visual technologies in health dialogues with adolescents?

Article III: How can visual methods promote health among adolescents in a school nursing context?

4 Methods and research process

We chose a qualitative action research approach with a critical design, utilizing focus groups in combination with participant observations and workshops on the use of visual methods (Barbour, 2007; Madison, 2011; McNiff, 2017). We involved PHNs working in school health services and used FGDs to investigate their previous experience and knowledge of visualization (Laholt et al., 2017). The project also included a workshop series with the purpose of developing skills in using visual methods in dialogue and public health work and the ethical issues connected to this use of the tools (Laholt et al., 2019; Laholt et al., 2018). Based on the action research design, we utilized FGDs to explore PHNs' experiences with the workshops and with using visual methods in the school health dialogue and public health work (Krueger & Casey, 2014; Laholt et al., 2019; Laholt et al., 2017; Laholt et al., 2018; McNiff, 2017).

4.1 The idea of action research

The idea of action research is to pursue action and research at the same time through developing new ideas and knowledge in a field (McNiff, 2017). In our study, we utilized three elements from action research: the participatory approach, the democratic impulse and social change. The participatory approach implied that we invited PHNs working in school health services in Tromsø to play an active part in the research and change process. The democratic impulse implied that we fed insights back to the participants for validation through the FGDs and the training programme in visualization. Social change meant that the participants in our study played an active part in the research and change process through participating in FGDs and workshops (Krueger & Casey, 2014; Schön, 2017). The contribution to health research was positive changes in practices at the same time as data was collected to document the

change processes (McNiff, 2017).

4.2 Study design and procedures

The design called for a combination of participant observation and focus group interviews preceding and following the training programme (Krueger & Casey, 2014; Madison, 2011). The advantage of this design was that we used the group dynamics to generate considerable data. During the training programme in visual methods, we watched what happened and listened to what the PHNs said and asked questions as needed (McNiff, 2017). Critical design challenges the status quo in a society or a setting, and we used this concept for describing and analysing the study's research aims (Madison, 2011). Contribution to health research and social change implied a twofold aim of changing this nursing practice for the better while also gathering data to document the change processes (McNiff, 2017).

Table 1: The four phases of the study (January to October 2016)

	Phase 1	**Phase 2**	**Phase 3**	**Phase 4**
Aim	Identifying goals & limitations	Training in visualization	Adjustments	Finalization of programme
	Phases in the development of competence in visual methods			
Methods	Five FGDs with 31 PHNs conducted before the course and workshops in visual methods in January and February. FGD1 n=5 FGD2 n=5 FGD3 n=11 FGD4 n=6 FGD5 n=4	One-day course in visual methods (n= 39), with five different subgroups on 1 April Graphic elicitation (n=8) Photo elicitation (n=8) Wellbeing chart (n=8) Sensory elicitation (n=7) Photovoice (n=8).	Workshops in four of the subgroups on 27 May: Graphic elicitation (n=6) Photo elicitation (n=6) Wellbeing chart (n= 5) Photovoice (n= 6). 3 June Workshop in the sensory elicitation group (n= 4). 26 August: Graphic elicitation (n= 6) Photo elicitation (n=3) Well-being chart (n=5) Sensory elicitation (n= 5) Photovoice (n=5).	Two FGDs with 9 PHNs FGD6 n=4 FGD7 n=5 New interviews with 8 of 9 PHNs from the first round of FGDs in September and October
Objective	Clarifying previous experience and expectations	Improving PHNs' knowledge and skills in using visual methods in health dialogue	Sharing experiences of using visualization in dialogue, adjustments and problem solving	Evaluation of the process. What did we learn that we did not already know?

4.2.1 Sample and participants

We presented the project to the head of the public nursing services in Tromsø, and were given permission to conduct the study in the city. Tromsø is a city of approximately 76,000 inhabitants in northern Norway (Tromsø, 2018). Here, school health services are organized from the child health clinics (0-5 years), where one or more PHNs are responsible for preventive and health promotion services in each school (public and private primary, secondary and high schools). The PHNs had their meeting days on Fridays, and we were allowed to conduct the FGDs and workshops on those days. Recruitment to FGDs and the course in visual methods by taking over existing meeting days made it easier to ensure attendance.

Forty of about sixty PHNs working in Tromsø in the project period participated in the study (Table 1). Most participated in more than one phase. The participants were registered nurses with further education or a master's degree in public health nursing. All PHNs working in Tromsø in the project period were women. Most of the participants worked primarily in child health clinics or adolescent health clinics and had office days or hours in school health services. Their experience ranged from 0.4 to 34 years in school nursing.

In the first phase, 31 PHNs participated in FGDs 1-5 at four of the five different child health clinics in Tromsø (Table 1). These participants knew each other from their daily work in the clinic. The leaders of the five child health clinics helped us to recruit participants in this phase of the study.

In the second phase, 39 PHNs participated in the one-day course and subgroups at the city council premises and at the youth centre in central Tromsø ('Tvibit'). When the participants

registered for the course, we asked them to specify their first to third choices of which group they wanted to join, and most got their first or second choice. The participants in the subgroups knew each other as colleagues in one of the child or adolescent health clinics or from monthly meetings in these services.

In the third phase, the five subgroups in visual methods met twice (Table 1). We noted that some participants could not attend all meetings in their group because of their work, such as home visits to parents of newborns or school nursing.

In the final phase, we re-interviewed eight of nine PHNs from FGDs 1-5 (Table 1). The second round of FGDs (6, 7) was conducted at the university campus. These participants represented the five different subgroups in visual methods (graphic and photo elicitation, wellbeing chart, sensory elicitation and photovoice). The participants in these groups knew each other from monthly meetings at the council's premises, and in some cases as colleagues in the same child or adolescent health clinic.

Pupils were not participants in this study, but were involved when the PHNs used different visual methods in dialogue and in public health work (Laholt et al., 2019; Laholt et al., 2017; Laholt et al., 2018).

4.2.2 The interdisciplinary team

We established an interdisciplinary research team. In such a team, the members integrate information, data, tools, perspectives, concepts and theories from two or more disciplines to promote basic understanding or to solve issues that go beyond the individual discipline or research practice (National Academy of Sciences, National Academy of Engineering, &

Institute of Medicine, 2005). Such teams consist of professionals with complementary knowledge, perspectives or skills. Our team leader and main supervisor was professor and philosopher Geir Fagerjord Lorem, PhD (GFL). My co-supervisors were Professor Marilys Guillemin, PhD (MG) of the University of Melbourne and Dr Kim McLeod, PhD (KM) of the University of Tasmania. MG is a health sociologist, specializing in visual methods. KM is also a health sociologist and a specialist in qualitative and visual research methods with a focus on mental health and community wellbeing. We also included two of my teacher colleagues from the public health nursing programme at UiT. Randi Elisabeth Olsen (REO), an experienced PHN with a master's degree in health, and Ellinor Beddari (EB), also an experienced PHN and associate professor in health at UiT.

The PhD candidate, Hilde Laholt (HL) is a PHN and lecturer in health. HL has worked as a PHN in Tromsø in different child health clinics and school health services (1992-2010), and as a lecturer in health at UiT from 2005 to date. Several of the PHNs working in Tromsø have been my colleagues, leaders or former students. This position was beneficial in gaining access to this field. My experience included knowledge of the leadership and organizational structures in this community and the organization and content of the school health service. I was also aware that the PHNs' Friday meetings could be used to conduct FGDs and to arrange a course in visual methods. Having access to meeting days made it easier to recruit participants and to arrange the course and workshops. My background was a strength for the information process, when organizing the focus groups, the course and the different workshops. We managed to inform the PHNs about the project in a way that made them interested in participating. It was also a strength for the project that I was used to leading groups of students, teaching, and running a project. Being familiar with the school nursing role and collaboration with PHNs was also a strength. Nevertheless, feedback from the team

was important through all phases, especially for the validity of the study (Tong, Sainsbury, & Craig, 2007). We discussed different issues in all phases of the project, and we documented the decisions we made. Our discussions helped to balance my insider position and to see the different phases and content of this study from a broader perspective.

4.2.3 Procedures

In the first phase of the study, the aims were to identify goals and limitations, and to clarify PHNs' previous experiences and expectations for participation in the study (Table 1). We used five focus groups with a semi-structured discussion guide exploring how the PHNs saw their role as school nurses, their previous experience and knowledge of visual methods and pupils' use of visual technologies (Appendix 1) (Laholt et al., 2017). The PhD candidate and an additional observer and moderator (REO) moderated these groups. The FGDs lasted from 73-90 minutes. We started the discussions with an introduction and explained the intentions of the FGDs and the visual methods course. We asked for the participants' first names and their years of experience. In the first ten minutes, we gave the participants blank cards and coloured pens and asked them to draw themselves as PHNs working in school health services. Drawing themselves as school nurses helped to explore their school nursing role in an innovative way. This task made the participants aware of graphic elicitation as a useful tool in health dialogue with pupils (Coad, 2007). According to the aim of the focus group method, we gave the participants opportunities to reflect and to express unexpected points (Barbour, 2007; Krueger & Casey, 2014). We managed to start useful discussions using the discussion guide. The PHNs were interested in the topics we presented and wanted to discuss their role and work as school nurses. They considered that discussing in groups was positive in itself. This helped to develop their knowledge and practice. At the end of each group discussion, we asked how we could develop the participants' skill in visualization. Based on the findings from FGDs 1-5,

articles, and research in visual methods, we designed the content of the course and workshops (Cox et al., 2014; Rose, 2012).

The aim of the second phase was to train PHNs in different visual methods through 'learning by doing' (Table 1) (Schön, 2017). Visual methods such as image elicitation, graphic elicitation and photovoice are well documented in research to create insight into how people make sense of their world (Guillemin, 2004b; Harris & Guillemin, 2012; Wang et al., 1998). Ethical guidelines for visual methods research are based on principles such as individuals' autonomy, voluntariness, confidentiality and informed consent (Cox et al., 2014; Veatch, 2016).

Thirty-nine PHNs learnt about visual methods and ethics at the Tromsø City Council premises (Table 1). We included all the FGD participants from phase one along with eight additional PHNs. The group that arranged the course and workshops consisted of HL, my teacher colleagues REO and EB, and the project manager GFL (Laholt et al., 2019; Laholt et al., 2017; Laholt et al., 2018).

In the third phase, the goal was to adjust and share experiences of using visual methods in practice. The PHNs discussed problem solving related to the use of visualization in dialogue. In this phase, the participants met twice in their subgroups (Table 1).

The fourth phase represented the finalization of the programme (Table 1). Here the goal was to evaluate the study. We conducted two FGDs that aimed to explore the participants' experiences of attending the course, their perception of ethical issues related to visual methods, and school nurses' work and role at the public health level. We conducted FGDs 6

and 7 with a different discussion guide than in phase one (Appendix 2). This guide was developed and based on the experiences from the previous focus groups and the training programme in visualization. We conducted FGDs 6 and 7 at the university campus. HL was the moderator with EB as co-moderator and observer (Laholt et al., 2019; Laholt et al., 2018). We asked the PHNs to discuss their experiences and ethical challenges after they had participated in the course and workshops, and had used visual methods in dialogue. They also discussed public health work and school nurses' societal role. We provided knowledge of how health communication and cooperation could guide future health dialogues and improve health promotion for children and adolescents. Our study resulted in a course with workshops that could be useful for other health professionals, nurses and people working with children and young adults (Appendix 3).

4.2.4 The data

The data consisted of the seven FGDs (n=40) as well as participant observations and visual material from the five workshops (n=39) (Laholt et al., 2019; Laholt et al., 2017; Laholt et al., 2018). HL audiotaped all FGDs, transcribed them verbatim and rewrote them into standard Norwegian (Krueger & Casey, 2014; Malterud, 2017). Pauses, laughter and other non-verbal expressions of feelings were recorded. When transcribing the discussions into words, some parts of the context were lost, such as the participants' body language, smiling, and not consistently looking at the person speaking. The moderators wrote down our reflections during and after each FGD and evaluated how we experienced each focus group. The group leaders wrote down field notes during and after the sessions in the workshop groups.

In the graphic elicitation workshop, we collected drawings made by the PHNs and drawings by pupils. We made field notes and descriptions from the participant observations from this

workshop (Emerson, Fretz, & Shaw, 2011). The photo elicitation group provided descriptions of the use of smartphone pictures in the workshops and in dialogue with pupils. We deleted the photos after the workshops. In the wellbeing chart group, we collected observational field notes of participants' use of the charts in the workshops. We made observational field notes of the PHNs' experience of using the charts in individual and group dialogue with pupils. We deleted the charts after each group session. In the sensory elicitation group, we collected video clips and links from YouTube (2019) with children's songs, fairy tales, and programmes from the Norwegian Broadcasting Corporation (2019). The photovoice group included observational field notes of the participants' experiences, feedback and progress in this workshop. The participants took photographs illustrated with stories. We made field notes of this activity. The PHNs also asked young adults to bring photographs with stories related to 'dropout'. We based Article III on data from the photovoice workshop (Laholt et al., 2019). As part of this learning project, we wanted to use the photographs in a future exhibition at the council premises or at UiT. However, we received too few photographs for a good presentation. We gave these photos to the leader of the public health nursing services at Tvibit (the youth centre) for possible use in a later exhibition. The PhD candidate transcribed and organized all texts, field notes and visual material from the workshops using NVivo 11 (QSR International Pty Ltd, 2015). This constituted an important platform when analysing the data (Malterud, 2012, 2017). The data collection period lasted from January to October 2016 (Table 1).

4.3 Methodological considerations

4.3.1 Strengths and limitations

The study had both strengths and limitations related to the sample, such as the use of methods, as well as the point that the PhD candidate and the moderators were PHNs themselves.

Regarding the sample, there was a high level of participation and engagement of PHNs in Tromsø. We conducted the study on Fridays, normally meeting days for the PHNs. Taking over existing meeting days made it easier to ensure attendance. However, we do not know if there were participants that felt obliged to participate since we arranged the FGDs and course on their existing meeting days. The fact that the leaders contributed in recruiting participants to the study could have implied that some felt obliged to join the course, even though we pointed out that participation was voluntary (Ruyter, Solbakk, & Førde, 2000). We also do not know if there were critical PHNs that chose not to participate. It could be a limitation if the PhD candidate's insider position made it difficult for the participants to make critical remarks about this project. However, we consider that most of the PHNs that chose to take part in this project were likely to have a strong interest in developing school nursing practice.

It could be a limitation that we did not involve young people as participants in this study. Exploring young people's experiences with visualization and social media could have brought new and relevant insights. In Article III, we used an adaptation of the photovoice method where PHNs encouraged young adults to bring photographs (Laholt et al., 2019). The photographs provided were a part of an internal photo competition, and we did not seek permission from the pupils to reproduce their images in publications. We should have done this as part of the informed consent process (Appendix 4). However, we tried to contact the pupils that gave photographs but did not succeed in reaching them since they had finished high school.

Regarding the discussions in the focus and workshop groups, we know that each participant does not necessarily answer each question, as they would do in individual in-depth interviews (Barbour, 2007). Participants have a greater control of what they share or withhold from

discussions in groups. Some participants may perceive individual interviews as more suitable for exploring ethical and challenging issues. However, group dynamics allowed the participants to reflect and share experiences with their peers. The strength is that group discussions produce a considerable amount of data in a short time. We also found that the PHNs were engaged in the discussions and wanted to develop their nursing practices.

Another limitation related to the focus groups may have been the variation in the size of the groups. The smallest groups (FGD5 and FGD6, n=4) may not have represented a wide enough range of experience and the largest group (FGD3, n=11) did not give all participants the opportunity to express their opinion.

In FGDs 1-5, our discussion guide did not cover the PHNs' societal or public health role (Appendix 1). However, the PHNs brought up this topic by themselves and communicated their intentions and wishes to develop and expand this part of their school nursing role. Therefore, we chose to ask about this in FGDs 6 and 7 (Appendix 2).

There were limitations connected to our decision to document the workshop groups through observational field notes (Malterud, 2017). All group leaders wrote down their reflections during and after all meetings in their workshop sessions. The PhD candidate gathered these reflections. We may have lost some important issues from these discussions. However, video or audio recording would have produced a considerable amount of data that could be difficult to handle for a PhD project.

There were strengths and limitations related to the fact that the moderator, co-moderators and group leaders in the focus groups and workshops were PHNs themselves. We knew several of

the participants through our work as lecturers in health on the masters' degree programme at the university, being both 'insiders' and 'outsiders' in this field. Several knew us as PHNs and former colleagues through our work in Tromsø. This insider status could be seen as both a strength and a limitation in the recruiting process, and in the engagement in FGDs and workshops. However, our research group, consisting of the three PHNs, two health sociologists and one philosopher, collaborated in the different phases of this study, and this could have nuanced these limitations. HL documented all steps in the research process. Our discussions, presentations, and reflections on the different phases and the choices we made supported the validity of our findings (Tong et al., 2007). We used the Coreq 32-item checklist to ensure the reliability and validity of this study.

4.3.2 Rigour

Interpretative rigour examines the challenges of interpreting the data (Liamputtong, 2013). This study was subject to interpretative rigour in different ways. Firstly, we used systematic text condensation in the analysis of the texts from the focus groups and workshops in accordance with the aims of this study (Malterud, 2012). Systematic text condensation is developed from Giorgi's psychological phenomenological analysis and is suitable for content analysis. Secondly, we used visual image elicitation when analysing the 31 drawings by participants, with accompanying explanations, in FGDs 1-5, according to the aims of the study (Drew & Guillemin, 2014; Laholt et al., 2017). This method is suitable for the analysis of drawings and pictures. We allowed the participants to describe their own drawing and comment on the other participants' drawings, but we did not ask them to analyse the visual material as part of the group discussions. We did not return transcripts or analysis to participants for comments or corrections (Tong et al., 2007).

We used an inductive approach where our interpretations started from the empirical data and the analysis was drawn from the subjective to the general, and we included theories in the last steps of the analysis process (Malterud, 2017). The PhD candidate first interpreted the data, and then we re-analysed them, followed by further interpretation and discussion of them in our research team until we reached agreement. My insider status may have influenced the analysis; however, the other members of our research team did not have insider status, which worked to broaden the interpretations of our material. This helped us to nuance the analysis process and to ensure reliability (Malterud, 2001). The systematic steps of the analysing methods demonstrate how we reached our final interpretations, which supports the validity of the findings in this study. We discussed and documented all decisions we made. This process helped to ensure reliability and provided a nuanced analysis (Liamputtong, 2013; Malterud, 2001). Our findings contribute to knowledge of the professional practices of PHNs working in schools and may be transferable to similar settings in which other nurses and health and social care professionals are involved with young people.

4.3.3 Research ethics

Qualitative studies must include considerations of how ethical values and principles were integrated and maintained during the research process (Ruyter, 2003). This study is based on health professionals' informed consent. The leadership of the public health nursing services in Tromsø agreed with and provided access to the study in June 2015. We sent a request to the Northern Norway Regional Committee for Medical and Health Research Ethics, but our project was not subject to notification according to health research legislation (Ruyter et al., 2000) (Appendix 5). We applied to the Norwegian Centre for Research Data, which reviewed and approved the project in September 2015 (NSD: Ref. No.4439) (Appendix 6). We presented the study and the voluntary participation in a monthly Friday meeting with almost

all the PHNs working in Tromsø present. Based on the Helsinki Declaration, forty PHNs gave their written consent to participate in this project (Appendix 7). We arranged the course on normal meeting days for the PHNs. Recruitment to the course and FGDs by taking over existing meeting days made it easier to ensure attendance. However, we do not know if some of the PHNs felt pressure to join this course on their regular meeting day. We provided lists of the PHNs names, e-mail addresses, workplaces and years of experience. The project complied with the internal data security routines of UiT. We anonymized all data and stored them in the university computer, secured with a password, and kept the lists of participants' names and the written consent forms in lockers. Anonymization involved processing the data from the FGDs and workshops so that no individuals could be identified.

In the different phases of this study, we gave our participants the opportunity to discuss any ethical issues arising from the methods and the study (Cox et al., 2014; Waycott et al., 2015). The discussion in the subgroups enabled the participants to reflect on ethical issues related to their work and school nursing role. The project group considered and discussed ethical issues through all phases of the research project. We documented all meetings and decisions we made. We discussed with the PHNs in the subgroups who should give information about the project in the different schools and the ethical issues concerning the use of visualization in practice. The PHNs agreed that they as school nurses should provide information and find pupils to try out the different visual methods. It was their decision when to use visualization in dialogues. In line with their regular practice when communicating with pupils, the PHNs considered whether to inform the parents. If pupils are under 16 or if they are vulnerable, PHNs are obliged to inform and collaborate with the parents (Health and Care Services Act, 2012; Patient and User Rights Act, 1999).

In Article III, we used an adaptation of the photovoice method where eight PHNs in the photovoice workshop engaged young adults to bring photographs and related stories of dropout from high school (Laholt et al., 2019). We sent a separate request to the NSD about this change (Appendix 8). After discussing possible incentives with the PHNs and the pupils, we chose to announce the photovoice project as a competition. The pupils with the best photograph would receive a gift card to the value of USD 120, the second best a gift card worth USD 60, while the remaining seven would receive gift cards worth USD 24. The research group was to assess the pictures. All nine participants would thus receive a prize. After several rounds of encouraging PHNs to recruit adolescents, we received 10 photographs. Since we considered this material to be inadequate for a representative presentation or exhibition, we decided to cancel the presentation.

We did not give gifts or presents to our participants; however, we offered them lunch as part of the one-day course. The PHNs in the focus groups were given mineral water, fruit, vegetables and chocolate during the sessions.

UiT funded this study in order to develop the PHN profession in accordance with current and future needs, and thus had no financial constraints other than the period available for the PhD scholarship.

4.3.4 Usefulness and relevance

We consider the findings in this study as useful for the field of public health nursing because the use of visual methods could improve the health dialogue and school nurses' public health work in schools (Laholt et al., 2019; Laholt et al., 2017). It is also important to focus on the ethical implications of using such methods in practice, and challenges related to adolescents'

use of mobile phones and social media in relationships with school nurses (Laholt et al., 2018). However, our design could not investigate or document the effects that visual methods might have on the quality of the dialogue, on pupils' wellbeing and health outcomes, or the effect of school nurses' role. We found that using visualization tools could improve the work of school nurses and their societal role, in addition to the benefit of promoting health in schools (Laholt et al., 2019). A course in visualization would enhance PHNs' professional toolbox and their efforts to promote adolescent health.

The utilization of visual methods could be useful for other nurses, teachers, social workers and health professionals working with children and young adults (Laholt et al., 2019; Laholt et al., 2017). Visualization is one of young people's preferred ways of communication, and may therefore be expected to improve professionals' work (Laholt et al., 2019; Pink, 2012; Vanden Abeele, 2016). Visualization assists in relationship building, creating insight into young people's life situations and reaching at risk-groups (Laholt et al., 2019; Laholt et al., 2017). Visual tools are also relevant for other professionals to enhance health promotion in public health work. Public health nurses could be inspired to use visual methods such as photovoice to communicate public health issues.

Norway has a well-developed school health service with highly qualified school PHNs. The main goal of school nursing is quite similar in different geographical contexts, but programmes and resources vary between different countries (Holmes et al., 2016). However, we consider that our findings could be of interest to nurses and other health professionals working in different contexts (Laholt et al., 2019; Laholt et al., 2017; Laholt et al., 2018). This study provides important knowledge about how nurses and other health professionals can involve young people and offer them an active role in health promotion by using visual

methods to achieve health promotion aims. The use of visual methods improves relationship building and helps to reach at-risk groups. Visual methods make it easier to work with young persons, and we therefore recommend developing the necessary knowledge and skills to employ visual methods in practice. Providing training for nurses and other health professionals would enhance the professional toolbox of workers in health and social care.

5 Findings

We found that visual methods could improve the school health dialogue and school nurses' public health work because they use a preferred form of communication and context for young people. PHNs' ethical practice involved being aware of new ethical issues that arose from adolescents' use of visual technologies and social media. When uncertainty or indecision remained, the PHNs resolved ethical challenges through discussion and collaboration with their fellow nurses and other professionals. We found that even before the course in visual methods the nurses used a variety of visualization methods as part of their health dialogue with pupils. Our findings showed that providing training in visual methods could enhance school nurses' work.

The three published articles highlight central aspects of public health nursing practice.

1. PHNs perceived their practice in school as primarily a relational practice, and this was the basis for their assessment of visual methods and other tools. Even before the course in visual methods, they used a variety of visualization methods as part of their health dialogue with pupils. However, they did not describe their use of visualization tools as a strategy or defined method, and they were not particularly aware of the different tools and their rationales and possibilities or the ethical limitations involved.

2. We looked into the problems that could be caused by visual methods in general, and visual technologies and social media in particular could induce. Our findings demonstrated how PHNs were aware of new ethical issues arising from adolescents' use of visual technologies such as smartphones in health dialogue. The PHNs knew how to navigate the different ethical

issues, and they resolved ethical uncertainties through peer discussion and collaboration with their fellow nurses and other professionals.

3. We wished to explore visualization in the context of participation, empowerment and PHNs societal responsibility. We found that visualization methods could enhance the work of school nurses and their societal role as spokespersons and advocates for pupils, in addition to their benefits in promoting health in schools. When PHNs allowed adolescents to bring images into conversations, they discovered new insights on public health issues relevant to health promotion. The young people became more involved in defining the topics concerned and presenting stories demonstrating their point of view. We found that visual methods could improve the school health dialogue and school nurses' public health work. Providing training in visualization would enhance PHNs' professional toolbox and their efforts to promote adolescent health in a school nursing context.

5.1 Article I

Laholt, H., Guillemin, M., McLeod, K., Olsen, R. E., & Lorem, G. F. (2017). Visual methods in health dialogues: A qualitative study of public health nurse practice in schools. *Journal of Advanced Nursing, 73*(12), 3070-3078. https//doi:10.1111/jan.13371

Background

PHNs perceived their practice in school health services as primarily a relational and flexible practice. Consequently, the value of visual methods was assessed on the basis of their ability to position them into this role. We also saw that PHNs used visualization intentionally to establish and build relations. This was especially clear in situations where verbal

communication was a challenge. Our main finding is that visual methods are flexible tools that are congruent with school nurses' role and work since they assist in relationship building and demonstrate flexibility and dynamics in nurse-pupil interactions. Visualization enabled the nurses to form relationships and to reach target and at-risk groups.

Methods

This part of the study was based on the five FGDs (n=31) conducted before the course and workshops in visual methods. We used a semi-structured discussion guide and visual methods with five groups of PHNs working in school health services (Appendix 1). The analytical goal was to examine how PHNs understood their role and practice as a school nurses and the application of visual methods within this practice. We explored how the use of visual methods improved or complicated the dynamics of the health dialogue between PHNs and school pupils. In the beginning of the FGDs, we gave the participants blank cards, coloured pens, and asked them to draw themselves working as school nurses. The nurses commented on their drawings followed by discussions of the school health dialogue, their previous experience and use of visual tools in school nursing, and adolescents' use of visual technologies.

Analysis

We used systematic text condensation to analyse the texts from the FGDs and interpretive engagement for analysis of the participants' drawings (Laholt et al., 2017). Systematic text condensation consists of four steps (Malterud, 2012). First, HL read all the pages of transcripts from FGDs 1-5 with the aim of gaining an overview of the material. HL studied the 31 drawings for an initial impression of how PHNs saw their role when working in school health services. The first reading revealed seven themes that formed the total impression of the material: relations, visual methods and difficulties, health dialogues, different visual

methods, why use visual methods, adolescents' use of visual methods, and how PHNs see themselves in school nursing.

In step 2, the transcribed texts was analysed line by line by using NVivo 11, and HL developed tentative themes that ran through the whole material (Laholt et al., 2017; QSR International Pty Ltd, 2015). The coding process of analysis was very flexible at this stage.

We analysed the drawings by using visual meaning making (Drew & Guillemin, 2014). This analysis method consists of three stages. The first stage was analysis of the participants' descriptions of their drawings. In the second stage, we analysed the content and compared this with the participants' descriptions. We looked at the 31 drawings and discussed their content, the use of colour, their symbolic presentation, the size of the people in the drawings and the intensiveness of the colours. The third stage included discussions and analysis of theoretical and analytical explanations of the material. We asked ourselves what the combined texts and drawings told us, and what knowledge we found.

Systematic text condensation and visual meaning making were brought together in steps 3 and 4 of the analysis process (Drew & Guillemin, 2014; Laholt et al., 2017; Malterud, 2012). The final descriptions were the result of a process of moving back and forth between the transcripts, the findings, and different theoretical perspectives. The three final key findings were school nursing as a relational and flexible practice, active use of visualization when words are inadequate, and when visualization became problematic.

Theory was an important element of our discussions, especially in phases three and four of the analysis process (Malterud, 2012). As part of this process, we discussed several theoretical

perspectives. One of these was the actor network theory (Latour, 2005). Finally, we decided to draw on Borup (2002), Borup and Holstein (2006) and the health dialogue as the conceptual frame.

Findings

Drawings and discussions in the focus groups showed that the PHNs saw school nursing as primarily a relational practice. The drawings presented how the nurses were engaged in different practices and contexts. Drawing 1 showed a PHN that had drawn herself as a school nurse in primary school (Laholt et al., 2017). She presented herself when communicating with children in individual and group dialogue, when giving vaccinations, and when skipping rope with pupils. Drawing 2 showed a PHN in a dialogue with a young person. In her explanation of the drawing, she presented the dialogue as the most important part of her job. In drawing 3, a PHN had drawn how she welcomed the pupils with open arms and a smile when the children came during an 'open door' session at school. The drawing also presented some of the tools used in dialogues with pupils: crayons, pictures of Marius the Mouse and Psychological First Aid (Holmsen, 2011; Raknes, Finne, & Haugland, 2013).

Drawing was used to establish relations with new pupils coming on an 'open door' basis. As a start of the dialogue, the PHNs asked the pupils to draw themselves and their relationships at home and in school. When meeting new pupils, they used a relational chart in which they could draw their family, network, and themselves. The PHNs used drawing in education to visualize topics such as puberty development, sexuality and identity.

Games, artefacts, and pictures were used to build relations and to promote health. Some PHNs used films and video clips from YouTube in group dialogues focusing on sexual identity and Barbie and Ken dolls to discuss body image. Other used fruits and vegetables on a plate to illustrate healthy eating habits. Parts of standardized methods such as Marius the Mouse (Holmsen, 2011) and Psychological First Aid (Raknes et al., 2013) were used to talk about difficult emotions. Some PHNs gave pupils a stone that could visualize positive thoughts. When the pupil felt the stone in his/her pocket, it could help to focus on positive thinking.

The texts and drawings in FGDs 1-5 showed how PHNs used a variety of visualization methods as part of their dialogue with children and young people. They used visualization actively to build and shape relations, especially when words were inadequate. Such tools were important when helping pupils to articulate experiences and difficult emotions. We found that the use of visualization changed the dynamics in dialogues and allowed the nurses to reach target and at-risk groups.

The findings indicate that PHNs' use of different visualization methods was congruent with their flexible and relational practice. Visual technologies such as smartphones and other mobile phones led to new kinds of relationships between school nurses and adolescents. However, the PHNs could not always control how these relationships developed. The implications were that the PHNs' role and work in schools also required them to provide guidance in ethical issues related to school pupils' use of visual technologies in dialogue. The findings from the first five FGDs were the foundation for the design of the workshops and the course in visual methods.

5.2 Article II

Laholt, H., McLeod, K., Guillemin, M., Beddari, E. & Lorem, G. (2018). Ethical challenges experienced by public health nurses related to adolescents' use of visual technologies. *Nursing Ethics*, https://doi.org/10.1177/0969733018779179

Background

We explored the problems that visual technologies, especially social media could cause. School nurses usually deal with complex challenges and ethical issues in their work. However, new ethical issues have arisen from adolescents' use of visual technologies. Our main finding was that PHNs were aware of such issues, and knew how to navigate them. The PHNs resolved ethical uncertainties through peer discussion and collaboration with fellow nurses and other professionals.

Methods

This study was based on the seven FGDs (n=40) conducted before and after the course and workshops in visual methods. In FGDs 1-5, we asked the PHNs to discuss ethical issues related to the health dialogue in schools, and the use of visual methods and social media in school nursing. As part of the workshops, the PHNs used different visual methods such as graphic elicitation, photo elicitation, wellbeing charts, sensory elicitation and photovoice in their health dialogue with pupils. In FGDs 6 and 7, we asked the PHNs to discuss their experiences and ethical challenges before and after the workshops in visual methods and our observation of visual methods in their practice.

Analysis

We used transcripts from the five FGDs (n=31) conducted prior to the workshops and the two FGDs (n=9) conducted after the workshop series. The transcripts were analysed using systematic text condensation (Malterud, 2012). In step one, HL looked for preliminary themes associated with ethical challenges in the use of visual methods in the health dialogue. The first reading revealed eight themes that formed the total impression of this part of the material: school nursing and use of visualization, relational aspects, challenges with social media, the user perspective, young people and visualization, ethical challenges in the use of visual technologies, closeness and distance, and public health and visualization. After discussions in the research group, we limited the research question to an exploration of how school PHNs identify and resolve the ethical challenges involved in the use of visual technologies in health dialogues with adolescents.

In step 2, the texts was analysed using NVivo 11 and the transcripts were systematically reviewed line by line to identify meaning units and themes (QSR International Pty Ltd, 2015). The research team collaborated in the third and fourth steps of the analysis process. We presented our final analysis as situations that raised ethical issues, where ethical challenges were identified and navigated, and subsequently resolved through peer dialogue.

We focused on theory in phases three and four of the analysis (Malterud, 2012). Theories as power and ethical mindfulness in health care were discussed (Guillemin & Gillam, 2006; Guillemin, McDougall, & Gillam, 2009). We also discussed the principles of biomedical ethics where ethical issues are approached from the outsider's perspective (Beauchamp & Childress, 2013). Finally, we agreed to use Annemarie Mol's interpretation of the ethics of

care (Mol, 2008). This perspective expands the notion of care to include the action of technologies.

Findings

We found that PHNs became aware of new ethical issues arising from adolescents' use of visual technologies. The findings revealed how nurses addressed and navigated these challenges. In young people's use of visual material with school nurses, ethical concerns were raised regarding suicide ideations, socially unacceptable content, violations of privacy and presentations of possible child neglect. Situations that raised ethical issues were when young people in mental distress presented or texted suicide ideations on their smartphones. Another example was a pupil on his own initiative showing a film with inappropriate content of his drunken stepfather.

Communication through smartphones and other electronic devices was experienced by the PHNs as more ethically challenging than an ordinary verbal dialogue. We found that pupils came and shared such material because they wanted a professional adult's view and help with their challenges.

When the PHNs became aware of ethical dilemmas in their interactions with pupils, they drew on common ethical principles, such as autonomy and maximizing life and health. Seeing the visual material presented by the pupils, they realized that this kind of communication represented a potential ethical dilemma where a young person's life could be at stake.

The PHNs used their previous experience of dealing with pupils in mental distress. They offered the pupils to come and talk about their challenges, in order to consider how to proceed in such situations. The PHNs also stated that they were afraid of losing control if teenagers used social media in a way that harmed other young people. The PHNs underlined their responsibility to protect young people from things they would regret later and prevent them from harming others. They were especially aware of ethical issues related to data security.

The results of this study showed that PHNs were aware of ethical issues in their work and wanted to be prepared to face them. Although they relied on their expertise and previous experience, sometimes uncertainty or indecision remained. In such situations, PHNs approached their colleagues for discussions and sought guidance from other professionals such as psychologists or social workers. These interactions provided support or challenged the choices the nurses made and enabled them to reflect on their own practice from an outsider perspective.

5.3 Article III

Laholt, H., McLeod, K., Guillemin, M., Beddari, E. & Lorem, G. (2019). How to use visual methods to promote health among adolescents. A qualitative study of school nursing. *Journal of Clinical Nursing*. https://doi.org/10.1111/jocn.14878

Background

Here we wished to explore visualization in the context of participation, empowerment and school nurses' public health responsibilities. We explored how to use visual methods to promote health among adolescents in a school nursing context. Photovoice is a visualizing

technique that enables pupils to participate in health promotion in a school setting. This method has the potential of improving the work of PHNs and other health professionals. Our main finding was that visual methods could enhance the work of school nurses and their role as spokespersons and advocates for pupils in addition to benefits in promoting health. The use of images offered pupils a more active role in health promotion and new ways to communicate about public health issues.

Methods

The data consisted of the seven FGDs (n=40) as well as participant observations from the photovoice workshop (n=8) and descriptions of the photographic images collected through the photovoice workshop (images made by adolescents). The participants in the photovoice group discussed their experiences of using photovoice in school nursing projects. We documented the feedback and our observations from the workshops through field notes. Since we did not seek consent from the adolescents to reproduce their photographs in publications, we wrote descriptions of the photographs.

Analysis

We used systematic text condensation to analyse the transcripts of FGDs, field notes and descriptions of images (Malterud, 2012). First, HL formed a general impression of the parts of the material that were relevant to the aims of this article. In this stage, HL looked for themes associated with how visual methods influenced the school health dialogue.

The first analytical reading revealed five preliminary themes: how to use visual methods in the health dialogue, challenges related to new methods, being more visible in schools, being spokespersons for young people, and using the PHN role in public health. In step 2, themes were identified and coded using NVivo 11 (QSR International Pty Ltd, 2015). In the third and fourth step of the analysis, the members of the research group collaborated. We read the descriptions, and studied the pictures and came to a mutual understanding of how to analyse and present the findings.

Finally, we presented our key findings as: the use of photovoice gave young people a more active role in health promotion, usefulness of photovoice in focusing on public health issues, and benefits and challenges of implementing new methods in school nursing. We used photovoice as a participatory health promotion strategy as the conceptual frame in this article (Wang & Burris, 1994; Wang et al., 1998).

Findings

The PHNs that participated in the photovoice workshop brought photographs with related stories and discussed their visual material in the workshop sessions. They then engaged young adults to bring photographs and related stories concerning dropout. They encouraged pupils to take images with their smartphones illustrating ‘dropout from school’, and ‘what makes young people want to stay in school’.

We found that the school nurses solved the dropout task in different ways. Some of them asked young people they already knew to bring images. Other nurses collaborated with a teacher to recruit young people to take photos and create related stories.

The young people responded to the dropout task in different ways. Some focused on emotional aspects of dropout, while others presented images of friendships and positive activities related to staying in school. A few adolescents had photography as a hobby. They brought photos from their situation as pupils in a school system. Some shared photos that illustrated existential aspects of quitting school. Others shared photos that visualized young peoples' ambitions of staying in the school system. Pupils in a class combining studying and sports produced photographs describing how football, other sports and schoolwork could be combined. Others provided photos that showed young people together on skis and on a mountaintop. These photographs were spontaneous in nature. We also received photos that symbolized friendship and a positive school environment.

The dropout project showed that pupils created and shared photographs when encouraged, and found the task interesting. We found that the PHNs that chose to collaborate with teachers received most visual material. This suggests that it is a strength to involve teachers when recruiting pupils in school nursing projects.

This study showed that PHNs found photovoice to be useful in health promotion, and that this technique could enhance the role of the school nurses as spokesperson and advocate for pupils. Asking pupils to bring images was a useful addition to school nurses' repertoire, and offered young people a more active role in dialogues. The findings also showed that some participants communicated their concerns about introducing new methods in practice and underlined the importance of remaining critical when implementing new methods in school nursing.

6 The course in visual methods

6.1 Preparation

This was a course on different visual methods for use in dialogue and public health work (Guillemin, 2004b; McLeod, 2014; Rose, 2012). The goal was to enhance the PHNs' knowledge and skills by encouraging them to use visualization in their practical work (Schön, 2017). We based the discussions in ethics on guidelines for visual methods research (Cox et al., 2014). The one-day course started with HL presenting the action research method, the aims of the study, and our preliminary findings from focus groups 1-5 (Laholt et al., 2017; McNiff, 2017). In line with the philosophy of action research, we invited the PHNs to comment on these findings.

After this session, GFL gave a lecture on participant-generated methods such as graphic elicitation, films and photographs (Clark-Ibánez, 2004; Guillemin, 2004b; Lambert, 2013). Topics were better mutual understanding, raising awareness of adolescent health behaviour, and capturing issues such as bullying in school. GFL talked about 'making young people draw while talking about their interests' and 'how wellness charts could be suitable to provide an overview of a period in life focusing on "ups and downs"'. The focus was also on 'family maps as suitable for providing an overview of important social relationships'. We had a lunch break and then divided the participants into five subgroups (graphic elicitation, photo elicitation, wellbeing chart, sensory elicitation and photovoice).

6.2 Experience from the workshops

We used a flipped classroom model in the course and workshops in visualization, based on the principles of 'learning by doing' (Schön, 2017). In the first meeting, the PHNs tried out the method in their group. They were given a training task and collaborated in using the

method. They discussed the rationale and usefulness of the method and developed strategies for the use of visualization in the school health dialogue. After the first meeting, the PHNs used the method with pupils in their practice. In the second group meeting, the PHNs met again and discussed their experiences of using visualization in dialogue with pupils. The purpose was to adjust and develop knowledge of visualization with their peers. After this meeting, the participants were encouraged to continue using visualization in dialogue in schools. Finally, the groups met to share and discuss their new knowledge and experiences.

6.2.1 The graphic elicitation group

EB led the graphic elicitation group, where the participants developed their use of graphic elicitation in health dialogue (Appendix 9). This method consisted of a kind of role-play where the PHN would ask a pupil to draw him/herself and how he/she was feeling today. The pupil would draw for ten minutes, after which the dialogue would start. The participants were encouraged to use this method when meeting new pupils and to have crayons ready on their desk for pupils to spontaneously draw during a conversation. In the group sessions, the participants discussed the need to be sensitive when analysing images made by pupils. It could be problematic if professionals "over-analysed" a drawing. The focus should be on the individual pupil and the dialogue, rather than mainly on the drawing itself.

6.2.2 The photo elicitation group

REO led the photo elicitation group (Appendix 10). The PHNs were encouraged to go to the town centre to take smartphone pictures that illustrated 'good health' and 'bad health'. They came back with their photos and discussed these in the group. The PHNs chose to solve this task in different ways. Some took photos of bicycles and people wearing sneakers illustrating physical activity. Others presented pictures of friendship between young adults and children

playing in a park. One PHN presented a picture of the city library and cinema where people share cultural events.

In the next step, the PHNs encouraged pupils to take pictures for use in the dialogue. Back in the workshop, the PHNs presented the pictures and described their dialogues. The pupils had taken different pictures to illustrate health. Examples were photos of young people jumping on a trampoline, a girl and her pet, a boy and his wounded knee, and a selfie of a girl in a mirror.

6.2.3 The wellbeing chart group

In this group, led by HL, we based the task on a PhD course in visual methods (McLeod, 2014). Here, the participants practised how to use the wellbeing chart to convey how clients regarded their levels of wellbeing during a certain period of time (Appendix 11). First, the participants worked in pairs to explore how each PHN had experienced her week. They then used the chart in dialogue with pupils coming to see them in an 'open door' session at school. One PHN gave an example where a teenage boy agreed to use the chart. When returning the next week, the PHN and the boy had a conversation based on the line in the chart. During the dialogue, they realized that his problem appeared the day he went to stay with his mother, and when he came back again. His parents were divorced, and every weekend he had to pack his things. The line helped the PHN and the boy to understand more about his challenges. The PHNs in this group stated that it was useful to focus on the positive parts of the line. The wellbeing chart worked to identify pupils' needs and contributed to discussions on sensitive topics and addressing challenges and resources.

6.2.4 The sensory elicitation group

HL also led the sensory elicitation group. Here, we used a task presented in a PhD course by Dr Anna Harris (Harris & Guillemin, 2012). We guided the PHNs in how music, fairy-tales and clips from YouTube could help to explore childhood memories (Norwegian Broadcasting Corporation, 2019; YouTube, 2019). The participants used their smartphone or computer to search for relevant material on the Internet (Appendix 12). This led to a discussion of changes in one's life when starting in secondary or high school, or looking back at memories of one's life.

The next step was to use the question 'What was it to start at a new school?' in dialogue with pupils. The PHNs asked pupils they already knew to search for material to share in dialogues. One picture that submitted by a pupil presented a child sitting alone in the snow. The cold snow symbolized a pupil's feeling of being alone in a new setting. Another photo showed a teenager sitting in a classroom. This picture demonstrated how a girl felt when starting at a new school. She felt alone and afraid. One PHN presented a situation where a boy shared a song from YouTube. The song reminded him of happy summer holidays. Our experience from this group showed that involving pupils and encouraging them to share sensory visual material offered them a more active role. This allowed them to talk about sensitive issues and explore emotions. Sharing a picture, a video clip or a song enabled pupils to communicate their thoughts, which could elicit richer descriptions of emotions than a conventional dialogue.

6.2.5 The photovoice group

GFL led the photovoice group. Here, we used an adaptation of the photovoice technique as described in our third article (Laholt et al., 2019; Wang & Burris, 1994). First, we asked the

PHNs to go out into the streets of Tromsø, stop random passers-by and ask if they could take photos and interview them (Appendix 13). The aim was to explore 'Who is this person, what is his story?'. The PHNs came back with photos of different people in Tromsø, which they then discussed the pictures in the workshop group. In the following sessions, the PHNs recruited pupils to take photos with their smartphones or cameras to convey their stories of 'dropout from school'.

The PHNs did not set up groups of pupils to discuss the images as required in the original photovoice method (Laholt et al., 2019). However, we tried to make an exhibition as part of the process in this group, but cancelled it because we considered the material insufficient for a good presentation. In spite of this, photovoice is considered a technique that enhances the work of school nurses at the public health level.

6.3 Recommendations for a course in visual methods

We developed and utilized the course in visual methods to enhance PHNs' toolbox for use in health promotion work with pupils (Appendix 3). If a course in visual methods is planned for health professionals or others working with young people, we would recommend the following: first, it is important to explore the participants' previous experience and use of visualization in practice (Laholt et al., 2017). We used focus groups to explore how the PHNs assessed their own experience and knowledge of visual methods in school nursing (Barbour, 2007; Krueger & Casey, 2014). The strength of focus groups compared with individual interviews is that group dynamics generate considerable data in a short time. However, it could also be relevant to conduct a survey to examine professionals' use of visualization in their practice. This would provide an overview of the extent to which PHNs or other professionals are using visualization in their practical work, and the visual methods they are

using.

Second, we would recommend a course with different subgroups, as in our project. The concept of flipped classroom was useful since it contributed to 'learning by doing' (Schön, 2017). We recommend setting up workshop groups to try out and discuss imaging based on smartphones and social media, and the use of the different methods and their ethical limitations. Participating in group processes generates learning and knowledge in a dynamic way. Discussions could reveal how visual data should be displayed and published, and the terms of confidentiality (Cox et al., 2014). We recommend holding discussions of how to protect individual pupils' privacy when involving them in photo sessions and how images directly or indirectly could identify people. This is especially relevant when asking young people to take photos with their smartphones for use in health dialogues (Laholt et al., 2019). We also recommend discussions on ethical issues related to pupils' use of technology and social media in a school nursing context (Laholt et al., 2018).

Third, we recommend encouraging course participants to include pupils in group discussions as part of a training programme in visual methods (Laholt et al., 2019). One main element of the photovoice method was to gather participants in groups, allowing them to discuss the content of their visual material (Wang & Burris, 1994). A group health dialogue with a health professional could allow pupils to discuss their visual material with others in the same situation (Laholt et al., 2019). Empowerment implies that health professionals allow adolescents to define their own issues and suggest solutions (Borup, 2002; Nutbeam, 1998). Group dialogues could be health promoting because young people inspire and learn from each other, which helps them to focus on the positive sides of life (Eriksson & Lindstrom, 2008; Laholt et al., 2017). Our findings also indicated that PHNs that chose to collaborate with

teachers received most visual material (Laholt et al., 2019). It could be a strength for a school project to involve teachers when recruiting pupils to projects.

Finally, we recommend presenting a public health project in a local exhibition or on a municipal webpage (Laholt et al., 2019). Photovoice is a useful method for provoking discussions on relevant public health issues (Wang & Burris, 1997), and would be a suitable topic to conclude a training programme in visual methods in an innovative way.

7 Discussion

7.1 Summary of findings

As expected, we found that visualization was an integral part of young people's preferred way of communication. Although the PHNs already knew this and acted accordingly, this study also demonstrated the benefits of developing awareness, knowledge and skills in visual methods, which will contribute to improve how PHNs connect to young persons in a constructive manner.

7.1.1 Developing ethical awareness

We were particularly interested to examine how PHNs could relate to adolescents in new ways and to identify the challenges involved in using visualization in a school nursing context. Although the PHNs were used to experiencing ethical issues in their contact with young people, the use of visual technologies created different kinds of ethical problems (Laholt et al., 2018). Annemarie Mol's (2008) idea of 'the ethics of care' was useful to understand the way PHNs identified and navigated ethical issues as part of their practice. Visual presentations are a direct form of communication, with the capacity to elicit bodily and sensory responses (McLeod & Guillemin, 2016). Sharing visual material was perceived as more ethically problematic than an ordinary face-to-face conversation (Laholt et al., 2018; McLeod & Guillemin, 2016). This was especially evident when young people came and presented visual material that indicated suicide ideations or violations of privacy, were socially unacceptable or presented possible child neglect. For example, when a pupil presented suicide ideations on a mobile phone, the PHN could not know if these were from a teenager wanting to kill himself (Laholt et al., 2018). It could be a call for help with problems or a way of expressing oneself that required immediate attention where a young persons' life could be at stake. Since this was a message, the PHN had no contact with the person

expressing the idea. In contrast to an ordinary conversation, it was more difficult to establish a dialogue that could clarify the situation. Nevertheless, based on their professional knowledge and experience, the PHNs knew that such situations represented a concern for young people's health and wellbeing. When facing such situations, it was important to explore the person's intentions in coming and sharing the visual material. The PHNs could then determine possible steps to assist the young person(s) with their problems. The orientation towards the overall 'good' of improving a young person's situation showed how PHNs engaged with ethical norms in their practice when considering the necessary steps to take (Mol, 2008; Norwegian Nurses Organisation, 2016). When considering different ethical principles, such as 'the pupil's autonomy' and 'saving life and health', the PHN had to act based on her concern that a life could be in danger (Beauchamp & Childress, 2013; Laholt et al., 2018).

Another example presented was of a young teenage boy who shared a film clip of his drunken stepfather (Laholt et al., 2018). The PHN had to decide whether it was a situation of concern, e.g. possible child neglect, or whether the adolescent wanted to provoke and shock an adult, or perhaps wished for sympathy or care. In practice, there is not always a clear 'right' path to proceed when facing difficult situations. Mol's perspective of the ethics of care was useful to see right and wrong as entwined, and as sometimes complex and ambivalent (Mol, 2008). Ethical work involved attending carefully to what happened in practice, reflecting on the outcome, and making adjustments (Laholt et al., 2018; Mol, 2008). This included the possibility of hearing, seeing, sensing, analysing, and caring about all aspects involved in a challenging situation. PHNs knew that some young people presented a film to get attention or provoke a reaction from an adult (Laholt et al., 2018). Others presented visual material because they needed help from a professional. However, working in school health services included treating each young person with respect and understanding. PHNs are responsible for

individual pupils' wellbeing in a school health context, and this responsibility 'cannot be ignored, avoided or transferred' (Clancy & Svensson, 2007). This includes a focus on 'the other', which was presented as a main fundament in public health nursing. In our study, this commitment was extended to the ethical problems provoked by the visual material (Laholt et al., 2018; Mol, 2008).

PHNs' ethical practice included weighing up various necessary approaches with different pupils in different situations. In most situations involving ethical dilemmas, the PHNs knew how to deal with challenging situations by drawing on their practical experience, professional expertise and ethical values (Laholt et al., 2018). When the issue is possible child neglect, they have clear obligations under the Child Welfare Act (1992) to contact the child welfare services or the police if young people's health or life may be at risk. Engaging in discussions about the wellbeing of young people, PHNs actively collaborated with other professionals (Clancy, Gressnes, & Svensson, 2013; Laholt et al., 2018). They worked with the pupils' parents and teachers when necessary (Laholt et al., 2018; Norwegian Directorate of Health, 2017). However, in difficult situations, the PHNs could not know if their way of handling problems was correct (Laholt et al., 2018). When uncertainty remained, PHNs resolved ethical challenges through discussion and collaboration with their fellow nurses or other health or social care workers. Discussions with others challenged the choices they made and helped them to reflect on their practice from an outsider perspective (Laholt et al., 2018; Mol, 2008). In Mol's thinking, this was not seen as a weakness but as a strength (Mol, 2008). PHNs' ethical work included being prepared to expand their professional practice and to see their work from different viewpoints (Laholt et al., 2018). In this way, the PHNs were expanding their relational and flexible practice to include new ethical challenges.

The use of visual technologies and social media is becoming a feature of professional interactions between school nurses and pupils. The Internet and social media allow young people to have greater autonomy in health issues, and contribute to their efforts to make healthier choices (Wartella et al., 2016). Nevertheless, school nursing includes being prepared for the different ethical dilemmas that working with young people might involve (Laholt et al., 2018). The PHNs expressed their fear of losing control if creative teenagers used social media in a way that could possible harm themselves or other teenagers. Most young people are aware that they are not allowed to bully or harass other people to their faces. However, guidelines on social media are more unclear and teenagers are capable of testing the limits of right and wrong in such areas (Norwegian Media Authority, 2016). Some teenagers use social media to share photos with inappropriate content. Others use visual technologies to bully other people (Laholt et al., 2018). Goodyear et al. (2018) found that young people might need guidance from adults in their use of social media. In our study, the PHNs saw the usefulness of promoting health and changing negative behaviour in groups of pupils by providing advice about the use of visual technologies and social media (Laholt et al., 2018; Norwegian Directorate of Health, 2017). Discussions in groups showed how visual data could be displayed and published, the terms of confidentiality and how to protect individual pupils' privacy when using social media (Cox et al., 2014). The role of health promotion in school nursing also provided appropriate skills to deal with challenging situations (Laholt et al., 2018; Norwegian Directorate of Health, 2017). In this way, the PHNs expanded their professional ethical practice to include new types of challenges and in doing so, they performed what Mol (2008) described as ethical work.

7.1.2 Promoting health and focusing on user involvement

Visual method	Definition	Process	Benefits	Challenges	User involvement
Graphic elicitation	A method where participants are encouraged to draw	Ask pupils to draw e.g. themselves, their family or other aspects of life. Study the drawings and talk about them in individual and/or group dialogues. Use drawings in teaching to describe different topics.	Enables pupils to communicate their needs, discuss sensitive topics, and address challenges. Could enhance pupils' health literacy, and contribute to health promotion.	Some pupils do not think they can draw, or they do not want to draw.	Pupils are more involved in conversations and teaching activities when drawing are used.
Photo elicitation	A method that uses visual images to elicit comments	Ask pupils to take photos based on their perspective. Discuss the images in individual or group dialogues.	Combines technology and activities that are familiar to young people. Useful in health promotion and teaching.	Photographs could identify people. Pupils could take inappropriate photos and share these.	Offers pupils an active role in health promotion and teaching.
The wellbeing chart	A scheme where a line represents the person's levels of wellbeing over a period	Ask pupils to draw a line to estimate their levels of wellbeing over a certain period of time. Discuss in individual or group dialogue.	Focuses on sensitive topics and addresses challenges and resources. Could enhance pupils' resource-based resilience.	Over-focusing on difficulties compared to resources. Sensitive topics could be inappropriate in group dialogue.	The PHN initiates the task. The pupil is involved by using the chart to talk about his/her wellbeing.
Sensory elicitation	Strategy that uses the senses as access points	Search for material on the Internet e.g. music, film clips from YouTube. Talk about e.g. childhood memories and explore these in individual and group dialogue.	Focuses on emotions, difficulties and resources.	Evokes difficult memories from childhood or other periods in life. Could be problematic when used in group dialogue.	Offers pupils an active role when searching for material and when sharing experiences.
Photovoice	Visualizing tool where participants use their camera or mobile phone to take photos, discuss these, and create an exhibition	Create or take photographs, discuss these in groups. Present the photos and related stories in an exhibition in a public place or on social media/website.	Could involve marginalized groups with the aim of improving their lives, focusing on public health issues.	Photographs could identify people. Pupils could take inappropriate photos and share these.	Offers pupils an active role and voice in dialogue and in public health projects.

We explored how visual methods could improve the health dialogue and PHNs' public health work in school. Even before starting the training programme in visual methods, the nurses showed how they used visual techniques or tools in different situations with different pupils (Laholt et al., 2017). However, despite using visualization, they did not describe it as a strategy or defined method as part of the health dialogue. Consequently, they were not particularly aware of the various techniques or tools to use or their strengths, problems and limitations. The workshops inspired the PHNs to raise their knowledge and skills in health promotion work by using visual methods (Laholt et al., 2019; Laholt et al., 2018). Drawings and photos stimulated young peoples' communication skills and were useful when meeting new pupils. Consequently, imaging could improve the dialogue through involving pupils as active participants (Nutbeam, 2008). Visualization identified pupils' needs and helped them to discuss sensitive topics and address challenges (Laholt et al., 2017; Laholt et al., 2018). Several PHNs stated that images could take away the focus from direct eye contact and re-direct it towards the dialogue itself. Images could change the dynamics in dialogues by enabling different forms of expression, communication and sharing (Ginicola, 2012). Using images in conversation is a visual language, an alternative form of communication and an enjoyable format, especially for young people (Laholt et al., 2017). Nevertheless, such tools did not suit all pupils. When some were asked to create an image and communicate about it, they had difficulty in using verbal language to describe their image (Ginicola, 2012). Others were not comfortable with drawing themselves or taking pictures. However, using drawings and pictures was useful in group discussions when discussing sensitive topics with teenagers (Laholt et al., 2019; Laholt et al., 2017). PHNs used visualization in teaching to present topics such as puberty development and identity. Using visual tools could enhance pupils' learning processes and raise their health literacy (Laholt et al., 2017; Nutbeam, 2008).

Sharing a picture, a video clip or a song enabled participants to communicate their thoughts, which provided richer descriptions of emotions and challenges. Such tools were relevant for health promotion dialogues aiming to increase pupils' resource-based resilience (Eriksson & Lindstrom, 2008; Laholt et al., 2017). Using personal photos in the school health dialogue could give pupils a more active role in presenting topics from their own point of view (Laholt et al., 2019). A girl that shared a photo of herself in a mirror contributed to a conversation about self-identity, which could develop the pupils' resource-based resilience (Olsson et al., 2003). One example presented in a workshop was a dialogue based on a picture of a teenage girl jumping on a trampoline with friends. Another example was a conversation based on a photo of a teenager and his pet. Such images were more useful for communicating about positive factors in life than for promoting health (Eriksson & Lindstrom, 2008). However, we know that some young people have difficult family relationships. These may find it difficult to use pictures of their family in dialogues (Ginicola, 2012). Since personal images create detailed portraits of people, this implied that school nurses had to consider whether such tools were suitable for use in health promotion, especially in group settings.

Discussing and reflecting on a pupil's situation through a visualization tool could lead to reflections on challenges from different points of view. Tveiten and Severinsson (2005) described supervision as a relational communication with clients where the aim was to enable coping. Schemes like the wellbeing chart could be useful when used in supervision. Through the chart, the PHN and pupil could communicate about different aspects of a pupils' situation, focusing on both challenges and resources. McLeod (2017) utilized the chart in combination with photos. First, the participants used the chart to communicate how they experienced their wellbeing over an estimated period. Then, they created photos of events at different points during the timeframe in the chart. We did not combine the chart with photos in our training

programme. Nevertheless, we would recommend combining these two methods in individual and group health dialogue.

The use of images offered pupils a more active role in health promotion and new ways to communicate about public health issues (Laholt et al., 2019). Photovoice is a visualizing method that enables young people to participate in health promotion in a school nursing context (Laholt et al., 2019; Wang & Burris, 1994). One main element of this technique was bringing adolescents together in groups and encouraging them to discuss and reflect on the content of their visual material (Laholt et al., 2019; Wang & Burris, 1997). Pupils inspire each other to talk more openly in a group setting (Borup, 2002). Nevertheless, we did not encourage the PHNs in our study to form groups of pupils as part of the training programme in visual methods (Laholt et al., 2019). The Norwegian guideline for school health services recommends conducting group dialogues in different topics that are of relevance for young people's health and wellbeing (Norwegian Directorate of Health, 2017). Group processes could be empowering in themselves because they enable young people to define their own issues and suggest solutions in relevant topics.

PHNs are close to young people in school health services, and have an obligation to speak out about what they see and experience in relation to new trends in youth culture (Laholt et al., 2019). Being a spokesperson for young people is an important part of the school nursing role (Norwegian Directorate of Health, 2017). We found that photovoice had the potential of enhancing PHNs' work and role as spokesperson for pupils in addition to its benefits in promoting health (Laholt et al., 2019). Nevertheless, as discussed in Article III, we recommend PHNs to take the opportunity to provoke discussions of public health by displaying images of a relevant project in public places, on a municipal website or in social

media. Informing about important public health issues through digital platforms could involve relevant stakeholders in a community. Visual methods could enhance PHNs' work and role as spokesperson and advocate for pupils in addition to the benefits of such methods in promoting health.

7.2 Further research and innovation

In our study, we used a qualitative action research approach involving focus groups, workshops and visual methods (Barbour, 2007; Guillemin, 2004b; McNiff, 2017). We would recommend the concept of action research in further studies of other professions such as psychologists, social workers and teachers to explore their practice and potential of visualization. The combination of focus groups and visual methods could allow participants to explore their practice in an innovative way (Barbour, 2007; Drew & Guillemin, 2014).

We recommend using visual methods to further involve the perspective of visualization in further related to other clinical and health issues. Nevertheless, visual methods should not necessarily replace other methods such as individual interviews or group discussions, but could be used to complement traditional strategies (Rose, 2012). The photo elicitation method evokes different kinds of information such as emotions, because of its visual form of presentation (Harper, 2002). In addition to photographs, drawings could be useful in research with children and young adults (Coad, 2007; Guillemin, 2004b). Participants could also be asked to draw the phenomena that are being researched. In our study, we asked the PHNs to draw themselves as school nurses (Laholt et al., 2017). This was an innovative way of exploring how the PHNs saw their role and work in school. We would recommend using drawings in individual and group interviews to access novel ways of understanding topics (Guillemin, 2004a; Harris & Guillemin, 2012).

We did not involve young people as participants in this study. However, if they were to be involved, we would recommend using focus groups (Barbour, 2007; Krueger & Casey, 2014). Focus groups use group dynamics and generate considerable data in a short time. We recommend using visual methods in combination with FGDs. Visual methods are well documented as creating insight into how people make sense of their world and exploring topics that are complex and difficult to articulate (Drew, Duncan, & Sawyer, 2010; Rose, 2012). Using photovoice or digital storytelling allows people to convey meanings and experiences in another way than through the conventional interview (Lambert, 2013; Wang & Burris, 1997). Visual storytelling draws on photovoice and photo elicitation and could be well suited for research with young people (Drew et al., 2010).

In this study, we could not report the effects of using visual methods in dialogue. However, further studies should focus on documenting the effects that visual methods have on the quality of the school health dialogue, health outcomes and school nurses' societal role in the field of public health. To this end, we would recommend conducting one survey with school nurses and one with young people.

8 Conclusion

This study concludes that the PHNs were able to connect to the young people and their context in a constructive manner by using visual methods. Visual technologies such as smartphones represented benefits and challenges when used in a school nursing context. A typical challenging situation was adolescents in mental distress presenting or texting suicide ideations. Further, some pupils on their own initiative shared films with inappropriate content and presentations of possible child neglect. The PHNs also communicated their fear of losing control if creative teenagers used social media in a way that could harm other young people. When facing ethical challenges, the PHNs relied on their experience, professional knowledge and ethical competence based on their existing professional ethical standards. PHNs' ethical practice included resolving uncertainties through discussions with fellow nurses, other health professionals and social workers.

This study shows that visual methods enabled PHNs to establish relationships, created insight into adolescents' experiences and life situation and provided opportunities to talk about sensitive topics indirectly through images and objects. This was especially evident in the context of sensitive topics such as taboos and when discussing issues such as self-identity. Our study concludes that visual methods improve the ability of PHNs to work with young persons. We would recommend PHNs and other health or social care workers to take a course in visual methods, and employ such tools in their practice.

Future research could focus on other professions such as psychologists and teachers in order to enhance knowledge exploring their practice and potential of using visual methods and technology. We would also recommend studies that explore young people's experiences,

especially with visual technologies and social media in health-related issues. The design of visual methods in combination with conventional methods such as individual and group interviews is useful to explore health issues. Further studies are necessary to document the effect that visual methods have on the quality of the school health dialogue, health outcomes and PHNs' societal role in the field of public health.

This study recommends developing the public health nursing profession by providing training in practical and ethical issues related to visual methods and pupils' use of technology and social media. A preferred approach is to hold workshops where participants try out and discuss imaging based on smartphones, social media and the use of different methods and their ethical limitations.

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ORIGINAL RESEARCH:
EMPIRICAL RESEARCH—QUALITATIVE

WILEY JAN Informing Practice and Policy Worldwide through Research and Scholarship

Visual methods in health dialogues: A qualitative study of public health nurse practice in schools

Hilde Laholt[1] | Marilys Guillemin[2] | Kim Mcleod[3] | Randi Elisabeth Olsen[1] | Geir Fagerjord Lorem[1]

[1]Department of Health and Care Sciences, The health faculty UiT The Arctic University of Norway, Tromsø, Norway

[2]Centre for Health Equity, Melbourne School of Population and Global Health, University of Melbourne, Melbourne, Victoria, Australia

[3]School of Social Sciences, The University of Tasmania, Hobart, Tasmania, Australia

Correspondence
Hilde Laholt, Department of Health and Care Sciences, The health faculty UiT The Arctic University of Norway, Norway.
Email: hilde.laholt@uit.no

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Abstract

Aims: We aimed to explore how using visual methods might improve or complicate the dynamics of the health dialogue between public health nurses (PHNs) and school pupils. This was done from the perspective of PHNs, specifically examining how they understood their role and practice as a PHN and the application of visual methods in this practice.

Background: The health dialogue is a method used by PHNs in school nursing in Norway. In this practice, there can be communicative barriers between pupils and PHNs. Investigating how PHNs understand their professional practice can lead to ways of addressing these communicative barriers, which can affect pupil satisfaction and achievement of health-related behaviours in the school context. Specifically, the use of visual methods by PHNs may address these communicative barriers.

Design: The research design was qualitative, using focus groups combined with visual methods.

Methods: We conducted focus group interviews using a semi-structured discussion guide and visual methods with five groups of PHNs (n = 31) working in northern Norwegian school health services. The data were collected during January and February 2016. Discussions were audio recorded, transcribed and coded into themes and sub-themes using systematic text condensation and drawings were analysed using interpretive engagement, a method of visual analysis.

Findings: Drawings and focus group discussions showed that PHNs perceived their professional practice as primarily a relational praxis. The PHNs used a variety of visual methods as part of the health dialogue with school pupils. This active use of visualization worked to build and strengthen relations when words were inadequate and served to enhance the flexible and relational practice employed by the PHNs.

Conclusions: PHNs used different kinds of visualization methods to establish relations with school pupils, especially when verbalization by the pupils was difficult. PHNs were aware of both the benefits and challenges of using visualization with school pupils in health education. We recommend the use of visual methods in schools because they are useful for PHNs, other health professionals and teachers working with children and young people in developing relations, particularly where verbal communication may be a challenge.

KEYWORDS
adolescents, health dialogue, public health nurse, school nursing, visual methods, visualization

1 | INTRODUCTION

Public health nursing aims to promote health and prevent diseases (Norwegian Directorate of Health, 2016, Sosial-og helsedirektoratet, 2004). The public health nurse (PHN) was established as a profession in Norway during the 1920s (Schiøtz, Skaset, & Dimola, 2003). All local authorities are required by law to have school health services. Consequently, public health nurses (PHNs) work with children and their parents throughout primary, secondary and high school, using guidelines recommended by the Norwegian Directorate of Health (Norwegian Directorate of Health, 2016, Sosial- og helsedirektoratet, 2004). Norwegian PHNs abide by the code of ethics of the International Council of Nurses (ICN) to address challenging situations in their practice (International Council of Nurses, 2013). It should be noted that the Norwegian guidelines from 2004 are under revision and new guidelines for school health services are expected to be completed in 2017 (Norwegian Directorate of Health, 2016). PHNs in Norway reach all children and adolescents from 0–20 years and their parents through their work in health clinics (0–5 years) and school health services (6–20 years) (Norwegian Directorate of Health, 2004). PHNs therefore have a key role in health promotion and disease prevention with children, young people and their families, at both an individual and group level. The main goal of school nursing is similar in many geographic settings, but the resources and programmes differ between the countries (Holmes et al., 2016).

1.1 | Background

In this study, we draw on the health dialogue as a conceptual frame (Borup, 2002; Borup & Holstein, 2006). The health dialogue is a dialogue between the PHN and the pupil; the topic can be chosen by the pupil, it can be a structured discussion according to the guidelines, or an open-ended discussion with one pupil or a group of pupils about their health or development concerns. The idea of the health dialogue is to promote health and prevent diseases by raising awareness and change health-related behaviours (Borup, 2002; Norwegian Directorate of Health, 2004, Sosial- og helsedirektoratet, 2004). Borup (2002) developed the health dialogue as a method to stimulate pupils' learning processes concerning their health. In Borup's study, adolescents reported a positive outcome following the health dialogue; however, a drawback was that the health dialogue favoured the most capable and verbal pupils who could articulate their needs (Borup & Holstein, 2004, 2006; Skre et al., 2013).

There can be communicative barriers between adolescents and adults and adolescents will have conflicting interests between their needs for advice, supervision, assistance and care while simultaneously developing their independence and self-identity (Berzonsky, 2011). Visual methods such as photographs, drawing, video and films, artwork, artefacts and photo elicitations are advocated in research (Guillemin, 2004a) (Rose, 2012) (McLeod, 2017). Visual methods in social and health research are creative processes enabling the researcher to explore how people understand illness, self-identity and how they make sense of world. Visual methodology uses still or moving images either as data or to elicit meanings about a given research topic and are used across a variety of sectors in health and school services. This has been extended in our study by asking how the use of visual methods can address communicative

Why is this research needed?

- In school nursing there can be communicative barriers between public health nurses (PHNs) and pupils. The use of health dialogue can be useful in overcoming such barriers.
- The health dialogue in schools favours the most capable and verbal pupils.
- Investigating how PHNs understand their practice can lead to ways of addressing communicative barriers.

What are the key findings?

- PHNs in northern Norway actively used a variety of visualization methods to build and strengthen relations with school pupils.
- Active use of visualization allowed the PHNs to reach potential at-risk groups and change the dynamics of the health dialogues.
- There were challenges linked to pupils' use of visual technology in health dialogues, in terms of confidentiality, privacy and sensitive visual content.

How should findings be used to influence practice?

- We recommend the use of visualization methods especially for PHNs and other nursing specialists working with children and adolescents to assist relationship building and to reach at-risk groups.
- Providing training for PHNs and other nurses working with children and adolescents in the use of visualization would enhance their professional toolbox.

challenges in school nursing. It is anticipated that the use of visualization as part of the health dialogue can enhance communication between PHNs and school pupils. Pupils can be encouraged to bring pictures that for them represent their life experiences, such as friendships, bullying, sexuality and alcohol, into the dialogue. The use of film sequences and pictures from smartphones can offer the participant a new and more active role. Sharing pictures and films via digital media has become an increasingly important part of adolescence (Vanden Abeele, 2016). Visual methods designed to promote understanding and articulation could be particularly effective for health issues that could be problematic, complex and sensitive, and for groups with a low capacity for articulation. When used in research, visual methods have been found to influence the dynamics and enable various forms of expression and communication (Drew, Duncan, & Sawyer, 2010; Ginicola, 2012; Rose, 2012).

2 | THE STUDY

2.1 | Aims

The aim of this project was to explore how using visual methods might improve or complicate the dynamics of the health dialogue between PHNs and school pupils in schools in northern Norway. This was done from the perspective of PHNs, specifically examining how they understood their role and practice as a PHN and the application of visual methods in this practice. Our research questions were as follows: how do PHNs see their role when talking to young persons and how did visual methods work in this setting?

2.2 | Design

We chose a qualitative approach to explore the research questions and used a combination of focus group discussions (FGDs) and visual image elicitation (Barbour, 2007; Drew & Guillemin, 2014). The advantage of FGDs compared with individual interviews is that FGDs use group dynamics and generate considerable data in a short time (Krueger & Casey, 2014). Asking the PHNs to draw themselves and discuss their drawings gave the PHNs an opportunity to describe themselves and their practices in an innovative way (Guillemin, 2004b).

2.3 | Participants

The fieldwork took place in Tromsø, a town of 70,000 inhabitants in northern Norway. We contacted the PHNs from all six health stations in Tromsø through the leader of the public health nursing services. Of the approximately 60 PHNs in Tromsø, 31 agreed to participate and we divided them into five focus groups with 4–11 participants in each group (Table 1). All 31 PHNs signed informed consent forms. Most of the 31 PHNs worked primarily in health clinics and had days or hours in the school health services. We also considered the impact of the relationships between the researchers and participants, as the moderators were insiders. However, the focus group method allowed access to other types of descriptions through active participants drawing and discussing in groups.

TABLE 1 Characteristics of focus groups and the participants

Focus group (in date order)	No. of attendees	Experience range in years
1	5	0.4–9
2	5	0.6–34
3	11	1–21
4	6	2–17
5	4	8–17
Total	31	

2.4 | Data collection

We conducted FGDs and the data were collected in January and February 2016. At the beginning of the FGDs, we gave the participants blank cards and coloured pens and asked them to draw themselves as PHNs working in the school health services. Before the FGDs, we had a meeting with all PHNs present and informed them about the project, the consent process and explained that they were under no obligation to participate. We started the FGDs with an introduction and explained the intentions of the focus groups. We used a semi-structured guide that started with discussions of the participants' drawings, followed by discussions of the school health dialogue, their use of visualization in school nursing and adolescents' use of visual technologies. Participants were given the opportunity to reflect and ideas were allowed to emerge and unexpected points to be expressed (Krueger & Casey, 2009). Discussions were recorded with a digital voice recorder; the first author (HL) transcribed the audio recordings verbatim. The FGDs lasted from 73–90 min (Table 1). HL, with an additional observer and co-moderator (REO) present, moderated in all five groups. The moderator and co-moderator reflected on the FGDs and wrote down their reflections after each session. Participants were able to discuss any ethical concern. The study was approved by the Norwegian Centre for Research Data on 8 September 2015 (NSD: Ref. No. 4439).

2.5 | Data analysis

We analysed and interpreted the transcripts, using the principles of systematic text condensation for analysis of the texts (Malterud, 2012) and visual meaning making for analysis of the drawings and accompanying participant explanations (Drew & Guillemin, 2014). The principles of systematic text condensation comprise four steps (Malterud, 2012). HL first analysed the texts and developed categories by reading the transcribed FGDs to achieve an overview of the data and approach tentative themes that ran through the whole material: "relations", "visual methods and difficulties", "the health dialogue", "different visual methods", "why use visual methods", "adolescents' use of visual methods" and "how PHNs see

themselves in school health services". In step 2, HL identified and coded the themes from the texts; the coded data were condensed and abstracted in each of the categories and then in step 3 the research team collaborated and reduced the empirical data to a decontextualized selection of meaning units sorted as thematic code groups. In step 4, the data were reconceptualized: we put the pieces together again and presented the findings as narratives: public health nursing as a relational and flexible practice, PHNs used visualization actively to build relations and that visualization was important to help pupils to articulate experiences and emotions (Malterud, 2012). We brought the two analysing processes together (Malterud, 2012) (Drew & Guillemin, 2014) and analysed the drawings and accompanying participant explanations by using interpretive engagement, a method of visual meaning making using text and images (Drew & Guillemin, 2014). This method comprises three stages. Stage 1 consisted of meaning making through participant engagement. The first stage of analysis explicitly represented the participants' voices. Based on these preliminary classifications of themes, the research group collaborated in the further analysis of the texts and images. Stage 2, meaning making through researcher-driven engagement, involved close analysis and documenting of texts and images, their content and accompanying participant explanations. We looked at the drawings and discussed their content, their symbolic representations, use of colour and intensiveness and relative size. Examples of our discussions included: "What do the relative sizes of the PHN and the children say about relations? What did the use of colour, placement of the working area and the comfortable chairs used in the health dialogue tell us about PHNs' practice?" In Stage 3, meaning making through re-contextualizing, we focused on the theoretical and analytical explanations of our material: what knowledge did we find and what did the combined text and images tell us? We read the texts and recoded the data and abstracted them in each of the categories in the context: "a relational and flexible practice", "active use of visualization when words are inadequate" and "when visualization became problematic". The texts and drawings were systematically coded with NVivo v11 (QSR International Pty Ltd, 2015).

2.6 | Rigour

Interpretive rigour examines the problems of interpreting data (Liamputtong 2013). This study demonstrates interpretive rigour in two ways. First, we used systematic text condensation influenced by Giorgi's psychological phenomenological analysis and visual meaning making for analyses in accordance with the aims of the study (Malterud, 2012) (Drew & Guillemin, 2014). The systematic analytic steps of the analysing methods demonstrate clearly how the interpretations was achieved (Liamputtong 2013) and supports the validity of findings (Malterud, 2001). Second, the research group consisted of two PHNs, two health sociologists and one philosopher. We discussed and documented decisions in interpreting data and this helped to secure reliability and provided a nuanced analysis (Liamputtong 2013) (Malterud, 2001).

3 | FINDINGS

The 31 PHNs were female and Registered Nurses, with further education as PHNs. They had experience in school nursing ranging from primary to high school level, over a period of 4 months to 34 years (Table 1). They described public health nursing as a relational and flexible practice and we found that they used visualization actively to build relations especially when words were inadequate. Visualization was especially important to help pupils to articulate experiences and emotions. They described how visualization changed the dynamics of the health dialogues and this allowed them to reach at-risk groups.

3.1 | Public health nursing as a relational and flexible practice

Figure 1 shows how the PHNs expressed their work as a relational and flexible practice; it shows how the PHN engages in different types of practices and contexts. These include skipping rope in the playground, conducting health dialogues with groups of pupils in the conference room and the syringe used for vaccinations.

Susan commented on her drawing: "Sometimes I'm in the playground trying to be where they are and sometimes I have them in my office. Here there`s everything from tears to health and here I try to ask some questions and give some vaccinations."

The next example in Figure 2 shows how Anne presents the dialogue and relationship with the pupil as her most important job through her placement and colouring of furniture. The PHN sits in a red comfortable chair, with a student in the same type of chair, having a dialogue with a pupil. The office chair, desk and the computer are drawn in blue and placed in the background while the health dialogue is centre of attention. Anne said: "I've drawn when I feel this is more than a conversation, then I move from my office chair and that's why I have a writing pad here and what I use to sit on."

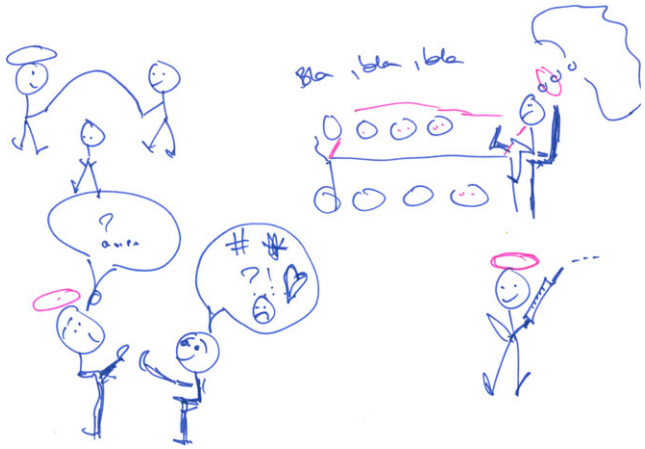

FIGURE 1 School nursing in primary school: a relational and flexible practice [Colour figure can be viewed at wileyonlinelibrary.com]

In Figure 3, we see how Mary welcomes the children with an "open door", a smile and open arms. She has drawn her relationship with the children and the tools she uses in her dialogues: crayons, the pictures of "Marius the Mouse" and the "Psychological First Aid" method. Marius the Mouse is a communication guide with 34 pictures and Psychological First Aid is a tool developed by a child psychology specialist, in cooperation with key professionals in Norwegian mental health care (Holmsen, 2011; Raknes, Finne, & Haugland, 2013; Raknes & Peterson, 2014).

3.2 | Active use of visualization to build relations when words are inadequate

Drawings and FGDs showed that PHNs perceived their professional practice as primarily a relational practice and that they used a variety of visualization methods as part of their health dialogue with school pupils. In the FGDs, PHNs discussed how the use of visualization methods enhances their understanding of the pupil in the interaction and any challenges they are facing. Visualization is also a tool used by the PHN for health promotion and helps the PHN to empower young people to take care of their own health. It is challenging in itself to engage in health dialogues with children and teenagers, but PHNs were also aware that certain topics and situations were especially difficult. Defining their practice as relational, PHNs used visualization to establish relations and enhance mutual understanding.

Drawings were used in different ways and different situations to establish relations and open up sensitive topics. When meeting new children and at the start of the health dialogue, some PHNs used a relational chart. Nora said: "I use a kind of relational chart where the child can draw who they are in that relationship at home and in school and then we talk about it." Drawings were considered a useful tool by the PHNs for dialogues with younger children. Helen said: "We draw a schoolbag where the difficult thoughts are at the bottom and the good thoughts are at the top and then we open it and let the good thoughts come out first and maybe the bad ones can stay down in the bag." Drawings were used in discussions about sensitive topics, such as puberty, sexuality and identity. Maria said: "I draw so they can understand the menstruation cycle." Anne said: "For a dialogue about heterosexuality and being gay, they draw a simple line. Where are you on the line? I do this so they can reflect on who they are." Drawing was seen as helpful when PHNs worked with vulnerable adolescents and young people from other cultural backgrounds. Maria said: "I- `ve been working with young asylum seekers where the language can be a challenge; I draw circles to find out: where are you now and where do you want to be?"

3.3 | Visualization was used to help pupils to articulate experiences and emotions

The PHNs used pictures of the Marius the Mouse in dialogue with young children in primary school (Holmsen, 2011). They selected pictures they considered suitable and suggested a parallel story between the child and the mouse. They used games with pictures to empower children. The games had the same role as the pictures of Marius the Mouse. Sue told us: "As a player I pick the same cards as the child: what's causing a feeling of sadness and then I pass the card to the child. Then it`s his turn." Games were used by PHNs to create productive relations rather than strictly telling the child to take the conversation seriously. For health dialogues with adolescents, we found that some PHNs used clips from YouTube, especially in groups. One example was "Tea consent" produced by Blue

FIGURE 2 The relational part is the most important job [Colour figure can be viewed at wileyonlinelibrary.com]

FIGURE 3 Meeting the pupils with open arms and a smile [Colour figure can be viewed at wileyonlinelibrary.com]

Seat Studios; this was a video clip where wanting a cup of tea is an analogy for sexual consent. The aim was to discuss the need to seek consent, rather than assuming it had been granted. In addition, PHNs used the Psychological First Aid in dialogues about various topics, from fear of vaccination to bigger emotional challenges, such as feeling depressed or having eating problems. This helped the pupils to verbalize their thoughts and emotions. Some PHNs discussed using a stone that they gave to the child. Sue said: "I'm there only a few times. When the child feels the stone in his pocket, it helps to visualize positive thinking. So, I have some children going around with stones in their pockets." Some PHNs told how they cut out pictures from magazines and newspapers illustrating everyday life situations. The pictures were used as a visual aid in health promotion groups. Some used artefacts like the Barbie and Ken dolls to discuss body image with young people. Images of fruits and vegetables on a plate depicted healthy food, and soft drinks and sugar cubes showed unhealthy eating habits.

The PHNs gave examples of adolescents showing them images with sexual content and pictures from cell phones demonstrating sexual harassments and abuse. One PHN described a high school girl drawing experiences of sexual abuse from her childhood. Ada said: "The drawing was a starting point for a health dialogue and to help the girl with her challenges." Other examples were teachers seeking advice from PHNs on how to handle challenges such as suicidal ideation by young people. Some pupils showed films from their family life depicting drunken parents and violent fathers. Elsa told us: "It's a vote of confidence to be invited into the young people's challenges. They share something important in their life and it's a sort of `help me`". Many Norwegian adolescents have access to smartphones and it is easy for them to film and document their daily life (Medietilsynet, 2016). To share experiences and get confirmation from an adult their trust is important for some adolescents. The use of visual methods enabled the PHNs to have important discussions about sensitive topics with pupils that might otherwise have been difficult for the pupils to verbalize. However, not all pupils had access to smartphones because of their age or lack of permission from parents. This limited the extent to which the PHNs could disseminate health information through media such as Facebook. PHNs also felt obliged to discuss with pupils ethical challenges related to the use of inappropriate visual imagery. Kate said: "It is important for young people to learn to set limits. We have lot of dialogues with adolescents about those topics."

4 | DISCUSSION

4.1 | Summary of findings

PHNs in northern Norway saw their professional practice as primarily a relational praxis. In their professional practice, PHNs employed visualization methods in many contexts, with various visual tools. They used visualization as an instrument to establish and build relations with school pupils, especially in situations where verbal communication was difficult; this enabled them to form relationships. We also found that there were challenges linked to young people's use of visual technology in the health dialogues, in terms of confidentiality, privacy and sensitive visual content. Visual methods are flexible tools that are congruent with PHNs' flexible and relational practice and they assist in relationship building and reaching target groups. This explains why PHNs may have already used visualization methods and considered them as useful tools and why they wanted to learn more about these methods.

4.1.1 | Visualization has the potential to demonstrate flexibility and dynamics in PHN interactions

Clancy has described how relationships are important for public health nursing practice and how PHNs lacked a clear strategy for their health conversations (Clancy, 2010). In contrast, our study demonstrates that PHNs had clear ideas of school nursing as a relational practice, not just between the PHN and young people but also in terms of the tools and environment they use in their practice. This is well portrayed in Figure 2: "the most important job" and the relational and flexible practice in Figure 1, showing the PHN playing with children, giving vaccinations and communicating. Figure 3 shows the relational work with sad and happy children and the relation to and flexible use of different kinds of tools. In the PHN`s discussions of drawing as a useful tool in health dialogues, the drawing as both a practice and an object enables a conversation to commence; the dynamics in the conversation are shaped by pupils describing themselves when drawing. We also see how the PHNs depicted their work and surroundings as a network, for example, the seating arrangement in their office (Figure 2), or the health dialogues in groups (Figure 1). Playing with children is also a way for the PHN to shape her position towards pupils. Many of the interactions depicted by PHNs in their drawings include common, everyday objects, such as the jumping rope and the sofa, but also the syringe. These objects are part of the network of relations in the professional practice of the PHNs. The practice of vaccination becomes tangible by the depiction of the syringe: it represents a close physical relation and an important aspect of PHN practice, namely, the prevention of infectious diseases.

Smartphones, as a central part of youth culture, are new objects that are now part of and shape, health dialogues (Medietilsynet, 2016, Vanden Abeele, 2016). New kinds of interactions develop with the introduction of smartphones, but they also bring with them new content like recordings of domestic problems, drunkenness and bullying through social media. New visual tools can lead to new kinds of relationships, but the actors cannot always control how these relations will develop.

In our research, PHNs did not necessarily describe their use of different kinds of visualization methods necessarily as a strategy and they were not particularly aware of the different methods and their premises, possibilities and limits. In keeping with their flexible and

relational practice, the use of visual methods enabled their practice in different situations and their relationships with different pupils. Visualization tools like drawings and pictures worked to identify pupil needs and helped them to discuss sensitive topics and address challenges. Several PHNs explained the advantage of how drawings and pictures could take away the focus from direct eye contact to the dialogue itself. The pictures of Marius the Mouse or games used in dialogues with young children could change the dynamics and enable different forms of expression, communication and sharing (Ginicola, 2012).

4.1.2 | Visualization has the potential to reach target and risk groups

Past research has demonstrated the benefits of health dialogues in health promotion, with positive responses from young people (Borup, 2002, 2007, 2010). However, the health dialogue favours the most capable and verbal pupils and there is an ongoing debate on how to better reach and assist at-risk groups (Andersson et al., 2009; Skre et al., 2013). Visualization can enable a dialogue and can lead to changes in interactions, especially in sensitive topics like bullying, violence or sexuality and other issues that can be difficult to express, such as psychological problems. Drawing and writing have been found especially useful in enabling young children and adolescents with problems to communicate their thoughts better than conversational language (Coad, 2007). Drawing a schoolbag can encourage young children to identify and address emotions and help them to focus on the healing parts of their life. Pictures and drawings are useful tools in dialogues with at-risk groups such as asylum seekers and young people from different cultural backgrounds; they offer a potential for mutual understanding and communication. Visualization represented by a stone in the pocket showed how PHNs actively presented strategies to pupils to allow them to handle problematic thoughts through visualizing positive thinking on their own because a helper cannot be there all the time. Borup (2002) described how children's competencies, including knowledge and being an expert in their own life, were fundamental for successful health dialogues and contributed to health promotion. Drawing and film clips from YouTube can stimulate pupils' communication skills and allow for discussion and reflection on issues of sexuality and sexual consent and teach them how to handle those challenges. Borup (2002) showed how pupils inspired each other and were more comfortable about talking openly in group sessions. In our research, the PHNs told how drawing the menstruation cycle and presenting different contraception methods in group settings could enhance pupils' learning about sexually transmitted diseases (STDs) and prevent STDs and teenage pregnancies. Drawing and discussing sexual identity with adolescents had the potential to empower the young and help them to communicate and become more aware of their identity. Artefacts like dolls and magazine pictures could help pupils to develop their self-identity and resilience and help prevent unhealthy body images.

4.1.3 | Challenges associated with visual technologies

When pupils and teachers came to the PHN wanting help, they showed trust that the PHN would be able to help with challenges and ethical dilemmas. PHNs claimed it was a vote of confidence when adolescents invited them into their life and youth culture. Films and messages from smartphones created bigger challenges than just listening to spoken words. Dialogues about these topics were sensitive because of the risk that the adolescents might reject the PHN. PHNs also had obligations to ensure the privacy of the whole family. However, PHNs also have obligations to contact child welfare or police when pupils' lives are potentially at risk. PHNs must also consider cooperating with pupils' relatives, depending on their age. There are new advances in public health nursing focusing on providing ethical care based on respect for each individual's situation (Ivanov & Oden, 2013). PHNs were also challenged when teachers came for advice on how to handle pupil'-s' smartphone pictures visualizing difficult themes such as suicidal ideations. PHNs and teachers are supposed to collaborate with the shared goal to identify and help young persons in need (Norwegian Directorate of Health, 2004, Sosial- og helsedirektoratet, 2004). Tveiten described supervision as relational communication with clients on health-related issues with the goal of enabling coping: PHNs' role in school nursing also required supervision in ethical issues related to pupils (Tveiten & Severinsson, 2005).

4.2 | Limitations

The project had several limitations to the sample, the use of FGDs as a method and finally, the point that the moderator and co-moderator were both PHNs themselves. Firstly, we recruited the participants through the leader of the public health nursing services. Most of the PHNs who chose to take part in this project are likely to have had strong interests in developing PHNs' practice in school health services. However, we do not know whether there were also more critical PHNs who chose not to participate. The second limitation relates to the employment of FGDs. As participants in FGDs do not necessarily answer each question as with individual in-depth interviews, FGD participants may have greater control over what they share or withhold from discussion (Barbour, 2007). We conducted the FGDs on Fridays, normally meeting days for the PHNs. Recruiting to focus groups by taking over existing meetings made it easier to ensure attendance. An additional source of bias may have been some variation in the size of the focus groups. The smallest group (FGD5, $n = 4$) may not have represented a wide enough range of experience and the largest group (FGD3, $n = 11$) may not have given all participants the opportunity to express their opinions. We discussed how asking participants to draw could influence the FGDs, but found that this task had a positive influence; participants responded positively to drawing and the task led to discussion of different kinds of visualization related to the health dialogue. The third possible limitation is that the moderator (HL) and co-moderator

(REO) are experienced PHNs and health lecturers, both "insiders" and "outsiders" and this may have influenced the FGDs and the interpretations. However, the data were interpreted by the first author and then re-analysed and interpreted and discussed in the research group until agreement was reached. Initial analysis may have been biased because of this insider knowledge. However, the other members of the project do not have insider status, which worked to broaden the interpretations.

5 | CONCLUSION AND RECOMMENDATIONS

PHNs using visualization methods have the potential to enhance health dialogues in schools. Visualization highlights the flexible and relational aspects of school nursing and the methods assist in relationship building, which is an important aspect of PHNs' work with pupils. Future research could focus on other players involved, such as teachers and pupils, and explore the potential of visualization, especially digital technology. Providing training for other professionals in the use of visual methods would enhance their professional toolbox.

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CONFLICTS OF INTEREST

No conflict of interest has been declared by the author(s).

AUTHOR CONTRIBUTIONS

All authors have agreed on the final version and meet at least one of the following criteria [recommended by the ICMJE (http://www.icmje.org/recommendations/)]:

- substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
- drafting the article or revising it critically for important intellectual content.

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SUPPORTING INFORMATION

Additional Supporting Information may be found online in the supporting information tab for this article.

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Review

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Ethical challenges experienced by public health nurses related to adolescents' use of visual technologies

Hilde Laholt
UiT The Arctic University of Norway, Norway

Kim McLeod
University of Tasmania, Australia

Marilys Guillemin
The University of Melbourne, Australia

Ellinor Beddari and Geir Lorem
UiT The Arctic University of Norway, Norway

Abstract

Background: Visual technologies are central to youth culture and are often the preferred communication means of adolescents. Although these tools can be beneficial in fostering relations, adolescents' use of visual technologies and social media also raises ethical concerns.

Aims: We explored how school public health nurses identify and resolve the ethical challenges involved in the use of visual technologies in health dialogues with adolescents.

Research design: This is a qualitative study utilizing data from focus group discussions.

Participants and research context: We conducted focus group discussions using two semi-structured discussion guides with seven groups of public health nurses (n = 40) working in Norwegian school health services. The data were collected during January and October 2016. Discussions were audio recorded, transcribed, and coded into themes and subthemes using systematic text condensation.

Ethical considerations: The leader of the public health nursing service who agreed to provide access for the study and the Norwegian Center for Research Data that reviewed and approved the study. All participants gave informed consent.

Findings: In adolescents' use of visual materials with public health nurses, ethical concerns were raised regarding suicide ideations, socially unacceptable content, violation of privacy, and presentations of possible child neglect. The nurses utilized their professional knowledge and experience when identifying and navigating these ethical dilemmas; they resolved ethical uncertainties through peer discussion and collaboration with fellow nurses and other professionals.

Discussion: We discussed the findings in light of Annemarie Mol's interpretation of the ethics of care. Mol expands the notion of ethical care to include the action of technologies.

Corresponding author: Hilde Laholt, UiT Norges arktiske universitet, Postboks 6050 Langnes, N-9037 Tromsø, Norway.
Email: hilde.laholt@uit.no

Conclusion: Although the increasing use of visual technologies offered benefits, school nurses faced ethical challenges in health dialogues with adolescents. To address and navigate these ethical issues, they relied on their experience and caring practices based on their professional ethics. Uncertainties were resolved through peer dialogue and guidance.

Keywords
Adolescents, ethical challenges, public health nurses, school nursing, visual technologies

Introduction

Visual technologies such as smartphones and other mobile phones are part of Western youth culture.[1,2] These visual technologies are increasingly becoming a feature of professional interactions between public health nurses (PHNs) and adolescents. These technologies can be beneficial in shaping relations and enabling communication.[3] However, there are challenges associated with the increasing use of visual technologies in schools.

PHNs in Norway have a key role in health promotion and illness prevention.[4] PHNs regularly meet with young people (age = 6–20 years) from primary to high school through "health dialogues" in schools. This places PHNs in a unique position to identify and address challenges faced by adolescents. The "health dialogue" is a dialogue between nurses and pupils with the aim of promoting health and preventing disease by raising awareness and addressing health-related behaviors.[4,5] We have previously reported how PHNs in northern Norway perceive their professional practice as a relational practice and use a variety of visualization methods as part of their health dialogue with pupils; we have shown that PHNs are aware of the benefits and challenges of using visual methods in school nursing.[3] PHNs working in schools focus on providing care based on respect for each individual's situation; this care is based on relationships and shared work involving the pupils, their families, teachers, and other professionals.[6] Norwegian PHNs abide by the ethical guidelines of the Norwegian Nurses Organisation (NNO); the Child Welfare Act underlines that in healthcare services all considerations shall be in the best interest of the child.[7–9]

The use of visual technologies is a relatively new field for PHNs. Adolescents use their mobile phones for communication and to support and enhance their social relations.[2,10] We therefore wanted to explore the ethical challenges PHNs encountered due to the increasing use of visual technologies by young people, as well as how PHNs navigated and resolved those challenges. We focused on both the visual materials and the young people involved in the health dialogue. Annemarie Mol's[11] interpretation of the ethics of care is useful to understand the manner in which PHNs navigate ethical issues. We have shown elsewhere that PHNs have a flexible, relational practice.[3] Mol[11] expands the notion of ethical care to include the action of technologies, and her notion of the "ethics of care" enables an understanding of how PHNs navigate ethical issues as part of their ongoing practice. Mol argues that it is not productive to apply external general principles of good practice and then judge the situation according to these. In biomedical ethics, respect for patients' autonomous choices is fundamental and to arrive at the best ethical decision, ethical principles are weighed up, maximizing good choices and consequences, and minimizing bad ones.[12,13] In contrast to the biomedical approach to ethics, Mol[11] proposes that solutions to problems are formulated in local practices, stating that ethical work involves attending carefully to what happens in practice, reflecting on the outcome, and making adjustments. The focus is on the broader process in which the patient or user of healthcare services is embedded, which can include technology, habits, skill, propensities, and hopes. This interpretation of ethics is not established in opposition to traditional biomedical ethics. Ethical norms like justice are still involved, not as a basic principle as biomedical ethics suggests, but as one of the elements that can be brought to bear in a situation.[11,12] In this instance, the ethical terrain expands to include how PHNs respond to all components of the encounter,

Table 1. Characteristics of focus groups and the participants.

Focus group (in date order)	Phase	No. of attendees	Experience range in years
1	1	5	0.4–9
2	1	5	0.6–34
3	1	11	1–21
4	1	6	2–17
5	1	4	8–17
6	2	4	1–30
7	2	5	3–23
Total	–	40	–

Focus groups 6 and 7 were conducted after the development program in visual methods.
Eight of nine nurses were re-interviewed in phase 2.

including the effect of the visual materials shared by the young people. Using Mol's conception of ethical care, we argue that when faced with ethical challenges in the use of visual technologies, PHNs employed their professional experience and expertise. To address ethical challenges arising from adolescents' use of visual technologies, PHNs relied on common ethical values, their professional knowledge, past experience from similar situations, peer dialogue, and guidance from other PHNs and professionals.

Aim

We explored how PHNs identify and resolve ethical challenges involved in the use of visual technologies in health dialogues in schools.

Design and method

This was a qualitative study utilizing focus group discussions (FGDs) with PHNs to explore our research aim.[14,15] This article is a part of a larger study on how PHNs understand their role and how they use visual methods in school nursing.[3] The project took place in Tromsø, a town of approximately 73,000 inhabitants in northern Norway. The Norwegian Center for Research Data approved the study on 8 September 2015 (NSD: Ref. No. 4439), and the leader of the public health nursing services approved the project. The first author (H.L.) attended a meeting with almost all the PHNs working in Tromsø (about 60), informed them about the project, and invited them to participate. The consent process was explained, emphasizing that the attendees were under no obligation to participate. All participants provided written consent.

Participants

A total of 40 PHNs agreed to participate in the project in seven focus groups. Of the 40 PHNs, 31 joined FGDs 1-5 in five different health clinics in January and February 2016 (phase 1), and nine participated in FGDs 6 and 7 in September and October 2016 (phase 2), at UiT the Arctic University of Norway. Eight of nine PHNs were re-interviewed in phase 2 (Table 1). The PHNs in Tromsø were all female and registered nurses with further education as PHNs. Most of them worked in health clinics (for children aged 0–5 years) and school health services (for pupils aged 6–20 years). Their work experience ranged from 4 months to 34 years in school nursing. Since the principal researcher and FGD moderators are PHNs, we considered the impact of the relationship between the researchers and participants. However, the focus group design allowed access to descriptions where the relationship was of little relevance; the participants discussed actively and were able to bring up any ethical issues concerning the study.[15]

Data collection

We conducted seven FGDs (Table 1). FGDs 1–5 were conducted prior to a professional development program in visual methods for the PHNs, and FGDs 6 and 7 followed the program. As part of the development program the participants used different visual methods such as drawing, images, films, and photo elicitations in their health dialogues with school pupils.[16–18] Through workshops, PHNs reported back on their experiences of using visualization in the school health dialogue. We started the FGDs with an introduction and explained the aim of the focus groups. In FGDs 1–5, we used a semi-structured discussion guide to explore ethical issues related to the health dialogue in schools, and the use of visual methods and social media in school nursing (Appendix 1). We used a different interview guide in FGDs 5 and 6; here, we asked the PHNs to discuss their experiences and ethical challenges after they had participated in the development program in visual methods and had observed visual methods in their practice (Appendix 2). H.L. was the moderator for all FGDs, with one co-moderator present in FGDs 1–5 (REO),[3] and another co-moderator in FGDs 6 and 7 (E.B.). We allowed the participants to reflect, and their ideas were allowed to emerge and be discussed.[14,15] The FGDs lasted from 73–91 min and were recorded with a digital voice recorder. After the FGDs, the moderator and co-moderator discussed the process and provided written reflections.

Data analysis

H.L. transcribed the audio recordings verbatim from the FGDs. The transcripts were analyzed using systematic text condensation,[19] and we used NVivo 11 to systematize the material.[20] Systematic text condensation draws on Giorgi's psychological phenomenological analysis and consist of four steps. In the first step, H.L. read the 111 pages of transcripts to get a general impression of the whole material. At this stage, we looked for preliminary themes associated with how PHNs identify and resolve ethical challenges involved in the use of visual technologies in health dialogues in schools. We tried to remain atheoretical while admitting an interpretative position determined by research question.[19] In step 2, H.L. used Nvivo 11 to organize the material.[20] The transcripts were systematically reviewed line by line to identify meaning units and themes. We identified and coded the themes, and the coded data were condensed and abstracted within each of the categories. The research group collaborated in steps 3 and 4. In step 3, we reduced the empirical data to a decontextualized selection of meaning units sorted as thematic code groups. In step 4, we reconceptualized the data and put the pieces together again. The analysis resulted in three key findings presented here.

Findings

The first reading revealed eight themes that forms the total impression of our material: school nursing and use of visualization, relational aspects, challenges with social media, the user perspective, young people and visualization, ethical challenges in the use of visual technologies, closeness and distance, and public health and visualization. The final descriptions were a result of a process moving back and forth between the transcripts, the findings, and theoretical perspectives. We present the findings as: situations that raised ethical issues, identifying and navigating ethical challenges, and resolving the ethical challenges through peer dialogue.

We found that PHNs experienced certain situations in which the use of visual materials raised ethical challenges. Although they were accustomed to experiencing ethical issues in their health dialogues with adolescents, the use of visual technologies created different kinds of ethical challenges. Visual presentations are a more direct form of communication, having the capacity of touching people's feelings, and eliciting strong bodily and sensory responses. This was especially evident in the visual materials generated by

adolescents that indicated suicide ideation, were socially unacceptable, violated privacy, or were presentations of possible child neglect. PHNs processed these challenging situations by drawing on their professional expertise, practical experience, and professional ethical values. Ethical uncertainties were resolved through dialogue with peer PHNs and other professionals.

Situations that raised ethical issues

Although the issues raised by adolescents in the health dialogue with PHNs were familiar, the adolescents' use of visual tools presented new types of challenges. In the FGDs, the PHNs discussed typical challenging situations arising from the use of the visual technologies. These included adolescents in mental distress presenting or texting pictures of suicide ideations. One PHN talked about a situation in which a teacher needed help when a girl had sent an image from her smartphone showing that she wanted to kill herself. Communication through a smartphone was experienced by the PHN as direct and yet distant. The situation was thus perceived as more ethically challenging than an ordinary face to face conversation. Although the suicide ideation was taken seriously by the PHN, the PHN did not definitively know from the content of the image whether the pupil actually wanted to kill herself. It could have been a call for help with her problems or an expression of desperation that required immediate attention. Based on their professional knowledge and experience, PHNs know that such situations represent concern for an adolescent's health and well-being. For the PHN, it became important to explore what this young person wanted to achieve with her communication. PHNs are trained in caring for young people in mental distress, and this PHN decided to meet the girl face to face. The PHN could then ask specific questions, exploring any potential risk of suicide and provide care for her.

Another example discussed by the PHNs in the FGDs was when a pupil came on his own initiative and showed them a film with inappropriate content. The PHN said: "Once an adolescent came to my office, sharing a film he had taken at home of his drunken step-father. That was challenging, especially because he thought the film was funny." The PHN was concerned about the film and its content and by the reaction from this adolescent. Watching a video is a more direct form of communication than listening to a verbal story from an adolescent about a drunken step-father. This example presented a number of challenges, including a challenge to the PHN's professional objectivity with the possibility of becoming over-involved in this young person's situation. The PHN reflected on the reasons this adolescent showed her the video. Did he intend to alert her to his difficult home situation, and what did he mean by his laughing? Was he considering this film as funny because his step-father did stupid things on a video or was the teenager's laughter a response to being uncomfortable when meeting a PHN? The PHN found this situation problematic, and this meeting "became a starting point for further work." In this situation, it was important for the PHN to explore the adolescent's intentions in coming to see her and showing this video; this was necessary to determine the required steps to assist the boy. In the FGD, the PHNs discussed the ethical challenges in visualization presented by adolescents. When faced with these ethical concerns, the PHNs used their professional knowledge and past experience to decide how to proceed.

Identifying and navigating ethical challenges

When PHNs became aware of ethical concerns in their visual interactions with adolescents, they also drew on common ethical principles, such as autonomy and maximizing life and health. In the example of the girl's suicide ideation, the PHN was touched and emotionally affected by the content and the way the message was presented. The PHN realized that this communicative act represented a potential ethical dilemma where an adolescent's life could be at stake. The PHN used her experience in dealing with young people in mental distress and decided to call this adolescent, offering a health dialogue at the school nursing

office. After several health dialogues, the PHN explained to the adolescent that she had to inform the girl's parents and other health professionals about the situation, even if this girl did not agree. The PHN said: "She was not particularly happy about me when she left the school nursing office, and she never came back to my office again." Building and enabling relationships are fundamental in PHNs' practice. However, the PHN believed that the ethical dilemma of life and death justified the breach of confidentiality, even though this damaged the relationship between the PHN and the adolescent.

Verbal presentations of turbulent family life were a familiar issue for PHNs working in schools. However, visual presentations such as that of the drunken step-father are more direct, thus triggering an immediate reaction. This situation presented compound issues. The PHNs discussed why adolescents chose to come on their own initiative and show them visual materials in their health dialogues. One experienced PHN said, "I think that pupils are coming and showing us sensitive images and films because they want a professional adult's view and help on their difficult life situations." PHNs considered it as a vote of confidence when young people invited them into their lives. In the example of the drunken step-father, the PHN became concerned and uncertain about the reasons why the young person came and presented this film. This situation was experienced as ethically challenging because it raised questions about the family situation and the child's well-being; it was important to ask sensitive and clear questions to get an insight into this person's background and family relations. This PHN relied on her past experience from other situations of possible child neglect when deciding whether this video represented a fraught family situation or a one-time episode where a drunken adult did funny things in a video. She also had to consider challenges in filming a drunken adult without his knowledge, and ethical issues connected to contacting and communicating with the parents if or when this became necessary. The PHNs also considered challenges in how the adolescent's parents would react when they realized that their son had shown her this kind of video. The parents could feel ashamed and become angry with the PHN and refuse to meet her because she had gained visual insight into their private life. The weighing up of not harming the relationship between a young person and his parents, as against potential damage caused by possible child neglect, made this situation an ethical dilemma for the PHN.

Visual technologies in health dialogues provided new ethical issues for the PHNs, who therefore wanted to be prepared before using such tools in school nursing. The PHNs discussed situations of ethical concern when pupils distributed visual material that was socially unacceptable, or violated pupils' privacy. The nurses communicated their fear of losing control if adolescents wanted to use social media in a way that could potentially harm other adolescents. One experienced PHN expressed uncertainty about utilizing Snapchat as a communication method in health dialogues. She said: "If I'm having group sessions about puberty and sexuality and a boy sends images of sensitive parts of himself, and suddenly the Snap is screenshotted and then it's gone, how can I handle that?" One PHN stated her standpoint when introducing new tasks in group health dialogues saying: "If we give adolescents tasks, we have to communicate what we want because we know that some adolescents will step over the line." PHNs knew from experience from similar situations that some adolescents test limits of right and wrong in their interactions. Other adolescents want to joke, or bully, or harm other pupils. Some adolescents want to present an image to get attention or provoke a reaction from adults, or to be funny at the expense of others. However, the PHNs conveyed their duty to protect pupils from doing things they would later regret, and to protect them from harming themselves and other pupils. PHNs underlined their responsibilities in practical and ethical issues when introducing visual technologies and social media in health dialogues, especially ethical issues involving data security. They were thus aware of ethical issues in their work and wanted to be prepared to face them.

Resolving the ethical challenges through peer dialogue

Although PHNs relied on their expertise and experience to address ethical challenges with visual technologies, sometimes uncertainty or indecision remained. PHNs processed these uncertainties as part of peer

collaboration (e.g. meetings, discussions, and guidance). PHNs reflected, discussed, made adjustments, and navigated ethical issues as part of their work in schools. When adolescents posted unacceptable images on social media, or sent nasty messages to each other, the PHNs expressed their uneasiness about how to handle such situations. One PHN said: "Adolescents are coming to me and presenting bullying and harassing messages from other pupils, and I wonder how to respond." When PHNs were uncertain about how to proceed, they sought peer dialogue and guidance from other PHNs, health professionals, or social workers. PHNs working in school health services are used to working alone a great deal, and they have to make decisions on their own. One experienced PHN described their role in secondary school: "Most of the time we're the only healthcare workers in the school system." When faced with new ethical issues and feeling uncertain about how to handle such situations, the PHNs called more experienced colleagues working at other schools. They freely contacted other PHNs when they needed help. One PHN said: "PHNs see many 'normal pupils,' so if I meet one I'm concerned about, I need help. Then I have to seek advice and guidance from other professionals, sometimes child welfare." The PHNs reported having access to peer group guidance with other PHNs, regularly discussing practical, and ethical issues. There were also groups led by a child psychologist or a social worker. Peer discussions and guidance provided support or challenged the choices PHNs make, enabling them to reflect on their own practice from an outsider perspective and to see themselves from the other's point of view.

Discussion

PHNs commonly deal with complex problems and ethical issues in their work. Our study showed how PHNs became aware of new ethical issues arising from adolescents' use of visual technologies, and how they addressed and navigated these ethical challenges. When PHNs were uncertain how to resolve these challenges, they contacted colleagues or other professionals for peer dialogue and guidance. As a result, they expanded their professional ethical practice to include the new types of challenges presented by visual technologies, and in doing so, undertook what Mol[11] describes as ethical work.

PHNs reported challenges connected to adolescents' use of visual technologies in health dialogues. Visual presentations are a more symbolic and direct form of communication, with the capacity to elicit bodily and sensory responses and activate memories.[21,22] For example, when a young person presented suicide ideations through a smartphone, the PHN was alerted to an ethically important situation. The PHNs in our study were attentive to all components of the encounter, including the communication presented by the visual tool.[11] PHNs knew from professional experience that all suicide ideations should be taken seriously. However, they were also aware that teenagers are in a development phase where some react to difficulties with strong emotions and others want to provoke or shock through their communication.[23] Clancy and Svensson[24] described how PHNs' responsibilities for the other cannot be ignored, avoided, or transferred. This commitment extends to the ethical problems provoked by visual materials, described by one PHN as a "starting point for further work." The PHNs in our study showed that they orientated to the overall "good" of improving the young person's well-being.[11] PHNs were familiar with verbal presentations of turbulent family relationships. However, the video presentation featuring a drunken step-father was more direct and triggered a more emotive response in the PHN concerned.[22] She described her discomfort when faced with the potential ethical issue. There was no clear "right" way to proceed. However, Mol's[11] perspective allows us to approach right and wrong as entwined and as sometimes complex and ambivalent. Some teenagers present a video to get attention and to shock or provoke a reaction from an adult. However, adolescents need to be met with respect and understanding. The PHN had to communicate sensitively to ensure the adolescents' health and well-being but at the same time considered possible child neglect.[9] Care is an interactive, open-ended process where PHNs know that some adolescents need help and want an

adult's view of their problems, while others want a dialogue about the challenges life presents to a teenager.[11,23] However, PHNs could never be completely certain that their ethical decision was correct. When facing challenging situations, they proceeded with caution, and sought other colleagues for discussion and guidance. Our findings show that they always had to be prepared to be flexible and expanded their practice to solve ethical issues that arose in new types of situations. The PHNs showed a willingness to engage in a variety of efforts to try to improve the situation of the young person, which Mol[11] characterizes as good care: this also described how new ethical situations are incorporated in their clinical/practical repertoire when relating to adolescents or young adults.

The orientation to the overall "good" of improving a young person's well-being also showed how PHNs engaged with ethical norms in their practice. This approach is exemplified by the PHN who broke a promise of confidentiality with a pupil, due to her concern for the adolescent's health and well-being. The PHN had ongoing regard for maintaining confidentiality with the pupil but had to modify how she applied this as the situation with the pupil evolved. Building and enabling relationships are a fundamental part of the practice of PHNs. However, the PHN's decision on confidentiality was influenced by what the visual material contributed to the situation.[11] The ethical issue of life and death justified the breach of confidentiality and the ensuing damaged relationship.[12] This indicates how PHNs make ongoing adjustments in their decision-making, based on contextual elements.[11] Here, confidentiality is not a foundational principle to be applied in a static way from outside the situation but as an approach which can inform how a situation is navigated. This illustrates that PHNs do not adhere to one pre-determined "good" outcome for the pupil. Instead, they are aware that in their efforts to improve the overall well-being of a young person, multiple "goods" co-exist, so they work ethically to find balances and compromises between the various goods.[25]

PHNs also expressed their understanding of how to guide young people in relation to the ethical issues that arise with visual technologies and social media. PHNs showed ethical awareness in communicating their responsibilities for practical and ethical issues connected to data security before introducing visual technologies and social media in their school health dialogues. Most adolescents are aware that they are not allowed to physically harm or verbally harass each other face to face. However, rules on social media are less clear and adolescents are testing the limits of right and wrong in these social arenas.[10] In Norway, 55% of adolescents aged 15–16 years had sent or posted online images they regretted through the Internet.[10] The PHNs underlined their duty to protect teenagers from causing harm to themselves or other vulnerable people. They knew from experience that some adolescents are capable of misusing visual technologies by spreading sensitive material through social media. The PHNs took up opportunities of promoting health and changing bad behavior in groups of adolescents, guiding them about the use of smartphones, and the Internet.[4,5] The role of health promotion in school nursing is to activate resources and provide appropriate skills for young people to deal with life's challenges.[26] Olweus[27] emphasizes the importance of teaching pupils, parents, and teachers about visual technologies to ensure safe and ethical behavior.

For Mol,[11] to contextually achieve "good," activities must be attuned to the young person's needs, and this involves coordination between all those involved. The PHNs were mindful of the broader context the adolescents were embedded in and considered various activities that would provide a good outcome on an individual basis. They also engaged with others involved in the young people's care and education. The team was involved in discussions about the well-being of adolescents,[11] and PHNs actively collaborate with other professionals.[28] When faced with ethical uncertainties, the PHNs in our study highlighted contacting other PHNs for dialogue and guidance. Mol[11] helps us to see this not as a weakness, but rather as a way of trying new approaches, to experiment and modify one's practice. In this way, the PHNs were expanding their relational, flexible practice to include new ethical problems.[3]

Strengths and limitations

The study had both strengths and limitations relating to the sample, and the fact that the moderators are PHNs, as well as the use of focus groups as a method. Regarding the sample, there was a high level of engagement and participation of PHNs in Tromsø. We recruited the participants through the leader of the public health nursing services and conducted the study on Fridays, normally meeting days for the PHNs. Taking over existing meeting days made it easier to ensure attendance. Most nurses who chose to take part in this study were likely to have a strong interest in developing their professional practice. However, we do not know if there were critical PHNs who chose not to participate. H.L. and the co-moderators in FGDs 1–5 (REO)[3] and 6-7 (E.B.) were "insiders," and knew several of the participants through their role as teachers on the PHN master's course. This insider status may have influenced the recruiting process and engagement in the FGDs. With regard to the use of FGDs, individual interviews could be perceived as more suitable than FGDs for exploring ethical issues.[15] However, our participants were familiar with discussing ethical issues from peer group discussions. In our FGDs, they wanted to share their experiences and discuss the challenging practice issues they faced. The group dynamics allowed them to reflect and discuss their experiences with their peers.[15] We used systematic text condensation for our analysis in accordance with the aim of the study.[19] H.L. interpreted the data and then the research group consisting of two PHNs, one philosopher, and two health sociologists re-analyzed and discussed the findings, until agreement was reached. The systematic steps of the analytic method and the interpretative discussion of the research group provided a more nuanced analysis which supported the validity of the findings and helped to ensure reliability.[29,30]

Conclusion

Visual technologies can be beneficial in relationship building and communication strategies but also represent new kinds of ethical challenges in health dialogues. To address and navigate these ethical challenges, PHNs relied on their professional knowledge, ethical awareness, and past experiences, which were based on their existing professional sense of ethics. Ethical uncertainties were resolved as part of peer dialogue and guidance. Our findings contribute to knowledge of the professional practices of PHNs working in schools and may be transferable to similar settings in which nurses and other social and health workers are involved with young people.

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ORCID iD

Hilde Laholt http://orcid.org/0000-0001-9169-6813

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Appendix 1. Interview guide

Question route—interview guide	Questions	Probe
Opening: 5 min	1. Thank you for your participation. Please introduce yourself with your name and how long you have worked as a public health nurse (PHN) in school health services	Name and experience of working in school health services? "Draw yourself as a public health nurse." After 5 min—ask: what have you drawn?
Introduction: 10 min	2. In what way do you use visualization in school nursing?	Follow-up: photos, drawings, other illustrations, newspapers/magazines, Internet, artifacts, or YouTube?
	3. In what contexts do you use visualization?	Individual, teaching, projects, and groups
	4. Is it user-controlled? Do the pupils show something on their smartphones/iPad?	
	5. Are there situations where it should be your (the PHNs) initiative?	Teaching/group conversations: 3rd, 6th, 8th, 10th grade, «open door» at school, targeted conversations
Transitions: 10 min	6. What impression do you have of children/young people's use of visual methods?	Children, adolescents, and groups
Key questions: 30 min	7. What characterizes a good health dialogue?	What needs improvement in health dialogues?
	8. How do you know if a dialogue was "successful"—or "failed?"	Have you discovered that you have been mistaken regarding what constitutes an "unsuccessful" or "successful" health dialogue? What are you doing?
	9. How do you establish trust with the child/adolescent?	How to best communicate with children/adolescents? How to talk to young people about difficult subjects?
	10. What do we want to achieve with the health dialogue in schools?	The purpose of the health dialogue?
The course/workshops: 20 min	11. How can we develop your competencies in visualization?	Method age group, theme?
	12. What challenges may arise when we introduce visualization in public health nurse practice?	Ethical? or practical?
Ending questions: 10 min	13. Check with co-moderator about further questions	Did I miss something important?
Summary	14. Have we forgotten anything that you think is important to include? Thank you for your participation in this interview. We will inform you about the main themes that emerged in all interviews in the learning program in visual methods	

Appendix 2. Interview guide

Question route—interview guide	Questions	Probe
Opening: 5–10 min	1. Thank you for your participation in this second round of interviews. Please introduce yourself with your name, and how long you have worked as a public health nurse (PHN) in school health services.	Name and experience of working in school health services?
Key questions	2. What kinds of visual methods have you used in health dialogues after you have participated in the development program and workshops?	Drawing, well-being chart, photo elicitation, photo voice, Internet, or YouTube?
	3. In what contexts (health dialogues) have you used visualization? or experiences?	Individual health dialogues, "open door," planned dialogues, group health dialogues, teaching, and projects
	4. In what visual methods did you have the best experience?	What kind of methods do you want to use? Why? Methods that are not suitable. Why?
	5. Do you have examples of user driven visualization, examples: when a pupil took a picture and this was the starting point for the dialogue?	Examples when pupils came with a smart phone picture or a film from YouTube.
	6. What impression do you have of children/young people's use of visualization, after you have started to use visual methods yourself?	Children and the youth culture, individuals, groups
	7. Have your health dialogues become better using visual methods?	Experiences? What are you doing?
	8. What challenges have you experienced when you used visualization in your dialogues?	Ethical and practical issues. Why did it not work?
	9. Do you have experiences or opinions on PHNs public health role? How using visualization at this level?	Photo voice project—drop out? Other topics?
Ending questions: 10 min	10. Check with co-moderator about further questions.	Did I miss something important?
Summary	11. Have we forgotten anything that you think is important to include? Thank for your participation in this interview. Good luck with your use of visual methods in school nursing practice	

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ORIGINAL ARTICLE

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How to use visual methods to promote health among adolescents: A qualitative study of school nursing

Hilde Laholt Public health nurse Health lecturer[1] | Marilys Guillemin PhD Health sociologist Professor[2] | Kim McLeod PhD Health sociologist[3] | Ellinor Beddari Public health nurse First Health lecturer[1] | Geir Lorem PhD Philosopher Professor[1]

[1]UiT the Arctic University of Norway, Tromsø, Norway

[2]University of Melbourne, Melbourne, Victoria, Australia

[3]University of Tasmania, Hobart, Tasmania, Australia

Correspondence
Hilde Laholt, UiT the Arctic University of Norway, Tromsø, Norway.
Email: hilde.laholt@uit.no

Funding information
Universitetet i Tromsø

Abstract

Aims and objectives: Public health nurses attended a 3-day course to learn the use of visual methods in health dialogue with adolescents. The aim of this study was to explore how to use visual methods to promote health among adolescents in a school nursing context.

Background: Photovoice is a visualising technique that enables adolescents to participate in health promotion projects in a school setting. Photovoice also enhances work of public health nurses and other health professionals.

Design: This was a qualitative action research study. We developed and conducted a course in visual methods and used data from focus group discussions in combination with participant observations involving public health nurses working in school health services.

Methods: We conducted focus group interviews (n = 40) using separate semi-structured discussion guides before and after a course in visual methods. The interviews were audio recorded and transcribed verbatim, and we documented the workshops (n = 8) through field notes. We collected the data from January–October 2016. Data were analysed and coded into themes and subthemes using systematic text condensation. We reported the study in accordance with the COREQ checklist.

Findings: Public health nurses found photovoice useful in school nursing. The use of images offered pupils an active role in dialogues and more control in defining the topics and presenting their stories. When nurses allowed adolescents to bring images into conversations, they discovered new insights into public health promotion. The public health nurses pointed out the benefits and challenges of using new methods in practice.

Conclusion: Public health nurses considered photovoice to be useful in health promotion and other public health issues. Involving pupils in bringing images to conversations offered them an active role and voice in health promotion.

Relevance to clinical practice: We recommend the use of photovoice and visual technologies (e.g., smartphones) in health promotion activities for adolescents.

KEYWORDS

adolescents, dropout, health promotion, photovoice, public health, public health nurses, school nursing, visual methods

1 | INTRODUCTION

Working with adolescents in a healthcare context can be challenging, and one of our focus areas is to overcome potential communication barriers between adults and adolescents. Public health nurses (PHNs) in Norway have a key role in health promotion and disease prevention through their school health dialogues with children and young adults (6–20 years) throughout their schooling (Norwegian Directorate of Health, 2017). The health dialogue is a conversation between the PHN and pupils that can follow set guidelines, or alternatively be an open-ended discussion with individual pupils or groups about their health or developmental concerns (Borup, 2002; Norwegian Directorate of Health, 2017). Health promotion is a process where the focus is on the positive, dynamic and empowering aspects of health (Eriksson & Lindstrom, 2008). The role of health promotion in school nursing is to activate resources and provide appropriate skills for pupils to deal with life's challenges. School PHNs aim to promote the health of all pupils in a school environment, and being their "spokesperson" is a part of this role (Norwegian Directorate of Health, 2017). However, the Norwegian guidelines for health clinics and school health services provide no established methods or programme for use at the public health level to achieve these goals. In this paper, we explore visual methods as one avenue for PHNs to achieve their health promotion aims.

What does this paper contribute to the wider global community?

- Important knowledge about how nurses and other health professionals can involve adolescents and offer them an active role in health promotion by using visual technologies and bringing images to conversations.
- Knowledge about how visual methods and photovoice are useful and relevant to public health issues in school nursing contexts.
- Discussions on how to use visual methods as one avenue for public health nurses to achieve their health promotion aims.

1.1 | Background

The use of visual methods offers adolescents the potential to actively participate in health promotion in a school setting. Visual methods are used in social and health research; examples are photovoice, drawings, images, films and videos, artwork and photo elicitation (Guillemin, 2004; McLeod, 2017; Rose, 2012; Wang & Burris, 1994). We explore the use of a course to teach visual methods including photovoice to enhance school PHNs' toolbox for use in health promotion with pupils. Wang and Burris (1994) used photo novella or photovoice where people create and discuss photographic images with the aim of improving or changing issues they considered important in their lives or social context. In the original photovoice projects, participants were given access to traditional cameras and taught to take photographs (Wang & Burris, 1994; Wang, Yi, Tao, & Carovano, 1998). The participants then discussed and analysed the images in groups and presented the visual material in a group setting. Traditionally, photovoice was used to engage marginalised people, giving them voice and an opportunity to communicate community needs and concerns to service providers and policymakers (Wang & Burris, 1994). Using photovoice or digital storytelling can allow people to convey meaning, emotions and struggles that cannot easily be expressed through verbal dialogue (Ginicola, 2012; Wang & Burris, 1994). This process of participation was based on an adaption of Paulo Freire's Pedagogy of the oppressed to health promotion and education (Freire, 1970). We suggest that using principles from the photovoice method could be beneficial as a health promotion strategy for PHNs working in schools. In this study, pupils were asked to bring smartphone images for use in school health dialogues and present these in an exhibition as a way of focusing on relevant public health issues. The photovoice technique has the potential for PHNs and other health professionals to enhance their public health work and enables young people to participate in health promotion projects.

2 | THE STUDY

2.1 | Aims

Public health nurses were given a 3-day course to learn how to use visual methods in health dialogue with adolescents. The aim of this study was to explore how to use visual methods to promote health among adolescents in a school nursing context.

2.2 | Design and methods

We developed and conducted a course in visual methods for PHNs working in school health services in Tromsø, a city of 75,000 inhabitants in northern Norway. Approval was gained from the head of the public health nursing services in Tromsø. The Norwegian Centre for Research Data reviewed and approved the project on 8 September 2015 (NSD: Ref. No. 4439). The project was first presented at established professional meetings, with almost all the PHNs (about 60) working in the local authority present. We explained that participation was voluntary and sought consent for participation. The participants were all female registered nurses with further education as PHNs, with an experience range from 0.4–34 years in school nursing. The participants worked as PHNs with disease prevention and health promotion in child health clinics (0–5 years), adolescent health clinics (13–20 years) and school health services (pupils 6–20 years).

We used an action research approach involving focus group discussions (FGDs) in combination with participant observation and workshops on the use of visual methods (Emerson, Fretz, & Shaw, 2011; Krueger & Casey, 2014; McNiff, 2014). The action research study comprised three phases. In total 40 PHNs participated in the

study; subgroups with different numbers of PHNs participated in the different phases of the study. In the first phase, 31 PHNs participated in FGDs to explore their previous experience and knowledge of visual methods. In the second phase, 39 PHNs participated in workshops to further develop the use of visual methods in school nursing. Our observations (transcripts and notes) documented the experiences, feedback and progress of the workshops. Finally, nine PHNs took part in FGDs to explore the PHNs' experiences with visual methods, the workshops and their general assessment of visualisation in school nursing. Most of the participants participated in more than one phase.

The 31 PHNs in the first phase of the study comprised about half of the total number of PHNs working in Tromsø during the project period (FGD1 *n* = 5, FGD2 *n* = 5, FGD3 *n* = 11, FGD4 *n* = 6 and FGD5 *n* = 4). We organised FGD 1–5 at four different child health clinics in Tromsø.

In the second phase of the study, the workshop series included all the FGD participants along with additional eight PHNs (*n* = 39). The workshop series was designed to train PHNs in using different visual methods. We divided the participants into five subgroups to undertake different visual methods: drawing, photo elicitation, sensory elicitation, photovoice and a group working with a well-being chart. The focus in this paper is on the photovoice findings. Eight PHNs participated in the photovoice group, five of whom participated in phase 1 and 2 in the final FGD phase. The training in the workshops enabled the PHNs to enhance their skills in how to encourage people to present their story through visualisation. When discussing images and stories in the group, PHNs developed their knowledge of photovoice with their peers. In this workshop, the PHNs were asked to engage young adults to share images visualising "drop out from high school" and "why young adults want to stay in school." The PHNs chose this task because dropout from high school is a problematic public health issue in Norway (Bania, Lydersen, & Kvernmo, 2016; De Ridder et al., 2012). Several PHNs participating in the study had experience of dropout in their school nursing practice.

In the third phase of the study, we included nine PHNs into two FGDs (FGD6, *n* = 4 and FGD7, *n* = 5). We organised these FGDs at the university campus. We conducted the focus groups and course on Fridays, the usual meeting day for the PHNs. Recruiting to the study by taking over existing meeting days made it easier to ensure attendance.

In this study, we used an adaptation of the photovoice method. The eight PHNs participating in the photovoice workshop took photographs with related stories and discussed the visual material in the workshop sessions. They engaged young adults to bring photographs and related stories of dropout, but did not form groups of pupils to discuss the images. After several rounds of encouraging PHNs to recruit adolescents, we received 10 photographs. Finally, we decided to cancel our plan of making an exhibition, because we considered the material too small for a representative presentation. We conducted and reported the study in accordance with the consolidated criteria for reporting qualitative research (COREQ) (Tong, Sainsbury, & Craig, 2007) (See Data S1).

2.3 | Data collection

The data consisted of the seven focus group discussions (*n* = 40) as well as participant observations from the photovoice workshop (*n* = 8) and descriptions of the photographic images collected through the workshop in photovoice (images made by young people) (Krueger & Casey, 2014; Madison, 2011). The data were collected from January–October 2016. The first author with an additional observer and co-moderator present moderated in all focus groups. At the beginning of FGDs 1–5, we explained the intention of the focus groups and the visual methods course. We used a semi-structured guide focusing on the school health dialogue, PHNs' use of visualisation in school nursing, ethical issues and adolescents' use of visual technologies. In FGDs 6 and 7, we used a different discussion guide; here, we discussed PHNs' experiences of attending the course, PHNs' perception of ethical issues related to visual methods, and public health nursing at the group and public health levels. The first author audiotaped and transcribed the FGDs verbatim. We documented our observations of the course and workshops through field notes. The participants in the photovoice workshop discussed their experiences of using the photovoice method in nursing projects. We did not seek permission from the pupils to reproduce their images in publications and are thus unable to show them. Therefore, only descriptions of the images were provided. The data were organised using NVIVO 11 (QSR International Pty Ltd, 2015).

2.4 | Data analysis

We analysed the transcripts of FGDs, field notes and descriptions of images using the principles of systematic text condensation (Malterud, 2012). Systematic text condensation is a qualitative analytical method that draws on Giorgi's psychological phenomenological analysis and consists of four steps. In the first step, we formed a general impression of the material, "from chaos to themes." The first author read the 120 pages to gain a general impression of the material and developed tentative themes that ran through the entire data. In this stage of analysis, we looked for preliminary themes associated with how visual methods might influence the school health dialogue. In step 2, the themes were identified and coded from the texts; the coded data were then condensed and abstracted in each of the categories. The transcripts were organised using NVIVO 11 (QSR International Pty Ltd, 2015) to identify meaning units, which are text fragments containing information relevant to the aim of the study. The coding procedure at this stage is flexible. In step 3, the research team collaborated and reduced the empirical data to a selection of meaning units sorted as thematic code groups. We read the texts, recoded the data and abstracted them. We reconceptualised the data in step 4 and put the pieces together again. The analysis resulted in three key findings discussed in the following section.

3 | FINDINGS

The first analytical reading of the data revealed five preliminary themes: how to use visual methods in the health dialogue, challenges related to new methods, being more visible in schools, being spokespersons for young people and using the PHN role in public health. These were condensed into the final three key findings, which were a result of moving back and forth between transcripts, field notes, descriptions of images, findings and theory to provide descriptions grounded in the empirical data. We present the three key final findings, as follows: use of photovoice gave young people a more active role in health promotion; usefulness of photovoice to focus on public health issues and benefits; and challenges of implementing new methods in school nursing.

Public health nurses found photovoice to be useful for focusing on public health issues. When PHNs allowed adolescents to bring images into conversations, they discovered new insights into public health issues relevant to health promotion. The use of images offered pupils a more active role in dialogues and more control in defining the topics and presenting their stories. Photovoice allowed PHNs to be spokespersons for young people. The PHNs also pointed out the benefits and challenges of using visual methods in school nursing practice.

3.1 | Use of photovoice gave adolescents a more active role in health promotion

In the workshop sessions, we encouraged the PHNs to use photovoice in their school nursing practices. They were asked to encourage pupils to take images with their smartphones, mobile phones or cameras illustrating "dropout from high school." After some discussion, the photovoice group agreed to expand the theme of "dropout" to "what makes pupils want to stay in school." The PHNs decided to supplement the general topic of "dropout" with more specific questions for the pupils to respond to with images and stories. Through the sessions, we found that the PHNs chose to solve the photovoice dropout task in different ways. Some directly asked pupils they knew to bring images and others collaborated with a teacher to recruit pupils to take images. The pupils also responded to the dropout task in different ways. For some, photography was a hobby, and they brought smartphone photographs from their school context. One of these was an arranged black and white image showing an adolescent in a hooded sweater throwing schoolbooks over his shoulder. The caption read: "*Sometimes when time gets rough and your breath goes too fast. Your hands will shake. You will throw away all the emptiness, and drop out*." This image showed the existential aspects of dropout, visualising no return into the school system. Another PHN collaborated with a teacher in an introductory class for refugees and young people speaking foreign languages. This PHN showed a photograph where a young adult was examining his friends' teeth. The text said that he wanted to become a dentist, so he had to finish high school and study for nine more years before he could reach his goal. He was prepared to fight and work hard and that friendship was essential. This visual image represented a pupil's long-term goals and personal ambitions and his motivation for staying in the school system. One PHN collaborated with a teacher in a class combining sports and study. This teacher encouraged her pupils to take photographs in a kind of competition. She said "*You got ten minutes to give photos to your nurse, just do it!*" From these pupils we received several images; these were more spontaneous in nature but some were also very expressive. One of them presented young people stretching their arms together on a mountaintop and pupils on skis. An image entitled "unity" showed pupils in their classroom. One image presented a girl reading a book while dribbling a football. A black and white image called "friendship" presented three smiling young boys; one was hanging on his friend's shoulder playfully wrestling, while the third was standing alongside. These images showed the importance of a positive school environment and a sense of belonging. Another image entitled "bored 'n' tired" presented a book that replaced a young person's head. In the pose, he appeared to be asleep under the book. This image showed pupils' creativity and sense of humour. All pupils who provided photographs gave written consent allowing us to use their images in a future community exhibition. After discussing the incentive methods with the pupils, we chose to announce the photovoice project as a competition. The pupils with the best photograph received a gift card worth USD 120, the second best a gift card worth USD 60. Seven pupils got gift cards worth USD 24. All nine participants thus received a participation prize. The photographs provided by the adolescents were a part of an internal photo competition, and the data were based on our observations of the PHNs and their work in the photovoice workshop. Therefore, we did not seek permission from the pupils to reproduce their images in publications, and we only quote descriptions of the images that our participants gave in this article. The adolescents who participated were aware that these activities were part of a research project. It should also be noted that due to various constraints, PHNs were not able to bring pupils together in groups after they had taken their images for discussion and identification of relevant concerns.

We found that the dropout project revealed that young people created and shared photographs when encouraged and found the task interesting. Some pupils focused on the emotional aspects of dropping out of high school, while others presented visual material illustrating friendship and positive activities associated with staying in school. The use of images offered pupils a more active role in health promotion and more control in defining the topics and presenting stories from their point of view.

3.2 | Usefulness of photovoice to focus on public health issues

The PHNs found photovoice relevant when focusing on public health issues of importance for young adults. One PHN said "We need to change things, not only at an individual level, but also at the group and public health level." The PHNs stated that being a spokesperson for young people was part of their school nursing role. One said "We

see many new trends related to teenage culture before the news appears in the media. I think we have an obligation to speak out about what we see, and we must have the guts to use this knowledge and communicate it to the media, administrators and politicians in our community." Another PHN said "It's useful to present young people's stories and challenges through different channels; photovoice is such a channel." Several PHNs communicated that visualisation could present young people's views on health issues that were of relevance for them and to youth culture. PHNs could collaborate with young people and encourage them to take images and make an exhibition at school. One PHN said "Photovoice is relevant because we can show the world how things are for young people. Through a presentation we may understand a small part of what it's like to be young, using this knowledge on the adolescents' own terms." The PHNs also stated that photovoice could present young people from other cultures with the aim of understanding them better. Presenting these through an exhibition could be a way of integrating them into the high school system. One PHN said "In my opinion, a presentation could mean quite a lot for these groups of young people." We found that the photovoice technique could enhance the PHN's role as spokesperson and advocate for young people, in addition to its benefits in promoting health.

3.3 | Benefits and challenges of implementing new methods in school nursing

The PHNs were aware of both positive and negative aspects of using visual methods in school nursing practice. One PHN said "I see that using visual methods in the school health dialogue could make a difference to the relationship between us and the pupils. Adolescents show who they are through images and films. Youth culture is about sharing." We found that photovoice enabled young people to participate in health promotion projects and PHNs to explore and contribute towards public health issues. The PHNs wanted to raise the focus on public health issues and were keen on expanding the advocacy part of their role.

Some PHNs stated their concerns about introducing new methods in practice. One PHN said "Almost all PHNs are positive towards new methods like photovoice and want to learn how to use them in practice. However, it is important to be critical and reflect so the tools do not take over. A new method can`t be a substitute for dialogue and relationship building between PHNs and young people." Some PHNs underlined the importance of remaining critical when introducing new tools in school nursing. One PHN said "We must be aware so we do not become a toolkit of methods, digital things and games. We have to be critical thinkers." The PHNs expressed the importance of using new methods with care and remaining critical when implementing a tool in practice.

4 | DISCUSSION

We found that PHNs considered photovoice to be a useful supplement for use in school nursing practice. The use of images offered adolescents a more active role in health promotion and new ways to communicate about public health issues. Asking young people to bring images was a useful addition to the repertoire of PHNs working in schools. We also found that the PHNs wanted to expand their role as spokespersons for pupils in the school system. Photovoice enabled different considerations of public health issues relevant to young adults. The PHNs also pointed out the benefits and challenges of using visual methods in practice.

4.1 | How can photovoice enhance school nursing?

Public health nurses participating in the photovoice workshop chose the "dropout" challenge as a training task because they wanted to work on a public health issue that was relevant for their practice in school. Of the 66,000 Norwegian adolescents that started high school in autumn 2012, 74.5% had completed while 25.5% had dropped out by 2017 (Statistics Norway, 2018). In our study, the images presented examples of why pupils would or would not dropout from school. Some of the pupils who provided images presented schoolwork as almost completely boring. This was visualised by the images of a pupil asleep under a book and another pupil throwing schoolbooks over his shoulder. However, these images also showed young peoples' creativity and sense of humour. The visual material of classmates in a classroom titled "unity," "pupils on skis," "a girl dribbling a football" and "smiling teenagers" showed young adults' views on resilience factors when remaining in a complex school system. The image where the boy examined his friend's teeth visualised a pupil's long-term goals of an academic education and his motivation for staying at school.

One main element of the photovoice method is to bring people together in groups allowing them to discuss and reflect on the content of their visual material. We did not ask the PHNs in our study to bring pupils together in groups after they had taken their images for discussion and identification of relevant concerns. However, when discussing images and stories in the workshop group, PHNs developed their knowledge of photovoice with their peers. This training enhanced their skills in how to encourage adolescents to present their story through visualisation. Although the group discussion element of photovoice could not be incorporated in this study, group health dialogues with a PHN would allow pupils to discuss their images with their peers. The group leader could promote health by focusing on their resources and the positive aspects of staying at school (Norwegian Directorate of Health, 2017). We know that pupils may inspire each other to talk more openly in group sessions (Borup, 2002). Here, the focus will be on the sense of belonging in a group, the importance of cooperating on activities and forming relationships with others in the same situation. Young adults who have a goal in life can be role models for their peers. Empowerment implies that health professionals allow young people to define their own issues and suggest solutions. One aim of these group dialogues is to learn and reflect on different options in pupils' life paths, thus enabling them to make sound choices. Group dialogues are health promoting because pupils

inspire and learn from each other, and these processes encourage them to communicate and focus on the positive sides of the school environment. By using images and involving humour in health promotion activities, PHNs can overcome some of the communication barriers between adults and adolescents. We consider using images to be a powerful way of communicating about important issues, and this process may promote changes in young people's lives (Wang & Burris, 1994). Active use of visualisation allows PHNs to reach at-risk groups and change the dynamics in health dialogues (Laholt, Guillemin, Mcleod, Olsen, & Lorem, 2017).

Wang and Burris (1994) presented photovoice as a method to allow marginalised groups to be "voiced and heard." We know that education has a strong impact on personal well-being, living conditions and health (Bania et al., 2016; Freudenberg & Ruglis, 2007). There is an ongoing debate in Norway on how to prevent dropout to enable young people to use their resources, finish high school, study and find a job to make a contribution to society. By asking pupils to create images to be used, the PHNs accepted them as competent actors, with essential knowledge and expertise in this public health challenge. However, due to the limited numbers of images produced, we were not able to exhibit the young people's reflections on dropout at the city council community centre or the university, as we had originally intended. Since photovoice was considered useful for discussing relevant public health issues, we recommended to the PHNs to take the opportunity to provoke discussion of public health issues by including images in the city's adolescent health centre, on the city council website, or through social media. This would be an effective and relevant way for PHNs and young people to communicate public health concerns and inform relevant stakeholders. In this way, school PHNs could use their advocacy and public health role in collaboration with pupils, thus using their mandate as "societal actors" according to the Norwegian guidelines for health clinics and school health services (Norwegian Directorate of Health, 2017).

4.2 | Benefits and challenges of introducing new methods in school nursing

Although the use of visual methods offers benefits to PHNs in school nursing, it also presents challenges around ethical issues and data security. In school nursing, PHNs must provide detailed information to pupils about the voluntary aspects of participating in visual projects. There are also ethical implications involved in how participants are presented in exhibitions involving images (Gubrium, Hill, & Flicker, 2014). Visual expressions can be more symbolic and direct, and ethical issues may arise when people or events that should remain private are identified. Participants identifiable in an image must consent to be a part of a presentation. Norwegian criminal law includes rules for sharing pictures, including the posting of photographs of others without their consent (Norwegian Penal Code, 2005). Ongoing communication between all participants involved in a project is required to address any potential ethical concerns.

We have presented elsewhere how PHNs used a variety of visual methods as part of their school health dialogues with pupils, and how they were prepared to be flexible to solve challenges that arose in their caring practices (Laholt et al., 2017; Laholt, McLeod, Guillemin, Beddari, & Lorem, 2018). The PHNs in our study wanted to try new methods and approaches to improve their dialogues and the public health aspect of their school nursing practice. Although they wanted to use their knowledge and make an impression on relevant stakeholders, it was not easy in practice.

We wanted to make an exhibition of dropout at the city council community centre or the university, but we had to cancel it because we considered the material too limited for a representative presentation. In spite of this, photovoice is a technique that enables school PHNs to work at the public health level, enhancing the advocacy part of their role. The use of visual methods is considered a relevant way to enable adolescents to become more active in conversations and contribute to health promotion projects. The PHNs saw several benefits of introducing visual methods in practice. However, they also expressed the importance of using new methods with care. Tools or methods can never replace relationship building or solve all communicative barriers between professionals and young people.

5 | LIMITATIONS

This study had limitations related to the sample size, the use of the methods and the use of field notes to document the course and workshops. Eight PHNs took part in the photovoice workshop. A limited number of pupils were involved in the dropout project and few images were produced (10). We found that the PHNs who chose to involve teachers in the recruitment process received most visual material. This experience suggests that we could have encouraged the PHNs to use teachers for recruitment of pupils.

An additional source of bias may have been some variation in the size of the focus groups. The smallest groups (FGD5, $n = 4$) and (FGD6, $n = 4$) may not have represented a wide enough range of experiences. FGD3 ($n = 11$) consisted of participants from two different child health clinics. This group may not have given all participants the opportunity to express their opinions.

In FGDs 1–5, our questions did not cover the PHNs' societal or public health role. However, our participants brought up this topic and communicated their intentions and wishes of developing and expanding this part of their role. Therefore, we chose to add a question to promote a discussion of the public health role in the second round of FGDs.

We should also point out that some elements of photovoice were not incorporated in our project. We did not encourage the PHNs to form groups of pupils to discuss the images, and we were unable to present the dropout project in a local exhibition. However, we consider our presentation of how we used photovoice to be useful for other professions working with adolescents and young adults.

We also see that there were limitations connected to our decision to document the workshop sessions through field notes. The group leaders wrote down their reflections after all workshop meetings. We may have lost some important issues from these discussions.

There were also limitations in the fact that the moderator, co-moderators and group leaders in the focus groups and workshops were PHNs themselves. They are experienced PHNs and teachers in the PHN master's degree course at UiT The Arctic University of Tromsø and knew several of the participants through their work in the small city as lecturers in health and both as "insiders" and "outsiders." However, the project group consisting of the three PHNs, two health sociologists and one philosopher collaborated in the different phases of the project, and documented all steps in the process. In the analytical process, the first author started the interpretation of the data, followed by collaboration with the research team until we reached agreement. The different perspectives may have influenced the interpretations of the material and helped us to nuance the analysis process and ensure reliability (Malterud, 2001). The systematic steps of the analytical method and the presentation supported the validity of our findings (Tong et al., 2007).

6 | CONCLUSION

Public health nurses considered photovoice to be useful in health promotion and relevant when focusing on public health issues. Involving pupils in bringing images to conversations offered them a more active role and voice in health promotion. Being an advocate for young adults in the field of public health is an important part of PHNs' societal role. Teaching PHNs, other nurses and social workers how to use visual methods could enhance their interests, enthusiasm and professional toolbox in public health work.

7 | RELEVANCE TO CLINICAL PRACTICE

We consider this study relevant to nursing, other health professions and social work, as it can create interest in using photovoice and other visual methods when promoting adolescents' levels of health or health status at the individual, group and public health levels. Visual technologies could become an important feature of interactions between nurses and young adults. Therefore, we recommend the use of photovoice and visual technologies in health promotion activities related to young adults.

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CONFLICT OF INTEREST

The author(s) declare no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

ORCID

Hilde Laholt https://orcid.org/0000-0001-9169-6813
Marilys Guillemin https://orcid.org/0000-0002-9739-3175
Kim McLeod https://orcid.org/0000-0001-6922-7615
Geir Lorem https://orcid.org/0000-0003-0334-4768

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

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Appendix 1: Interview guide A

Question route - Interview guide	Questions	Probe
Opening: 5 min	1. Thank you for your participation. Please introduce yourself with your name and how long you have worked as a public health nurse (PHN) in school health services.	Name and experience of working in school health services? "Draw yourself as a public health nurse" After 5 minutes – Ask: what have you drawn?
Introduction 10 min	2. In what way do you use visualisation in school nursing?	Follow-up: photos, drawings, other illustrations, newspapers / magazines, internet, artefacts, YouTube?
	3. In what contexts do you use visualisation?	Individual, teaching, projects, groups.
	4. Is it user-controlled? Do the pupils show something on their smart phones/ IPad?	
	5. Are there situations where it should be your (the PHNs) initiative?	Teaching/ group conversations: 3.6.8.10th grade, «open door» at school, targeted conversations.
Transitions 10 min	6. What impression do you have of children / young people's use of visual methods?	Children, adolescents, groups
Key Questions 30 min	7. What characterizes a good health dialogue?	What needs improvement in health dialogues?
	8. How do you know if a dialogue was"successful" – or "failed"?	Have you discovered that you have been mistaken regarding what constitutes an "unsuccessful" or "successful" health dialogue? What are you doing?
	9. How do you establish trust with the child / adolescent?	How to best communicate with children / adolescents? How to talk to young people about difficult subjects?
	10. What do we want to achieve with the health dialogue in schools?	The purpose of the health dialogue?

The course/ workshops (20 min)	11. How can we develop your competencies in visualisation?	Method age group, theme?
	12. What challenges may arise when we introduce visualisation in public health nurse practice?	Ethical? Practical?
Ending Questions: (10 min)	13. Check with co-moderator about further questions.	Did I miss something important?
Summary	14. Have we forgotten anything that you think is important to include? Thank you for your participation in this interview. We will inform you about the main themes that emerged in all interviews in the learning program in visual methods.	

Appendix 2: Interview guide B

Question route – Interview guide	Questions	Probe
Opening: 5 min-10 min	1. Thank you for your participation in this second round of interviews. Please introduce yourself with your name. How long you have worked as a public health nurse (PHN) in school health services.	Name and experience of working in school health services?
Key questions	2. What kinds of visual methods have you used in health dialogues after you have participated in the development programme and workshops?	Drawing, wellbeing chart, photo elicitation, photovoice, internet, YouTube?
	3. In what contexts (health dialogues) have you used visualisation? Experiences?	Individual health dialogues, 'open door', planned dialogues, group health dialogues, teaching, projects
	4. In what visual methods did you have the best experience?	What kind of methods do you want to use? Why? Methods that are not suitable. Why?
	5. Do you have examples of user driven visualisation, examples: when a pupil took a picture and this was the starting point for the dialogue?	Examples when pupils came with a smart phone picture or a film from YouTube.
	6. What impression do you have of children/ young people's use of visualisation, after you have started to use visual methods yourself?	Children- and the youth culture, individuals, groups
	7. Have your health dialogues become better using visual methods?	Experiences? What are you doing?
	8. What challenges have you experienced when you used visualisation in your dialogues?	Ethical and practical issues, Why did it not work?
	9. Do you have experiences or opinions on PHNs public health role? How using visualisation at this level?	Photovoice project – drop out? Other topics?
Ending Questions: 10 min	10. Check with co-moderator about further questions.	Did I miss something important?
Summary	11. Have we forgotten anything that you think is important to include? Thank for your participation in this interview. Good luck with your use of visual methods in school nursing practice.	

Appendix 3
Course description: "Visual Methods in School Health Services"

	Course code and title of course
Content requirements	**Further information and comments**
Title	**Visual Methods in School Health Services**
Course code and level	**HEL-30XX**
Type of course	This course may be taken as an individual course or a continuing education course and is relevant for public health nurses, psychologists, teachers and other professionals with bachelor's or master's degrees or further education in health, education or social studies.
Credits	5 ECTS credits
Admission requirements, recommended previous knowledge	For admission to this course, a bachelor's degree or equivalent in health or social studies is required.
Course content	It can be difficult to work with young people in the context of health and social care. Such work requires good relationships and understanding on young people's terms. Visual methods are linked to existing youth practices and may be appropriate for communication and relationship work aimed at young people. Participants will learn how young people use mobile phones and various social media. The teaching and group work is based on recent research in the field. Visual methods and challenges in using the various methods in health dialogues and school projects will also be covered on the course. The focus is on participant-generated methods, such as drawings, photos or videos made by the participants or taken with their smartphone or camera. There will also be an introduction to the "wellbeing chart". There will be instruction in and discussion of various ethical dilemmas that may arise from the use of visual methods in health dialogues and public health work. Particular emphasis will be placed on the use of visual technologies such as smartphones and social media.
Relevance to the programme of study	"Visual Methods in School Health Services" can be included as a continuing education course for public health nurses or other

	professionals in health or education who work with children and young people.
Learning outcomes	Upon completion of the course, participants are expected to be able to: **Knowledge:** Explain the different visual methods that can be used in research, school health services, various health dialogues and public health work. Explain how young people use mobile technology and social media in their health behaviour and how this can affect collaboration and relationships between professionals and young people. Evaluate the areas of application and procedures of the various methods. Explain and discuss strengths and weaknesses of the various methods. **Skills:** Use different visual methods in dialogues with individual pupils and groups of pupils aged 13-20 years. Use different visual methods in public health work and know how to use the methods in such work as a spokesperson and advocate for young people. Select appropriate methods based on their purpose and usefulness. Plan and implement the use of visual methods in dialogues with individuals and groups and in public health work. Present the different methods to young people, other public health nurses and other health professionals. Explain the use of social media in school health services and their ethical implications for the target group. Critically assess the weaknesses and strengths of the various methods. General competence:

	Use visual methods in health dialogues and public health work. Discuss challenges in the use of visual methods in practical work. Reflect on their own role in teaching and guiding children and young people in health dialogues. Reflect on the suitability of the various methods to promote health.
Teaching and learning methods	**The course runs for one semester and is divided into four parts.** **Part 1 is an introduction**, providing information on the various visual methods used in research, such as drawings, photo elicitation, the wellbeing chart, videos and other material from the Internet, and photovoice or digital storytelling. Ethics and ethical reflections will be emphasized. This part of the course will also deal with recent research on young people's use of mobile phones and social media. Teaching followed by work in groups of 6-8 participants. **Part 2 is practical training in the use of visual methods.** Participants meet once as a group to discuss their experiences from practice, focusing on health promotion and ethical challenges. **Part 3 is an interim period during which participants work on assignments in their practice.** The groups meet up once for discussion. **Part 4 is report writing and presentations.** Participants are expected to show that they can formulate and present various dilemmas related to the use of visual methods in the health dialogue. The report will be based on their own experience of the use of visual methods in health dialogues or school projects. Those who choose a school project will have the opportunity to suggest how it can be exhibited, either in the form of a digital presentation or as a physical exhibition in the school or in their local community.
Work requirements	Documented attendance

Examinations and assessment	The course concludes with a written report of maximum 3000 words and a piece of work based on visual methods. The work is graded as “pass” or “fail”. Participants with a failing grade will be allowed to re-submit their work at an early stage in the following semester.
Examination re-sits	Re-submission of work in the following semester
Assessment of an examination in several parts	Not applicable
Safety training	Not applicable
Practice	Practice in visual methods takes place in participants’ practice in their local community.
Language of instruction and examination	*Norwegian or another Scandinavian language*
Syllabus	A list of recommended literature on visual methods and ethical guidelines will be provided during the course.
External candidates	Not applicable
Other regulations	Not applicable

Appendix 4

Forespørsel om deltakelse i forskningsprosjektet

«Bruk av Photovoice for ungdom i videregående skole / Tvibit – Ungdommens helsestasjon i Tromsø kommune»:

som er et prosjekt tilhørende:

«Gjennom en ung linse - Bruk av visuelle metoder i helsesøsters helsedialog i skolehelsetjenesten»

Bakgrunn og formål

Bakgrunn for studien er å få kunnskap om hvordan helsesøsters helsedialog og arbeidsmåter i skolehelsetjenesten kan utvikles gjennom bruk av visuelle metoder. Prosjektet har som mål å gi kunnskap om kommunikasjons- og samarbeidsutfordringer for helsesøstre, og å vise hvordan visuelle metoder kan bedre helsesamtalens forebyggende og helsefremmende hensikt for barn og unge i alderen 13-20 år.

Vi vil spørre deg om å delta i dette prosjektet fordi du er elev ved en av Tromsøs videregående skoler/ eller har vært i kontakt med helsesøster på Tvibit (ungdoms helsestasjonen). Helsesøster har spurt deg om du kan tenke deg å være med på dette «Photovoice prosjektet».

Hva innebærer deltakelse i studien?

Deltakelse i «Photovoice prosjektet» innebærer at helsesøster ber deg om å gå ut og ta 1-4 bilder på din mobiltelefon. Tema for bildene skal være hva du tenker om temaet «Drop out». Etter at du har tatt bildene vil du komme tilbake til helsesøster og dere skal snakke sammen om bildene og hva disse betyr for deg. I samarbeid vil du og helsesøster plukke ut ett eller to bilder som du og helsesøster mener kan egne seg til å vises i en «photovoice- presentasjon». Bilder fra flere ungommer ønsker vi å samle og lage en «photovoice- presentasjon» som kan vises på Tromsø rådhus, Tvibil, evt videregående skole og på UiT Norges Arktiske Universitet.
Din deltagelse i dette prosjektet vil ikke kunne gjenkjennes i i presentasjonen eller i publikasjoner som utgår fra prosjektet.

Hva er «Photovoice»?

Metoden er basert på bilder og tekst som deltagerne selv produserer. Deltagerne blir utfordret til å lage fotografiske fremstillinger av deres liv slik de selv oppfatter det. Ved å gjøre dette kan den enkelte og samfunnet få verktøy og muligheter til å utvikle kunnskap, forståelse og bilder av hvordan ulike tema påvirker dem.

Hva skjer med informasjonen om deg?

Bildene og din historie vil fremstilles i samarbeid med deg og i en form som du er enig i og på en slik måte at den ivaretar ditt privatliv. Alle personopplysninger vil bli behandlet konfidensielt. Helsesøster

samarbeider med deg og en prosjektgruppe slik at presentasjonen ivaretar dine interesser og at de ivaretar din anonymitet. Bildene skal ikke brukes som datamateriale i forskningsprosjektet.

Alle data i prosjektet vil lagres på en slik måte at konfidensialitet og taushetsplikt ivaretas i henhold til UiT Norges arktiske Universitets retningslinjer. Alle data vil bli avidentifisert og kodet med løpenummer for hver enkelt deltager. Koblingsnøkkelen vil bli oppbevart av **prosjektleder til** enhver tid adskilt fra datamaterialet. Ved prosjektslutt anonymiseres datamaterialet ved å makulere koblingsnøkkelen.

Deltakerne i forskningsprosjektet vil ikke kunne gjenkjennes i senere vitenskapelige publikasjoner eller andre presentasjoner i media, på forskningskonferanser, i undervisningssammenheng eller lignende.

Prosjektet skal etter planen avsluttes 31.12.2020. Alle personopplysninger vil bli slettet etter prosjektslutt.

Frivillig deltakelse

Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli anonymisert.

Hvis du har kontakt med helsesøster på skolen eller på Tvibit vil ikke deltagelse i «Photovoice prosjektet» få noen innvirkning i forhold til ditt eventuelle videre forhold til helsesøster. Dette gjelder også hvis du ikke vil delta i studien eller at du senere velger å trekke deg fra deltagelse i «Photovoice prosjektet.

Dersom du ønsker å delta eller har spørsmål til studien, ta kontakt med PhD student Hilde Laholt tlf: 77660725 eller prosjektleder Professor Geir Lorem tlf: 776 46533.og telefonnummer på prosjektleder.

Studien er meldt til Personvernombudet for forskning, NSD - Norsk senter for forskningsdata AS.

Samtykke til deltakelse i studien

Jeg har mottatt informasjon om studien, og er villig til å delta

---

(Signert av prosjektdeltaker, dato)

REK
REGIONALE KOMITEER FOR MEDISINSK OG HELSEFAGLIG FORSKNINGSETIKK

Region:	Saksbehandler:	Telefon:	Vår dato:	Vår referanse:
REK nord	Monika Rydland Gaare	77620756	12.11.2014	2014/2093/REK nord
			Deres dato:	Deres referanse:
			05.11.2014	

Vår referanse må oppgis ved alle henvendelser

Geir Lorem
Institutt for helse og omsorgsfag

2014/2093 Gjennom en ung linse. En studie av visuelle metoder i helsesøsters dialog med ungdom

Vi viser til innsendt skjema for forespørsel om fremleggingsplikt datert 06.11.2014. Forespørselen er behandlet av Regional komité for medisinsk og helsefaglig forskningsetikk (REK nord) på fullmakt.

Framleggingsplikt
De prosjektene som skal framlegges for REK er prosjekt som dreier seg om "medisinsk og helsefaglig forskning på mennesker, humant biologisk materiale eller helseopplysninger", jf. helseforskningsloven (h) § 2. "Medisinsk og helsefaglig forskning" er i h § 4 a) definert som "virksomhet som utføres med vitenskapelig metodikk for å skaffe til veie ny kunnskap om helse og sykdom". Det er altså formålet med studien som avgjør om et prosjekt skal anses som framleggelsespliktig for REK eller ikke.

Forskningsetisk vurdering
Det opplyses i skjemaet at det overordnede forskningsspørsmålet for dette prosjektet er å gi kunnskap om kliniske utfordringer vedrørende arbeidsallianser, samarbeid og støtte samt hvordan helsedialog med ungdom kan dra nytte av visuelle metoder. Det står videre at formålet med dette prosjektet er rettet mot å endre klinikernes arbeidsformer ved å gi opplæring i visuelle metoder som arbeidsform. Metoden kan ha potensial for å påvirke kommunikasjonen og dermed helseforebyggende arbeid i positiv forstand og prosjektet vil kunne fremskaffe ny kunnskap om kommunikasjon med ungdom, men ikke om noen spesifikk diagnose, sykdom eller lidelse.

Selv om dette er en helsefaglig studie og funnene i studien indirekte vil kunne gi en helsemessig gevinst faller ikke prosjektet inn under definisjonen av de prosjekt som skal vurderes etter helseforskningsloven.

Vedtak
Etter søknaden fremstår prosjektet ikke som et medisinsk og helsefaglig forskningsprosjekt som faller innenfor helseforskningsloven. Prosjektet er ikke fremleggingspliktig, jf. hfl §§ *2 og 9, samt forskningsetikkloven § 4.*

Komiteens vedtak kan påklages til Den nasjonale forskningsetiske komité for medisin og helsefag, jfr. helseforskningsloven § 10, 3 ledd og forvaltningsloven § 28. En eventuell klage sendes til REK nord. Klagefristen er tre uker fra mottak av dette brevet, jfr. forvaltningsloven § 29.

Vi ber om at alle henvendelser sendes inn via vår saksportal http://helseforskning.etikkom.no eller på e-post til: post@helseforskning.etikkom.no

Vennligst oppgi vårt referansenummer i korrespondansen.

Besøksadresse:
MH-bygget UiT Norges arktiske universitet 9037 Tromsø

Telefon: 77646140
E-post: rek-nord@asp.uit.no
Web: http://helseforskning.etikkom.no/

Med vennlig hilsen

May Britt Rossvoll
sekretariatsleder

Monika Rydland Gaare
seniorkonsulent

Norsk samfunnsvitenskapelig datatjeneste AS
NORWEGIAN SOCIAL SCIENCE DATA SERVICES

Harald Hårfagres gate 29
N-5007 Bergen
Norway
Tel: +47-55 58 21 17
Fax: +47-55 58 96 50
nsd@nsd.uib.no
www.nsd.uib.no
Org.nr. 985 321 884

Geir F Lorem
Institutt for helse- og omsorgsfag UiT Norges arktiske universitet

9037 TROMSØ

Vår dato: 08.09.2015 Vår ref: 44339 / 3 / KH Deres dato: Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 26.08.2015. Meldingen gjelder prosjektet:

44339	*Through a young lens - A study of the application of visual methods in Public health nurse dialogue with adolescents*
Behandlingsansvarlig	*UiT Norges arktiske universitet, ved institusjonens øverste leder*
Daglig ansvarlig	*Geir F Lorem*

Personvernombudet har vurdert prosjektet og finner at behandlingen av personopplysninger er meldepliktig i henhold til personopplysningsloven § 31. Behandlingen tilfredsstiller kravene i personopplysningsloven.

Personvernombudets vurdering forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, http://www.nsd.uib.no/personvern/meldeplikt/skjema.html. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, http://pvo.nsd.no/prosjekt.

Personvernombudet vil ved prosjektets avslutning, 31.12.2020, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Katrine Utaaker Segadal

Kjersti Haugstvedt

Kontaktperson: Kjersti Haugstvedt tlf: 55 58 29 53
Vedlegg: Prosjektvurdering

Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.

Personvernombudet for forskning

Prosjektvurdering - Kommentar

Prosjektnr: 44339

Studiens hensikt er å få kunnskap om hvordan helsesøsters helsedialog i skolehelsetjenesten kan utvikles gjennom bruk av visuelle metoder, og å bedre helsesamtalens forebyggende og helsefremmende hensikt, for barn og unge.

Utvalget består av helsesøstre. Utvalget informeres skriftlig og muntlig om prosjektet og samtykker til deltakelse. Informasjonsskrivet er godt utformet.

Data innhentes ved personlig intervju, gruppeintervju, dagskurs og wokshop.

Personvernombudet har lagt til grunn at det ikke innhentes personopplysninger om elever, og at taushetsplikten ikke er til hinder for den behandling av opplysninger som finner sted.

Personvernombudet legger til grunn at forsker etterfølger UiT Norges arktiske universitet sine interne rutiner for datasikkerhet.

Forventet prosjektslutt er 31.12.2020. Innsamlede opplysninger anonymiseres ved prosjektslutt.
Anonymisering innebærer å bearbeide datamaterialet slik at ingen enkeltpersoner kan gjenkjennes. Det gjøres ved å:
- slette direkte personopplysninger (som navn/koblingsnøkkel)
- slette/omskrive indirekte personopplysninger (identifiserende sammenstilling av bakgrunnsopplysninger som f.eks. bosted/arbeidssted, alder og kjønn)
- slette opptak

Forespørsel om deltakelse i forskningsprosjektet

«Gjennom en ung linse - Bruk av visuelle metoder i helsesøsters helsedialog i skolehelsetjenesten»

Bakgrunn og formål
Bakgrunn for studien er å få kunnskap om hvordan helsesøsters helsedialog i skolehelsetjenesten kan utvikles gjennom bruk av visuelle metoder. Prosjektet har som mål å gi kunnskap om kommunikasjons- og samarbeidsutfordringer for helsesøstre, og å vise hvordan visuelle metoder kan bedre helsesamtalens forebyggende og helsefremmende hensikt for barn og unge i alderen 13-20 år.

Vi er opptatt av visuelle metoder som kan være bilder (tatt via mobiltelefon), filmsnutter, andre illustrasjoner, tegninger, m.m. Flere helsesøstre har sikkert erfaringer med å bruke noe av dette i praksis. Formålet med prosjektet er å etablere workshop/ kurs hvor vi i samarbeid med dere skal videreutvikle disse metodene for å forbedre helsedialogen i skolehelsetjenesten.

Prosjektet er et fire årig doktorgradsstudie (PhD) ved UiT Norges Arktiske Universitet og er et samarbeid mellom studieretning helsesøsterfag, mastergradsprogram i helsefag ved Institutt for Helse og Omsorgsfag og Institutt for Psykologi tilhørende Helsefakultetet, Tvibit Tromsø kommune og Universitetet i Melbourne og Universitetet i Tasmania, Australia.

Siden du jobber som helsesøster i skolehelsetjenesten i Tromsø kommune og har erfaring med å samtale med skoleelever, blir du forespurt om å delta i forskningsprosjektet.

Hva innebærer deltakelse i studien?
Deltakelse i studien innebærer personlig intervju, to fokusgruppeintervjuer, et dagskurs med undervisning og workshop innen visuelle metoder, og workshop etter cirka seks måneder fra første workshop. Det første fokusgruppeintervjuet vil foregå **før** dagskurset/ workshopen i visuelle metoder. Etter dette vil du delta i en mindre workshop og deretter vil du inviteres til det andre og avsluttende fokusgruppeintervjuet. Fokusgruppeintervjuene og dagskurset/ workshopene vil foregå sammen med flere av dine kollegaer i din arbeids kommune, alt innen normal arbeidstid.

Spørsmålene i intervjuene vil handle om: hvilke visuelle metoder (for eksempel tegninger, bilder, filmer som elevene selv har produsert) har du erfaring med i dine helsesamtaler med skoleelever. Etter at du har deltatt på undervisning/ workshop vil det andre intervjuet handle om hvordan visuelle metoder har blitt benyttet i kommunikasjon med skoleelever og hvilke utfordringer som kan oppstå når disse metodene blir brukt i helsedialogen. Intervjuene vil bli tatt opp på lydbånd, og vil ledes og gjennomføres av prosjektets PhD student.

Hva skjer med informasjonen om deg?
Alle personopplysninger vil bli behandlet konfidensielt. Det er kun prosjektets PhD student og veiledere som vil ha tilgang til opplysningene. Alle opptak og personopplysninger vil lagres på en slik måte at konfidensialitet og taushetsplikten ivaretas. Lydfiler og skriftlig materiale blir lagret i henhold til Uit Norges arktiske Universitets retningslinjer.

Alle data vil bli avidentifisert og kodet med løpenummer for hver enkelt deltager. Koblingsnøkkelen vil bli oppbevart av prosjektleder til enhver tid adskilt fra datamaterialet. Ved prosjektslutt anonymiseres datamaterialet ved å makulere koblingsnøkkelen.

Deltakerne i forskningsprosjektet vil ikke kunne gjenkjennes i senere vitenskapelige publikasjoner eller andre presentasjoner i media, på forskningskonferanser, i undervisningssammenheng eller lignende.

Prosjektet skal etter planen avsluttes 31.12.2020. Alle personopplysninger og lydopptak vil bli slettet etter prosjektslutt.

Frivillig deltakelse
Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli slettet.

Dersom du ønsker å delta eller har spørsmål til studien, ta kontakt med PhD student Hilde Laholt tlf: 776 60725, eller prosjektleder Professor Geir Lorem tlf: 776 46533.

Studien er meldt til Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste AS.

Samtykke til deltakelse i studien

Jeg har mottatt informasjon om studien, og er villig til å delta

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(Signert av prosjektdeltaker, dato)

Endringsskjema

for endringer i forsknings- og studentprosjekt som medfører meldeplikt eller konsesjonsplikt

(jf. personopplysningsloven og helseregisterloven med forskrifter)

Endringsskjema sendes per e-post til: personvernombudet@nsd.uib.no

1. PROSJEKT

Navn på daglig ansvarlig:	Prosjektnummer:
Professor Geir Fagerjord Lorem	44339
Evt. navn på student:	
PhD student Hilde Laholt	

2. BESKRIV ENDRING(ENE)

Endring av daglig ansvarlig/veileder:	*Ved bytte av daglig ansvarlig må bekreftelse fra tidligere og ny daglig ansvarlig vedlegges. Dersom vedkommende har sluttet ved institusjonen, må bekreftelse fra representant på minimum instituttnivå vedlegges.*
Endring av dato for anonymisering av datamaterialet:	*Ved forlengelse på mer enn ett år utover det deltakerne er informert om, skal det fortrinnsvis gis ny informasjon til deltakerne.*
Gis det ny informasjon til utvalget? Ja: ____ Nei: ____ Hvis nei, begrunn:	
Endring av metode(r):	*Angi hvilke nye metoder som skal benyttes, f.eks. intervju, spørreskjema, observasjon, registerdata, osv.*
Endring av utvalg:	*Dersom det er snakk om små endringer i antall deltakere er endringsmelding som regel ikke nødvendig. Ta kontakt på telefon før du sender inn skjema dersom du er i tvil.*
Annet: Endring gjelder utarbeidelse av samtykke til ungdom som vil bli spurt av helsesøster om å delta i et «photovoice prosjekt» tilhørende en av work-shop gruppene som jobber med visuelle metoder.	

3. TILLEGGSOPPLYSNINGER

<u>Workshop gruppe.</u> En gruppe på 8 helsesøstre skal i samarbeid med gruppeleder/ prosjektleder jobbe med:
Bruk av film eller Photovoice i vg. skole og ungdoms helsestasjon.
Temaet er «drop-out».
Helsesøstrene skal i samarbeid med ungdom lage ett photovoice-prosjekt. Dette innebærer at hver og en av de 8 helsesøstrene spør en ungdom om å gå ut og ta 1-4 bilder med tema som handler om «drop-out». Ungdommen vil bli instruert av helsesøster i samarbeid med prosjektleder/ gruppeleder Geir F. Lorem om at bildene ikke må inneholde andre gjenkjennbare personer eller bilder av dem selv som kan gjenkjennes av andre. Etter at ungdommene kommer tilbake med bildene vil helsesøster i samarbeid med ungdommen plukke ut aktuelle bilder og snakke med ungdommen om bildet.

Deretter vil helsesøster i samråd med gruppeleder plukke ut egnede bilder og lage en tekst basert på ungdommenes tanker om bildene. Temaet for bildene og teksten er «Drop out». Bildene vil bli satt sammen til en «Photovoice-presentasjon» som blir i en slik form at den kan vises på Tromsø rådhus, videregående skoler, Tvibit eller/ og UiT Norges arktiske Universitet. Photovoice presentasjonen inngår ikke som data i selve forskningsprosjektet og vil ikke gjengis i artikler.

Ungdommene som blir spurt om å delta er i aldersgruppen 16-20 år.

<u>Premiering til de ungdommer som ønsker å delta:</u>

Prosjektgruppen har 3500 i prosjektmidler som kan benyttes som premiering (i form av gavekort) til ungdom som leverer inn bidrag. Vi ønsker å bruke (f .eks 200 kr til ca 16 utvalgte, eller 100 til 35, evt 500 til de 6 beste).

4. ANTALL VEDLEGG	
1: Informasjonsskriv til ungdom	*Legg ved eventuelle nye vedlegg (informasjonsskriv, intervjuguide, spørreskjema, tillatelser, og liknende.)*

Appendix 9

Group work: Drawing

The aim is to inspire participants to use drawings in school health dialogues.

<u>Practice project, 1st group session:</u>

12:15-
Procedures

a. Divide up into pairs.
b. Role-play: one of you is a school nurse in a primary school and the other is a pupil who comes to see you in an "open door" session.
c. **The task of the "school nurse":**
   Ask the pupil to draw him/herself: How are you today?
d. The **"pupil"** can draw for ten minutes. During these ten minutes, the "school nurse" prepares how he/she will talk to the pupil about the drawing.
   How do I want to start off the conversation? What can we say about the pupil's drawing and how can we say it?

If you use drawings in your work as a school nurse, try to imagine how you would do this.

If you don't use this visualization method, try to think how you could use drawings in your health dialogue with primary school pupils. Talk to the "pupil" about the drawing for about 15 minutes.

Swap roles and perform the same role-play.
The entire practice should take about 60 minutes.

Meet up as a group and discuss with the group leader how the role-play went:

What were your experiences?

In what kinds of dialogues and for what purpose is it a good idea to use drawings?

How do you use drawings in dialogues with individual pupils, and with groups?

<u>Follow-up project</u>
Use drawing when a pupil comes in an "open door" session (or another health dialogue).
Based on your experience from the practice project, ask a pupil to draw e.g. "myself", "how I feel today", or use a topic where you feel drawing could be useful.
Note down your ethical reflections on drawing as a method in the health dialogue.

Appendix 10

Group work: Taking photos on one's own mobile phone

The goal is to inspire participants to use photos in the health dialogue.

Participants must have a smartphone that can take photos.

Practice project, 1st group session:

Procedure:

a. We agree on the topics to be symbolized by smartphone photos.
   Examples of possible topics: "Bad health", "Good health".
b. Participants divide up into pairs.
c. Go into the city centre and take 2-5 smartphone photos that symbolize the topics agreed on.
d. 14:00: We discuss the photos in the group.
e. 14:45: The group leader explains the follow-up project.

Think about different ethical aspects of this method of working.

Follow-up project:
For the period until the next workshop, which is …

We would like each of you to ask an adolescent pupil who comes to see you to take a photo on his/her phone showing "When I'm feeling good" and one showing "When I'm not feeling good".

When you ask the pupil to do this, you should also tell him/her to think carefully about the subject of the photo (e.g. don't take people that can be identified).

Ask the pupil to come back and see you. You then discuss the photos with the pupil.

Please bring your experiences to the next group session (workshop), which is …

Note down your ethical reflections.

Appendix 11

Group work: Wellbeing chart

The aim of this workshop is to use the wellbeing chart in health dialogues with pupils.

Practice project, 1st group session, 12:15-

Procedure:

a. Divide up into pairs. Ask your partner if he/she is willing to share ideas and feelings: How I have felt the past week.
b. Start the conversation by asking your partner if he/she has any questions and whether he/she is feeling fine before you begin.
   Please also discuss whether you can share parts of what was said with the rest of the group afterwards.
   Keep focused on **ethical aspects** of what we talk about in pairs and what we can share with the whole group.
c. Ask your partner to draw a line to try to describe his/her level of wellbeing the past week, from Friday to Friday. Give your partner ten minutes for this.
d. Then discuss the line with your partner. What led to changes in the line describing your partner's wellbeing? Ask your partner to give more details about the changes: what led to more wellbeing and to less wellbeing. Look at individual events and the general trend during the week.

You can do this for about 20 minutes. After that, you can take a short break and then swap roles. The whole sequence will then take about 60 minutes. Please both keep an eye on the time.

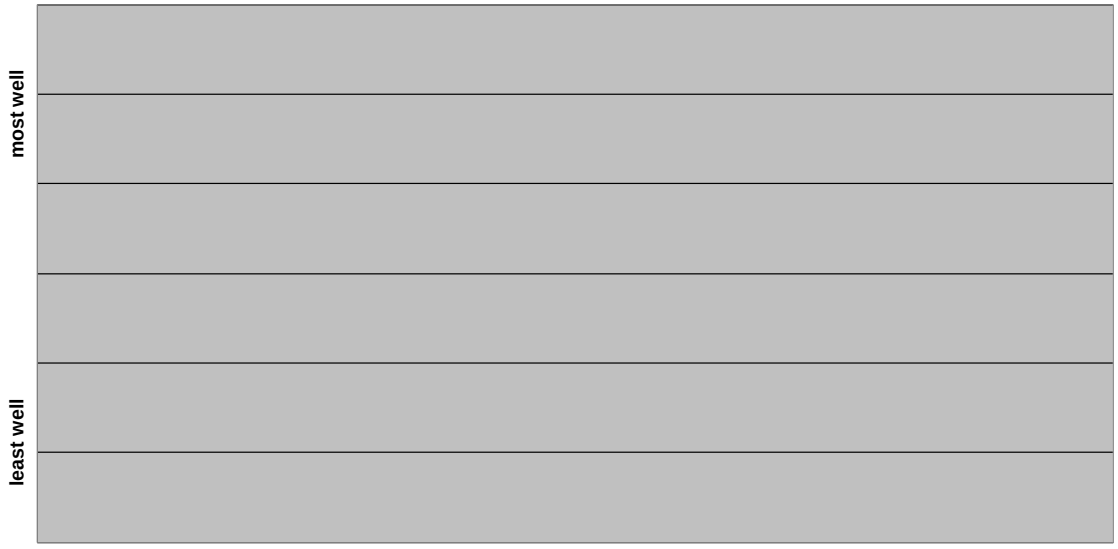
At 13:45, please meet up again as a group (with the group leader):
We will summarize the outcome of this exercise. What were your experiences of using the chart? How did it affect your conversation? Note down ethical reflections that arose.

Follow-up project:
Based on your experience of using the wellbeing chart on yourself and a colleague, choose an adolescent pupil, e.g. one who comes to see you during an "open door" session.
Ask the pupil if you can use the chart in your dialogue with him/her.

Focus on your own experiences when you used the chart yourself. How did it affect the conversation? Note down your ethical reflections.

Note down and bring these experiences to the next group session.
(Please don't bring the wellbeing chart; it is destroyed after you have written down your experiences in using it).

Your levels of wellness



Appendix 12

Group work: Sensory elicitation

Here the aim is to inspire participants to use memories and visual methods that trigger emotions in the health dialogue.

Practice project: 1st group session

The aim of this session is to focus on things that remind us of our childhood.

Participants must have a smartphone or iPad to search for something relevant on the Internet, e.g. a video or song from YouTube, a children's song or story, etc.

Procedure:

a. The group leader asks you to think of something important you remember from your childhood.
b. Divide up into pairs.
c. Spend a few minutes thinking about an important memory from your childhood.
d. Use your smartphone to find something relevant on the Internet, such as a children's song, something from online TV, a photo, etc.
e. Prepare to talk about what you found and link it up to "the song from your childhood", "the children's story" or similar ...
f. Tell your partner, then let your partner tell you.

Tips for your story:
Why did you choose this particular film sequence? What emotions does it arouse when you play this song, listen to this children's story, watch part of this children's programme...?

14:30 The group meets up to share what the different stories revealed.

Follow-up project:
We would like each participant to find a young person of secondary school age (or high school age). Ask the person to find a clip from YouTube, a photo or something else (just as you did in the practice). The topic is "What was it like starting secondary school?" or "What was it like starting high school?"

The focus is on memories.
Write down your experience from this meeting and bring it to the next workshop.
Please also note the link to the YouTube video or photo from the Internet that the person showed you.

Note down any ethical challenges involved in this method of working.

Appendix 13

Group work: Photovoice
The use of photovoice in high school and the adolescent health clinic.

The aim is to use photos and text to profile a chosen topic. We would like you to prepare a photovoice project for (possible) future cooperation with high school pupils.

The idea behind photovoice:
Photovoice was originally a group-based participatory health preventive strategy. The method is based on photos and text created by the participants themselves. Photovoice, also known as "participatory photography", was developed by Caroline C. Wang of the University of Michigan and Mary Ann Burris (Wang, 1998). In 1992, Wang and Burris created the "photo novella", now known as photovoice, to help women in the Yunnan province in China to exert influence on politics and programmes that were important for their lives. The method is inspired by the ideas in Paulo Freire's methodologies for health promotion and education.

Photovoice is a participatory method often used with *marginalized participants*. They have been encouraged to create photographic representations of their life as they saw it themselves. In this way, individuals and society are given tools and opportunities to develop knowledge, understanding and images of how various topics affect them. By creating alternatives to the most commonly used ways of expressing feelings, individual voices can be heard, especially those of people previously excluded.

Practice project

12:15-

"People in Tromsø"

Procedure:

a. Get inspiration from the project "Humans of New York". (https://www.facebook.com/humansofnewyork)
b. Bring a camera to the workshop (a smartphone will do).
c. We go to the city centre and take photos and conduct brief interviews with random people we meet.
d. We discuss the photos and create captions and descriptions.
e. We produce a presentation at a suitable place (e.g. PowerPoint, a stand, Facebook).

You may also take photos of monuments and other objects if you don't want to interview passers-by.

Follow-up project

We agree on the topic we find most interesting to continue working on.
The group work from 1 April will now be done with adolescents. We would like each of you to instruct an adolescent in how to do photovoice, based on the procedure mentioned above. The results of this will be presented to the whole group**…**

Photographs are a powerful medium to communicate topics and bring about changes. Have a look at the **photovoice project in Drangedal for inspiration:**

http://www.nrk.no/telemark/unikt-fotoprosjekt-for-drangedalsungdommer-1.12251702

What ethical reflections are involved in starting up projects of this kind?
Make some notes on ethical reflections.