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An Occupational Science Perspective of Horse-riding Through the Application of Flow

Abstract

Background: Flow can be described as a subjective, positive psychological state that a person experiences when they are engaged in a task that is challenging, controllable, and also motivating. (Nakamura and Csikszentmihalyi 2009).

Objectives: This paper aims to explore the value and meaning of horse-riding for equine students, by applying the concepts of flow to the student’s experiences. The main aim of the study is to produce a rich description of the occupation of horse-riding through the application of flow and explore how this can contribute to a person’s health and well being.

Methods: Descriptive qualitative research methods were employed for this study. Data was gathered through five individual semi-structured interviews of equine science students from the University of Limerick (UL). The questions were designed to draw personal views and feelings on horse-riding as an occupation in relation to flow. The collected data was then analysed using deductive thematic analysis.

Findings: Three main themes emerged from the data: 1. The meaning of horse-riding, 2. Therapeutic effects of horse-riding, and 3. Motivation to horse-ride. The manner in which flow was experienced was not only experienced while riding a horse.

Conclusions: Using occupational science as a tool and a perspective to explore the subject has established a base for both research and therapists to consider the importance of individual client occupations. From the results of the study it is clear that further research is merited on the occupation of horse-riding. It appears that within the field of occupational science there is little research on this.
Introduction
An appreciation of the value and meaning, of how and why occupations impact on well-being, enables occupational therapists to facilitate quality services to clients (Wright 2004). One theory that can support our understanding of the relationship between health and occupation is ‘flow’. Flow can be described as a subjective psychological state that a person reports when they are engaged in a task that is both challenging and controllable, and also motivating. (Nakamura and Csikszentmihalyi 2009).

The human-equine connection is a well established one. The history of horses in human culture and occupation dates as far back as 30,000 B.C. when horses were illustrated in cave paintings by Paleolithic man (Klappenbach 2014). Over the centuries the role of horses in the lives and occupation of humans has evolved from being hunted for meat to becoming a domesticated animal used as transportation and horse-power. Sell (2008) notes how horses were the primary means of transportation for most of history and horse-power was used to cultivate land therefore playing a fundamental role in how civilisation developed.

From a health perspective, Hagen (2007) writes about healing and the human-horse connection, she discusses how natural horsemanship, therapeutic riding and equine-assisted psychotherapy are natural pathways to better health. Considering horse-riding is a meaningful activity for so many people and especially for equine students it seems likely that a state of flow could occur while horse-riding or during their interactions with horses. It is through examining the occupation of horse-riding that this study will demonstrate whether happiness or flow can be achieved. This will contribute to occupational science by documenting the benefits of horse-riding to health and well-being.

Literature Review
“You are what you do. Occupational therapy has a tiger by the tail. Occupation. Doing. What concept could be more powerful, more central to human life than this?” (Pierce 2003 p.302)

Occupational science is a body of evidence that reinforces occupational therapy (Law et al. 1998). It involves the systematic study of the human as an occupational being (Clark et al. 1991). Wilcock (2001) theorises that occupation is the natural biological mechanism for
health and well-being and links well-being to the engagement in occupation. She embraces the belief that the potential range of individuals’ occupations will allow them to be creative and adventurous as they experience all human emotions, explore and adapt appropriately, and without undue disruption meet their individual needs. Yerxa (1989, p.7) describes occupation as being “wired into the human…individuals are most true to their humanity when engaged in occupation”. Occupation in this sense is key to health and well-being. Lydon (1997) looked at craft as an occupation in a way that is comparable to other occupations. She noted that the important matter is not what is being made, but what happens to a person while they are ‘doing’ the occupation. In relation to horse-riding, it may be similar, it’s not solely the physical activity of horse-riding that gives the rider pleasure, but mentally what is happening to the whole person while they are riding, or simply engaging with horses in other ways, such as grooming. Pierce (2012) refers to four distinct intents or approaches of occupational science; descriptive, relational, predictive and prescriptive (Dickoff et al.1968). According to Pierce (2012) it is the relational, predictive and prescriptive areas of occupational science that rely completely on the strength of its descriptive work. It seems the 'descriptive' could be viewed in ways, as a foundation for occupational science research. Furthermore, as each individual’s occupation is important to them, it is important that occupational therapists have as in-depth an understanding as possible of that occupation. It is on these grounds that the rationale for the study of horse-riding and flow is supported and justified. For the purposes of this study ‘horse-riding’ will include the maintenance, care for, and general interaction of a person with a horse.

Flow
Csikszentmihalyi (1996 p.2) describes flow as "being completely involved in an activity for its own sake. The ego falls away. Time flies. Every action, movement, and thought follows inevitably from the previous one… Your whole being is involved, and you're using your skills to the utmost." Robinson et al. (2012, p.150) posit that ‘happiness’ can be utilised by occupational scientists to help in understanding the “subjective experience of occupational engagement”. Similarly, flow can be applied to this study in order to better understand the subjective experience of the occupation of horse-riding.

Carr (2011, p.113) describes the state of flow as “total experiential absorption in an activity and temporary loss of awareness of other aspects of the self and one’s life situation.” He explains how during a flow experience, a person’s own sense of self can disappear, and
paradoxically that sense of self emerges stronger after the task/activity is completed. Pierce (2003) describes flow as a state of consciousness in which a person is so involved in an occupation that nothing else is noticed around them. In many ways, flow can greatly facilitate a person’s health and well-being through occupation. Pierce (2003) suggests that with the right match of skill and challenge, a client can experience flow and it can provide an enjoyable escape from life’s stressors and the pressures of dealing with a disability. Nakamura and Csikszentmihalyi (2009) state that for a person to experience flow, the tasks or activities must require considerable skill, but also be fundamentally motivating.

Flow and Health

The Health Benefits of Horse Riding

In 2011 The British Horse Society (BHS) commissioned the University of Brighton in partnership with Plumpton College to research the physical health, psychological and well-being benefits of recreational horse riding in Britain. They found that horse-riding stimulates mainly positive psychological feelings and horse riders are strongly motivated to take part in riding by the sense of well-being they gain from interacting with horses. The study revealed that this important positive psychological interaction with an animal occurs in very few sports and horse-riding was one of them. In addition to this, it was also found that being outdoors and in contact with nature was an important motivation for the vast majority of horse riders in the study. This beneficial effect of nature was also cited in work by Barton & Pretty (2010), who carried out a multi-study analysis investigating what is the best dose of nature and green exercise for improving a person’s mental health. Interestingly, the study confirmed that the environment provides an important health service. Considering it is mostly outdoors that the participants reported their flow experiences while horse-riding, it seems likely that a person’s immediate environment plays a pivotal role in the horse-riding experience. This can also relate to how a person experiences flow and how their environment which is shared with a horse may contribute or detract from their ability to focus on an occupation and enter this optimal state. This leads us to the area of Animal Assisted Therapy (AAT).

Although we are focusing on the benefits of horse-riding, the benefits of exposure and interaction with animals to health and well being is a growing area. There is a growing movement to increase animal-patient interactions for health and wellness benefits such as AAT or Animal Facilitated Therapy (AFT). Gammonley (1991) describes AAT as an applied science, using animals to solve human problems. It involves deliberately planned educational,
psychological and socially integrative interventions with animals, including health-promoting, preventive and rehabilitative measures (European Society for Animal Assisted Therapy -ESAAT 2013). It is described by Pet Partners (2013) as a design to promote improvement in human physical, social, emotional, and/or cognitive functioning. This further asserts the power of animals in different therapeutic settings and also simply the benefits of the human-horse connection in terms of meaningful occupation.

Horse-riding, regardless of the level a person engages, is a physical occupation. Tyson et al. (2010) found in their study on undergraduate students that engagement in physical activity can be an important contributory factor in their mental health. During this study it was found that well researched literature pertaining to the physical benefits of horse riding exists but there is little or no literature to explain the meaning and value of the occupation of horse-riding. This is clearly an area worthy of further study because of its potential benefits on well-being and health and also because of the popularity of the occupation.

Method

From the early stages of this study, the aim was to explore the meaning and value of horse-riding for equine students. These are complex concepts, and as qualitative methods allow the researcher to gain an in-depth understanding of human behaviour and what motivates this behaviour, it was decided that a qualitative method of enquiry was to be employed. Greenhalgh and Taylor (1997) describe researchers who use qualitative methods as seeking a deeper truth. This study sought a description of the occupation of horse-riding in relation to flow and an understanding of the feelings and values that each participant held about their experience of flow and horse-riding.

Epistemology

The paradigm of inquiry for the study was guided by a realist/essentialist approach. With this approach, a person’s motivations, experience, and meaning can be theorised in a simple way because a mostly “unidirectional relationship can be assumed between meaning and experience and language”. (Braun & Clark 2006, p.26). As it is the equine students’ personal experience of horse-riding that this study is investigating, this paradigm will be the most appropriate. Interviews were carried out because they would provide the study with the necessary raw data on the experience of horse-riding and flow. The interviews were designed to draw personal views and feelings on horse-riding as an occupation. The interview
transcript for the study is attached (Appendix C). The participants' experience of flow was central to the study.

**Participants**

Initially ethics was granted for 3rd and 4th year equine students because of perceived horse-riding experience. This was later extended to include 1st and 2nd year students as it became clear that a person’s horse-riding experience was lifelong.

To recruit participants, e-mails of invitation were sent to all Equine Science classes via the gatekeeper, (the head professor) at the Equine Science Department of the University of Limerick (UL). Included in this e-mail was an information sheet on the study for the students to read should they be willing to participate in the study, and details of when and where the interviews would be held. The researcher recruited 5 female Equine Science students ranging from 1st to 4th year students. The interviews were carried out on UL campus in a private space ranging in length from 35 to 55 minutes. The participants were interviewed individually using a semi-structured interview transcript which focussed on the interviewee's experience of flow and horse-riding as an occupation. A digital Dictaphone was used to record each interview and afterwards transcribed by the researcher. The interviews and the collected data were then analysed using deductive thematic analysis. It is hoped that the findings will provide a rich description of the occupation of horse-riding and optimal experiences within this occupation. There was no inclusion/exclusion criteria restrictions set for the research.

**Data analysis**

Data analysis involves the searching *across* a data set to find repeated patterns of meaning (Braun and Clark 2006). According to Burns and Grove (1999) qualitative data analysis occurs in three phases: description, analysis and interpretation. Qualitative, deductive thematic analysis will be used to analyse the interviews for this research. Braun & Clark (2006) describe thematic analysis as a method for identifying, analysing, and reporting patterns/themes within the data and it minimally organises and describes the collected data set in rich detail.

The transcripts were qualitatively analysed using deductive thematic analysis. Thematic analysis is carried out through the process of coding in six stages to create established, meaningful patterns. These six stages are: familiarisation with data, generating initial codes,
searching for themes among codes, reviewing themes, defining and naming themes, and producing the final report (Braun & Clark 2006). The following was an outline plan for the thematic analysis of the data, adopted from Braun & Clark’s *Qualitative Research in Psychology* (2006).

At stage one the researcher transcribed the interview data, read through it, noting preliminary ideas and rereading the data to become familiar with it. Stage two saw the start of initial code generation - coding interesting features of the data systematically across the entire data set and collation of data relevant to each code. Stage marked the beginning of the search for themes. This involved the collation of codes into potential themes, gathering all data relevant to each potential theme. At stage four themes were reviewed and a check that the themes worked in relation to the coded extracts (Level 1) and the entire data set (Level 2). A thematic map of the analysis would have then been outlined but Level 2 was not reached. The definition and naming of themes happened at stage five, involving an ongoing analysis to refine specifics of each theme, and overall story the analysis told, generation of clear definitions and names for each theme. Stage six is where the final report is produced which allowed a final opportunity for analysis.

**Ethical Considerations**

Ethical approval for this study was granted by the Education & Health Sciences (EHS) department of the University of Limerick. The main ethical considerations for this study were confidentiality and consent. At the beginning of the study, a volunteer information sheet was sent to each participant stating that their participation in the study is entirely voluntary and everyone is completely free to refuse to participate. It also states that participants could withdraw or stop the study at any time without any consequences. There were no predicted risks attached to this research. All interviews were completed in a private space on UL campus in order to provide a confidential and suitable interview space. Upon completion of recorded interviews the audio files were downloaded onto a password protected computer. The researcher completed transcription and the clean anonymised transcripts were stored electronically, in a password protected file in UL for the appropriate length of time. Once transcribed, the audio files were immediately deleted from the researcher’s password-protected computer. To ensure confidentiality, participants were assured of their anonymity by labelling participants as numbers P1-P5 in all transcripts. Participants will be provided
with an information sheet via e-mail describing the research findings after the research is completed.

**Findings**

From this study’s inception it was envisioned that the act of ‘horse-riding’ would be the main activity discussed in the data and the primary occupation by which the participants would experience flow. This was not necessarily reflected in the findings. Through analysis of the results three themes emerged from the data. These are: The meaning of horse-riding, Therapeutic effects of horse-riding and Motivation to ride. The concepts of doing, being and becoming are to Wilcock the epitomy of occupation (1998). It is her belief that these are integral to health and well being for everyone. Incorporating doing, being and becoming into the findings will provide a framework for the discussion that will follow.

**The Meaning of Horse-riding**

One of the most significant findings in the study would suggest that flow is experienced in other areas than just the physical riding of a horse. For an equine student, the doing involves horse-riding. Horse-riding that includes ‘mucking-put’, feeding, grooming, observing and training. The human bond with a horse plays a pivotal part in this. Each of the participants spoke about this in different ways. One participant spoke about having horses:

“that would give me that same feeling of flow and connection with the horse so for me the whole thing with horses is about the connection with the horse and it doesn’t really matter to me whether I’m riding...if it s a nice day and I walk through the fields and they’re with me or having a graze – that is all part of having horses for me ...” (P5)

Another participant reported a life-long connection:

“I dunno...my mam says I’ve always been in love with horses even when I was a little girl so...I was a real girlie-girl but then I really got into it so...I thought ... this is something I definitely wanna spend the rest of my life doing..” (P.1)

**Therapeutic Effects of Horse-riding.**

The findings of this study have revealed the great importance that horse-riding plays for this groups’ overall happiness. In particular, the therapeutic effect of horse-riding was
demonstrated in the participants’ discussion about their altered mood after horse-riding, grooming or even feeding a horse.

“to go out and sit in the field and watch them for a while and they’ll come up to me and that is so...the best therapy you can have. I think deep down .. I mean it has always been about the horse and not about ...the side trimmings” (P5).

Each of the 5 participants referred to their bond with the horse as a meaningful and often essential element of their horse-riding. Interestingly, each of the participants claimed that it was being around a horse that meant more or as much to them as the actual act of riding a horse. Grooming, feeding and general maintenance of the horse were found to be equally as important to the participants as horse-riding and this also enhanced their relationship with the horse.

“sometimes the whole experience of going out. Catching them in the field....having a little conversation... Brushing him and being nice to him and stuff like that... I think if you have a bond with the horse that you’re going to ride it makes a huge difference than just getting up on it...” (P.1)

“..it’s just myself and my horse and we’re going out...and I actually don’t need anybody else...I’m there with the horse and I really like that and I get a lot of feedback from the horse as well and .... you get the whole interplay with the ears and responses and all that and I absolutely love that” (P.5)

Motivation to Ride

Many people are ‘born into’ horse-riding. Their families may already have horses and so a person does it because it feels natural to them or they don’t consciously start to do it, it just is.

“according to my parents I was put up on a horse when I was 5 and am....from what I can really remember I’ve always wanted to horse-ride ....forever...since I can remember.” (P3)

For others it’s a desire they have to learn and be around horses and they will go to great lengths to ride. For this group of equine students it was evident that nothing would stop their innate motivation to ride. All 5 participants have had falls from horses, some more serious than others but each participant suffered at least a broken bone and all had to stop horse-riding for a recovery period. One of the most significant and consistent pieces of information that emerged from the study was the participants’ absolute need to return to horse-riding post accident. When students were asked how they might feel if they were told they could never
horse-ride again their responses were surprising in that they would accept this so long as they were able to be around horses in some other way.

"I don’t ever remember not ever sitting on a horse am...my family are into it so I was kind of bred into it...first injury was ... I knocked discs out of my back and broke my collar bone...... I fell off and knocked out my top set (of teeth) and then my bottom set came through my lip and then I did my cruciate so ya..... lots of injury” (P1)

On being asked how she would feel if she could never ride again.

“...it wouldn’t be the end of the world like...because I could still work with the horses” (P2).

“for me it’s ‘horses..When I was young it was all about the riding ..like when I had my first own pony and all that, the whole relationship thing came into it and that took over from the importance of the riding...if I was unable to ride ...I would still have horses”. (P5)

P3. Explaining the intense need to be around a horse from a young age

“I try to go out every day and sometimes I’d be out there for like 3 hours and not even know it (laughing) the only way I’d know it is I’d probably be getting hungry” (P3)

It appears that each of the five participants are heavily involved with horses in both their daily academic, and private lives. All five students came to be involved with horses in different ways; some through a learned desire to be around horses, and others born into families who lived and worked with horses previously. Regardless of how the participants came to become equine students, i.e. regardless of their motivation to ride, their desire to horse-ride was equally enthusiastic.

**Discussion**

Wilcock (1999) discusses how in occupational therapy, ‘doing’ is often used as a synonym for occupation. She places great emphasis on the doing and stresses the pivotal role that it plays in our lives. The ‘being’ can be described as involving such notions as nature and essence, in this study the theme of Motivation to ride. It’s related to being true to ourselves in all that we do. The ‘becoming’ is closely related to the theme of Therapeutic Effects of horse riding. It supports the idea of being a sense of future and it can nurture the idea of transformation and self actualisation through the concept of flow.
Flow and State of Mind

The overall aim of this research was to examine the value and meaning of horse-riding as an occupation for equine students, by applying the concept of flow to the student’s experiences. More specifically, the aims were: 1) to explore the experience of horse riding for equine students and 2) to investigate the application of flow to the students’ experience of horse-riding. The person entering flow is described as being able to give their attention in full to the activity at hand and to freely achieve their goals with no threat against them (Csikszentmihalyi 2008). When a person can control their consciousness in order to experience flow as often as possible, their quality of life and general happiness can improve. Csikszentmihalyi (2008, p.209) states that a person who is in control of their consciousness is the autotelic self and that this type of person “easily translates potential threats into enjoyable challenges and therefore maintains inner harmony”. Csikszentmihalyi (2008, p. 93) states that flow “is an ability open to cultivation, a skill one can perfect through training and discipline”. This is an example of how applicable flow is to horse-riding. A person who is in an autotelic state can control their perceptions of situations, resulting in a happier and more fulfilled life. All five participants described how different settings required altered states of mind. Through the occupation of horse-riding, the students have developed an ability to control their consciousness in order to experience flow. Schaffer (2013) proposed seven flow conditions. These are: knowing what to do, knowing how to do it, knowing how well you are doing, knowing where to go (if navigation is involved), high perceived challenges, high perceived skills and freedom from distractions. Similarly, Nakamura and Csikszentmihalyi (2009) propose six conditions: “intense and focused concentration on the present moment, merging of action and awareness, a loss of reflective self-consciousness, a sense of personal control or agency over the situation or activity, a distortion of temporal experience, one’s subjective experience of time is altered, and experience of the activity as intrinsically rewarding, also referred to as and autotelic experience”. The conditions can occur independently of each other but it is only when each of them is experienced in combination that flow can occur. Nakamura and Csikszentmihalyi (2009) state that for a person to experience flow, the tasks or activities must require considerable skill but also be fundamentally motivating.

The Occupation of Horse riding

‘Horse-riding’ (or horseback riding as it is known in North America) can be defined as “the activity of riding a horse, for enjoyment, exercise, or in competitions. Horse-
riding is often simply called riding” (Macmillan Dictionary 2014). For both sport and recreation, humans have been teaming up with horses for thousands of year (Sell 2008). Although an exact date is not known, according to Chamberlin (2006) we can estimate that horses were first ridden by humans around 4,500 B.C. Horse-riding can produce positive health benefits for the rider such as psychosocial benefits, including an augmented sense of self-efficacy and self-esteem (Bizub et al. 2003).

“A man on a horse is spiritually, as well as physically, bigger than a man on foot”.
(John Steinbeck, year unknown)

Equine Therapy also known as Equine Assisted Therapy (EAT) is a treatment therapy that includes equine activities and/or an equine environment in order to promote physical, occupational, and emotional growth in persons suffering from a range of conditions such as: ADHD, anxiety, autism, cerebral palsy, dementia, depression and traumatic brain injuries to name but a few (Schultz 2007). EAT is comparable to horse-riding as clearly there are occupational benefits however, this study will focus solely on exploring the value and meaning of horse-riding and the flow experience for equine students. This further supports the benefits of horse-riding as an occupation.

One of the themes that emerged from the study, ‘the therapeutic effects of horse-riding’ is supported by Robinson et al. (2012). Here the authors reviewed the evidence available to occupational scientists on human happiness. The paper and reviewed studies highlights the centrality of occupation to current understandings of human happiness. In a similar way this comment by Participant 3 on the innate pleasure she takes from brushing her horse reinforces the benefits of horse-riding along with the accompanying literature.

“I would find anybody’s horse, anywhere in my area and see if I could just go brush it and I’d find brushes somewhere and do something with it and... just every moment I had I’d be with a horse, doing anything with horses”.. (P3)

**Conclusion**

This paper aimed to explore the value and meaning of horse-riding for equine students by applying the concepts of flow to the equine students’ experiences and producing a rich description of the occupation of horse-riding and optimal experiences within this. The paper aimed to describe how horse-riding an optimal experience like flow can contribute to a person’s health and well being. From this study, an appreciation of the value and meaning of
horse-riding has been explored. It highlights how and why this occupation impacts on equine-students’ health and well-being through the description of the flow experience and it enables occupational therapists to understand how flow can greatly and therapeutically impact a person’s life. From this study it is clear that further research could be carried out on the occupation of horse-riding and it appears that within the field of occupational science there is little research on this subject. Using occupational science as a tool and a perspective to explore the subject has established a base for both research and therapists to consider the importance of individual client occupations. By exploring, describing, documenting occupations, occupational therapists and other health related disciplines gain a greater understanding of an individual and their occupations. The themes that emerged from the study: the meaning of horse-riding, therapeutic effects of horse-riding and motivation to ride are applicable to equine students but could also be indicative to other occupations. For example, the meaning of an occupation, and potential benefits it holds is an individual’s interpretation and as this study has shown us, not always what one expects. Assumptions should not be made, instead occupations need to be approached as though each one can unfold new information for the therapist to learn from. In terms of future practice it is vital to consider each occupation as unique and meaningful in therapeutic value. Simply put, the more a therapist knows about a client’s occupations can contribute to how a client is treated because the therapist has an in-depth account of what horse-riding means to a person and also enhance their treatment plan or goals. The link between health and well-being and engagement in occupation has been highlighted in this paper. To further explain this, the concept of flow in a person’s life enhances this health and well being by stimulating the autotelic self which in turn leads to happiness. The doing, being, becoming of an occupation like horse-riding where a person can achieve flow is one of the major contributors to health and well-being.

**Limitations**

Due to time constraints during the deductive thematic analysis of the data, it was not possible to reach beyond Stage Four of the analysis. As only stages 1-4 of thematic analysis were completed before progressing to stage 6 of writing, a more rigorous analysis of the data will be required before the study is moved forward for publication.

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