Social workers' perceptions and attitudes of environmental issues and sustainable development as social work practice in Aotearoa New Zealand

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ABSTRACT

INTRODUCTION: Environmental and sustainable social work is gaining momentum in social work due to the rising concern of climate change and environmental degradation. Despite the social work profession being committed to social justice, the perspectives of social workers practising in Aotearoa New Zealand on environmental/green social work are yet to be explored. This study explored social workers' attitudes and beliefs on environmental justice and sustainable practice. It also examined what factors support them to consider environmental issues in social work practice.

METHODS: A survey using an online portal was conducted with qualified social workers to assess their attitudes and knowledge. Descriptive, correlation and regression analyses were used to analyse the data.

RESULTS: A total of 102 questionnaires were analysed. The results indicated moderate levels of pro-ecological perspectives and awareness of sustainability attitudes, high level of agreement including Māori and other indigenous tradition and wisdom in ecological justice, strong belief in climate change and the importance of factoring environmental issues in social work practice. While over 80% of the participants thought that environmental issues should be part of social work practice, there are still gaps in translating these into practice. Participants would like to see more environmental issues being integrated into social work education to better prepare graduates entering the profession.

CONCLUSIONS: Social work education is urged to incorporate the natural environment, environmental justice and values and skills across the curriculum to advance the social justice mission to reduce the disparity among those who are vulnerable and marginalised.

Keywords: Environmental issue, sustainable practice, social work practice, social justice, social work education

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Environmental problems are no longer being seen as just scientific issues. As a profession, social work has a long history of challenging and addressing environmental issues through the lens of (in)justice to incorporate social, historical, political, and ethical dimensions (Gray & Coates, 2013; Shaw, 2013). Several social work scholars have spearheaded the articulation of the expansion of the person-in-environment framework to acknowledge the wellbeing of humans and the planet

by urging social workers to engage in critical and ethical discussion around climate change, sustainable development, and environmental justice (Dominelli, 2013; Gray & Coates, 2013). In recent years, environmental and sustainable social work is gaining momentum in the social work literature and research (Rambaree et al., 2019; Ramsay & Boddy, 2017) with studies that have examined social work students' (Chonody & Olds Sultzman, 2022; Chonody et al., 2020) and social workers' attitudes, beliefs and knowledge (Nesmith & Smyth, 2015; Yildirim et al., 2021). Although the focus on environmental issues and sustainability in social work has been included in the international social work agenda (Jones & Truell, 2012), there are only a handful of research studies on the relevance and connection between social work and environmental issues currently available in Aotearoa New Zealand (Ellis, 2020; Ellis et al., 2018; Hamerton et al., 2018; Pitt, 2013). Research on Aotearoa New Zealand social workers' knowledge and perspectives in this area is even more lacking. These types of studies are necessary for informing future pedagogical strategies to address knowledge gaps in social work curriculum development to ensure future social workers are equipped with practice skills to support individuals and communities when facing issues relating to climate change, environmental degradation, and disaster management. This study aimed to address this gap by exploring Aotearoa New Zealand social workers' attitudes and beliefs on environmental justice and sustainable practice. It also examined what factors support them to consider environmental issues in social work practice.

Why is environment a social work issue?

Social work is considered as a profession to promote "social change and development, social cohesion, and the empowerment and liberation of people"

(International Federation of Social Work [IFSW], 2014) and social workers are expected to be equipped with values, knowledge, and skills for making social changes to uphold social justice and human rights. In this sense, existing literature has argued that environmental justice is, therefore a critical part of social work practice (Chonody & Olds Sultzman, 2022; Coates, 2005; Decker Sparks et al., 2019; Dominelli, 2013; Ellis, 2020; Gray & Coates, 2020; Hiller & Carlson, 2018; Liu & Flynn, 2023; Nesmith & Smyth, 2015; Parsons et al., 2021). Environmental justice can be addressed on micro, meso and macro levels to promote social equity and wellbeing (Chonody & Olds Sultzman, 2022; Decker Sparks et al., 2019; Nesmith & Smyth, 2015; Yildirim et al., 2021). Arkert and Jacob's (2023) study revealed that participants supported environmental social work in training and practice, indicating that it is a rights-based matter and that many core skills of social work can be applied to this area. This is supported by Dominelli (2013), who argued that green social work is at the very centre of social work practice, as environmental issues impact marginalised communities more acutely and affect all life on earth.

Social work practice has been strongly rooted from a person-in-environment focus, signifying the competent ability of social workers to understand the impact derived from the interaction and inter-relationships of people within their environmental contexts (Kondrat, 2013). However, in recent years social work education and practices have been criticised for mainly dealing with social issues and neglecting the bio-physical environment (Gray & Coates, 2015; Harris & Boddy, 2017). Further criticism was also reported regarding the shift of the profession from macro to more individual-level therapeutic interventions, reducing the impact of natural and built environments on human wellbeing and health (Krings et al., 2020).

Climate change, environmental justice and sustainable practice in social work

Climate change and associated extreme weather events (e.g., earthquakes, flooding) have brought increased attention to ecological crises and the need to better understand sustainable development and careful use of natural resources. This aspect has been further prompted because of the Covid-19 pandemic, which led to a global call for social work education and practice to shift from an anthropocentric to an eco-centric framework through environmental social work (Rambaree et al., 2019). As a response to the Covid-19 pandemic, both Yildirim et al. (2021) and Dlamini et al. (2022) revealed that, although social work participants' attitudes towards the environment were positive, they still prioritised human wellbeing over sustainable development. In fact, results from Yildirim et al.'s (2021) study found that concern for the environment had decreased due to the impacts of the Covid-19 pandemic on clients' wellbeing. Environmental threats do not impact populations equally; the adverse effects are more likely to affect marginalised communities, and the consequences of these threats are often more severe (Gray & Coates, 2020).

Rixecker and Tipene-Matua (2003) argued that, for Māori, environmental and social justice are inseparable. They discussed a strong relationship between Māori and the land, and the history of complex transactions involving land and natural resources that ultimately impacted the identity and wellbeing of many Māori people. Watene (2016) highlighted that many Māori believe there is intrinsic value in nature, which leads to preserving the entire natural world rather than only the aspects that serve human wellbeing. To address indigenous issues, social workers must address environmental justice issues (Hiller & Carlson, 2018). This is echoed by Kuir-Ayius and Marena (2019), who stated that upholding the cultural traditions of Pacific peoples is pivotal in social work practice, including the significant relationship with the natural world. However, scholars have argued that the capitalist model strives for profits over people and at the expense of the environment (Shaw, 2013; Yildirim et al., 2021). Ignoring the significance of the environment for spiritual wellbeing, identity, and nourishment devalues Indigenous lands and ways of life (Coombes, 2013; Parsons et al., 2021). This is described as environmental racism and is compounded by inappropriate or lack of consultation processes among the affected communities (Coombes, 2013), in turn removing sovereignty over their land (Rixecker & Tipene-Matua, 2003).

Integrating environment into social work education

Scholars who advocate environmental social work have continued to call for social workers to recognise the intertwined connection between human, natural worlds, and wellbeing (Gray & Coates, 2015; Ramsay & Boddy, 2016). In doing so, the focus on social work has placed both humanity and nature at the centre for education and practice, aiming to co-produce transformative changes (McKinnon & Alston, 2016; Ramsay & Boddy, 2016). Although research has indicated that integrating environmental justice and sustainability into social work practice requires a holistic approach that integrates research, practice, policy, and policymaking dimensions, comprehensive knowledge and policy regarding how social work practitioners have responded to climate change and environmental crises are still limited. In a study of social work codes of ethics worldwide, Liu and Flynn (2023) concluded that, while there is an increasing focus on environmental issues, the concept of environmental justice remains vague and is not widespread. Bowles et al. (2018) argued that, for environmental justice to be taken seriously by the social work profession, the IFSW needs official statements to link environmental justice with human

rights and social justice. In the Aotearoa New Zealand context, there are specific references to the natural world and climate change in the Aotearoa New Zealand Association of Social Workers (ANZASW) *Code of Ethics* (2019). There is, however, no mention of environmental justice or the natural environment in Social Workers Registration Board Core Competence Standards (2019), despite the related principles of social and economic justice being central to competency four.

Two non-social work studies have shown that ethical values influenced the pro-environmental behaviour of participants in their study (Halkos & Matsiori, 2015; Segev, 2015). However, recent studies showed a discrepancy between existing environmental or climate change knowledge, and sustainable behaviour; that attitudes do not always lead to action (Dlamini et al., 2022; Kucuk, 2022). In a study of occupational therapists, the perceived importance of environmental practices differed between personal and professional lives, primarily due to a lack of understanding of the practice context (Seville et al., 2023). In an Aotearoa New Zealand social work context, Ellis (2020) showed, through a series of small environmentally focussed workshops, that changing attitudes and beliefs on the basis that learning can transform one's thinking and, therefore, will motivate one to act.

Exposure to environmental issues through education, media, or local politics was shown to be an indicator of a pro-ecological beliefs, aiming at minimising environmental harm (Biasutti & Surian, 2012; Cholette-Barr, 2022). Chonody and Olds Sultzman (2022) showed that when environmental justice issues were taught in social work courses, students were more likely to believe environmental justice was important in practice. Likewise, in social work training, educators were more likely to include environmental justice in their own

curriculum if they had received education themselves (Strayer et al., 2022). Pro-environmental attitudes are also shown to be linked to the belief that environmental and sustainability issues should be part of the social work curriculum (Chonody et al., 2020; Chonody & Olds Sultzman, 2022). Reu and Jarldorn (2023) found that students believed eco-social work should be included in core subjects, explaining that it should be integrated throughout practice and not be a specialist subject. Faver and Muñoz (2013) reported that most students surveyed had a high concern about environmental issues but lacked the knowledge of how to apply this in social work practice. Examples of how to include environmental justice and sustainable practice in social work include expanding eco-systems theory to include physical environment considerations into assessment and intervention (Chonody & Olds Sultzman, 2022; Nesmith & Smyth, 2015), considering within the hierarchy of needs (Nesmith & Smyth, 2015), using the Sustainable Development Goals (SDG) as a guide for practice (Ellis, 2020), and engaging with natural environment as a wellbeing tool (Pitt, 2013).

"Working towards environmental and community sustainability" has been posited as one of the four priority areas in the *Global Agenda for Social Work and Social Development* (IASSW, IFSW and ICSW, 2012). However, studies that focus on social work and SDGs are scarce. Research has reported that, while education made a difference in the level of awareness and application of SDGs in social services, this did not translate into all practice contexts or SDG areas (Kucuk, 2022; Yildirim et al., 2021). Several studies concluded that education influenced the knowledge or attitudes towards SDGs (Abu-Alruz et al., 2018; Kucuk, 2022). Ellis (2020) noted that through her action research, participants who attended her workshops reported an increased understanding of sustainability issues in relation to social work.

Current Study

Although environmental and sustainability issues have drawn substantial attention in the social work professional responsibilities, there are still few studies that have examined the attitudes, and knowledge of social workers and they were mostly conducted in the United States (e.g., Chonody & Olds Sultzman, 2022) or other European countries (Nojd et al., 2023). Existing literature and research have indicated clearly that social work and environmental sustainability is a developing area of practice that requires immediate attention due to the impact of climate change. Consequently, the aim of this study was to provide a preliminary exploration into the perceived knowledge and attitudes of social workers practising in Aotearoa New Zealand. The research questions were: (1) What are Aotearoa New Zealand social workers' attitudes and beliefs on environmental justice and sustainable practice?; and (2) What factors are associated with the perceived importance of addressing environmental issues in social work practice?

Methods

Study design

The research was carried out using a cross-sectional descriptive and correlational design. Cross-sectional design offers a snapshot of the situation at one time to describe and explain behaviours and correlational design gives the opportunity to explore differences between two or more variables (Rubin & Babbie, 2017), which was deemed appropriate for the current exploratory study on social workers' perceived knowledge and attitudes on environmental issues and sustainable development in practice.

Study population

An online survey, using Qualtrics, was implemented between late October 2022 and early December 2022 to explore social workers' perceptions of environmental issues as social work practice. This was sent out via the ANZASW and other professional and community networks. A low-risk ethics notification was obtained from Massey University prior to the commencement of the research. A total of 137 responses were retrieved from the online survey portal. After data cleaning and mining, 34 responses were omitted due to significant data missing from the main questions and the socio-demographic information (70% or more). One response was also subsequently removed due to no socio-demographic information being provided, even though the rest of the survey was completed fully. A total of 102 responses were retained for analysis. Given that the online survey was circulated to many different groups and networks, we could not ascertain the actual response rate.

Measures

New Environmental Paradigm Scale (NEP): To measure pro-ecological perspective among social work practitioners, NEP was chosen, which was developed and revised by Dunlap et al. (2000). NEP consists of 15 items, and it has been used in many studies, including involving social workers (Nesmith & Smyth, 2015) and social work students (Chonody & Olds Sultzman, 2022). The scale has shown solid statistical support for scale uni-dimensionality (Cordano et al., 2003; Hawcroft & Milfont, 2010). As recommended by Hawcroft and Milfont (2010) from a meta-analysis of 139 NEP studies, all 15 NEP items were used along with a 5-point Likert-type scale, ranging from 1 = *strongly disagree* to 5 = *strongly agree*, for consistency. When calculating scale scores, seven items with negative statements were reversed scored to attain an overall NEP score (Manoli et al., 2007). The current study used terminologies that cover ecological beliefs reported

by Chonody and Olds Sultzman (2022). They cover a range of environmental issues, including balance of nature (i.e., the harmony of living things), limits to growth (i.e., the earth can only handle so many people), antianthropocentrism (i.e., nature exists for human and has no inherent value), human exemptionalism (i.e., humans are not constrained by nature like other species are), and eco-crisis (i.e., catastrophic environmental changes). Higher total scores indicated a more pro-ecological worldview. The Cronbach's alpha was an acceptable level at 0.73.

Attitudes toward Sustainable Development Scale (ASD): This study used the ASD scale developed by Biasutti and Frate (2017) to measure the attitudes towards sustainable development. The scale consists of 20 items and four dimensions, i.e., environment, economy, society, and education. This scale makes it possible to evaluate attitudes towards sustainability issues covering the scope of these four dimensions of environment, economy, education, and society. The scale was adapted to the context for social work practice by changing the last five items from "Teachers in college …" to "Social work education…". The five element Likert-type scale consists of 1 = *strongly disagree* to 5 = *strongly agree*. An increase in the score obtained from the scale indicates positive attitudes towards sustainable development. Cronbach's alpha was reported at 0.95. Based on Kucuk's (2022) study, three levels emerged with 20–46 points as low awareness level, followed by 47–72 points as medium awareness level and 72–100 points as high awareness level.

Māori and indigenous perceptions on sustainability: This section focused on how much social workers consider Indigenous, Māori, Mana Whenua worldviews of wellbeing and sustainability in their social work practice relating to environmental justice and sustainability. Due to the lack of indigenous measures for the

Aotearoa context, items in this section were developed based on literature and research conducted by Māori scholars (Davis, 2006; Reid et al., 2013). These items comprised of three items focusing on awareness, recognition and embracing of *te ao Māori* (e.g., Mana Tupuna – Ancestral Wisdom; Mana ātua – Spiritual wealth [whakapono, wairua], Mana taiao – environmental wealth [kaitiakitanga, tikanga] in their practice and two items on feeling competent to use and include Māori tikanga in ecological practice. The development of these items was further consulted with two Māori academics, with one of them as the fourth author in the current study to ensure face and content validity. The five-point Likert scale was used, consisting of 1 = *strongly disagree* to 5 = *strongly agree*. Higher total scores indicate a positive perception of understanding Māori and indigenous knowledge when it comes to sustainability in practice. Cronbach's alpha was reported at 0.80. A free-text box was provided for any written comments or examples of dimensions of *te ao Māori* in personal and professional practice.

Belief in climate change and its relevance to professional practice. To measure the role of environmental issues as a component in social work practice, two items were adapted from Chonody and Olds Sultzman (2022). Participants were asked, "Environmental issues are part of professional social work practice" and "I believe in climate emergency (climate change)", using a five point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*.

Being informed about environmental issues. To evaluate the extent to which social workers felt informed about environmental issues, and, adapting from the work of Faver and Munoz (2013) and Chonody and Olds Sultzman (2022), they were asked one question, "To what extent do you feel informed about

environmental issues?", and the other three were developed for the study as "To what extent do you incorporate Māori values: Rangatiratanga, Manaakitanga, Kaitiakitanga, Whanaungatanga and Wairuatanga in your practice on Māori wellbeing to the four pou—social, cultural, economic and environmental?"; "To what extent do you consider and apply other cultural perspectives on environmental beliefs and justice in your practice?"; and "To what extent do you consider you are personally affected by climate change?" All the questions used a 10-point scale from 1 = *not at all*, 10 = *extensively*. Cronbach's alpha was reported at 0.67. A total score was used for further analysis.

Knowledge development in environmental practice. Research has reported that being informed about the environment was associated with more pro-environmental behaviour (Segev, 2015) and greater concern about climate change (Wachholz et al., 2014). As such, two questions from Shaw's (2013) study were used: "Should schools of social work discuss the environment?"; "Do you consider the environment in your practice?" and two other questions were developed for the current study, "Are you familiar with the Sustainable Development Goals (SDGs)?" and "Have you participated in an educational event related to the environment and sustainable development?" using responses of *yes, no* or *don't know*.

Environmental activism. Questions related to individual respondents' environmental activism, derived from Shaw (2013), were measured by asking how often they engaged with 13 activities e.g., recycle paper, energy saving bulks, using a five-point Likert scale with a response of 1 = *never* and 5 = *always*. Cronbach's alpha was reported at 0.83.

Socio-demographics. Participants reported their age, gender, education levels in

social work, ethnicity, years of practice experience, main area of social work practice, and current employment.

Open-ended comments. The final question in the survey was an open-ended question which screened for any additional comments on environmental belief, justice and sustainable practice and their relevance to social work education and practice.

Statistical analyses

The IBM SPSS Statistical package (version 28, IBM SPSS Statistics for Windows) was used for data entry and analysis. Three types of statistical analyses were conducted in this study. First, descriptive statistics, mainly through frequencies, were used to describe the results derived from the data. Second, based on the work by Chonody and Olds Sultzman (2022), a correlational analysis using Spearman (due to some variables not normally distributed) was used to examine the relationships among the variables of age, years of social work practice experiences, belief in climate change, being more informed about the environment, the five areas underpinned NEP for pro-ecological worldview, the four dimensions of ASD, Māori and indigenous sustainability, engagement in environmental activism and relevance of environmental issues in professional practice. Finally, a regression model was used to analyse which factors contributed to seeing environmental issues as essential to social work practice, while controlling for age and years of practice experience. Collinearity was checked with tolerance values (TOL), and variance inflation factor (VIF) measures the amount of multicollinearity in a set of multiple regression variables. Accordingly, there was no evidence of collinearity on any independent variables, as all TOL and VIF values were below the thresholds (>0.20 and <3.0, respectively) in the regression models. Consistent reliability in measures was assessed with Cronbach's alpha, with

a level of >0.6 as a criterion to consider each measure as reliable. The significant *p*-value was set at 0.05.

Open-ended responses were gathered to provide a context for quantitative data, and thus were not analysed using a qualitative research approach. Illustrative quotes were selected to highlight certain common and otherwise noteworthy concepts.

Results

Of the 102 participants' responses, over 65% reported being aged 40 and over. The majority of the participants identified themselves as female (85.3%). Half the participants identified themselves as New Zealand European/Pākehā (57.8%), followed by Māori (22.5%). Over 55% of the participants reported having a bachelor of social work qualification, and 29.4% held masters level degrees. As to years of social work experience, 53% reported having more than 10 years of experience. The main practice area was children and family (52.0). Nearly 40% reported their current employment was with non-government organisations

(NGOs), followed by statutory and health and/or disability, both recorded at 22%.

Regarding the responses to the NEP scale items, the average of total NEP scores for social workers surveyed was 49.6 out of a possible 75.0, with a mean score of 3.3 out of a possible 5.0 on the Likert scale. The summated mean score for all items on the NEP scale in this study is slightly lower but close to the results of previous research by Halkos and Matsirori (2015) and Shaw (2013) who found the mean NEP score to be 3.6 and 3.8 respectively.

The results of sustainability attitudes of ASD indicated reasonably high awareness level of sustainability attitudes, with a total score of 82.7 and each dimension ranged from 3.9 to 4.3 out of a possible 5.0 on the Likert scale (see Table 1). Social workers in this study scored higher in the domains of society and education, which was similar to the results by Biasutti and Frate (2017) in which social sciences students performed better on the society factor, demonstrating more sensibility toward social issues. Table 1 shows the overall and summated scores for NEP and ASD.

Table 1. Scores on New Environmental Paradigm (NEP) and Attitudes toward Sustainable Development Scale (ASD)

NEP[a]	Mean (Standard Deviation)
New Environmental Paradigm – total score	49.2 (4.6)
New Environmental Paradigm – summated mean score	3.3 (0.3)
ASD[b]	**Mean (Standard Deviation)**
Environment – summated mean score	3.9 (0.7)
Economy – summated mean score	4.1 (0.8)
Society – summated mean score	4.3 (0.9)
Education – summated mean score	4.2 (0.9)
Attitude towards Sustainable Development – total score	82.73 (14.63)
Attitude towards Sustainable Development – summated mean score	4.14 (0.73)

[a]Theoretical range = 15–75 (higher scores = increased pro-ecological attitudes) *Note:* Even numbered items were reversed to create the scale summary score that was used in analyses with higher scores indicating a greater ecological worldview. The means presented here reflected the original responses by participants.

[b]score between 20 to 100 (higher scores = increased attitude toward sustainable development)

Table 2. Perceptions of Indigenous and Mana Whenua Knowledge and Sustainability

Items	Number (%)					
	SD	**D**	**U**	**A**	**SA**	**Mean (SD) (5=pro)**
I am **aware** of the dimensions of *te ao Māori* (e.g., Mana Tupuna – Ancestral Wisdom; Mana ātua – Spiritual wealth [whakapono, wairua], Mana taiao – environmental wealth [kaitiakitanga, tikanga] in my practice	0 (0.0)	0 (0.0)	6 (5.9)	57 (55.9)	37 (36.3)	4.3 (0.6)
I **recognise** the dimensions of *te ao Māori* (e.g., Mana Tupuna – Ancestral Wisdom; Mana ātua – Spiritual wealth [whakapono, wairua], Mana taiao – environmental wealth [kaitiakitanga, tikanga] in my practice	0 (0.0)	1 (1.0)	9 (8.8)	56 (54.9)	34 (33.3)	4.2 (0.6)
I **embrace** the dimensions of *te ao Māori* (e.g., Mana Tupuna – Ancestral Wisdom; Mana ātua – Spiritual wealth [whakapono, wairua], Mana taiao – environmental wealth [kaitiakitanga, tikanga] in my practice	0 (0.0)	3 (2.9)	17 (16.7)	50 (49.0)	30 (29.4)	4.1 (0.8)
I feel competent to practice social work with Māori relating to environmental justice and sustainability	0 (0.0)	15 (14.7)	30 (29.4)	37 (36.3)	18 (17.6)	3.6 (1.0)
Ecological justice must include Māori and other indigenous traditions and wisdom to achieve equality of all species	0 (0.0)	0 (0.0)	5 (4.9)	23 (22.5)	72 (70.6)	4.7 (0.6)

SA = Strongly agree; A = Agree; U = Unsure; D = Disagree; SD = Strongly disagree

Regarding Māori and Indigenous perceptions of sustainability (see Table 2), over 90% of the social workers in this study agreed strongly that ecological justice must include Māori and other Indigenous traditions and wisdom, with 4.7 out of a possible 5.0 on the Likert scale. Over 85% of the social workers felt they have the awareness and recognition of the dimensions of te ao Māori in their practice (*M* = 4.3), while over 75% agreed they embrace them in their practice (*M* = 4.2). Seven out of the 12 written comments came from social workers who identified themselves as non-Māori. All of them have indicated the importance of learning and integrating Māori tikanga to consider environmental sustainability in their practice, stating for example, "te ao Māori informs me of a greater practice align with western models" and "understanding the depth of meaning behind the use of te reo provides an increased richness to the knowledge base of working with Māori." One participant's comment highlighted the continual existence of racism in practice in sustainable development: "I feel that there is

so much more to learn … realising the very strong correlation between sustainability and racist practice around how different populations are treated." However, just over half of the participants (53.9%) felt competent to practise social work with Māori relating to environmental justice and sustainability (*M* = 3.6). One of the non-Māori participants commented that this may be because the "social work profession is still at the very beginning of our journey of marrying te ao Māori with professional practice in environmental sustainability." Two of the Māori social work participants commented that the struggle to achieve environmental justice still lies with "the impact of colonisation" another emphasised the negative impact of "the mono-cultural system on justice and disguised language of access and equity to maintain control over the people, it will persist towards a corrupt society in lieu of a 'sustainable' one." Another Māori participant talked about the importance of considering other cultures and their wisdom in environmental sustainability, "if knowledge is useful, then

use it. Where it comes from, it doesn't matter. We should equally look to other cultures for useful knowledge, as well as our own."

Over 85% of the social workers reported to have a strong belief in climate change and felt that environmental issues are part of professional social work. Individuals' mean scores range from 1 to 5 with an average of 4.5 and 4.3 respectively. When it came to being informed about environmental issues and applications based on the mean scores range from 1 to 10, an average of 6.3 was reported on feeling informed about environmental issues, 7.6 on incorporating Māori values: Rangatiratanga, Manaakitanga, Kaitiakitanga, Whanaungatanga and Wairuatanga in their practice on Māori wellbeing to the four pou (social, cultural, economic and environmental), 6.4 on consideration of applying other cultural perspectives on environmental beliefs and justice in their practice, and 6.8 on reporting personally affected by climate change. A total score was used for further analysis.

Over 90% of the social workers considered that schools of social work should discuss the environment, which aligned with the same result as Shaw's (2013) study. Almost 80% reported that they considered the environment in their practice, 10% less than the result reported in Shaw's study. Just over 30% indicated that they are familiar with the SDGs. Only 35% have participated in an educational event relating to the environment and sustainable practice.

In terms of their environmental activism, most participants reported to recycle glass/plastics (94.2%), reuse bags (91.1%) and recycle paper (88.2%). The least environmental engagements were the use of public transport (8.8%), cycling (9.8%), participation in an environmental organisation (9.8%) and donation to environmental groups (9.8%). Results in the current study reported similar trends as Shaw's (2013) study.

Prior to the regression analysis, correlational analysis revealed significant bivariate relationships on belief in climate change, being more informed about the environment, possibility of eco-crisis (one of the NEP issues), the role of education on sustainable development (one of the dimensions of ASD), Māori and Indigenous sustainability and environmental activism to environmental issues as part of professional social work practice (see Table 3). They were at least minimally (≥0.2) correlated with environmental issues are part of professional social work practice and were used in the regression analysis. The regression analysis results can be seen in Table 4, indicating that, after controlling age and years of social work experiences, the composite of all independent variables predicted a 21% variance of environmental issues as part of professional social work practice. Of the eight variables, only two were significant contributors: belief in climate change ($B = 0.24$, $p<0.05$) and understanding of eco-crisis ($B = 0.22$, $p<0.05$). The eight variables were also analysed by age groups, gender, ethnicity, years of social work practice experience and current main practice area using one-way ANOVA testing, but no significant difference was found.

At the end of the survey, a total of 17 comments were made by participants. Four comments focused on the importance of including environmental issues in social work education and training. The following selected quotes from the participants demonstrate these:

> "I am disappointed by the lack of focus that social work profession appears to have on the climate crisis. Social work education needs to include the impacts of climate change and how the position of social work could be used for climate change adaptation strategies. Social work has a place of opportunity to be critical of oppressive processes and advocate for service reform."

Table 3. Correlation Matrix of Variables to Environmental Issues as Social Work Practice

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.Environment as practice issue	--														
2.Age	0.05	--													
3.Years of experiences	0.05	-0.07	--												
4.Belief	0.35**	-0.17	0.11	--											
5.Informed	0.41**	0.17	0.03	0.27**	--										
6.NEP – 1	0.09	-0.13	0.02	0.28**	0.11	--									
7.NEP – 2	0.08	0.11	0.09	-0.12	-0.10	-0.07	--								
8.NEP – 3	0.17	0.18	-0.01	0.10	0.35**	0.33**	-0.01	--							
9.NEP – 4	0.13	0.03	-0.09	0.14	0.21*	0.02	0.13	0.10	--						
10.NEP – 5	0.27**	0.01	-0.01	0.11	0.08	0.27**	0.05	0.29**	-0.01	--					
11.ASD – 1	0.14	-0.03	0.03	0.34**	0.17	0.15	-0.01	0.16	-0.03	0.26**	--				
12.ASD – 2	0.15	0.09	-0.05	0.15	0.10	-0.01	0.10	0.11	-0.04	0.07	0.59**	--			
13.ASD – 3	0.07	-0.07	-0.05	0.22*	0.07	-0.03	0.15	-0.02	0.08	0.05	0.56**	0.81**	--		
14.ASD - 4	0.21*	0.02	0.03	0.26**	0.09	0.03	0.16	0.05	0.06	0.16	0.53**	0.78**	0.78**	--	
15.Māori & indigenous sustainability	0.20*	0.09	0.06	0.05	0.58**	0.05	-0.15	0.26*	0.08	-0.00	0.02	-0.03	-0.02	-0.10	--
16.Activism	0.24*	0.14	0.02	0.37**	0.26**	0.06	-0.24*	0.07	-0.02	0.00	0.16	0.07	0.16	0.24**	-0.01

*$p < .05$, **$p < .001$

NEP – 1 (limits of growth); NEP – 2 (antianthropocentrism); NEP – 3 (fragility of nature's balance); NEP – 4 (rejection of exemptionalism); NEP – 5 (possibility of eco-crisis)

ASD – 1 (environment); ASD – 2 (economy); ASD – 3 (society); ASD – 4 (education)

Effect size: Cohen *r* of 0.3 = medium; *r* of 0.5 = large

Table 4. Summary of the Regression for Environmental Issues as Social Work Practice

Variables entered	Step 1			Step 2		
	B	Beta	p-value	B	Beta	p-value
Age	0.01	0.07	0.48	0.03	0.02	0.62
Years of social work experiences	0.00	0.06	0.58	0.00	0.02	0.83
Belief in climate change				0.29	0.24	0.03*
Being informed about the environment				0.04	0.21	0.10
Understanding of eco-crisis				0.38	0.22	0.02*
Importance of education				0.10	0.10	0.31
Māori & Indigenous sustainability				0.02	0.07	0.56
Environmental activism				0.01	0.06	0.56
R, R², adjusted R²	0.09, 0.01, -0.01			0.53, 0.28, 0.21		
ΔR²	0.01, F(2, 95) = 0.38			0.27, F(8, 89) = 4.31		

*$p < 0.05$

"Environmental issues, justice and sustainable practice greatly impact on us all, it is extremely political and economically related, and set in a global climate of greed and exploitation. For all these reasons … is very relevant to and the responsibility of social work education and practice."

"Until recently, the biopsychosocial approach of social work did not give much attention to environmental aspects contributing to wellbeing. This was not holistic and needs to be recalibrated."

"I am currently study permaculture and during this, I have been exposed to the concepts of food sovereignty and food resilience in community gardening. At this stage of my social work career, permaculture seems to be a natural progression to continue my commitment to social justice."

While education was seen as an important aspect of addressing knowledge of environmental issues and sustainable development, participants' comments have also critiqued the current socio-political influences that have perpetuated the lack of critical thinking among social work professionals to address environmental injustice. This can be illustrated in the following quotes:

"Many social workers in NZ/Aotearoa, particularly those in government organisations, are promoters of social control, neoliberalism, and inequity. Despite their training, they don't apply critical thinking in relation to environment or social/structural factors. I don't see social work values and principles being held to account."

"I feel very frustrated that some environmental activism and political decision making around the environment disadvantages the poor and vulnerable. NZ is a sprawling rural country, and the city planning has not made transport user, or environmentally friendly."

"The people who are going to be most affected by climate change the soonest are the poorest and most vulnerable. Therefore, social workers need to be involved in the forefront of environmental discussions, policy planning etc."

Interestingly, while three of the participants stated that they may not have extensive expertise in explaining the science of the climate emergency, they were aware of the impact and importance, and the need for action and advocacy for the vulnerable populations. Meanwhile, three comments came from participants who thanked the opportunity to participate in this survey as they have not been asked about environmental issues in their practice, with one of them saying the process "has been thought-provoking".

Discussion

The current study was able to add to the substantive literature in social work by providing a preliminary look at social workers in Aotearoa New Zealand and their views on environmental justice and sustainable practice to inform their practice. Overall, the results of the current study have provided some positive and reassuring messages on social workers' perspectives on environmental justice and sustainable practice. They reported moderate levels of pro-ecological perspectives and awareness of sustainability attitudes, a high level of agreement of including Māori and other indigenous traditions and wisdom in ecological justice, a strong belief in climate change and the importance of factoring environmental issues in social work practice. However, there are other areas that suggested further improvement is necessary.

Firstly, while social work participants in this study strongly agreed that environmental issues should be part of social work practice, this has not prompted equally high levels of attention and information-seeking regarding

environmental issues. This was seen in the regression results showing no significant contribution of being informed about environmental issues toward the variance in beliefs about the environment as part of practice, even though there was a significant positive correlation, with a medium size effect, shown. This may be explained by the fact that they had little exposure to the SDGs, and less than 40% reported attending any educational event relating to the environment and sustainable practice in the past five years. While there is a mandate to be environmentally proactive in social work practice, research has argued that the social work profession is still seen as an individualistic, anthropocentric, clinical, and modernist paradigm (e.g., Besthorn, 2012; Coates, & Gray, 2012). This may be seen in the high percentages reported in engaging with recycling, which are not surprising considering these behaviours can be done individually and are easy to practise. Pillai and Gupta (2015) argued that the micro level towards sustainable development is not adequate as it requires the integration between the micro and macro levels of applications and roles because, through to the macro level dimension in social work, we can then address issues around nature, sustainability, inequality, and social injustice. The mild to moderate level of social workers in the current study to their views on being informed about environmental issues and applications may also relate to their lack of awareness of these responsibilities as they may focus more on individual rather than collective action to address environmental concerns (Favor & Munoz, 2013).

Interestingly, the pro-ecological worldview was not found positively and significantly to contribute to social workers' belief in factoring environmental issues into professional practice in the regression model. This result was similar to Chonody and Olds Sultzman's (2022) study on social work students. A possible explanation for this might be a lack of consistent and unified definitions and interpretations of what environmental social work is, which can

impede the advancement of social work in this area (Ramsay & Boddy, 2017). The only domain of NEP that was found significant was "understanding of eco-crisis". Yildirim et al. (2021) have argued that environmental issues in social work practice are particularly important in addressing social problems and social justice. Therefore, the social work profession must critically engage with the sustainable development agenda and political debates concerning this issue (Peeters, 2016). This urgency was articulated by some of the written feedback from the participants in the current research about engaging with "oppressive processes and advocating for service reform" and being "involved in the forefront of environmental discussions, policy planning, etc."

Regression results indicated that social workers' belief in climate change had the greatest effect size in explaining the variance in beliefs about the environment as part of professional practice, which was consistent with existing research (Chonody & Olds Sultzman 2022; Nesmith & Smyth, 2015). While social work participants agreed highly on their beliefs in climate change, their response on their own personal effect from climate change was quite moderate. The current research did not provide a list of potential environment hazards that could impact their own and clients' wellbeing for social workers to choose or elaborate. Perhaps by including items that illustrate social, physical, and economic impact of climate change on individuals, families, and communities (Kircher et al., 2022), it would have connected them through personal and professional lenses from an environmental effort that could aim at remedying an injustice (Hawkins, 2023). Hill and Boxley (2018) argued that social work can benefit from educational justice pedagogy to help social workers examine complex social, economic, and environmental issues in a more integrative way to locate themselves to develop critical, historical, and transformative knowledge. This may help social workers to contextualise environmental issues from a holistic

perspective to see the interdependence and connectedness between the environment and people (Gray & Coates, 2015). It is important to note that social workers have challenged climate justice for years, signalling the connection between climate issues and human health and wellbeing, as well as emphasising a disproportionate impact on the most vulnerable cohorts (Hawkins, 2023). However, McKinnon (2013) claimed that the challenge of situating the environment away from a private concern to a professional practice issue could be attributed to pro-environmental views and actions not yet being fully accepted as a valid aspect of social work practice, despite social work has been embracing the concept of environmental social work and its link with social justice (Forbes & Smith, 2023; Gray & Coates, 2015).

Several studies have shown that social work education and training (e.g., green social work) can impact attitudes towards the environment and sustainable practice development (e.g., Boetto & Bell, 2015; Dominelli, 2013). Results of the current study clearly showed a significant contribution of the "importance of education" to the environment in practice from the regression analysis. Descriptive results also reported high demand of including the environment in schools of social work's education and further professional development required in the environment and sustainable practice. These were also supported by some of the participants' narratives to increase environment and sustainability into social work education. Furthermore, our results differed from a recent research study, which reported significant differences among the type of employment and fields of practice associated with social welfare professionals' perceptions of the importance of addressing environmental issues in social work (Nojd et al., 2023). The lack of significant differences in the current study may signal the ongoing issue of the lack of relevant education on environmental issues in social work. To address this, the authors in this paper have developed a Bachelor of Social Work

course for first-year students that provides this foundational knowledge, which was implemented in 2022. In this course, students learn about sustainability issues, climate change and the environment and how they relate to social and community work. In addition, there is a strong focus on Global SDGs and how they relate to Aotearoa and community responses to crisis and disaster to address environmental justice. Recent research on including the SDGs into placement has called for building the SDGs as a social work practice framework that can incorporate a more holistic appreciation of a person-in-environment approach (Cordoba & Bando, 2022). Organisations where social work professionals work can also be better informed of the importance of SDGs and other environmental issues affecting human wellbeing by integrating pro-ecological attitudes or eco-social approach into social work practice. Furthermore, registration board and professional association can help by normalising environmental issues such as environmental justice and its practice as standardised competency. In doing so, this will enhance the professional and personal practice of connecting with the environment to deepen their intentionality of including the environment within their social work practice.

Another interesting finding in this research is that, while social work participants rated highly on the importance of including Māori and other indigenous traditional and wisdom to address ecological justice and having the awareness, just over 50% indicated that they were competent to practise social work with Māori relating to environment justice and sustainability. This incongruency could point to the fact that mainstream climate change interventions and preventative measures are still rooted within the paradigm of capitalism and neoliberalism, which promote the commodification and exploitation of the nature resources and environment (Gray et al., 2022; Gray & Coates, 2015). This was further echoed by the narratives of two Māori participants who criticised the linkage between environmental injustice and

colonisation to continue perpetuating the mono-cultural pedagogy on justice. Gray et al. (2022) argued that Māori climate campaigners have successfully addressed the climate crisis in areas such as deep-sea drilling permits (Abel, 2018). Given indigenous communities have shown successful track records in managing sustainable ecosystem management (Ellis et al., 2021), it is important to include Māori and Indigenous communities and their worldviews in education, decision-making and policy formulation to challenge the traditional state-centric and individualistic approaches to human rights and social justice (Corntassel, 2012), particularly in the current climate where Aotearoa New Zealand has suffered from multiple climate crises in recent times.

Conclusion

The findings of this study are subject to the following limitations. Firstly, this was an exploratory, cross-sectional study, and our data collection methods led to a convenience sample, limiting our results' generalisability to all social workers. Secondly, given the survey was circulated to social workers through different mediums and professional networks, it was impossible to estimate the exact response rate. While the sample size enabled some foundational inferential analyses, future research should seek to replicate these findings with greater representation of social workers. Thirdly, while we achieved some degree of diversity by having over 20% of Māori social work participants in the research, future research will need to seek more knowledge and perspectives from Te Ao Māori as Indigenous cultures have practised sustainable management of ecosystems over millennia that can offer insightful and culturally appropriate pathways to mitigate accelerating climate change impacts (Gray et al., 2022). Lastly, our measurements relied on existing research conducted internationally. While some of the measures were developed to address specific needs and conditions for Aotearoa New Zealand, they have not been rigorously validated.

Future research may seek to obtain a larger sample size of participants and seek other measurement strategies to undertake psychometric analysis to strengthen the validity and reliability of measures. Despite the limitations, the use of an open-ended question has provided participants opportunities to give comments, which is in line with the nature of the online survey space as an open forum for exchanging ideas and made our respondents feel involved. Feedback comments can also help to detect questions that may create negative feelings, misconceptions and misunderstanding among participants. As such, they can help to improve follow-up studies or enhance future opportunities to use qualitative approach such as interviews to seek further clarifications (Decorte et al., 2019).

The social work profession can play a significant role in responding to the environmental crisis that impacts human health and well-being. Chonody et al. (2020) argued that protection of the environment and promotion of sustainability is part of the social work mission to create a better world for people and their communities, and social workers need to have the skills and knowledge to identify resources to advocate for marginalised communities. Social work education is being urged to include theoretical perspectives to incorporate the natural environment, environmental justice and values and skills across the curriculum to enhance practitioners to advance the social justice mission to tackle environmental and climate issues that negatively affect those who are vulnerable and oppressed (Hawkins, 2023; Ramsay & Boddy, 2017). To our knowledge, while there is already social work research that focuses on environmental and climate change (e.g., Chonody et al., 2020; Chonody & Olds Sultzman, 2022; Hoppe et al., 2023), this is the first research that examined social workers in Aotearoa on their perspectives and attitudes regarding environmental justice and sustainable practice. More research is needed as social work education will require competency in environmental justice and sustainable practice to develop

evidence-based and sustainable solutions. By undertaking more evaluation research on how environmental issues are being integrated into existing curricula, it can further assist graduates to be more prepared to work with individuals, communities and their environment. Social work education must stay apprised of the most current knowledge and ensure its students are adequately educated.

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