

**HORSEPOWER: A study of equine influence on female adolescent self-efficacy**

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of Social Science (Honours)**

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## ABSTRACT

Self-efficacy refers to the individual's belief in their capacity to exert control over themselves as well as situations which impact upon them: perceptions of self-efficacy influence *cognitive* development, *behavioural* capacity and *emotional* states. Low self-efficacy is often associated with problematic drug use, inappropriate sexual activity, low academic achievement, anxiety, depression, self-harming and suicidal behaviours during adolescence. Conversely, high self-efficacy is generally correlated with high academic achievement, positive social relationships and formation of sexual identity, increased self-regulatory ability and positive vocation selection.

This study sought to examine the experiences of a group of five young women, aged between thirteen and seventeen years, who interact with horses on a regular basis. A hermeneutical phenomenological approach is adopted to explore the relationships formed between the participants and their horses in an attempt to ascertain if self-efficacy is increased as a consequence of these interactions. Analysis of the data provides an understanding of the complexities of the relationships formed between the young women and their horses, and an exploration of the particular characteristics which combine to influence self-efficacy. The paper concludes that participant self-efficacy was increased as a consequence of their interactions with horses due to a combination of *task* and *relationship*-related challenges.

## DECLARATION

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## CHAPTER 1: INTRODUCTION

This study proposes to explore whether young women's perceived self-efficacy is increased through interactions with horses. Wexler (1991, p.9) proposes that adolescence is a period of intensely heightened self-preoccupation during which the young person becomes "desperately invested" in creating and maintaining a sense of self. This sense of self is dependent on and influenced by belief in one's abilities and the capacity to have an impact on the environment: that is the belief of the young person in their own self-efficacy (Schwarzer & Fuchs, 1996; Wexler, 1991). Maddux and Lewis (1995) suggest that self-efficacy exists in three realms; behavioural, emotional and cognitive, and that beliefs about personal efficacy are influenced by perceptions of control in each of these areas. Several studies have indicated that people with a strong sense of self-efficacy will amplify efforts to overcome perceived challenges or obstacles, while those with a more tenuous view of their self-efficacy will often doubt their ability to achieve the desired outcome and will concede defeat easily (Bandura, 1997; Maddux & Lewis, 1995; Marlatt, Baer, & Quigley, 1994).

Horses are historically animals of prey; they are naturally intuitive and have an innate ability to detect anxiety, fear, nervousness or aggression (McCormick & McCormick, 1997; Roberts, 1996). Often regarded as unpredictable and potentially dangerous, horses also have the capacity to be enormously gentle (McCormick & McCormick, 1997; Roberts, 1996). Interacting with horses requires the individual to develop self-control and self-confidence in order for the relationship to succeed. This research is premised on the understanding that interacting with such a challenging animal creates a situation whereby the individual explores their self-concept and belief in their abilities and capacities, and that this self-examination has the potential to influence perceived self-efficacy.

### ***1.1 Background.***

The use of animals as therapeutic adjuncts is not new. Cats, dogs, rabbits, guinea pigs, birds and fish have been used in therapy with children and the aged with great success (Levinson & Mallon, 1997; Mallon, 1999; Melson, Strimple, & Bustad, 1992). Although several studies have explored the influence of animals on perceptions of self-efficacy (see for example: Levinson, 1969; Levinson & Mallon, 1997; Mallon,

1999; Melson et al., 1992; Paul & Serpell, 1992), studies which have specifically focused on the influence of horses on perceived self-efficacy of adolescents are rare.

Adolescence is a time of self-definition and multiple transitions; young people must contend with major educational, social and biological changes whilst simultaneously establishing new identities and re-negotiating their status within a foreign environment (Bandura, 1997; McCauley, 2001; Wexler, 1991). Self-referent thought and associated perceptions of self-efficacy influence the way in which the young person develops an appropriate identity and charts a suitable course of behaviour through this often turbulent period: those young people who feel that they are not able to control their life circumstances or outcomes may manifest anxiety and depression as responses to perceived deficiencies or inabilities (Wexler, 1991; Williams, 1995). Research has indicated that young women are more likely to experience depression during adolescence than young men (Angold, Costello, & Worthman, 1998; Bandura, 1997; Petersen, Sarigiani, & Kennedy, 1991), and that depression and anxiety are both linked to suicidal behaviour (Angold, Costello, & Worthman, 1999b; de Wilde, Kienhorst, & Diekstra, 2001; Hankin, Abramson, & Moffitt, 1998; Joffe, 1995; Laufer, 1995).

Perceived self-efficacy is also a prime indicator of behaviour change, for even though an individual may recognise a reason to change, attempts at change are unlikely to follow if the person considers the required behaviour as beyond their personal control or capability (Jarvis, Tebbutt, & Mattick, 1995; Miller, 1995; Miller & Brown, 1991; Rollnick, Mason, & Butler, 1999). According to Schwarzer and Fuchs (1996, p.163) behavioural change is “facilitated by a personal sense of control...a person who believes in being able to cause an event can conduct a more self-determined life course”. Consequently, perceptions of self-efficacy are central to many models of health-behaviour change relating to the control of problematic behaviours (Allsop, 1990; Ryder, 1999; Saunders, 1995; Schwarzer & Fuchs, 1996).

## ***1.2 Significance of study.***

If perceptions of self-efficacy are increased through interactions with horses, possibilities may exist for the use of equine-assisted therapy where behaviour change is the motivating factor. Interventions which address the behaviours associated with Attention Deficit Disorder and Attention Deficit Hyperactivity Disorder, eating disorders such as Anorexia Nervosa and Bulimia, and alcohol and other drug misuse

may also benefit from an approach which aims to increase self-control and self-regulatory behaviours.

### ***1.3 Purpose of the study.***

The purpose of this study is to determine whether perceptions of self-efficacy are influenced by interactions with horses. If perceptions of self-efficacy are increased through equine-human interactions, horses may play a valuable therapeutic role in cognitive-behavioural interventions.

### ***1.4 Research Question.***

This research aims to explore whether young women's perceived self-efficacy is influenced by interactions with horses. The central question is:

**'Does interacting with horses make young women feel more confident in their abilities; does it increase their *self-efficacy*?'**

## CHAPTER 2: METHOD

This chapter will present the chosen methodology, hermeneutical phenomenology, and will discuss sample selection, data collection and analysis, research rigour and ethical considerations.

### ***2.1 Hermeneutics***

The term *hermeneutic* derives from the Greek word “hermeneuein”, meaning “to interpret” (Crotty, 1998, p.88). The term is often used interchangeably and in association with phenomenology (Van Manen, 1990), however, Crotty (1998) makes the distinction that what phenomenology seeks to *understand*, hermeneutics seeks to *interpret*. Within the hermeneutical approach, there is much emphasis on the interpretation of written text and the researcher is urged to engage totally with the written word, to delve for deep insights and to be open for new concepts to emerge (Crotty, 1998; Van Manen, 1990). Hermeneutical analysis is employed in this study in two forms; the written experience of the participant is provided and examined in short story form, whilst the spoken word is converted into text and explored through transcripts of interviews. This process allows the unique meaning of the participant’s experience to emerge and be represented.

#### ***2.1.2 Phenomenology***

Phenomenology is an interpretive paradigm, originating in the work of Husserl (1965) who employed the term “eidos” or “essence” to describe the structure of human experience and who saw the task of phenomenology as describing these “structures of consciousness” (Hein & Austin, 2001, p.4). Phenomenological research aims to uncover the essence of a phenomena and to identify, understand and describe the subjective experience of the individual involved (Crotty, 1998; Wilson & Hutchinson, 1991). For the phenomenological researcher: “the perceived world is the real world” (Stevens, 1993, p.41).

### **2.1.3 Hermeneutical phenomenology**

Whilst the term *hermeneutics* relates to the *interpretation* of the lived experiences of the individual and *phenomenology* focuses on *understanding* those experiences, hermeneutical phenomenological research is a blend of both paradigms; it attempts to translate lived experience through language and text and is both descriptive and interpretive (Van Manen, 1990; Wilson & Hutchinson, 1991). A hermeneutical phenomenological approach was chosen for this research due to its capacity for understanding, interpreting and describing the *essence* of life experiences. This aim is achieved through the exploration of both verbal and written descriptions of the young women's experiences with their horses.

## **2.2 DESIGN**

### **2.2.1 Sample**

Sandelowski (1995) suggests that the preferred participants in phenomenological research are those who have many life-experiences of the phenomena being scrutinised. A prerequisite to participation in this study was involvement with horses for a period of at least twelve months, ensuring an appropriate depth of experience. The sample selected for the research comprised of five young women, all high school students; three of whom responded to an article in a local newspaper and two others known to the author who were approached directly.

The young women involved in the research were:

- i. Sally, a 13 year old student living on the outskirts of Perth. Sally began riding by herself at the age of three years, is heavily involved with Pony Club and competes regularly.
- ii. Angela, a 14 year old student living on a cattle property in a rural area. Angela has ridden ever since she can remember; she rides in competitions, uses her horses to work livestock on the family property and is responsible for caring for up to five horses each day.
- iii. Jasmine, a 15 year old student, who has only been involved with horses for a relatively short time. She competes in local competitions and is the only "horsey" member of her family.

- iv. Beth; 16 years old and attending an agricultural boarding school where she is able to undertake equine studies. Beth prefers recreational riding to competition and is also the only ‘horsey’ member of her family
- v. Nadia: a 17 year old student and recreational rider. An only child whose parents work away, Nadia is without parental supervision for extended periods of time.

The age-phases of adolescence presented in this study conform with Crockett and Petersen’s (1993) concept of adolescent development, with early adolescence occurring at age 11-14 years and middle adolescence at age 15-17 years. The age restrictions were imposed in this study to retain the focus on the construction of self-efficacy during early and middle as opposed to late adolescence.

### **2.2.2 Data collection**

The first phase of data collection involved the participants writing a short story about themselves and their interaction with horses. This approach, known as protocol writing (Van Manen, 1990), allowed the participants to describe their specific experiences *as they lived them*. Participants were asked to write a short description of their feelings whilst around their horses; specifically, what moods, emotions, feelings or thoughts they experienced during their “horsey” time. The option was given to base the story on a specific experience, or locate it in general horse experiences; they were instructed to relate the story only to their personal experience and to address four specific areas. These four areas were concerned with a) emotional state prior to horse contact, b) what activities were undertaken during the time with the horse, c) what role the horse occupied and how it contributed to the situation during this time and, d) how this contact influenced emotional states and perceived self-efficacy.

Following collection of the written data, an appointment for an interview was made with each participant. Interview questions were based on the information drawn from the analysis process. In comparison to more structured interviews, a phenomenological interview focuses on drawing out and understanding the meaning or essence of a lived experience rather than explaining, predicting or generating theory (Sorrell & Redmond, 1995, p.1120). As this study is more concerned with understanding and interpreting how self-efficacy is constructed and influenced than measuring degrees of self-efficacy, interviews were considered more appropriate than

questionnaires or scales which fail to provide adequate depth of description. The interviews were audio taped and transcribed into hard copy form for participant verification.

### **2.2.3 Data Analysis**

In keeping with the hermeneutical approach, the *lived experience* of the participants is interpreted and translated through both their language and text. Transcripts of interviews were collated and a thematic analysis of the data undertaken following the process of data analysis presented by Colaizzi (1978) and Van Manen (1990). Firstly, the data was read several times to provide a sense of the whole, after which significant words or phrases were extracted, and meanings formulated and attributed to them which were validated by the participants. These meanings were then clustered into themes and a textual description developed by integrating the original statements, the assigned meanings and associated themes. Finally, to ensure that the description provided a true representation the participant's experience, the findings were presented once more to the participants to gain their verification and to ensure that there had been no misrepresentation. Findings from the data are presented in Chapter 4.

## **2.3 RIGOUR**

Although qualitative research is often viewed as a blend of "scientific rules and artistic imagination" (Sandelowski, 1986, p.29), Guba and Lincoln (1981) suggest that it is possible for rigour to be assured in a qualitative study by addressing *credibility, fittingness, auditability* and *confirmability*. According to Guba and Lincoln, *credibility* can be seen to be achieved when it presents such a faithful account of the experience or phenomenon that the individuals who had the experience recognise it from the descriptions as their own, and was ensured in this study by providing participants with a synopsis of their account for verification as suggested by Colaizzi (1978). *Fittingness* relates to how much the generated theory "fits" the data from which it evolved (Guba & Lincoln, 1981). The issue of fittingness in this research was addressed by allowing coded data to be examined by the research supervisor, an independent researcher and also through direct verification from participants. *Auditability* refers to the 'audit trail' of research, the process of establishing the consistency of a study (Guba & Lincoln, 1981): auditability for this research includes electronic communications with the

research supervisor in addition to the interview transcripts with associated coding and thematic categories identified. *Confirmability* is used to evaluate neutrality in qualitative research; this is attained when creditability, fittingness and auditability have been established (Guba & Lincoln, 1981). Confirmability in this study was addressed by providing a synopsis of the interviews and associated codes and thematic categories to the participants for verification of the accuracy of the descriptions and identified concepts.

Triangulation of data is also often used to overcome the issue of demonstrating “representativeness” in studies which involve only one researcher, and involves the use of two or more research methods, theories, or data sources in the same study (Ahern, 1998). Triangulation of data in this study was achieved by: 1) allowing other research-trained individuals to peruse the data (research triangulation), 2) collecting data from more than one individual (person triangulation) and 3) using different data collection techniques (method triangulation).

## **2.4 CONCEPTUAL FRAMEWORK**

The Conceptual Framework adopted for this study is informed by the epistemologies of constructivism and personal construct theory. The decision to ground this research in constructivist theory is based on the capacity of this approach to demonstrate the idiosyncratic process by which individuals construct different realities and identities. In turn, personal construct theory demonstrates how the individual constructs their self-concept and associated behaviours and beliefs based on their interpretations of events. The following section briefly explores these concepts and explains their relationship to the study.

### **2.4.1 Constructivism**

Interaction with animals provides human beings with the chance to connect unconditionally with another living being; one from a species different to their own (Levinson & Mallon, 1997; McCormick & McCormick, 1997). These interactions provide humans with the opportunity to construct and attach meanings according to their interpretation of the event. Crotty (1998, p.58) claims that this “meaning-making activity of the individual mind” forms the basis of constructivism. Although constructionism and constructivism are often used interchangeably, constructionism

proposes that every reality is *socially* constructed as a result of predetermined meanings and associations attached to objects and experiences, whilst constructivism proposes that reality is *individually* constructed (Crotty, 1998). Constructivists believe that every individual experiences the world in their own unique way and that meanings are constructed as a result of their interactions and experiences (Crotty, 1998). According to Crotty (1998), constructivism rejects the theory that a totally objective reality exists: knowledge and the meanings attached to it are constructions of the human mind; meaning is not socially created, it is individually constructed. Within a constructivist framework, a common reality does not exist; reality is constructed through individual translations and interpretations of many different realities (Crotty, 1998). Constructivists believe that although people are significantly creators of their own destinies, this is always in relation to others “as a mutually-constructed process” (Fisher, 1991, p.14).

The basic principles of Constructivism as applied in this research are:

Reality is constructed as experience

Meaning is constructed both internally and socially through a process of interpretation

Behaviour is indeterminate; it is controlled and shaped by relations between self and environment

According to Fisher (1991, p.25), the constructivist process of knowing “depends on recognising differences and relationships between those differences”. These differences are known as *constructs*: “bi-polar dimensions of categorisation” (Fisher, 1991, p.25). In this statement, a link between constructivism and personal construct theory begins to emerge. Within a constructivist context, the individual constructs their reality and attaches meanings to it in response to their interpretations of experiences.

#### **2.4.2 Personal Construct Theory**

The Personal Construct Theory (PCT) formulated by George A. Kelly (1955) provides a comprehensive account of the constructivist model of “meaning-making” (Rosen, 1996). According to Kelly (1955, p.105), a construct is a “two-ended thing” which recognises similarities and contrasts, a way in which “some things are construed as being alike and yet different from others”. Kelly claims that constructs are “bipolar”,

such as good/bad and right/wrong, and are organized into a complex hierarchy of superordinate and subordinate constructs. Each person builds a construction system which embraces the relationships between constructs: once events had their similarities and contrasts construed, it became possible to try to predict them. Constructs are then changed or discarded if an anomaly exists between one's prediction and the observed outcome; in this way the individual's construction system progressively evolves. PCT maintains that two people involved in the same event will construe it differently, experience it differently, anticipate it differently, and act differently.

The basic principles of PCT as applied in this research are:

People differ from each other in their construction of events

Events are experienced differently by those who are directly (internally) involved and those who are not the central figure (externally involved)

Similarity and contrast are "inherent in the same construct" (Kelly, 1955, p.51)

The decision to adopt PCT for this study was made because the research aims to discover how self-efficacy is *influenced*; therefore it must also strive to comprehend how self-efficacy is *constructed* by the individual.

#### ***2.4.3 Assumptions within the framework***

There are two main assumptions inherent in this study: the first relates to the construction of meaning and the second to adolescence itself. The constructivist and personal construct theories presented above assume that individuals are constantly interpreting their experiences and attaching meanings and values to them which reflect those experiences and help them to predict future events. During this process, the meaning-making activity of the individual is influenced by both internal and external factors, leading to the construct of a unique and idiosyncratic reality. This study assumes that the way in which young women construct self-efficacy is influenced by their interpretations of their experiences with horses and how those experiences make them feel and affect their thoughts and behaviours.

Although psychological theories of youth commonly portray adolescence as a time of "storm and stress" (Muss, 1996, p.16), this is not assumed herein, rather in keeping with constructivist principles it is assumed that the experience of adolescence is *not* universal and is different for every young person. However, it *is* assumed that the

experience of adolescence is a transitional period for young people, a period between childhood and adulthood; a time of heightened self-preoccupation and a variety of social, biological and psychological stressors which impact differently on each individual.

## **2.5 ETHICAL CONSIDERATIONS**

Considering the ethical implications of research means ensuring that not only are the correct techniques used, but that they are used correctly (Singleton, Straits, Straits, & McAllister, 1988). This study had three important ethical considerations: 1) the informed consent of participants, 2) parental consent as all participants were under eighteen years of age and, 3) privacy of the participants. Also, in the event of any of the participants requiring access to counselling as a response to their involvement in the study, all participants were provided with contact details for a number of crisis-lines and counselling services at the commencement of the data collection process.

### **2.5.1 Informed consent.**

It is as unethical to coerce or deceive an individual to participate in a study as it is to involve that person in the study without their consent (Singleton et al., 1988). To address this, participants were provided with a letter of introduction (Appendix A) accompanied by a consent form (Appendix B), which outlined the general purpose of the research and why it was being undertaken; it also clearly stated that participation was completely voluntary and that participants were free to withdraw from the study at any time.

### **2.5.2 Parental consent.**

The second concern was the issue of parental consent as all the participants were under eighteen years of age. Parents of the participants involved were provided with an information letter (Appendix C) and were required to complete a consent form (Appendix D) before the study commenced and in conjunction with the consent form signed by the participants themselves. All parents expressed great interest in the research and none refused permission for their daughters to be involved.

### ***2.5.3 Privacy of the individual.***

Singleton, Straits et al. (1988) suggest that social research provides plenty of opportunities for the right to privacy to be violated and propose that the researcher be aware of the ways that their actions may infringe on this most basic right. To protect the privacy of the participants, all interviews were conducted in private; all recordings were then transcribed, anonymously coded and securely stored. The transcripts did not contain any information which may have identified the participant; pseudonyms were even used for the names of the young women's horses: above all, the anonymity and confidentiality of the participant is of primary concern, and this study has sought to protect and uphold that right.

## CHAPTER 3: REVIEW OF LITERATURE

There is a plethora of literature pertaining to self-efficacy and also to adolescence, however this research relates specifically to self-efficacy, adolescent girls and horses, and presents only a small amount of the literature pertaining to these particular areas.

### *3.1 Self-efficacy theory*

Maddux & Lewis (1995) claim that although early research regarded self-efficacy mainly as the capacity of the individual to perform specific behaviours, later research has suggested that definitions of self-efficacy be widened to include the perceived ability to have control over events that affect individual's lives. Beliefs about personal efficacy influence cognition and behaviour in several ways: they influence the goals people set for themselves, the strength of their commitment to those goals, the strategies they employ to achieve them and the amount of effort mobilized in the endeavour (Bandura, 1997; Maddux & Lewis, 1995; Schwarzer & Fuchs, 1996). Perceived self-efficacy also shapes the way that people predict events and influences the effectiveness of the decision-making and problem-solving processes they select (Bandura, 1997; Maddux & Lewis, 1995). Studies have indicated that when confronted by difficulty, people with a strong sense of self-efficacy intensify their efforts to overcome challenges, however those with a weak sense of self-efficacy often doubt their ability to carry out the task at hand and concede defeat easily (Bandura, 1997; Maddux & Lewis, 1995; Marlatt et al., 1994). According to Bandura (1997, p.155), people with a low sense of self-efficacy not only willingly accept their failures as evidence of their personal deficiencies, but typically view their successes as reliant upon "situational aids". Maddux & Lewis (1995, p.10) claim that beliefs about personal efficacies are the product of six primary sources: performance, vicarious and imaginal experiences, verbal or social persuasion and physiological and emotional states. Within the framework proposed by Maddux & Lewis, self-efficacy is seen to be influenced by a diverse range of internal and external factors; it is presented as situational, changeable and unique to each individual; a very personal construct.

Maddux & Lewis also propose that self-efficacy exists in three different realms, influencing *cognitive* development, *behavioural* capacity and *emotional* states. The concept of self-efficacy proposed by Maddux & Lewis corresponds with that presented by Marlatt, Baer and Quigley (1994), as both concur that self-efficacy refers not only to the ability of the individual to perform the appropriate behaviour, but also their capacity to refrain from undertaking detrimental behaviours. *Emotional self-efficacy* refers to the perceived ability to control one's emotions and emotional responses, such as the ability to control feelings of anxiety or guilt, sexual thoughts, or aggressive responses (Maddux & Lewis, 1995). Research has indicated that a diminished sense of emotional self-efficacy is a precursor in the suicide attempts of many young people (Laufer, 1995; Wohl, 1995). *Behavioural self-efficacy* refers to the individual's belief in their ability to perform the specific actions needed to "gain mastery over a problem situation" (Maddux & Lewis, 1995, p.52). Consequently, behavioural self-efficacy plays a major role in many models of addictive behaviour and relapse prevention as it relates to the confidence of the individual in their ability to control their life and effect change (Allsop, 1990; Jarvis et al., 1995; Schwarzer & Fuchs, 1996). Behavioural self-efficacy is similar to the concept of *action self-efficacy* proposed by Marlatt et al. (1994), as both relate to the individual's confidence in achieving their desired goal. *Cognitive self-efficacy* refers to perceptions of one's ability to "exercise control over one's thoughts" (Maddux & Meier, 1995, p.52). According to Maddux & Meier (1995), a perceived loss of control over cognitive processes is a major feature of several common problems presented to mental health practitioners, the most obvious example of which is seen in Obsessive Compulsive Disorder (OCD).

### ***3.2 Self-efficacy, anxiety and depression.***

Self-efficacy theory posits that people become anxious and avoidant if they believe that they cannot cope behaviourally or cognitively with potential threats (Bandura, 1997; Maddux & Lewis, 1995). The perceived inability to control important aspects of one's life is both distressing and depressing, consequently apprehension (anxiety) and despair (depression) often accompany perceived inefficacy (Bandura, 1997; Williams, 1995). Maddux and Meier (1995, p.12) claim that both affects have a "deleterious effect" on self-efficacy. Kolvin and Sadowski (2001) define depression as a disorder characterized by persistent and severe changes in mood, commonly indicated by bouts of crying, little or no emotion, lack of motivation and energy, a sense of

invisibility, emptiness or numbness, sleep and eating disruption and an inability to concentrate (Compas, Sydney, & Grant, 1993). Compas, Sydney and Grant (1993, cited in Kolvin & Sadowski, 2001) propose three categories of depression. They claim that a sad or depressed mood, feelings of anxiety, worthlessness or insignificance, and diminished self-esteem are universal to all three categories. Bandura (1997, p.153) claims that a sense of hopelessness about the future is one of the core features of adolescent depression: the perceived inability to influence, affect or control the events and social conditions which significantly affect one's life gives rise to feelings of "futility and despondence".

Several studies have revealed that incidences of adolescent depression vary significantly between the genders (Angold et al., 1998, 1999b; Compas et al., 1993; Hankin et al., 1998; Petersen et al., 1991). According to Bandura (1997), girls are more prone to depression than boys, and although both tend to get depressed over perceived inefficacies in academic areas, girls tend to get more depressed than boys over perceived inefficacies in social and self-regulatory issues. A longitudinal study undertaken by Angold, Costello and Worthman (1998, cited in McCauley, 2001) of children moving through puberty found that young women faced a much higher risk of developing depression during mid-puberty than young men. These findings concur with those of Petersen, Sarigiani and Kennedy (1991), who studied depression in 335 young men and women. The results of the study indicated that girls were at a much greater risk than boys of developing depression. Hankin (1998) re-evaluated data collected during a longitudinal study involving 641 participants aged under thirteen years. The re-evaluation revealed that rates of depression in girls began to increase significantly at around thirteen years of age. These findings were later replicated in studies by Angold et al. (1998, 1999).

### ***3.3 Anxiety, depression and adolescent suicide***

As discussed earlier, adolescence has many stressors which can combine to create feelings of hopelessness, anxiety and despair, the combination of which is often enough to cause young people to take their own lives (de Wilde et al., 2001; Hawton, 1986; Joffe, 1995; Laufer, 1995). According to de Wilde (2001, p.267): "discussing suicidal behaviour without discussing the context of depression is as precarious as is discussing depression without the implication of suicidality". Eckersley (1995, p.18) claims that rates of major depressive illnesses have "increased tenfold or more" during

this century: Australia now has one of the highest rates of youth suicide in the industrial world, with rates of attempted suicide up to 11% among high school students (Eckersley, 1995).

The influence of internal and external stressors on adolescents is explored by Wohl (1995) who suggests that biological-maturational demands along with the demands of the adult world in terms of employment, competition and ability, combine to create a feeling of worthlessness in the adolescent individual. Eckersley (1995) claims that the failure of Western society to provide young people with a sense of worth and personal belonging has resulted in an increase in psychological malfunctioning in this portion of the population, increasing incidences of emotional stress and suicidal behaviour. Laufer (1995) explored the developmental breakdowns which resulted in anxiety, depression and eventual suicide attempts by seven adolescents, all under the age of 19 years and with a previous history of serious suicidal behaviours. The data (1995, p.114) revealed all participants:

reported feeling anxious or depressed prior to the suicide attempt

expressed the belief that their suicide acts represented a “secret power” for them; a positive way to take control and direct the course of their lives

had recently experienced losing control in ways that “generated self-hatred”, such as aggressive or sexually inappropriate behaviour

Laufer claims that adolescents are propelled toward the possibility of suicide as they struggle to control their aggression, anxiety, guilt, helplessness, fear of rejection, sexual thoughts and behaviours. In these circumstances the young person becomes convinced that the only way to control their troublesome thoughts is to destroy their body and subsequently their minds. Suicide, suggests Laufer (p.106), is motivated by an omnipresent element which allows the young person to feel as if they are in control of their lives whilst simultaneously protecting them from experiencing “intolerable feelings of helplessness”. This argument is supported by Joffe (1995, p.56) who suggests that the idea of suicide gives young people a sense of power over their lives at a point where they feel “unbearably out of control, vulnerable and helpless”.

### ***3.4 Self-efficacy in adolescence***

Adolescence is a time of self-definition and multiple transitions: young people must manage stressful physiological, social and educational changes and pressures as

they move from the “personalised” setting of primary school into the more impersonal and “impersonalised” environment of secondary school, whilst simultaneously re-establishing social connections and relationships and re-negotiating their status within a new and unfamiliar environment (Bandura, 1997; McCauley, 2001). The perceived inability to deal behaviourally, cognitively or emotionally with the challenges which confront young people during this time often results in decreased perceptions of personal efficacy and often manifests as anxiety or depression (Bandura, 1997; Williams, 1995). Depression, anxiety and low self-efficacy during adolescence often accompany suicidal behaviour and thoughts (Bandura, 1997; Joffe, 1995; Laufer, 1995). Results from several studies (see Angold et al., 1998; Angold, Costello, & Worthman, 1999a; Hankin et al., 1998; Joffe, 1995; Laufer, 1995; Petersen et al., 1991) indicate that the likelihood of psychiatric disorder and suicidal behaviour increases during adolescence, and that although boys tend to experience depression at an earlier age than girls, rates shift in mid-adolescence when rates of depression in young women begin to outnumber young men (Angold et al., 1999b; Hankin et al., 1998). Diminished self-efficacy in adolescence is also often associated with a lack of self-regulatory abilities, rendering those individuals more likely to become involved in potentially harmful sexual behaviour and drug use (Bandura, 1997). Low self-efficacy in adolescence has also been associated with low academic achievement, poor vocation selection and career availability (Bandura, 1997).

### ***3.5 Self-efficacy and horses***

“We can’t disguise our true feelings from animals because we give off telling clues, including movement and smell, that convey our true state...animals smell our fear, anger and contentment” (McCormick & McCormick, 1997, p.23).

In their work with individuals with mental dysfunction and native Spanish Peruvian Paso horses, McCormick and McCormick (1997) focused on increasing perceptions of self-efficacy and self-regulatory behaviour. Horses are naturally intuitive and able to discern the involuntary reactions that are the physical manifestations of unconscious fears and anxieties. McCormick & McCormick (p.42) claim that working with horses helps individuals to understand their “own basic drives and the value of developing self-control”. They further claim that interactions with horses: 1) allows people to find respite from internal turmoil; 2) gives people something to take care and charge of, thereby increasing confidence in their abilities to perform specific functions;

3) allows nurturing and affection; 4) provides a silent, non-manipulative and non-judgmental environment; 5) allows individuals to become part of and belong to a family group/herd; 6) reduces stress and increases relaxation and; 7) develops self-regulatory ability. Increases in self-efficacy are seen as the result of facing and overcoming difficult or unfamiliar tasks or challenges as part of the every day interactions with horses.

The relationships that form between horses and humans have also been explored by Monty Roberts in his work “The Man Who Listens to Horses” (Roberts, 1996) and associated film “The Horse Whisperer”. Roberts stresses that horses are able to recognise human emotions such as animosity, aggression, hostility, timidity and nervousness, and claims that horses teach individuals to develop self-control and self-confidence. Roberts suggests that interaction with horses increases self-efficacy in a variety of ways: 1) the size, strength and intuition of horses requires the individual to understand and regulate aggression, hostility and anxiety-this increases self-regulatory capabilities and associated efficacy; 2) examining a horse’s behaviour can assist with recognizing own behaviour and lead to the development of more appropriate behaviours or ways to communicate; 3) horses are potentially harmful and dangerous animals–self-efficacy is increased by facing and overcoming the challenge this presents; 4) horses can be unpredictable and changeable–exposing people to unfamiliar situations helps them to strengthen coping skills and; 5) horses have an enormous capacity for affection and provide a non-judgmental environment in which people may freely give and receive affection.

### ***3.6 Conclusion***

This review of literature pertaining to self-efficacy and adolescence has sought to create a picture of adolescence as a time when young people must adapt to turbulent educational, social and physiological changes, a time when the risk of depression increases in young women, and the possibility of suicide intensifies (see for example Muuss, 1996; Bandura, 1997). . The literature relating to the role of horses and their influence on behaviour has indicated that interaction with horses has the potential to increase perceptions of ability in individuals who have a diminished sense of self-efficacy. However, the specific link between horses and the perceived self-efficacy of young women appears to be relatively unexplored, and it is to this view that this study turns its focus.

## CHAPTER 4: FINDINGS

The literature reviewed in the previous chapter has presented adolescence as the creation of a complex configuration of physical, social and psychological factors. As discussed, horses have the potential to influence perceptions of self-efficacy by providing a peaceful, caring environment which relies on self-discipline and control. This chapter will explore the *essence* of the human-horse relationships experienced by the young women involved in this research. As suggested by Perry (1998), the purpose of this chapter is to report patterns found within the results and scrutinize them for their relevance to the research question. Accordingly, this chapter will present the data relating to the research question followed by the emergent themes revealed through data analysis.

The research questions presented to the young women aimed to explore how the relationships between the participants and their horses influenced perceived self-efficacy. In the first data collection exercise, participants were asked to write a one-page story addressing:

- a) what moods, emotions, thoughts or behaviours moved them to seek out their horses,
- b) what they did with their horses during the time spent together,
- c) what they felt the horse provided them with during these times, and
- d) how they felt this time helped them with the situation or changed their mood, emotion or behaviour.

Following analysis of this data, the participants were interviewed and asked to explore in more detail some specific aspects of their experiences which directly influenced perceived self-efficacy. They were asked to focus on specific ways in which their horses influenced how they felt about their abilities and perceived level of control. By taking questions from the general to the specific, a more defined picture emerged, and six underlying themes were identified: 1) the horse as a friend, 2) the horse as an escape/coping mechanism, 3) the horse as a problem-solving tool, 4) the

horse as a behaviour change agent, 5) the horse as responsibility, and 6) the horse as a 'confidence-booster'. These themes will now be discussed in greater detail.

#### ***4.1 Theme One: My horse, my friend.***

All the participants emphasised an awareness of the horse in the role of friend: "he's probably one of my best friends" wrote Jasmine; "I think if he was a human, I would marry him, he means so much to me". The data revealed two significant facets of this friendship role, firstly, that horses are seen to provide a dependable, empathic and comforting presence, and secondly; they are non-verbal.

All of the participants emphasised the fact that their horse was a secure presence in their lives. This sentiment was expressed by Sally when she was asked what was significant about her friendship with her horse, "It's that's he always there and he's always trying to make me happy", she said. Beth made the comparison between the dependability that she attached to her horse, and her perception of the lack of those specific qualities in humans: "he's always there and dependable" she said; "people are too unstable and unreliable". The data also indicates that these young women valued their horses for their empathic nature and comforting presence: all of the participants mentioned the ability of their horses to "know" intuitively, when they were upset or unhappy. In her story, the oldest participant, Nadia writes; "my horse gives me comfort when I'm sad or upset...even though he can't talk, his eyes tell me he cares". The sentiment is also expressed by the youngest participant, Sally, who wrote about how, sitting crying one evening, her horse sensed that she was upset and came over to her, nuzzling her softly with his whiskers. Analysis of the data also indicates that most of the young women sought the company of their horses at times when they were feeling happy and relaxed, and that this time further enriched their positive emotional state:

"I also can be really happy when I go riding and it makes the ride more comfortable!" said Jasmine; "when I am happy, it feels great when my horse enjoys it too and makes the relationship better and stronger".

As much as these young women sought out their horses to share angry, anxious or sad moments with them, they also sought out their equine friends to share their happiness.

A dominant theme which appeared consistently throughout both the written and verbal data was that all the young women talked to their horses about problems or

situations which were making them feel anxious, angry or unhappy. Analysis of the data suggests that the non-verbal aspect of the horse is significant because the horse is: 1) unable to repeat information told to it in confidence, 2) unable to repeat second-hand information and 3) unable to offer unwanted advice, verbally criticise, mock or scorn. For these young women, interaction with their horses provides them with a secure and neutral environment in which they are able to disclose anger and anxiety-invoking information, one in which they are able to be “themselves” without fear of some form of judgement or reprisal, and also an environment in which they are able to practice their conflict-resolution and communication skills. This was especially significant to Nadia, who spoke about practicing her communication skills through her horse:

“I can go over it and say it and then I can reword it until it’s right,” she said; “and then I can go and say it to that person: so I actually say it out loud and go over it and change it if I need to”.

Nadia also compared this non-verbal aspect of her friendship with her horse with her ‘human’ friends, saying:

“its important that I can tell him stuff that I know no-one else will ever hear and also, he can’t take part in what’s being said about me either, so that’s very, very, important, ‘cos you don’t even have that with your friends mostly”.

The fact that her horse was unable to criticise or judge her verbally appeared significant to Beth most of all: “horses don’t put you down”, she said;

“whereas with humans, they put you down all the time, saying like “oh, you’re no good at this, or you’re no good at that”, or “you’re this, you’re that”, and that’s what humans mostly do; they put other people down”.

#### ***4.2 Theme Two: My escape; the horse as a coping mechanism***

The concept of the horse as providing an escape from reality was another theme which was expressed by each one of the participants. Analysis of the data implied that part of this escape concept was based on the “escape” as a “coping mechanism”. The young women were asked whether they felt that this was a correct interpretation of their expressions, and all agreed it was a valid interpretation of their true thoughts and feelings. This was indicated by the following statements:

“My horse is my escape from it all...he can save me from reality when it all gets too much to cope” (Nadia).

“When something happens at school lately, I’ve gotten into the habit of thinking; “oh well, I’ll go home tonight and get away from it all and just go talk to my horse kinda thing”. It’s the kind of thing you look forward to, so it helps you deal with things better” (Beth).

The youngest participant, thirteen year-old Sally, talked about using her horse as a way to legitimately ‘escape’ from the pressures of her peers; this aspect seemed to help her cope with a potentially risky situation:

“Mainly I use my horse to escape from things, ‘cos you’re always busy with them, so I don’t really have time to socialize much; ‘cos people always ask you if you want to come out to parties and you’re like “no, I can’t I have a horse competition on”, so they leave you alone...having a horse always keeps you busy and going to parties or hanging out at night rarely happens” (Sally).

#### ***4.3 Theme Three: Problem-solving through horses***

Escaping from reality with their horses appears to be a precursor to a problem-solving process common to all the participants. Whilst the younger participants tended to talk less to their horses than the older participants, the data indicates that they still used the time with their horses to solve problems troubling them at the time. In her interview, Angela said:

“I get to relax a bit and calm myself down and think while I’m out riding, and I get to think about how I’m going to solve what’s happened”.

Beth also expressed how significant this was to her:

“when I am hanging out with him, I’ll think things through, over and over and over, ‘cos it gives me time to think, and then I get to a conclusion”.

Nadia felt that talking to her horse helped her talk through her issues with others:

“by him listening to me and just giving me the confidence to talk to him, and sort it out, gives me the confidence to talk to others and sort it out”.

The data suggests that the non-verbal relationships between the young women and their horses provides the participants with a) a temporary escape from the pressures of adolescent life, b) a means of resolving problems, and c) means to practice conflict resolution and communication skills.

#### ***4.4 Theme Four: The horse as change agent: emotional, behavioural and cognitive regulation through horses***

The experience of learning to control thoughts, emotions and behaviours was a universal one, occurring continuously throughout the data. Without exception, all the young women spoke and wrote about the necessity to redirect and focus their thoughts and control their behaviour and emotional states around their horses; as discussed earlier, horses are highly intuitive animals and generally react negatively to veiled aggression or anxiety. The need for cognitive control was expressed effectively by Beth who said:

“when you’re with your horse, you can’t be angry ‘cos they won’t work for you, and so you have to calm down *and focus* and get it together, so eventually you get over it, or forget about it.”

Nadia also expressed the significance of learning to recognise and control her anger:

“if I’m angry or something and I need to go work my horse, I’ll probably just brush him until I’m not angry, ‘cos I need to not be angry when I ride him”.

However, perhaps the most eloquent expression came from Angela who wrote:

“I think I’d be a different person if I didn’t have a horse, ‘cos you get different points about you like *patience* and you learn to *persevere* with things”.

Analysis of the data indicates that the young women involved recognised the necessity and were able to exercise control over their behaviours, emotional states and cognitive processes whilst around their horses.

#### ***4.5 Theme Five: The big “R”: Responsibility***

Being responsible for another living creature appeared to impact enormously on the young women in this study. The data indicates that responsibility is experienced as 1) responsibility for the horse’s physical health and well-being, and 2) financial responsibility. Of all the themes revealed by the data, the concept of responsibility appeared to have most influence over perceptions of personal efficacy. Nadia expressed pride in her ability to provide a high level of care for her horse. “It makes me very proud that I can take care of this horse”, she said, “and he is shiny and fat, so I can obviously take care of him”. Jasmine also felt that responsibility for her horse increased her self-efficacy: “If he gets colic or cuts his leg or something, I’m more confident,

because I have to ring a vet and get him fixed and stuff”. Thirteen year old Sally was the only one who mentioned the financial responsibility associated with her horse: “all the time, I’ve got to budget and go without stuff so that I’ve got enough money for what I need for him” she said. However, Sally felt that her responsibility to her horse kept her self-motivated, self-disciplined and active: “all my other friends who don’t have horses sleep in till all hours of the day” she said, “and I’m always having to get up and like motivate myself early”.

#### ***4.6 Theme Six: Horses, humans and confidence; the connection.***

The interview questions aimed to discover whether the young women’s relationships with their horses influenced how confident they felt about having control over their thoughts, emotions and behaviours, and whether this in turn made them feel that they had more control over the events *away from their horse environment*, that impacted in some way on their lives. All the participants felt that their relationships with their horses helped them in their ‘everyday’ lives in the following ways: to control their thoughts, emotions and behaviours, to accept and manage responsibility, to resolve problems or conflict, to face anxiety-provoking situations, to communicate more effectively and to increase their beliefs in their own abilities. The data implies that the increase in efficacy experienced by these young women is not purely restricted to the relationships between themselves and their horses, but rather that these experiences also effect situations away from their horses:

“If you’re angry, you might want to take it out on him, but you can’t, so you have to use that with humans as well....you actually learn to interact better with humans, ‘cos you have to control it with your horse” (Jasmine).

“Horses can make you get so angry, but you’ve got to have patience, so they’re kinda making you have patience and know that you can deal with stuff without losing it. It helps a lot” (Angela).

#### ***4.7 Conclusion***

This chapter has sought to explore, describe and interpret the experiences of the young women who participated in this research. By using their own words, I have attempted to present the experience as lived by them. The themes which emerged from the data indicated that horses fill a crucial role for their young owners: they provide a dependable, empathic and caring friendship which, due to its non-verbal nature, permits safe disclosure of ‘confidential’ information and is therefore perceived as completely

trustworthy and non-judgemental. The non-verbal nature of the horse also permitted the participants to practice their communication and conflict resolution skills and helped them through the process of problem-solving. The responsibility of owning a horse appeared to provide their young owners with a sense of purpose, self-discipline and motivation. At the same time, horses provided the participants with an escape from the turmoils of internal conflict and the troubling realities of their external environment. The following chapter will draw together the literature, the themes which emerged from the data and the words of the young women themselves in a discussion of how interactions with horses influence perceptions of self-efficacy.

## CHAPTER 5: DISCUSSION

The previous chapter presented six main themes which emerged through the process of hermeneutical analysis and provided a textual expression of the participant's experiences and relationships with their horses. This chapter will examine those themes in conjunction with the literature reviewed and the words of the young women themselves, to draw the pieces together and discuss how self-efficacy is constructed and influenced as a consequence of the interactions between the participants and their horses. As recommended by Perry (1998), this chapter is organised into six sections; following the introduction, the first section will present conclusions about the research *question* followed by conclusions about the research *problem*. The following two sections will discuss implications of the study for further theory and research, while the final section will discuss research limitations.

### ***5.1 Introduction***

As discussed earlier, the experience of adolescence is constructed differently according to how each individual experiences the journey from the world of childhood into the realm of adulthood. Perceived self-efficacy influences how this transition is experienced and the extent to which the emotions, thoughts and behaviours of the young person are effected (Bandura, 1997; Maddux & Lewis, 1995). Some theorists claim that adolescents face a variety of stressors; physiological, psychological, educational and social, the combination of which often act to decrease perceptions of self-efficacy and increase associated risks of anxiety, depression and suicide (Bandura, 1997; Joffe, 1995; Wexler, 1991; Williams, 1995). The reviewed literature presents the construct of self-efficacy as vital during adolescence; anxiety, depression and suicidal behaviour have all been linked to feelings of helplessness and low self-efficacy during this time (Angold et al., 1998, 1999b; Bandura, 1997; de Wilde et al., 2001; Hawton, 1986; Joffe, 1995; Maddux & Meier, 1995; Williams, 1995; Wohl, 1995).

## ***5.2 Discussion of Findings***

This research has attempted to determine whether the participant's perceived self-efficacy may be increased through interactions with horses. Findings in this study suggest that the participants believed that they had greater self-efficacy because of their interactions with horses and that as a result felt more in control of their thoughts, emotions and behaviours: more in control of their lives. The specific areas which appeared to increase their perceived self-efficacy are now discussed in further detail. The relationship between these factors is demonstrated in figure 1 (p.28).

### ***5.2.1 Friendship and emotional attachment***

The identification of the horse as a "true" friend was made by every one of the young women involved; their horses provided them with a sense of security, a dependable presence which could always be relied upon. In contrast, human friends were seen as unreliable and unstable. Personal construct theory (Kelly, 1955) maintains that constructs are created through a constant comparative and restructuring process; in the context of this research, the dependability of the horses contributed greatly to the construct of 'friend', and saw them placed much higher on the comparative 'friendship' continuum than the young women's human friends. The 'always there' aspect appeared especially significant to the two oldest participants and the youngest participant in particular. This may be influenced by the youngest participant's recent commencement at secondary school and the associated academic and social pressure: these may also be contributing factors with the two oldest participants, who are undergoing the most difficult years of secondary schooling and increasing social and biological changes and pressures. The significance of her horse's friendship was eloquently expressed by Beth:

"though he's a different species, you could describe him as a true mate, which is so important growing up, and such a character is hard to discover in people, and I am particularly aware of it now at this age".

Another aspect of the friendship between the horses and their young owners was the horse's empathic, comforting presence. The participant's perception of their horse's *empathy* contributed to the young women's sense of attachment and belonging. Comments such as "his eyes tell me he cares" and "he looks interested" suggest a degree of transference or anthropomorphism: the assignation of human traits to non-human beings. In this instance, the manner in which the horse is seen to respond to its young owner instils a feeling of worth and value in them, strengthening their sense of

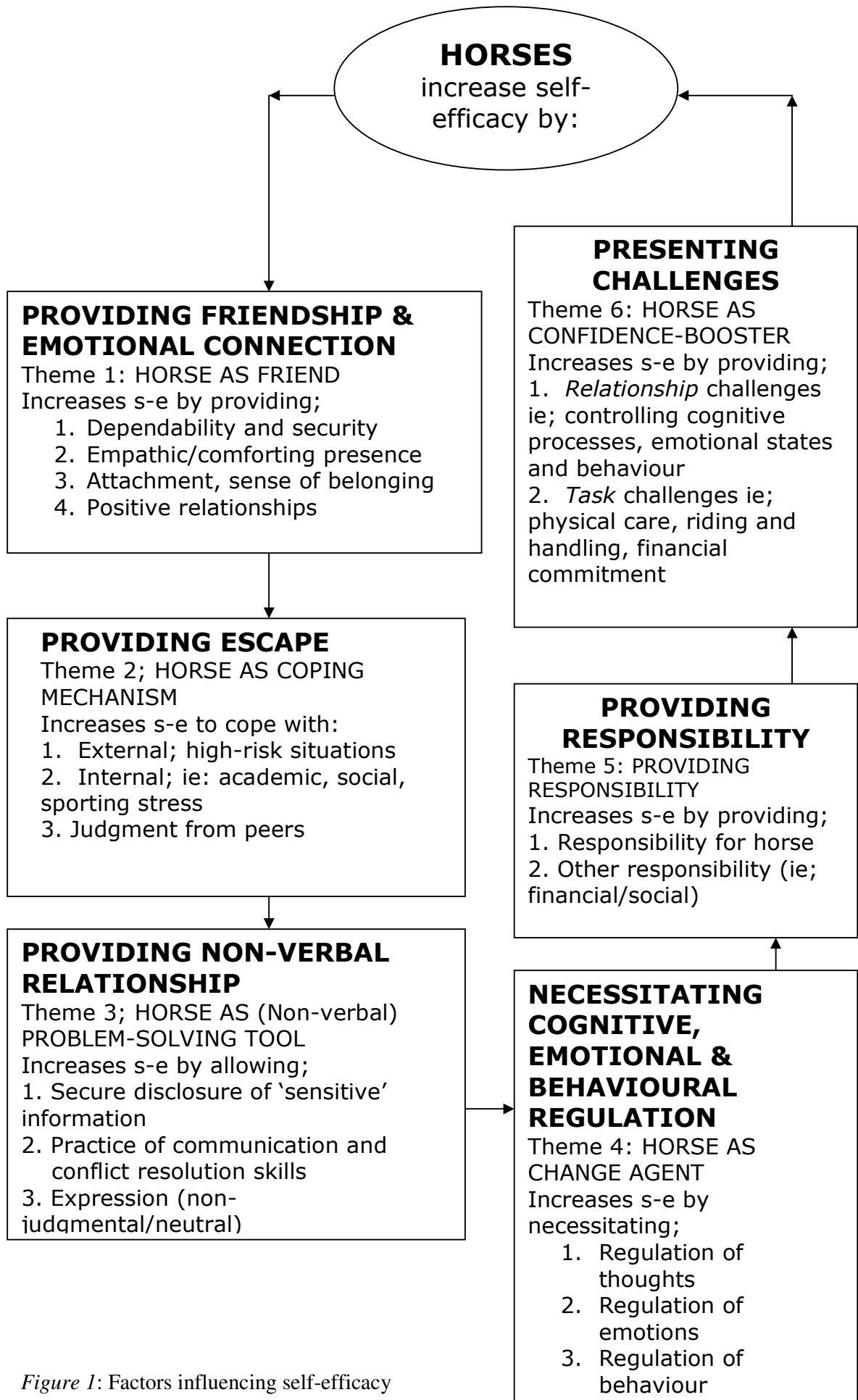


Figure 1: Factors influencing self-efficacy

attachment and creating a sense of belonging and identity. Jasmine in particular, seemed to adopt this approach; she described her horse variously as “silly” and “cheeky” and claimed that she could tell when her horse was “sad, scared, inattentive or even happy”. That these young women identify human characteristics in their (non-verbal) relationships with their horses is important; it furthers the sense of attachment and increases the emotional connection and bond between them:

“I have learnt the many different qualities and values of a horse and have grown stronger with them. The bond between my horses and me has grown so strong it is unbreakable” (Angela).

This is very significant in light of the reviewed literature which suggests that depression is often instigated by feelings of worthlessness, insignificance and rejection (de Wilde et al., 2001; Laufer, 1995; Wohl, 1995). According to Eckersley (1995, p.16), Western society has failed in its obligation to foster feelings of belonging and purpose, and a “sense of personal identity, worth and security” among young people. Eckersley claims that a sense of identity and security generates a measure of confidence about what the future has in store and decreases the risk of psychological disturbance in the young person. Furthermore, feelings of loneliness and of not belonging have been linked to the development of anxiety and depression, which are both precursors to suicidal behaviour (de Wilde et al., 2001; Laufer, 1995; Wohl, 1995).

This search for an intimate relationship on an emotional level also corresponds with Erickson’s (1968) theory of adolescent identity formation. The relationships that these young women share with their horses also create a positive social relationship where physical affection is able to be given and received in a socially acceptable fashion. The young women are able to nurture, pat and cuddle their horses without fear of social disapproval, allowing them to express themselves and be on an intimate level with another being. Maslow’s (1970) hierarchy of needs maintains that the individual must achieve love and belongingness, acceptance and affection, to reach self-actualization: their full potential. The friendship that horses provide to the young women in this study enables them to experience a sense of security, a sense of belonging and a sense of identity: they are able to share their happiness and sadness, express their feelings, experience physical affection and have some confidence in their future. Overall, the friendship of their horses appeared a significant contributing factor

to the development of a positive emotional state for all of the young women involved. Nadia expressed this very clearly when she said:

“If I’m happy he helps to keep my spirits high and he’s happy with me”.

The findings of this research suggest that the emotional attachment developed through interaction with horses contributes to the development of positive emotional states. This is significant: studies have shown that emotional states influence performance (Kavanagh & Hausfield, 1986, cited in Maddux & Meier, 1995), and that performance influences perceived self-efficacy (Maddux & Lewis, 1995; Rollnick et al., 1999). Studies have also indicated that a positive mood increases self-efficacy, and a despondent mood diminishes it (Maddux & Lewis, 1995). This research has demonstrated that the friendship and emotional attachment between the participants and their horses contributes to a positive emotional state and associated increases in self-efficacy..

### ***5.2.2 Escaping from and coping with reality***

The stressors of adolescent life are many and varied: as young people move along the path from childhood to adulthood they are likely to experience increasing social, academic, financial, familial and peer-related pressures (Bandura, 1997). This research suggests that the young women involved in this study deliberately seek out and use their horses as a means of escaping from the internal and external stressors of adolescent life, and that this ‘escape’ increased their *resilience* and helped them to *cope* with difficult situations:

“just thinking that it’s going to get better; that I can go home and go see my horse; it will all be over soon. I think as long as you know that it’s not going to last forever; ‘cos people, you, get so wrapped up in the moment, but if you can just look outside the moment, look for something better, then you kinda calm down a bit, so you handle it better” (Beth).

Interacting with their horses appeared to help these young women by a) providing a mental escape from the current problem, b) providing a physical means of escape, creating distance between self and situation, c) providing a ‘legitimate’ excuse to escape potentially risky or problematic environments and d) allowing them to escape the judgment of their peers. Being able to escape from reality through their horses provided these young women with a temporary respite from troubling situations as they refocused their thoughts and emotions to achieve the desired outcome. This refocusing

requires cognitive control; the ability to control thoughts and thought processes (Bandura, 1997). As discussed earlier, a diminished sense of cognitive self-efficacy has been linked to adolescent suicide by several studies (Laufer, 1995; Maddux & Meier, 1995; Williams, 1995; Wohl, 1995). During the time that they escaped to their horses, the young women in this study reported that they talked to, patted or rode their horses, and that this helped them to calm down and think. Interestingly, only the youngest participant, Sally, mentioned using her horse as a way to escape the pressures her friends put on her to go to parties and “hang out” late at night:

“sometimes I use it to stay away from stuff, so I always have a reason...it keeps me away from mixing in with the wrong crowd of people and doing drugs”.

This may be a developmental issue and may suggest further research; perhaps the older participants have learned other ways to cope with peer pressure than by pure avoidance, but at this point, her horses provide Sally with a means to escape from that pressure and therefore cope with it in her own way. An extremely significant factor of the horse as an escape and coping mechanism is that the young women involved talked through their problems while they were with their horses, and that this process made them feel more *resilient*; it helped them to *cope* with the immediate situation and made them more confident about coping with future situations. To summarise: overall the young women felt that their resilience, their coping ability and their perceived ability to exert some form of control over themselves and their situation—their self-efficacy, was enhanced by escaping to their coping mechanism: their horses.

### ***5.2.3 Non-verbal relationships***

Perhaps the most single significant aspect of their relationships with their horses as described by the young women involved in this study was that horses are unable to speak. The non-verbal nature of the horse was referred to constantly throughout the data and appears to be a vital contributor to perceived self-efficacy. Firstly, it allowed the young women to disclose sensitive or troubling information without fear of reprisals or intrusive intervention: they felt able to ‘unload’ their troubles onto their horses without unwanted advice being offered, or without being concerned that they would encounter negative consequences as a result of their disclosure. Angela emphasised the fact that riding allowed her to “calm down and think easily without anyone interrupting”. The combination of the perceived empathy of the horse and its incapacity for speech appears to reinforce the sense of trust placed in the horse, strengthening the

emotional attachment and bond between horse and owner: “I talk to him better than I’d talk to a therapist”, said Nadia, “so he is my therapist”. Jasmine also expressed how therapeutic she found her contact with her horse, saying:

“It’s also great because letting him know what’s going on in my life and why I’m upset (or happy) gets it off my chest and makes it easier to talk about with others, or even just to make myself feel that it’s out in the open to think about and resolve”.

Secondly, the data indicates that the participants felt able to reach a resolution to their problems by ‘talking’ them over with their horses; they were able to try different responses and go through the issue which concerned them in a calming environment which allowed them to “step back and breathe” (Nadia), assess the situation and contemplate how they would deal with it. All the young women talked about their problems to their horses, although the two youngest appeared to talk less to their horses than the older participants. Once again, further research may determine whether this is a developmental issue or due to some other factor. However, all the young women felt that this process helped them to think more clearly about the problem involved and reach an acceptable resolution. Jasmine and Nadia expressed how this process helped them:

“I will go sit with him and spill all my problems out to him because I can trust him and they won’t go any further, or I might go for a ride by myself to just forget about it all and talk to him while I’m there and really think about what happened; it helps to clear my mind so I can see the situation clearly” (Nadia)

“I go through what I want to say and practice it so I can hear what it sounds like and change it if I need to” (Jasmine).

Thirdly, the young women involved in this research were able to practice their communication and conflict resolution skills on a ‘neutral’ party; they were able to talk through the situation and practice their responses without being concerned that the horse would become an active participant in the situation:

“...it’s great ‘cos I’m going through it and going through it and he’s just listening and listening, and by the time I like go to school, I’ve worked out what to say, ‘cos I’ve thought it through so much that it’s gotta be right” (Nadia).

Finally, the young women were able to express themselves in whatever way they chose, without fear of judgment or scorn: “he doesn’t have an opinion of me” said Nadia; “that never helps with humans”. This aspect of the relationship appeared to be significant to the participants as it allowed them to express themselves and experiment

with different responses without the fear of ridicule. In summary, the young women involved in this research were able to completely trust their horses; nothing could be repeated, nor could the horse talk about them to other people. They were able to talk through their problems and practice their communication skills and responses to conflict. The data suggests that these factors combine to increase the perceived self-efficacy of the young women involved in the research to: a) communicate effectively with other people, b) to confront and resolve conflict more efficiently, and c) to resolve problems:

“I can take a step back and breathe or I can go and talk to him about it if I need to think. So it does make me feel like I have a bit of control over everything that’s happening” (Nadia).

“Because you know what to say and you know how to deal with it better, so if they say something back to you, you’re all calm about it ‘cos you know what to say, so you’re just all calm and like; “well, ok, let’s talk about it” (Jasmine).

#### **5.2.4 *Cognitive, emotional and behavioural regulation***

Another extremely significant factor to emerge from the data, and one which was emphasised and constantly referred to by the participants, was that interacting with their horses required them to regulate their thoughts, and control their behaviour and emotional states. As discussed earlier, horses are highly intuitive and often react negatively to aggression, hostility or anxiety (McCormick & McCormick, 1997; Roberts, 1996). The young women involved in the study recognised this, and consciously regulated their emotional states and behaviours around their horses as a result. Sally spoke of her ability to control her thoughts around her horse, allowing her to focus on the task ahead. She also recognised the need to control her emotional state: “I know that I can’t be angry for too long as he is very sensitive and gets uptight”, said Sally. Beth also talked about the response of her horse to anger, saying: “...when I’m angry and I feel like I’m gonna break something or someone, I just go out and hang out and brush him and stuff like that, ‘cos he picks up on your emotions, so if you’re angry, he’ll start spooking and getting upset”. For Beth, this time with her horse was like a “form of medication” which allowed her to channel her energy into “something constructive”. For Angela, this facet of her relationship with her horse helped her to be patient and also to deal with her anger on an internal level:

“When you’re schooling a horse sometimes they can do things that just get you so angry, you could just...(screws up fists; angry look), you need to take your anger out on something, but there’s just nothing, so you just kinda have a little “inside” scream or something. Horses can make you get so angry, but you’ve got to have patience, so they’re kinda making you have patience and know that you can deal with stuff without losing it. It helps a lot” (Angela).

In her interview, Jasmine spoke about how this helped her to deal with anger-producing situations involving ‘humans’:

“if you’re angry, you might want to take it out on him, but you can’t, so you have to use that with humans as well, like you can’t just go bash someone ‘cos you feel like it, so you actually learn to interact better with humans, ‘cos you have to control it with your horse”.

This aspect of the human-horse relationship may be very significant: the reviewed literature suggests that self-efficacy is decreased if an individual perceives that the required behaviour is beyond their control or capability, or if an individual feels unable to control their emotions, thoughts and cognitive processes (Miller, 1995; Prochaska, DiClemente, & Norcross, 1992; Rollnick et al., 1999; Ryder, 1999). As discussed in the reviewed literature, self-efficacy is defined not only by the ability of the individual to perform the required behaviour, such as controlling thoughts and associated behavioural urges, but also by the ability of the individual to refrain from a specific behaviour (Marlatt et al., 1994). Anxiety, depression and suicidal behaviour in adolescents has also been linked to a diminished sense of thought-control efficacy (Laufer, 1995; Maddux & Meier, 1995; Williams, 1995; Wohl, 1995), and Laufer (1995) claims that the chances of a young person taking their own life increases if they feel unable to control their aggression, anxiety or depression.

In summarising, the young women involved in this study had by necessity, to regulate their thoughts, emotions and behaviours in order to achieve the desired result with their horses. It may then be assumed that interactions with horses increases the perception that the young person has some control over their thoughts, emotions and behaviours, and may subsequently assist them to control or change behaviours when necessary. This may in turn lead to a decrease in problematic, self-harming and suicidal behaviours, and an increase in academic achievement and positive social relationships.

### ***5.2.5 Responsibility***

Another theme to emerge from both the written and verbal data related to responsibility. The data suggests that responsibility takes two forms in the relationships between the young women involved and their horses: firstly, there is a responsibility to care for the physical health of the horse, and secondly, there is a responsibility to the self, to ensure that care is able to be provided. Both appear to influence perceived self-efficacy. Several of the participants spoke about the pride they felt in themselves to care so well for another being: “I like the responsibility of another being” said Beth; “I bought him as a nervous, scrawny, woolly, pretty-much-neglected, mangy looking young horse and transformed him into a fat, happy, content, shiny little star”. Nadia also spoke of her pride in being able to “obviously take care” of her “shiny and fat” horse.

The youngest participant, Sally, was the only young woman to speak about the financial responsibility of having a horse and how this responsibility affected her: “I pay for a lot of extra things for my horse and it helps me finance well” she said; “I have to work to get the money so I’m not just wasting it on UN needed things, it’s going towards someone who I love very much”. Financial responsibility was however, seen as beneficial by Sally, who felt that in addition to helping her budget well, the financial responsibility of horse ownership also kept her self-disciplined and motivated: “cos you have a hobby and you’re not just lazing around doing nothing and being unmotivated; you’re actually getting motivated”, she said; and “cos I’m always trying to budget for my things, I’ll be better off in life than people who get everything handed out to them”.

In summary, the research suggests that being responsible for their horses increased the self-efficacy of the young women involved by a) providing them with an instant, visual picture of their ability and competence and b) by requiring self-discipline and motivation, the achievement of which increases belief in one’s ability and self-control.

### ***5.2.6 Presenting challenges***

As discussed earlier, horses are large, unpredictable and extremely strong animals (McCormick & McCormick, 1997; Roberts, 1996): being able to care for, handle, ride and train a horse presents many challenges. Analysis of the collected data

suggests that these challenges take two main forms: 1) challenge to control emotions and behaviours, 2) challenge to physically deal with the horse. These challenges may be classified as task or relationship related. Task-related challenges require the ability to care for, handle and ride the horse. Relationship-related challenges are associated with cognitive, emotional and behavioural regulation: these have been discussed in 5.2.6. The reviewed literature suggests that performance experiences reinforce self-efficacy: positive performance experiences such as those which the participants shared with their horses, strengthen perceived self-efficacy and contribute to increased self-regulatory ability (Maddux & Lewis, 1995). The data indicates that the tasks associated with having and riding horses were seen by the participants to increase their belief in themselves; not only in their ability as horsewomen, but also their capacity for control over external situations:

“like with riding; that makes me more confident about myself because I can actually *do* stuff and I can go out and do rodeos and do well and I know that I *can* do stuff” (Jasmine).

“when you’re around horses and when you achieve something, you kinda go; “oh wow, I *can* do it, that’s excellent” and your confidence increases” (Beth).

Sixteen year-old Beth also spoke about stepping into an authoritarian role when making decisions for her horse, saying that she felt confident when faced with a challenging situation where her horse looked to her for guidance, and noting that she felt her self-efficacy increased as she overcame these challenges:

“sometimes when he spooks, he’s like “what do I do now?”. So I have to step into an authority kinda role and just kinda say; “trust me here; I’ll deal with this, it’s ok”. *So it increases my confidence in myself, ‘cos he’s relying on me to get him out of the situation, to make the correct decision”.*

In general, the participants expressed their belief that task-related challenges associated with their horses did increase their self-efficacy in other areas; the only exception to this was the youngest participant, Sally, who felt that increases in her self-efficacy were only related to riding horses and not to “external” situations:

“I guess I’m confident ‘cos I know that’s something I’m good at, horse riding, so that makes me feel more confident about that, but that’s about it really”.

Once again, further research may determine whether the links between horses and self-efficacy are looser in Sally’s case due to developmental issues related to her age or other factors which this study failed to identify.

### **5.3 Research conclusions**

Beliefs in personal or self-efficacy shape the way that people perceive and interpret their environment and actively mould the behaviours individuals employ to achieve their goals (Maddux & Lewis, 1995). A low sense of personal or self-efficacy during adolescence is often associated with problematic drug use and sexual activity, low academic achievement, anxiety and depression (Bandura, 1997; Maddux & Meier, 1995). Young women face a much higher risk than young men of developing depression between thirteen and eighteen years of age (Angold et al., 1999b; Petersen et al., 1991): anxiety, depression and a diminished sense of self-efficacy are common precursors to female adolescent suicide (Joffe, 1995; Laufer, 1995; Williams, 1995; Wohl, 1995). This study aimed to determine whether perceptions of self-efficacy are increased through interactions with horses. The young women involved in the research provided a wealth of qualitative information through which their common experiences were able to be identified and subsequently explored. Analysis of the experiences which these young women shared with their horses allowed several themes to emerge; the exploration of which provided an insight into the means by which self-efficacy may be increased.

The findings of this study suggest that self-efficacy is increased through several factors (see figure 1). Firstly, the friendship and empathy provided by their equine companions allowed the young women involved to experience a positive relationship where affection is given and received without social sanctions; this acts to aid emotional attachment, create a sense of belonging and identity, and contribute to the creation of a positive affect and emotional state. Research has indicated that the development of a positive emotional state has a positive influence on performance and subsequently increases self-efficacy (Maddux & Lewis, 1995; Maddux & Meier, 1995; Rollnick et al., 1999). Secondly, the empathic relationship that these young women developed with their horses and the anticipation of spending time with them, helped the participants feel more resilient and more able to cope with reality. Being able to use their horses as an escape mechanism allowed the young women to feel more in control over problematic or difficult situations; it increased their coping self-efficacy.

Thirdly, an important part of the special relationship between these young women and their horses was the horse's inability to communicate verbally. The non-verbal aspect of these relationships created an environment of absolute trust; the young

women were able to disclose sensitive information, talk about their concerns, resolve their problems and practice their communication and conflict resolution skills. These factors appeared to contribute significantly to increased perceptions self-efficacy. The fourth factor and perhaps one of the most significant aspects to emerge from the data, was the recognition by all the young women involved of the need to regulate their cognitive processes, emotional states and behavioural responses whilst around their horses. Due to the sensitive and intuitive nature of horses, emotions such as anxiety, anger and aggression are instantly recognised and the horse will often react negatively (McCormick & McCormick, 1997; Roberts, 1996). The degree of control that an individual feels able to exert over their behavioural, cognitive and emotional responses increases perceptions of self-efficacy: a diminished sense of behavioural, cognitive and emotional self-efficacy has been linked to the development of anxiety, depression and suicidal behaviours during adolescence (Joffe, 1995; Laufer, 1995; Williams, 1995; Wohl, 1995). Without exception, all the young women involved in this study spoke of consciously controlling their cognitive processes, emotions and behaviours around their horses and expressed that this helped them feel more able to control their emotions and behaviours in other difficult situations. It seems fair to assume that the emotional, behavioural and cognitive self-efficacy of the young women involved in this study increased as a result of their active involvement with horses. The fifth factor which the study identified as increasing the perceived self-efficacy of the participants was responsibility. The young women all acknowledged the responsibility attached to caring for and handling their horses. For some, this responsibility related only to caring for the physical health of their horses, while for the youngest participant, responsibility also entailed financial obligation. The responsibility of caring for their horses whether physically or financially required the young women to confront tasks and challenges; the research indicates that successfully overcoming these challenges and assuming responsibility increased the self-efficacy of the young women involved.

The final factor related to facing challenges. The reviewed literature suggests that successfully overcoming a challenge or dealing with difficult situations provides positive performance experiences and is associated with increased self-efficacy (Bandura, 1997; Maddux & Lewis, 1995; Prochaska et al., 1992; Schwarzer & Fuchs, 1996; Williams, 1995). According to Bandura (1997), personal self-efficacy is increased as the individual learns how to deal effectively with potentially harmful or problematical situations. Horses are large animals and possess enormous physical strength; their sensitivity and unpredictability can make them extremely dangerous to be

around: the young women involved in this research were constantly being challenged by these factors: they faced daily task-related challenges including the physical tasks involved with caring for, handling and riding their horses, as well as relationship-related challenges related to emotional, behavioural and cognitive control. This research suggests that successfully overcoming the challenges associated with their horses increased the emotional, behavioural and cognitive self-efficacy of the young women involved. Finally, the research suggests that the elements discussed above combine to influence perceptions of self-efficacy, not just in relation to horse-related activities, but also in the wider external environment, with the exception of the youngest participant.

“You get more confident with how you react to situations, not just with horses, but in general, it’s kinda a build-up of “well I dealt with that and I can deal with this” and it just kinda builds up how much you can deal with and your confidence in what you can deal with within yourself” (Beth).

In conclusion, findings of the study indicate that the young women involved believed their relationships with their horses increased their self-efficacy and enabled them to be more confident.

#### ***5.4 Implications for theory***

This research has suggested that for these participants, regular interactions with horses has contributed to increases in perceived self-efficacy. The literature suggests that anxiety, depression, drug abuse, inappropriate sexual activity, low academic achievement, poor career selection, self-harming and suicidal behaviour are all associated with a diminished sense of personal or self-efficacy (Bandura, 1997; de Wilde et al., 2001; Joffe, 1995; Kolvin & Sadowski, 2001; Laufer, 1995; Maddux & Lewis, 1995; Maddux & Meier, 1995; Schwarzer & Fuchs, 1996; Williams, 1995; Wohl, 1995) . This study has indicated that interacting with horses may present a number of challenges, the successful realisation of which, whether they be related to physical accomplishment or related to self-control such as the regulation of emotional states and behaviours, increases perceived self-efficacy. Possibilities may consequently exist for the use of horses as therapeutic aids by increasing perceived self-efficacy and subsequently lowering the risk of the negative consequences associated with diminished self-efficacy.

### ***5.5 Implications for further research***

This research has focused solely on the experiences of the five young women involved. Further research is required to ascertain whether increases in perceived self-efficacy are related to physiological or developmental differences in age or gender. Research may also explore whether the level or length of involvement with horses influences perceived self-efficacy, and whether differences exist between those individuals who are involved with horses on a competitive or professional level and those who are recreational horse-owners only. Research may also investigate differences related to ethnicity, socio-economic status and family environment or structure. Quantitative measurement of cognition or behaviour may determine which aspects of the human-horse relationship have the most influence on perceived self-efficacy, and how this is influenced by some of the previously mentioned variables. For example, is the non-verbal aspect of human-horse relationship more significant to females than males? Or to those who do not speak English, or perhaps, to those who do not speak at all? How does it influence the perceived self-efficacy of those who cannot see, or walk? Of those in one-parent families compared to those with two parents? This study has effectively served to indicate that many avenues exist for further research.

### ***5.6 Limitations***

Accessing the younger participants (13-15 years) was relatively easy; there were scores of responses to the article in the local newspaper, however, fewer responses were forthcoming from participants aged over fifteen years, and the two older participants were both known to me and approached directly because of a lack of other respondents. Also, the period reserved for the data collection phase of this study unfortunately coincided with school holidays, which meant that many of the participants were absent, which in turn meant that a great portion of the second round of data collection was considerably delayed. It would be wise for further study to take this aspect into consideration.

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Appendix A.  
Participant information letter.

Dear

My name is Vanessa Hancox and I am a student at Edith Cowan University. I am studying how horses make young women feel about themselves and their world, and would like to talk to you about your experiences with horses. This study has been approved by the ethics sub-committee of the Faculty of Community Services, Education and Social Sciences, Edith Cowan University.

I would like to have a talk with you and also ask you to write a very short story; I will give you a copy of the questions about a week before we meet so that you have time to think about your answers. The interview will be recorded and then typed as a hard-copy record of our talk.

Anything you say to me or write about will be treated with the strictest confidence, your name will not be used, you can refuse to answer any questions and you can stop the interview at any time.

If you would like to join in the study, please read and sign the consent form which is attached to this letter, and return it to me in the stamped envelope (enclosed). When I receive the completed consent form, I will contact you and arrange a time for our first talk.

Thank you for your help,

Yours sincerely,

Vanessa G Hancox BSocSc (Ph: 9576 0334)  
Supervisor: Judy Kulisa (Ph: 6304 5638)  
Postgraduate Coordinator & independent contact: John Duff (Ph: 6304 5747)

Appendix B.  
Participant consent form.

If you would like to take part in the study, please complete and sign this form and return it to me in the stamped envelope (enclosed).

I (insert name) ..... agree to take part in the study being done by Vanessa Hancox.

I understand that;

(Tick for 'yes')

- I will be asked to write a short story
- I will be interviewed once
- I will receive the questions a week before the interview
- The interview will be recorded on tape and in writing
- Only Vanessa will see the information from the interview
- I will not be named or identified in any way
- I am free not to answer any questions
- I may stop the interview or involvement with the study at any stage

Signed: .....

Witnessed (by parent): .....

Vanessa G Hancox BSocSc (Ph: 9576 0334)

Supervisor: Judy Kulisa (Ph: 6304 5638)

Postgraduate Coordinator & independent contact: John Duff (Ph: 6304 5747)

Appendix C: Parental Information letter.

Dear

In order to fulfil the requirements of my Bachelor of Social Science (Honours) at Edith Cowan University I am conducting research involving young women who have close contact with horses. The purpose of this research is to explore the relationships between young women and horses and to explore how those relationships influence perceptions of self-efficacy. The central question is; “does being with my horse make me feel more confident in myself or my abilities; does it increase my self-efficacy? I am attempting to discover the different roles that horses fill for young women and to explore what they gain from their relationships with their horses. It is hoped that such information will increase the awareness of horses as a valuable asset to treatment and intervention programs, as well as raise their profile as a vital contributor to the psychological well-being of “their humans”. This study has been approved by the ethics sub-committee of the Faculty of Community Services, Education and Social Sciences, Edith Cowan University.

To assist this process, I hope to conduct one interview with your daughter and also ask her to write a short story. All information shared will be kept in the strictest confidence; the interview will be recorded and then transcribed, and all transcripts will be coded so that no identifying information is exposed. When the research is completed, all tapes will be erased. No person other than myself will have access to the material, and no identifying information will be included in the final work.

If you consent to your daughter’s participation in the study, please read and sign the consent form which is attached to this letter, and return it to me in the stamped envelope (enclosed). When I receive the completed consent form, I will contact your daughter and arrange a time for the interview. Thank you for your help,  
Yours sincerely,

Vanessa G Hancox BSocSc (Ph: 9576 0334)

Supervisor: Judy Kulisa (Ph: 6304 5638)

Postgraduate Coordinator & independent contact: John Duff (Ph: 6304 5747)

Appendix D.  
Parental Consent Form.

When you have read and understand the information letter (attached), please complete and sign the following and return it to me in the stamped envelope (enclosed);

This is to certify that I/we (insert name/s) .....

give permission for (insert name) .....

to participate in the research outlined in the information letter. I/we give our permission for our daughter to be interviewed and for this interview to be recorded on tape and in writing. I/we understand that only the researcher will have access to the information obtained from the interview, that any identifying information will be removed and that my/our daughter will not be identified in any way in the completed work. I/we understand that she is free to decline to answer any questions, that she may discontinue the interview at any stage, and that she may withdraw and terminate her participation in the research at any time.

Parent: .....

Date: .....

Parent: .....

Date: .....

Vanessa G Hancox BSocSc (Ph: 9576 0334)

Supervisor: Judy Kulisa (Ph: 6304 5638)

Postgraduate Coordinator & independent contact: John Duff (Ph: 6304 5747)