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Ecological Perspectives and Wellness

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Abstract

Since the industrial revolution, the development of a lifestyle lived predominantly indoors has resulted in less contact with nature. Research over the last twenty years has gradually been identifying the human health benefits attributed to re-connecting with the natural environment. The significance of feeling connected to natural environments, families and friends are described as a foundational requirement for human health and wellbeing (Maller et al., 2008). Also, the early findings of Schultz's (2002) work indicated that by feeling connected to the natural world a person is more likely to be committed to positively interact with and protect the natural world. Research on young people has indicated that young people are even more disconnected from the natural world. Leading some writers to call this disconnection a crisis termed "Nature Deficit Disorder." Participants (n = 131) from 1st year university Physical Education and Human Movement Studies were asked to complete two questionnaires the Connectedness to Nature scale (CNS) (Mayer & Frantz, 2004) and the New Ecological Paradigm Scale (NEP) (Dunlap, Van Liere, Mertig, & Jones, 2000). The NEP and CNS are two scales most commonly used to explore beliefs and feelings of connectedness to the natural world (Schultz, 2002). The NEP was developed over thirty years ago by Dunlap and Van Liere (1978) and originally termed the New Environmental Paradigm. The NEP is now the foremost International tool for measuring beliefs about the natural world (Dunlap, 2008). The CNS measures an individual's trait levels of emotional connection to the natural world. It is a relatively new tool for understanding ecological behaviour based on ecopsychology theory and employed to predict behaviour (Mayer and Frantz, 2004). Both questionnaires are based on a 1-5 scale (Strongly disagree to Strongly agree). By combining both scales the researchers aim to develop a snap shot of beliefs and emotional feelings towards the natural world and therefore an idea of intended behaviour. The two questionnaires were combined as one online survey with additional material asking for demographics and self assessments of type of leader included before the surveys. An email inviting outdoor leaders to participate was sent out to networks and interest groups. A basic descriptive statistical analysis was used to interpret data.

Introduction

"Send your children out to renew themselves; send them to regain in the open field the strength lost in the foul air of our crowded cities"

(Rousseau, 1968, p. 21, from the original works 1762)

Since the industrial revolution, the development of a lifestyle lived predominantly indoors has resulted in less contact with the natural. In the USA this equates to less than five minutes of free-time spent outdoors (Schultz, 2002). The Australian Bureau of Statistics (ABS, 2006) found comparable results for Australia with less than 19 minutes

spent outdoors. Most free time is spent indoors with the major recreational activity being audio-visual media (ABS, 2006). Explanations for this trend include the fact that as humanity has become more educated, work has become more indoor-oriented and living more sub-urban. As a result humanity has become more human centric, also termed anthropocentric, in focus. Hidden within these statistics is the fact that many people report that they spend little to no time out-of-doors and that women spend less time outside than men.

Research focusing on young people has indicated that young people are even more disconnected from the natural world (Rydberg, 2007). Leading some writers to call this disconnection a crisis termed "Nature Deficit Disorder." Young people spend more time indoors connected to electronic outlets than they do out-of-doors. This trend of decreased time outdoors is continuing. Between 1997 and 2003 the proportion of 9-12 year olds who spent time playing outside declined by 50 percent (St George, 2007).

The role of the Natural world in Wellness

The Western philosophical discipline has long recognised the positive relationship between perceptions of wellness and feelings of connection to the Natural World (Dewey, 1958; Warrawee'a, 2002). Over the last twenty years researchers have gradually been identifying the human health benefits attributed to re-connecting with the natural environment. The significance of feeling connected to natural environments, families and friends are described as a foundational requirement for human health and wellbeing (Maller et al., 2008). Leading some researchers to recognise that environmental wellness should be considered an essential element of wellness research (Callicot, 1996). In essence then the more a person feels disconnected from the natural world the less likely s/he will be functionally well.

Also, the early findings of Schultz's (2002) work indicated that experiences of disconnection from the natural world means that a person is less likely to be committed to positively interact with and protect the natural world.

Caring for the Natural World

Sustainability has become more than a system of resource management (Gifford, 2007; Vlek & Steg, 2007). Gifford (2007) argued that any real change in sustainable practice will most likely happen at an individual level, through changes in attitudes and everyday behaviour. For this change to happen, an individual will need to feel connected to the natural world (Dunbar, 2004; Schroll, 2007).

From this ecocentric perspective, the natural world is not separate from humanity; it is at the very core of humanity. Human beings can only really understand themselves by being engulfed in the natural world (Bourgeois, 2002). As much as we try, humanity cannot be separated from nature (Tymieniecka, 1988).

Schultz (2002) argues that by accepting this condition and returning to nature, experientially recognising that we are interconnected to nature, we will rekindle values that lead to caring and the commitment to look after the environment. If a people feel psychologically connected to the natural world, they willingly make sacrifices in accord with sustainable practices (Mathews, 2006).

Feelings of connection, unity or being a part of the natural world are a causal step to emotional care and behavioural commitment, to wanting to protect the natural world, to being willing to endure sacrifice in order to look after the natural world. A person will only undertake sustainable practices out of commitment to look after the natural world when he or she feels connected to, or part of the natural world (Schultz, 2002).

In summary, theoretical perspectives indicate that feelings of connection to the natural world are essential for holistic experiences of wellness. In turn these experiences trigger a desire to protect the natural world which one would assume leads to greater feelings of wellness. However, theory also suggests that young people are more disconnected from the natural world. In this paper we report on a pilot study exploring the attitudes and feelings of connection to the natural world.

Research Methodology

Participants

Participants in this study were health and Physical Education students from Queensland University of Technology, Brisbane (n=131). Participants were asked to volunteer for the study, via an email informing them of the study outline and requirements. The survey was completed anonymously and online. Participants were also asked for demographic information.

Instruments

Participants were asked to complete two questionnaires: the Connectedness to Nature scale (CNS) (Mayer & Frantz, 2004) and the New Ecological Paradigm Scale (NEP) (Dunlap, Van Liere, Mertig, & Jones, 2000).

The NEP and CNS are two scales most commonly used to explore beliefs and feelings of connectedness to the natural world (Schultz, 2002). The NEP was developed over thirty years ago by Dunlap and Van Liere (1978) and originally termed the New Environmental Paradigm. The NEP is now the foremost International tool for measuring beliefs about the natural world (Dunlap, 2008). The CNS measures an individual's trait levels of emotional connection to the natural world. It is a relatively new tool for understanding ecological behaviour based on ecopsychology theory and employed to predict behaviour (Mayer and Frantz, 2004). Both questionnaires are based on a 1-5 scale (Strongly disagree to Strongly agree). By combining both scales the researchers aim to develop a snap shot of beliefs and emotional feelings towards the natural world and therefore an idea of intended behaviour and potential feelings of wellness. The three questionnaires were combined as one online survey with additional material asking for demographics included before the surveys. A basic descriptive statistical analysis was used to interpret data.

Results

The following section outlines a descriptive analysis of the findings. The questions were asked on a scale 1-5 where 1= Strongly Agree, 2= Agree, 3 = neutral, 4= disagree and 5 = strongly disagree.

One hundred and thirty one surveys (male n= 48, female n=83) were completed (see table 1 for demographic information).

Table 1: Descriptive statistics about the participants

Total Participants		131	
Gender	Male	83	36.64%
	Females	48	63.36%
Average Age		20.2 (5.5)	

Results from both the NEP and CNS (see Table 2 & 3) demonstrated that students in this study held neutral attitudes and beliefs about the natural world and whilst they did not feel strongly positively emotionally connected to the natural world they did feel a slightly stronger than neutral connection.

New Ecological Paradigm Scale

Participant response on the NEP scale averaged 2.82 indicating a slightly ecocentric set of attitudes and beliefs. The average participant response for the category Human Dominion over Nature was 3.32 indicating a slight disagreement with the statement, that is Human's do not have dominion over nature. For the second category, Human Exemptionalism participants averaged score of 3.04 indicting a neutral attitude to this statement. The average participant score for the perceptions about Balance of Nature (2.17) indicated a slight acceptance that natures balance is delicate and can be set off-course by human intervention. For the category exploring the risk of Ecocrisis participants averaged 3.09 which indicates a slight disagreement with the statement and that the eco crisis is perhaps exaggerated. In the last category 'Limits to Growth' participants, on average, indicated that the earth resources are limited, however, participants also thought that humanity can learn to farm the resources more effectively.

Table 2: Results from New Ecological Paradigm Scale

Central Aspects	Mean /5	(SD)
<i>Human Domination over Nature</i>		
Humans have the right to modify the natural environment to suit their needs	3.40	1.06
Plants and animals have as much right as humans to exist	1.76	0.78
Humans were meant to rule over the rest of nature	3.31	1.26
<i>Average adjusted for negatively worded questions</i>		
<i>Human Exemptionalism</i>		
Human ingenuity will insure that we do NOT make the earth unliveable	2.94	0.87
Despite our special abilities humans are still subject to the laws of nature	1.90	0.71
Humans will eventually learn enough about how nature works to be able to control it	3.08	0.92
<i>Average adjusted for negatively worded questions</i>		
<i>Balance of Nature</i>		
When humans interfere with nature it often produces disastrous consequences	2.23	0.85
The balance of nature is strong enough to cope with the impacts of modern industrial nations	3.63	0.90
The balance of nature is very delicate and easily upset	2.13	0.76
<i>Average adjusted for negatively worded questions</i>		
<i>The Risk of Ecocrisis</i>		
Humans are severely abusing the environment	1.92	0.76
The so-called 'ecological crisis' facing humankind has been greatly exaggerated	3.39	1.00
If things continue on their present course, we will soon experience a major ecological catastrophe	2.21	0.78
<i>Average adjusted for negatively worded questions</i>		
<i>Limits to Growth</i>		
We are approaching the limit of the number of people the earth can support	2.71	0.97
The earth has plenty of natural resources if we just learn how to develop them	2.27	0.92
The earth is like a spaceship with very limited room and resources	2.85	0.88
<i>Average adjusted for negatively worded questions</i>		
Average Score (adjusted for positive/ negative questions)	2.82	

Connectedness to Nature Scale

Result from the connectedness to Nature scale indicate a slightly stronger than neutral feeling of connection to the natural world.

Table 3: Results from Connectedness to Nature Scale

Question	Mean/ 5	(SD)
1. I often feel a sense of oneness with the natural world around me	2.50	0.77
2. I think of the natural world as a community to which I belong	2.25	0.78
3. I recognize and appreciate the intelligence of other living organisms	1.78	0.69
4. I often feel disconnected from nature	3.43	0.88
5. When I think of my life, I imagine myself to be part of a larger cyclical process of living	2.42	0.91
6. I often feel a kinship with animals and plants	2.62	0.96
7. I feel as though I belong to the Earth as equally as it belongs to me	2.63	0.93
8. I have a deep understanding of how my actions affect the natural world	2.15	0.74
9. I often feel part of the web of life	2.54	0.81
10. I feel that all inhabitants of Earth, human, and nonhuman, share a common 'life force'	2.37	0.90
11. Like a tree can be part of a forest, I feel embedded within the broader natural world	2.56	0.77
12. When I think of my place on Earth, I consider myself to be a top member of a hierarchy that exists in nature	2.69	0.94
13. I often feel like I am only a small part of the natural world around me, and that I am no more important than the grass on the ground or the birds in the trees	2.89	1.08
14. My personal welfare is independent of the welfare of the natural world	2.87	0.99
Average scores (adjusted for positive/negative questions)	2.34	

Discussion

As outlined in the introduction having positive attitudes and beliefs about the natural world has been theoretically linked to positive holistic wellness. Feeling connected to natural is one of the environments essential requirements for human health and wellbeing (Maller et al., 2008). On the other hand disconnection from the natural world has been linked with feelings of un-wellness and the more a person feels disconnected from the natural world the less likely s/he will be functionally well.

Whereas current research has indicated that young people are disconnected from the natural world and therefore unable to be fully functionally well, results from this paper indicate a more neutral perspective. Results from this study show that students have a tendency towards an ecocentric perspective and see humanity as part of a greater whole. Perhaps suggesting that far from a concern of 'Nature Deficit Disorder' there is a window of opportunity for persuasion. With regards to holistic wellness, results from this study indicate that if the theoretical perspective is correct then students would not be fully well. However, this is a theoretical jump and as yet no research has measured this. This is the next stage of our research.

Another theoretical perspective on feeling connected to the natural is that it is a causal step to wanting to undertake sustainable practices (Brymer, Downey, & Gray, 2009). A person will only opt out of commitment to look after the natural world when he or she feels connected to, or part of the natural world (Schultz, 2002). Results from this study indicate that as participants are generally overall neutral towards the natural world then, in theory, they will be less willing to make sacrifices for the sake of sustainability. However, once again perhaps there is a window open for persuasion.

Limitations

Limitations to this study include the fact that participants may only have undertaken the survey if they originally felt some feeling towards the natural world, even if this was only an ambiguous feeling. Also we have not considered the differences between male and female response and this might bring up gender differences

Summary

Research focusing on wellness and the role of the natural world indicates that the natural world is essential for holistic feelings and experiences of wellness. Research on the relationship between the natural world and humanity indicates that positive beliefs and feelings of connectedness have a strong correlation to the desire to care for the natural world. In today's climate where individuals are becoming more and more separated from the natural world as education encourages more inside work this would indicate individual un-wellness. The preliminary findings from this project show that students are on average neutrally oriented to the natural world. From a theoretical perspective this would indicate that participants are not holistically well and that they do not go out of their way to practice sustainability. The next stage is to explore the link between wellness and feelings of connection to the natural world.

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