

**YOUTH PERCEPTIONS OF EQUINE WELFARE AMONG COMMON
HORSE-HUMAN INTERACTIONS**

by

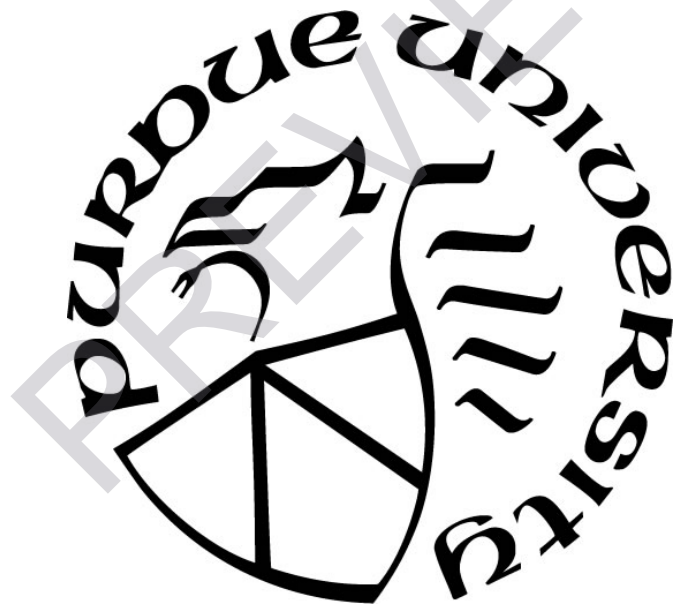
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A Thesis

Submitted to the Faculty of Purdue University

In Partial Fulfillment of the Requirements for the degree of

Master of Science



Department of Youth Development & Agricultural Education

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PREVIEW

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PREVIEW

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ABSTRACT

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Animal welfare studies have explored various topics such as general care and management, human perceptions and factors associated with welfare. These studies however consistently utilize adult populations. The equine industry embodies a large number of youth members and the principles they establish as adolescents regarding specific equine activities and care and management practices are likely to carry forward through their adult lives. To move forward and enhance welfare practices, it is essential to understand youth perceptions and viewpoints towards all populations working with horses; therefore this study was conducted to explore the perceptions and awareness levels of youth towards the Five Freedoms of Animal Welfare. The Freedom of Fear and Distress was specifically investigated to determine the effect human impact has on equine through a diverse set of selected horse-human interactions.

The population for this study were youth members that were a part of the Indiana 4-H Horse and Pony project from nine counties (n=85). Quantitative data was collected using a questionnaire that was presented at the beginning of an educational program. Items relating to the importance of common care and management interactions, and informational seeking behaviors of those interactions were acquired from previously validated instruments. Further items used selected videos from numerous public video sharing websites and a five point Likert scale measuring the level of distress each horse encountered was not distressed, slightly distressed, somewhat distressed, moderately distressed or very distressed. Selected videos were reviewed and

validated by a panel of six adults with differing equine experience to determine which videos would be used within the final instrument. Final video items were chosen based on the consistency of evaluation of distress levels of each horse presented by the panelist and demonstration of a range of levels of distress. Reliability of the instrument was tested for all questions and found to be highly reliable ($\alpha= 0.868$).

This study concluded there was no evidence of previous education in terms of the Five Freedoms or specifically the Freedom from Fear and Distress. While it was observed that members were familiar with concepts discussed, the terminology was different. Participants tended to have more concerns regarding horse-human interactions seen outside of their self-identified disciplines than within their own. Demographic factors such as gender, how they were raised and what they did (attended shows to compete vs. to watch) were associated with youth perceptions. This study also found that Indiana 4-H Youth members in the Horse and Pony project would rather seek information from people (family member, trainer or 4-H volunteer) rather than utilizing technology (YouTube, Search engines, Social Media, etc.) Future recommendations include promoting targeted educational programming and research to improve welfare practices for the next generation of the equine industry.

CHAPTER 1: INTRODUCTION

1.1 Introduction

The Animal Welfare Council (2016), defines welfare as “a human responsibility that encompasses all aspects of animal well-being, including proper housing, management, disease prevention and treatment, responsible care, humane handling and, when necessary, humane euthanasia”. Welfare has been a theme becoming more prevalent in research, however it tends to have a primary focus on adult populations (Vollum, Buffington-Vollum, & Longmire, 2004; Heleski, Mertig, & Zanella, 2006; Mitchell, 2011; Voigt et. al., 2016). This study will focus on youth perceptions and awareness of common horse-human interactions seen on a day-to-day basis. It will encompass a small population of Indiana 4-H youth members completing the Horse and Pony project.

The 4-H program is one of the nation’s largest youth organizations and offers members an enjoyable hands-on experience that assists in the enhancement of life skills as well as teaching significant information regarding the proper care and treatment of their animal (Purdue Extension, 2015). Youth members of society play a vital role in the welfare of our animals. They represent the future of the industry in which their perceptions and interactions will be what carry through to the next generation of equine professionals.

1.2 Statement of the Problem

Studies utilizing adult participants have been conducted when exploring the concept of animal welfare and it has been established there is a need for variety educational means to help provide animal owners and other stakeholders with ethical welfare practices for all animals (Voigt et. al., 2016; Vollum, Buffington-Vollum, & Longmire, 2004). Voigt (2015), conducted a survey

targeting adult members of the equine community concerning welfare issues within the industry itself. It was found that people were mimicking techniques presented by previous trainers, watched YouTube videos and other training movies, and performed techniques that have been passed down from one generation to the next (Voigt, 2015). Regardless of what people perceived or how aware they were in terms of the well-being of the horse, it was discovered that people would rather do what it takes to win and train like they have been taught over the years rather than do what is considered to be ethical (Voigt, 2015). To advance equine welfare, it is imperative to understand viewpoints and perceptions of all populations interacting with horses. The aim of this study was to gather data to increase understanding of youth perception and awareness of what constitutes a compromise to well-being through horse-human interactions.

Muldoon, Williams & Lawrence(2016), mentions, “Children are increasingly viewed as important recipients of educational interventions to improve animal welfare, yet research examining their perspectives is lacking”(p. 357). Youth members account for a large number of participants in equine activities and the principles of horse care and management where they are constantly observing the happenings of their surroundings. The practices implemented in their childhood will be carried through their lifetime and impact their daily interactions in the future as adults in the equine industry.

1.3 Significance of the Study

Understanding youth perceptions of animal welfare will be beneficial to educate, inform and assist those working with youth to develop targeted educational programming. A study was conducted to view children’s perspective of the welfare needs of pet animals such as hamsters, fish, cats and dogs (Muldoon, Williams & Lawrence, 2016). The study reported that emotional connection seems to be an essential element when developing a knowledge base and concern for

animal welfare (Muldoon, Williams & Lawrence, 2016). Another study assessed the attitudes of youth towards animal abuse and how the cultural and structural conditions in a society foster the harm or violence associated with animals as a results of human behavior in both domestic and wildlife cases (Vollum, Buffington-Vollum, & Longmire, 2004). The study noted that abusive behaviors in the home translated into many cases of violence or animal abuse later in life. Those who were in an abusive home perceived less concern about the treatment of animals and more accepting of animal abuse as adults (Vollum, Buffington-Vollum, & Longmire, 2004). Vollum, Buffington-Vollum, & Longmire (2004) suggested that Bandura's theory of moral disengagement plays a vital role in violence against animals. By the use of the eight mechanisms of moral disengagement, individuals behaviors and attitudes form a foundation in which society is socialized in the development of morality (Vollum, Buffington-Vollum, & Longmire, 2004). By exploring youth perceptions of Indiana 4-H Horse and Pony club members, there is opportunity to enhance a growth mindset of adolescents in the equine industry. Youth members of society will produce next generation of key contributors to the equine community. Fabus, Waite, Shelle, Siegford & Chapin (2012), posit, "Educating youth regarding optimal animal management practices and associated societal concerns is crucial because they will compromise these professional communities in the near future." The current study will also enlighten educators as to where youth seek out information and will help better prepare those resources to promote healthier welfare implications across the equine industry.

1.4 Purpose of the Study

The purpose of this study was to explore the perceptions and awareness levels of youth 4-H horse and pony members in the state of Indiana in regards to the Five Freedoms of Animal Welfare. The focus will investigate the Freedom of Fear and Distress and the effect that human impact has on horses through several horse-human interactions recorded on video. At the conclusion of this study, the information will be used as a descriptive analysis to promote further research and produce potential educational opportunities to increase appropriate welfare practices used on a daily basis.

1.5 Research Questions

1. What is the awareness of youth regarding Fear and Distress from the Five Freedoms of animal welfare?
2. How do youth perceive selected horse-human interactions in regards to equine welfare?
 - a. Is there an association between primary discipline and youth perceptions of video horse-human interactions?
 - b. What demographic factors are associated with youth perceptions of animal/equine welfare?
3. From where do youth get information in relation to animal/equine welfare?

1.6 Limitations of the Study

- Respondents may not feel encouraged to provide accurate and honest answers.
 - Many times when working with youth, it can be difficult to tell whether you are receiving accurate answers because they think they know how you would like for them to respond and will alter their responses to match what they believe is correct.
- Reluctance to participate
 - Youth might not feel comfortable answering specific questions and could refrain from answering specific questions on the survey.
- Ability to understand questions asked.
 - With such as wide range of youth (Ages 11-18), some might have difficulties understanding what the question is asking.
- Small Population
 - The information gathered cannot be generalized across the equine industry as a whole. This study is conducting research on a very small sample of youth based out of counties all over the state of Indiana. The equine industry is rather large and runs internationally. It would not be legitimate to assume the way the participants responded is an accurate depiction of the industry as a whole.

1.7 Assumptions of the Study

- Youth members of this study answered questions independently and honestly to the best of their ability.
- Youth members were able to read and fully understand the questions asked upon them from the questionnaire.
- Youth members had a basic understanding of horses and the equine industry before participating in the study.

1.8 Definition of Terms

- Active Club: An active club is a club that is considered to have at least two or more members (non-family members) and carries out monthly or bimonthly meetings throughout the year.
- Body Condition Scoring (For Horses): A numerical system used to evaluate the nutritional status of horses and is universal across all breeds. The scale ranges from a one (poor) to a nine (extremely fat) based on the animal's body fat in key areas such as the neck, withers, loin, tailhead, ribs and shoulder (Henneke, Potter, Kreider, & Yeates, 1983).
- Cooperative Extension System: Combines the expertise and resources of federal, state and local governments and is designed to meet the need for research, knowledge and educational programs (National 4-H Council, 2018).
- Discipline: Refers to the riding style in which each youth member participates. Youth will have to opportunity to express which discipline they feel most connected to within the equine industry. Students will choose from Saddle Type, Stock Type, Open Shows,

Dressage/Sport Horse Competitions, Contesting/Gaming competitions, Rodeo/Ranch Rodeo or Hunter/Jumper or Other in the demographics portion of the survey instrument.

- Five Freedoms defined by the Farm Animal Welfare Council (2012):
 - Freedom from Hunger and Thirst- by ready access to fresh water and a diet to maintain full health and vigour.
 - Freedom from Discomfort- by providing an appropriate environment including shelter and a comfortable resting area.
 - Freedom from Pain, Injury or Disease- by prevention or rapid diagnosis and treatment.
 - Freedom to Express Normal Behaviour- by providing sufficient space, proper facilities and company of the animal's own kind.
 - Freedom from Fear and Distress- by ensuring conditions and treatment which avoid mental suffering.
- Horsebowl and Hippology: An opportunity that occurs annually where youth members in 4-H and FFA compete and test their knowledge while learning about training techniques, horse health, skeletal anatomy and overall care and management of horses.
- Long Lines: A training and exercising technique using two long reins attached to a bridle to work a horse in a circle around them (New Horizons Equine Education Center, Inc., 1998).
- Lunging: A training technique where the horse works on a long line in a circle around the handler. (New Horizons Equine Education Center, Inc.,1998).
- Rollkur: This is a training technique in some disciplines that includes hyperflexion of the horse's neck defined as "flexion of the horse's neck achieved through aggressive force".

Rollkur is banned by the world governing body, the International Federation for Equestrian Sports (FEI)

- Surcingle: A training device that fastens around the horse's girth and typically used when lunging or other in-hand work and can be used in vaulting (New Horizons Equine Education Center, Inc., 1998).
- Stereotypies: These are repetitive behaviors that have no apparent purpose. These behaviors often compromise welfare, and are associated with coping with fear, distress, boredom, or other mental aspects of welfare.
- Youth Participants: Children ages 11-18 randomly selected from nine counties that are currently active in 4-H Horse and Pony.
- 4-H- The largest youth organization in the nation that helps to prepare youth to become leaders in community and around the world through hands-on experiences (Purdue Extension, 2015)

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This literature review is comprised of information in reference to animal welfare, cognitive development and the 4-H youth development program. Animal welfare was reviewed first to understand the need for the study and perceptions of welfare as a whole and within the equine industry. Cognitive development was researched to recognize how and at what age adolescents begin to think and make decisions on their own. The 4-H youth development program was explored in depth to capture the many elements of 4-H, including the Horse and Pony project. Knowing what the Horse and Pony project has to offer will give insight to the population of this study of what these youth members have in common and what is available to them across the state of Indiana.

2.2 Purpose of the Study

The purpose of this study was to explore the perceptions and awareness levels of youth 4-H horse and pony members in the state of Indiana in regards to the Five Freedoms of Animal Welfare. The focus will investigate the Freedom of Fear and Distress and the effect that human impact has on horses through several horse-human interactions recorded on video. At the conclusion of this study, the information will be used as a descriptive analysis to promote further research and produce potential educational opportunities to increase appropriate welfare practices used on a daily basis.

2.3 Research Questions

1. What is the awareness of youth regarding Fear and Distress from the Five Freedoms of animal welfare?
2. How do youth perceive selected horse-human interactions in regards to equine welfare?
 - a. Is there an association between primary discipline and youth perceptions of video horse-human interactions?
 - b. What demographic factors are associated with youth perceptions of animal/equine welfare?
3. From where do youth get information in relation to animal/equine welfare?

2.4 Animal Welfare

There has been an influx of attention generated in the animal welfare science realm with a growing societal concern about animal welfare (Fabus et. al., 2012). The Animal Welfare Council along with other businesses and committees have developed rules and regulations in effort to provide a voice for business entities who are actively involved in caring for animals in recreation, entertainment, sport and industry (Animal Welfare Council, 2016). As it was mentioned earlier, the Animal Welfare Council uses the definition of welfare drafted from the American Veterinary Medical Association which is, “a human responsibility that encompasses all aspects of animal well-being, including proper housing, management, disease prevention and treatment, responsible care, humane handling, and, when necessary, humane euthansia” (Animal Welfare Council, 2016).

Animal welfare research does not solely focus on just one species or certain type of animal, however it covers a wide variety of animals including wildlife/game, livestock, animals used in entertainment or sport, as well as pet and other companion animals. For example, one study looked at captive primates and observed whether woodchip bedding used in outdoor enclosures increased

behavior, overall health and husbandry practices (Brent, 1992). Another study examined the stressors and profiles of red deer during rutting season while comparing two methods of culling which included by rifle, otherwise known as stalking or with hounds (Bradshaw and Bateson, 2000). In many instances, animal welfare research heavily focuses on livestock, especially those animals in the food production line especially with so many eyes from the public focused on animal production. While many people believe they are educated, studies have shown that the public might not be as informed as they think. A study completed by Holloway, Waran and Austin (1999) that was performed in the UK, found the general public to be considerably less knowledgeable about issues relating to pig husbandry than had been expected. However, 80% of the respondents said they would be willing to pay more for enhanced pig welfare (Holloway, Waran and Austin, 1999). Another study looked into animal science student attitudes to farm animal welfare (Heleski & Zanella, 2006). In this study, students were asked to rate their familiarity of the production practices and level of concerns of care and husbandry for dairy farms, beef, swine and sheep operations as well as poultry meat facilities and horse production facilities. The study explained that most students are largely unaware of common practices associated with modern day animal agriculture, however they were all quite concerned about animal welfare overall (Heleski & Zanella, 2006).

2.4.1. Equine Welfare

While much research is being conducted in regards to animal welfare, equine welfare was the primary focus of this study. In a study that was done by Michigan State University with a group of animal behavior students, students had a higher level of concern about horses being kept in industry-typical scenarios versus other production species (Heleski and Zanella, 2016). Heleski and Zanella (2016) also noted that perceptions of animals differed between species as well.