**A phenomenological study of becoming and being an environmentally ‘woke’ nurse**

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**Abstract**

Background: Increasing numbers of nurses view environmental activism as part of their role. No studies have explored the reasons.

Aim: This study aimed to identify what awakened and shaped US and UK nurses’ environmental activism.

Design: A Gadamerian hermaneutic phenomenological study

Methods: Forty nurses were recruited in 2017 using purposive sampling (USA n = 23, UK n = 17). Four focus groups were followed by individual interviews. Iterative, fully-immersive phenomenological analysis was conducted with corroboration of themes and a final ‘shared horizon’.

Discussion: Participants described ‘lightbulb’ events whereby they recognized environmental threats to people and the planet. Their nursing-centered values of social justice, generational fairness and alleviating suffering underpinned a shared belief in their ability to help mitigate those threats. They believed it was their duty as nurses to take action on behalf of individuals, communities and the planet. Their nursing skillset makes for effective leadership and environmental activism.

**Key Words**

Environmental health; Ethics; Gadamerian hermanuetic phenomenology;

Nurses; Environmental activism; social justice

**Nursing Outlook Highlights**

* Nurses are acting on environmental issues because they are recognise the risks to human health.
* Environmentally-‘woke’ nurses are playing their part in trying to save present and future lives through saving the planet.
* Social justice, generational fairness and desire to alleviate suffering drive nurses’ activism.
* Nurses can help reduce environmental risks to health by adopting sustainability practices.
* Sustainability and environmental health should be embedded into nursing programs.

**Contribution of this paper**

What is already known about this topic

* Although nurses have been described as gravely concerned about sustainability, no

research seems to have explored what drives nurses to become environmental

activists.

* The leading principle in environmental law and ethics, the precautionary principle,

was unmentioned in any of the research studies identified in a systematicallyundertaken

review of literature relating to nurses’ environmental engagement.

* More nurses are becoming involved in sustainability or addressing environmental

issues that impact upon human health.

What this paper adds

* Nursing concerns such as the impact of pollution, climate change, social injustice and

politics on health play a part in triggering a ‘lightbulb’ moment in nurses to become

environmentally-engaged and activist.

* Person-centred nursing values such as social justice, generational fairness, alleviating

suffering, preventing future health problems and advocacy on behalf of vulnerable

communities are the values that underpin nurses’ environmental engagement.

* The nursing skill set makes for effective leadership on environmental issues and

should be utilised more but nurses who speak out feel vulnerable and need the support

of like-minded others.

**Background**

Patient advocacy and role credibility are familiar values among American (US) and British (UK) nurses but, as one of our participants commented, ‘nurse education focuses too much on the individual human body” (UK-I7). The environment is a key determinant of human health (Anderko et al., 2014; Nichols et al, 2009). A direct link exists between climate change and air pollution which kills over 7 million people a year (World Health Organization, 2018). Worldwide, nurses have expressed grave concerns about sustainability (Dunphy, 2014). Some nurses are now becoming environmental activists. Fielding et al (2008, p.219) define “environmental activism” as “purposeful and effortful engagement in behaviors aimed at preserving or improving the quality of the environment, and increasing public awareness of environmental issues…[and]…may include protesting, rallying, petitioning, educating the public, lobbying government and corporations, participating in direct actions such as blockades or participating in voluntary conservation or revegetation work.”

The rationale for taking action is found in the leading principle in environmental law and ethics, the precautionary principle, yet this was not unmentioned in two nursing studies (Joyce et al., 2014; Rogers, 2012). This principle holds that: “where an activity raises threats of harm to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established” (Science and Environmental Health Network, 1998). It should “provide guidance with respect to cases in which our scientific knowledge of the harmful effects of a proposed activity is significantly incomplete” (Manson, 2002, p.264) but may become “disproportionately focused on worst-case scenarios” and a threshold of harm is set which becomes “a somewhat arbitrary decision of the policy maker” (Arcuri, 2007, p. 267). Anticipatory action should to be taken to prevent harm (Salazar, 2006). Governments are often slow to act to develop policies that address risks such as climate change, waste, transport-related pollution (Nichols et al, 2009). Health Impact Assessments are mandated under European law when states are designing any changes to law, policy or infrastructure (Martuzzi and Bertollini, 2004). Despite this, hazardous activities are embarked upon with affected communities struggling prove harm (Dowie, 2004).

Cezar-Vaz, *et al.*’s (2013, p.1428) conceptual review presents nurses as “partners to promote environmental health.” The concept of sustainability in nursing has been defined by Anåker & Elf (2014, p.381) as “a core of knowledge in which ecology, global and holistic comprise the foundation.” They suggest a need to incorporate “environmental, sociopolitical and economic sustainability” (Anåker & Elf, 2014, p.387). Anderko et al.’s (2014) conceptual model of ecocentric values-based caring identifies the nurse as using critical thinking and evidence-based practice to foster human flourishing through caring for persons, communities and the earth. Kangasniemi, Kallio, & Pietilä’s (2014) synthesis of eleven studies found that environmentally-responsible nursing was partly underpinned by responsibility for future generations. Even when nurses recognize a responsibility to help address climate and environmental issues, they see this as less important than other aspects of their jobs (Anåker et al., 2015). Nurses who are concerned about sustainability need courage to speak up as activities such as role-modelling sustainable practices, lobbying for change, advocating for community health or challenging powerful organizations can make nurses unpopular (Rogers, 2012). Having advocacy skills and credibility is important (Joyce et al, 2014). Stern’s (2000) conceptualization of environmentally-significant behaviors recognizes that activism results when an individual’s worldview values become associated with beliefs about adverse consequences for objects of value to the individual coupled with belief that they have both the ability and a duty to reduce this threat. Different forms of activism result from different causal factors that vary across individuals (Stern, 2000). Nurses have both individual and collective identity and values. The aim of this study was to identify what awakened and shaped US and UK nurses’ environmental activism.

**Methods**

Black’s (2011) approach to hermeneutic phenomenology underpinned by Gadamer’s philosophical approach to truth which requires researchers entering the lifeworld of participants (Fleming, 2003; Guzys, Dickson-Swift, Kenny & Threlfeld, 2015). This requires taking a continual, iterative and reflexive approach towards data. The researcher interprets each new piece of evidence in light of what is already known until eventually a final, new horizon, or perspective is identified (Black, 2011). First, audio-recorded focus groups were held in USA and UK where the purpose was to gain a sense of the lived experiences. Participants were asked (1) What values guide you as an environmentally-engaged (activist) nurse? (2) What is your understanding of environmental ethics? (3) What challenges do you face in your role as an environmentally-activist nurse? (4) What examples of your practice as nurses interested in preventing harm to the environment can you share? (5) How does your role as a nurse trying to protect the environment affect you as an individual?

The second phase, audio-recorded individual interviews, allowed deeper exploration of experiences and ethical values. Skype/Zoom and telephone as well as face-to-face interviewing allowed a greater range of participants and experiences to be elicited. Participants were asked: (1) What or who inspired your interest in environmental health (or sustainability) issues? (2) Why did you become an environmentally-engaged (activist) nurse? (3) How long have you been working in this field? (4) What does your role entail? (5) What ethical values guide your practice? (6) What barriers do you experience putting those values into practice? (7) What do you find challenging in your role? (8) How do you handle this? These allowed us to explore personal motivation more deeply than would have been appropriate within a focus group.

Combining focus group and individual interviews enhances data richness (Lambert and Loiselle, 2008). A reflective diary capturing insights, anomalies and points to explore was kept by the non-nurse, non environmental activist, experienced hermeneutic interviewer (Vandermause & Fleming, 2011) researcher who led all the focus groups and conducted all bar two of the interviews. All data were explored iteratively with the US co-researcher who is an environmental activist Occupational and Environmental Health nurse and was present at all focus groups. Audio-recordings were transcribed verbatim, coded and thematically-analyzed by the lead researcher. The UK nurse co-researcher (with expertise in education for sustainability) analyzed four transcripts which allowed confirmation of codes and themes. The US researcher corroborated all themes and allocation of quotes. This provided in-depth, immersion with insider and outsider perspectives (Coombs & Osborne, 2018). The process of entering the lifeworld of participants occurs when the spoken words (and how they are expressed and used) are listened to, questioned, appraised and researcher perceptions tested for bias (Regan, 2012). When the researchers have fully stepped into the lifeworld of participants, the fusion of horizons has occurred. Comments on poster and oral papers at conferences attended by some participants provided member verification that we have achieved this. A secondary discourse analysis of the data to elicit emotions is underway. University Ethics Committee (UK) and Institutional Review Board (USA) approvals were obtained. Participation was voluntary. Participants were assured of anonymity, the right to withdraw and that if they revealed any unprofessional practice this would have to be acted upon as required by the researchers’ professional codes.

Purposive sampling was employed. Potential participants, known personally or through their publications were emailed direct. One participant came forward following an announcement posted on an Occupational Health Forum (<http://www.jisc.ac.uk>). Participants were registered nurses actively engaged in environmental/sustainability activism. All considered themselves to be role models and advocates for the environment. The 40 participants (35 female, 5 male) were public health nurses, specialist community health nurses, or occupational health nurses (n=7) except one who had qualified a year earlier but held a degree in environmental sciences. Some were hospital or community-based while others had moved into academia (n=18). Some ran their own companies. Several US participants had obtained grants to conduct health-related projects within environmentally-vulnerable communities. A significant European research project had been led by a UK participant. They had from 5 to over 50 years’ activism experience.

In March 2017, 10 participants attended two focus groups in the US followed by two focus groups (n = 6) in the UK in May 2017. Participants in the US focus groups were known to the co-researcher. Some participants at the UK focus groups were known to the lead researcher. The focus groups lasted 46 - 89 minutes (mean 59 min). Thirteen individual interviews were conducted with participants in the US (two face-to-face by the co-researcher who knew them; the lead researcher did the rest by video-conferencing with one by telephone). Eleven individual interviews of UK nurses were done by the lead researcher (two face-to-face, three by telephone, six by video-conferencing). One face-to-face interview was done with both researchers present but not audio-recorded at the participant’s request. Field notes were made immediately after the interview. Interviews ranged in length from 15 minutes to 2 hours 51 minutes (the relevant parts of this latter interview were 60 minutes) with a mean of 46 minutes. In total, 40 nurses participated with experiences covering 12 US states and the three mainland UK countries. Another 20 potential participants were identified but either proved uncontactable or did not reply to the invitation. Researcher reflexive sessions were held either in person or through meeting virtually via Skype throughout the data collection, analysis and writing-up stages (Coombs & Osborne, 2018). These discussions facilitated identification of the new horizon. Data saturation in relation to values and the triggering of environmental engagement was achieved.

**Findings**

The shared horizon of participants’ environmental activism was shown to rest upon caring for individuals, communities and the planet. Their activism journey is described through four super-ordinate themes (Awakening, Values, Belief in own ability and duty to act and Environmental Activism) presented below.

**Awakening**

All participants recounted some form of ‘lightbulb’ moment which made them realize that helping to save the planet or take action against environmental harms was something that they, as nurses, needed to do. Issues like pollution, climate change, social injustice and politics played a part. More UK participants than US ones became environmentally-engaged because they were allocated a role by their employer: “I was asked by the Dean of our Faculty to take on the Faculty Lead role for sustainability. At which point, my eyes rolled and I thought, another thing, another tick-box thing that we have to do…I also had a trip to Copenhagen in Denmark…it just snowballed…whatever happened in those series of events was really powerful…Kind of ignited the fire if you like.” (UK-I6)

Others recounted tragic stories that made them start to think about the impact of the environment upon health: “I went on this home visit of a young mom…she had a baby born without a brain…she had done everything right. The only thing was she was just poor and she lived in this very polluted neighborhood and it really started me thinking about what the connections were…That really started my journey…I walked out thinking, she took her vitamins, she ate, she didn’t do drugs so, what happened?...She lived in this very small home with her family on this very polluted river and lots of industry, lots of air pollution, lots of water pollution” (US-I3). For some, family experiences triggered early awareness of how environmental conditions impact upon health. One participant’s grandfather had to start work at age 10 to support his family: “He went down the mine…I always think that his health was adversely affected” (UK-I3).

Nurse educators seem driven to facilitate the ‘lightbulb’ moment with students: “I’ve had students that have gotten angry-slash-frustrated and have wanted to basically stand up and ‘let’s go, we’ve got to do something about it!’” (US-I1)

**Values supporting their environmental vision**

Some participants recognised the risks to human health from harms related to people’s living and working environment prior to commencing nursing (UK-FG1, UK-FG3, US-FG3) but it was clear that environmentally-‘woke’ nurses draw upon their nursing values more than environmental ethics. Several US participants saw Florence Nightingale as inspirational in tackling social justice related to community environments but UK participants were dismissive of her with UK-I8 referring to her “twee image.” Only a few participants like US-I2 and US-FG4 employed the precautionary principle, mainly in policy-related settings: “The precautionary principle, that’s what they call it, but it isn’t really used very much today but it’s so important: but what might happen if we release this into the environment?” (US-FG4)

It was clear that most participants struggled to draw upon anything other than nursing values: “As part of the European project we have taken on a range of values from our education for sustainable…they’re not on the tip of my tongue, but they are very sound” (UK-I11). One participant was very clear about the values driving her activism: “There are three ethical values that guide me. First of all is ‘*do no harm*’ and so anything we do, should not harm the patient.” Her second value was “*self-efficacy*” (she clarified this related to patient autonomy) and her third was “*alleviate suffering*.” When asked about “suffering of the planet” and how strong her sense is of helping the planet not to suffer and not to experience harm she clarified, “it is more that the health of the planet is important for the health of humans” (US-I4).

As a guiding value, social justice was mostly only mentioned by US participants: “It’s…a social justice issue…I can use my research skills to promote those ideas or ideals of a shared environment in which we can all *thrive*, not just live, but thrive and prosper…in terms of human health and well-being” (US-I1). UK participants referred mostly to ‘fairness’ with UK-I8 referring to how “social justice warrior” is a pejorative term. Unfairness between consuming societies and third world manufacturing societies was raised: “…the throw-away smartphones, they’re so expensive but, hey, they upgrade them every six months or nine months…think about all the materials that some poor kid in some third world country is sweating away to try to pull out the ground” (UK-FG5). The perspective of generational fairness when viewing the harms that can arise from environmental risks such as climate change and pollution was frequently raised: “It’s not about polar bears…it’s…generational, and subtle, entrenched unfairness…causing morbidity and mortality in the most poor and marginalized populations” (US-I2)

**Belief in own ability and duty to act**

The awaking was a powerful experience affecting their working lives. They understood the potential future health implications but recognized the personal need to take action: “I fear for people who’ve got children, young children” (UK-I6). Participants had belief in their abilities to make a positive impact and applied their nursing skillset to take action: “I can do this…and I’m going to use my nursing principles to do it!” (US-FG2). One participant’s research identified that nurses should recognize “personal and professional” responsibility, show “leadership” and recognize the global nature of environmental and sustainability threats (UK-FG2). A duty to act was evident: “I would also say, if your children or grandchildren came to you as an older person and said, ‘do you mean, you could have done something?’ ‘You could choose, and you didn’t?!’ [astonishment in voice]…and now this is how we have to live.’” (US-FG8). Moving from awakening to advocacy to action seemed natural but they recognized not all nurses shared the same level of self-belief: “We’ve got to stop thinking, ‘I’m only a nurse, I can’t.’ We’ve got to start thinking, ‘I’m a nurse and I can, and I will, and I deserve to be heard’ (UK-FG1).

**Environmental activism**

Participants’ activism took various forms [INSERT TABLE 1]. Nurses are particularly suited to reducing waste, lowering carbon footprints and improving efficiency: “…nurses…are the person who sees the patient through the system. And therefore, they are the ones that can recreate pathways, in a really smart way…There is an efficiency hard-wired into the way that nurses operate because they have to have a system” (UK-I5). US participants referred to the extractive and manufacturing industries as major employers and major sources of environmental pollution. Unique to US participants was the focus on methylmercury (which can lead to developmental deficits in the brains of unborn children, cognitive problems in children and cardiovascular disease in adults).

The nursing skill set makes them effective activists. Nurses understand teamwork, know not to take on ‘impossible’ tasks alone and are trained to use their judgment as to what is achievable and act accordingly: “If you have a 200 pound log on top of a 70 pound child and a 70 pound log on top of a 200 pound man, you would try to move the seventy pound log because you can’t move the 200 pound log on your own.” (US-I3).

Good communication skills are the hallmark of nurses. Participants used those skills to tailor messages according to their audience, just as they would in clinical practice: “I think some of the low-hanging fruit that saves money is, your home tightening up so it isn’t leaking out heat…you aren’t necessarily calling it environmental or climate change, but you’re saying let’s figure out how we can save you some money” (US-FG6). As with patients, there is a risk of information overload. Nurses are good at finding the right balance but money talks: “As soon as you go away from it being about money, you’re cooked really.” UK-I5)

Taking action means becoming visible. Most US participants were political ‘activists’. One participant’s T-shirt had an environmental slogan on it and she said: “I take a sign, ‘Nurses know climate change kills’ whenever I go to these environmental health rallies” (US-FG9). Continued activism required personal resilience. UK participants found the role of nurse environmental activist harder: “I think, socially, you have to conform to those social norms, nurses just want to stay inside that box, don’t they, they don’t want to stick their head above the parapet” (UK-I6). UK nurse educators struggled: “I introduce concepts such as planetary health etc…[but] my day-to-day experience is, having to overcome in each new cohort of students their idea of ‘what’s this to do with nursing?’ (UK-I8). Workplace incivility and labels like “Eco-nut” (UK-I7), “tree-hugger…garbage scounger” (US-I7) were mentioned.: “My colleagues say to me, they laugh, they’ll wait until I’ve gone before they print stuff” (UK-I6)

UK nurses appeared less bold and more constrained by notions of what is or is not a nursing role than their US counterparts: “We’ve got nurses that are a bit disempowered and don’t have the time or energy to think about those changes. But…they are the ones that are more likely to be able to make those practical and sustainable, in terms of longevity, kind of changes in their environment” (UK-I6). One participant recognized that nurse environmental activism is “definitely, definitely” much more powerful in America than the UK: “They have the Association of Nurses for Environmental Health, the ANHE. They’ve got this body of nurses and nurse educators who are really concerned about the environment and we don’t have anything equivalent to that.” (UK-I11). When nurses work with like-minded colleagues, being an environmental activist is easier: “The values that our company has of integrity, excellence, stewardship…those are all values that I believe motivate me to be an environmental health advocate. Stewardship is huge!” (US-FG3)

**Discussion**

Stern’s (2000) conceptualization of environmentally-significant behaviors makes no mention of triggering events. Participants’ environmental activism began with an awakening moment as a result of which they became ‘environmentally-woke’ nurses. Getting ‘woke’ is described as sudden understanding of what is really going on and finding out you were wrong about much of what you understood to be truth. The Urban Dictionary (nd) identifies ‘woke’ as “a reference to how people should be aware in current affairs.” A recent example is the 2013 Black Lives Matter campaign (Pellow, 2016).

Social justice or fairness was the strongest value expressed. Participants recognized that poor people cannot afford options that richer ones can (such as swapping their car for a less polluting one or buying better food). ‘Environmentally-woke’ nurses seem to have returned to nursing’s roots as envisioned by Florence Nightingale. US participants frequently referred to her as “the first environmental health nurse.” They recognized her as a statistical pioneer and public health campaigner who was driven by the social injustices and health disparities that she witnessed. The UK participants’ disdain is reflected in Smith’s (2012, p186) disparaging comment on “the perpetuation and predominance of the Nightingale image.” However, MacDonald (2014) argues Nightingale was the true “pioneer” of nursing who developed a community health curriculum (Dion, 2017). Arguably, this reflects Stern’s ‘pro-environmental personal norms’ and might explain many participants’ sense of duty to act. Perhaps UK nurses should re-engage since Nightingale recognized that the geophysical environment is as important to prevention of ill-health as the quality of nursing.

Like US-I2, Cimons (2018) identifies the need to prevent generational unfairness by tailoring environmental messages in terms of health not polar bears. Nurses are ideally placed to do this since the nursing skill set includes understanding how to communicate effectively with all types of people. They understand health risks (Sattler and Davis, 2008) and can interpret complex information with a view to empowering patients and communities to take action to protect themselves from harm. Participants hated that finances often over-ride environmental concerns. The future economic impact of Brexit might affect how messages about health risks are received by UK businesses and residents particularly if acting against long-term environmental risks costs more than maintaining the status quo or if cheaper goods can replace more sustainable ones.

Participants believed their activism is having real impact. The new ‘horizon’ developed through the analysis revealed much similarity in environmentally engaged nurses in both countries. [INSERT TABLE 2]. There were some clear socio-geo-political differences. US participants embraced political activism more than their UK counterparts. As Brexit looms, worried that some environmental and workplace protections may be eroded. There may be an increasing need for UK-based environmentally-‘woke’ nurses to advocate for vulnerable populations or workers.

There appears to be greater comradeship among US nurses caring for the environment which probably supported their activism. Even when participants were identified through their publications it often transpired that they knew each other. There is a clear need to develop stronger sense of community in the UK to help environmentally-engaged nurses maintain their self-worth and integrity in the face of work-related incivilities (Cribb, 2011). Nurses must avoid unprofessional incivility towards colleagues which can lead to burnout (Fida et al, 2018). ‘Jokes’ and eye-rolling (mentioned by some participants) constitute “low-intensity deviant behavior with ambiguous intent to harm the target” (Andersson and Pearson, 1999). US participants knew of nurse activists who had ‘burnt out.’

Participants want undergraduate nurse education that incorporates environmental health issues to ‘awake’ the next generation of nurses. Richardson et al. (2017) suggest that how natural resources are used and disposed of should be “integral” to nurse education. Yet the UK Nursing and Midwifery Council’s (2018) mandatory Standards for the content of undergraduate programmes for registration as a nurse, make no mention of sustainability, community health or planetary health. Hopefully, US participants’ aspirations for the next AACN credentials will be realized. In the interim, a good starting point are the NurSus educational resources (<http://nursus.eu/uk/>). Also, Schenk et al’s (2015) The Nurses’ Environmental Awareness Tool (NEAT) which measures nurses’ awareness of the environmental impact of nursing practice, nurses’ workplace behaviors to mitigate impacts, and nurses’ behaviors outside work in relation to mitigating environmental impacts. Using NEAT might awaken more nurses.

Questions emerged during this project which require future research to answer. Both countries rely upon migrant nurses from developing countries who may see nursing as a job rather than a career (US-I7 identified this as a barrier to environmental engagement). Participants often spoke of how they valued green spaces and many described themselves as “outdoors” people. Urbanization can mean large parts of the population have no sense of connection to the environment. This disconnect could affect nurses’ willingness to engage with environmental threats to health.

**Limitations**

This study only reflects the experiences of US and UK nurse environmental activists. It would have been informative to have included nurses not necessarily known to be actively engaged to assess activities of “everyday” nurses. Regarding reports of ‘burnt out’ nurse environmental activists, it would have been valuable to hear their stories. Stern’s conceptualization only extends to behaviors (taking action). Further research is needed to explore whether stopping environmental action results from a changed belief in ability to make a difference or from changed values or losing a sense of duty to take action.

**Conclusion**

Environmentally-‘woke’ nurses hope to make a real difference. The new ‘shared horizon’ showed that the eco-centric framework of ‘environmentally-woke’ nurses rests upon caring for individuals, communities and the planet (earth). In rediscovering the roots of nursing, they have liberated themselves from traditional professional constraints and feel empowered to incorporate environmental action within their everyday practice. Their nursing skillset makes for effective communication and leadership on environmental health issues. Ideally, more nurses should join them on this journey because nurses care about people, they care about their children and grandchildren, even if they think they do not particularly care about the planet. They can learn from these ‘woke’ nurses by asking the same questions about environmental health issues that they do. [INSERT TABLE 3] Nurse educators can help by adopting sustainable education principles, using the NurSus tools (<http://nursus.eu/uk/>) and incorporating environmental health into every course and module. Environmentally-‘woke’ nurses have the skills to create solutions and systems approaches that increase sustainability, improve health and make a difference to people’s lives, now and for future generations.

Table 1: Nurse Environmental Activist Behaviors

|  |  |
| --- | --- |
| Advocacy | * Active membership of advocacy groups (particularly nursing groups) and working for environmental health or social justice
* Assertive and prepared to speak out on environmental health issues
* Empowering communities to stand up for their rights to clean air, clean water and good food
* Encouraging the switch to clean or renewable energy
* Reporting environmental health risks to appropriate statutory bodies such as the UK Health and Safety Executive or the USA Environmental Protection Agency
* Tweeting on the environment and environmental health issues.
 |
| Education | * Educating themselves and their families about environmental issues
* Fostering inter-disciplinary learning and incorporating environmental issues and sustainable health education into pre-registration nursing curricula
* Talking at school career development days about nursing as a route to help address environmental issues
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| Healthcare waste management | * Addressing waste of clean or unused items (linen, clinical packs etc)
* Being environmental waste champions or an organizational lead for sustainability
* Making a successful case to have less safe but very cheap, environmentally-unfriendly sharps containers replaced with expensive but a 100% safe environmentally-sound alternative
* Reducing waste in critical care
* Removing disposable diapers from hospitals and new mother packs
* Setting up Green Ward competitions (where wards compete to design green innovations)
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| Personal life | * Championing the use of tap water not bottled
* Role modelling and promoting the Reduce, Reuse, Recycle message
* Supporting bees through gardening practices
 |
| Political activism | Campaigning for:* Clean air, monitoring of particulate levels and educating on asthma risks
* Clean rivers (cleaning, monitoring contaminant levels in water and fish)

Campaigning against:* coal and oil transport trains polluting low income areas with dust and potential risks of explosion
* nuclear weapons and leaking waste from nuclear plants
* pesticide, herbicide and antibiotic usage in agriculture

Lobbying on:* Climate change, testifying to legislators and public education
* The need for nursing associations like the Royal College of Nursing, the American Nursing Association and the UK Nursing and Midwifery Council to incorporate environmental health into their remit and their expectations of nurses.

Testifying:* To the legislature as nurses about environmental harms and environmental health issues
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| Reducing harms in deprived communities and workplaces | * Developing an educational programme about asthma, air-pollution and allergans for Mexican Spanish-speaking parents of children with asthma so they can train other parents.
* Inspecting industries, farms and agricultural labour camps
* Land fill and hazardous waste action
* Monitoring smoke levels in homes (exposure to smoke from other people’s wood burners or from forest fires)
* Monitoring workplace environments for biological, chemical, radiological and environmental hazards and taking preventative action
* Obtaining grants to assess the homes of families with children with asthma for mould and getting them moved into healthier accommodation.
* Practising holistic nursing, recognising environmental health risks and finding practical solutions
* Running (and funding through grants) community projects such as testing the homes of low-income parents for lead and other toxins (e.g. lead can be found in blinds made in countries like China).
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| Research | * Environmental and population health studies to identify opportunities and solutions to address social injustices and reduce mortality and morbidity discrepancies
* Exploring education for sustainability
* Methylmercury levels and impact on aboriginal communities.
* Publishing on environmental health issues in journals that are widely read by nurses or nursing assistants, not just high-impact, highly academic journals.
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| Supporting like-minded nurses | * Coaching in activism, e.g. how to testify to the legislature
* Membership of support networks and associations for nurses interested in environmental and sustainability issues.
* Mentoring younger nurses interested in environmental health issues
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Table 2: The shared horizon of nurse environmental activists

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| --- | --- |
| Stern’s Conceptual Framework | The shared horizon of nurse environmental activists |
| Values | * The values driving them are nursing values such as fairness, advocacy on behalf of vulnerable communities and avoiding future harms rather than the precautionary principle.
* As nurses, they focus on people. They hate how wealth economics often overrides health economics and concern for the environment.
 |
| Beliefs | * Nursing is seen as social action.
* Being a nurse means embracing a social justice-inspired, community-based holistic practice.
* The nursing skill set makes for effective leadership on environmental health issues and should be utilised more.
* Undergraduate nurse education should incorporate environmental health to ‘awake’ nurses earlier.
 |
| Perceived obligation to act | * Their sense of responsibility for taking action is derived from an eco-centric framework resting upon caring for individuals, communities and the planet (earth).
* Nurses who are environmental activists feel vulnerable but their perception that they are making a population and generational difference fosters resilience.
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| Actions | * Their actions embrace political and professional activism.
* They try to maintain congruence between their values and their behaviors at home and within organizations.
* As nurses, their communication skill set enables them to tailor and personalise messages on environmental issues to the audience.
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Table 3: Questions that nurses should ask:

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| --- |
| 1. **What’s upstream?** Look to see what politicians or organizations are doing or not doing and consider what might be the effects or implications. Get involved.
2. **Whose interests are being prioritised?** Engage critically with the evidence provided. Remember that large corporations are adept at manipulating evidence to support their own interests.
3. **What about the children?** Identify how actions and inactions of people, communities, businesses and legislators affect the health of future generations.
4. **Whose footprints are these?** Think about how you, your family, friends, colleagues, community can reduce their environmental footprint.
5. **Are we role-modelling reduce, reuse, recycle?** Nurses can be very influential and these principles can save money for families and healthcare organizations.
6. **Where are the low-hanging fruit?** Identify the small and easy steps that can be taken to make environmental (health) improvements.
7. **Can I explain the problem simply?** Have an ‘elevator speech’ ready where you can explain the problem very simply and effectively as three key points. Tailor your message to your audience.
8. **Why aren’t they listening?** Demand to be heard. Nurses are one of the largest and most respected professions in the world – use this collective voice powerfully. Demand that nursing organizations lobby in support of environmental health issues.
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