Equestrian Sport and the Work-life Interface: An exploratory study on the combination of horses, family and work in competitive, working horse riders.

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Abstract

This study investigated the work-life interface and individual outcomes in a novel population of working, equestrian athletes. Work-life balance, enrichment and conflict were investigated under the premise that non-work roles other than family may significantly influence individual and organisational outcomes. Competitive equestrian athletes working outside of equestrian sport (N=100) completed a questionnaire on work-life balance, enrichment, conflict, coping, satisfaction, perceived stress, commitment and performance. Confirmatory factor analysis provided support for the use of modified scales in this population, and alluded to important relationships between variables. Consistent with previous research in the work-life field, this study found significant relationships between work-life balance and enrichment and positive individual outcomes such as life satisfaction, job satisfaction, performance and stress. This study also found significant relationships between work-life conflict and negative individual outcomes. Additionally, this study found work commitment and equestrian sport commitment significantly influenced work-life balance enrichment and conflict. This study concludes that the combination of equestrian sport, work and family is important to consider under the umbrella of work-life balance, enrichment and conflict. In summary, whether equestrian athletes experience positive or negative psychological and performance outcomes is greatly influenced by work-life balance, enrichment, conflict and commitment to roles. Further research should move beyond this exploratory study to further investigate how these variables interact in larger, more complex models.

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Introduction

Work-family balance is a concept that has received a large amount of attention over recent decades. The end of the 20th century saw a change in the dominant family form being a male breadwinner/female homemaker family composition, to a dual career family configuration being the most common family model (Bruck, Allen & Spector, 2002). As the demographic of the workforce changed, and the number of dual income earner families' increased, the interface between work and family became significant (Halpern, 2005). Previously, fixed gender roles predisposed western society to suggested work life balance, as males were usually responsible for work roles, and females for homemaking roles (Duxbury & Higgins, 1991). As male roles were typically responsible for a work role, and female to home and family roles, role conflict was not perceived to be problematic (Duxbury & Higgins, 1991). However, changes in the expectations of gender roles and employment sectors have led to a change in family composition and culture; resulting in substantial scholarly attention to work-family balance (Burke, 1982).

Not only did academia become interested in work-family balance, organisations began to implement family friendly practices (Wayne, Casper, Matthews & Allen, 2013). Family friendly practices, such as on-site childcare and flexi-time hours, have become increasingly common and widely accepted (Wayne et al., 2013). Family friendly practices may have increased in prevalence due to increasing understanding of how work-life balance influences both individual and organisational wellbeing (Byron, 2005). Although family friendly practices and related organisational initiatives are common in countries like the United States, research and implementation is lacking in New Zealand (Haar, 2004; Balmforth, & Gardner, 2006).

Work-family literature has suggested a negative relationship between roles, work-family conflict, or a positive relationship between roles, labeled as

enrichment or facilitation (Rothbard, 2001). Furthermore, another term used in this field is work-family balance, which is frequently defined as effective functioning at home and work with minimum role conflict (Clark, 2000). Work-family conflict is associated with counterproductive work behaviour, increased absenteeism, reduced performance at both home and work, and reduced individual wellbeing (Allen, Herst, Bruck, & Sutton, 2000). For the organisation, poor performing workers and high absenteeism results in reduced organisational efficacy as well as increased cost (Kossek & Ozeki, 1998). Work-family balance has been shown to result in greater worker satisfaction, psychological wellbeing and performance, translating into increased organisational function and success (Carlson, Grzywacz, & Zivnuska, 2010).

Halpern (2005), suggested the increasing number of dual-earner couples may lead to conflict between work and family, because both parties have limited time for the responsibilities of two separate roles. Issues such as who stays home to look after sick children, or children on holidays, arise for dual earner couples. Conflict between work and family, such as conflicting time for work and family commitments, has been fairly extensively studied over the last two decades. Not only can conflict occur due to time pressures; general satisfaction and involvement are important sources of conflict development (Clark, 2000).

Much of the literature in this field focuses on work-family conflict, questioning how workers experience and manage seemingly incompatible work and family commitments (Ford, Heinen, & Langkamer, 2007). More recently, researchers have questioned whether there is a positive relationship between work and family roles. Terms such as enrichment, facilitation, positive spill over and enhancement have all been suggested to describe the positive rather than the negative interaction between work and family (Rothbard, 2001).

Enrichment, described as a positive relationship between work and family, has been examined under many different circumstances, with the majority of research suggesting that work can enrich family, and family can enrich work (McNall, Nicklin & Masuda, 2010). Enrichment may occur in both directions

through the crossover of skills, abilities, affect and resources (Carlson et al., 2010). Enrichment has been shown to increase organisational productivity, as well as the individual's psychological and physiological health, and has a positive impact on non-work domains such as family satisfaction (Van Steenbergen & Ellemers, 2009; Aryee, Srinivas & Tan, 2005). This study will address the positive interaction between work and family, using the definition of enrichment discussed by Greenhaus and Powell (2006).

As the demands of the workforce change further, research has begun to broaden its focus from work-family into work-life. The concept of work-family is, however, limited in its scope, as family may not be an equally significant role for all workers (Haar, 2013). Workers who are not responsible for children, or are single, may not experience the same work-family demands and role responsibilities (Waumsley, Hemmings, & Payne, 2010). Largely, these populations lack inclusion in current research (Casper, Eby, Bordeaux, Lockwood & Lambert, 2007). By expanding work-family into work-life, significant life roles of workers may be examined that are not specifically family. Haar (2013) found that single workers experienced similar work-life enrichment, conflict and balance, to those with families. This emphasises the importance of work-life balance for this demographic. Additionally, these populations experience different expectations from organisations, such as the expectation to work longer hours from these individuals rather than those workers with a family (Casper et al., 2007).

A demographic that has not been studied explicitly is competitive sportspeople who are also working. This populace must also maintain work life balance. Work life balance for sportspeople may be similar to those workers with other significant life commitments, such as children, however, sportspeople may differ to other demographics, due to unique psychological dynamics of being involved in the sport. This may effect work-life balance and result in work-life conflict or enrichment.

Sport has been shown to increase psychological wellbeing, provide social support, increase skills, knowledge, and abilities and increase mastery, self-efficacy

and confidence (Fejgin, 1994). These are positive outcomes of involvement in any sport which may enrich the individuals work through spill-over of resources and affect (Lance, 2004). However, commitment to sport may create role conflict due to social pressures, and time constraints (Adler & Adler, 1987).

Research is lacking on the application of role conflict, enrichment and balance research in sportspeople. Furthermore, one sport in particular that receives very little academic or media attention is equestrian sport comprising the Olympic disciplines of eventing, dressage and show jumping. Equestrian sport is now the one of the sports in which men and women compete directly against each other, and it also has one of the largest age ranges of any Olympic athletes (ranging from 16 years old to 71 years old). It is also unique in that horse riders are in a team with a large animal, which has been suggested to have psychological benefits such as reduced stress (Pendry, Smith, & Roeter, 2014). Equestrian sport also has a high cost of participation; however, competing at the highest level in equestrian sport does not require a considerably larger budget than competing at a lower level (Matheson & Akoorie, 2012).

The multiple demands placed on horse riders has not been quantitatively explored under the premise of work-life balance, enrichment and conflict. Although horse ownership and riding has been suggested to reduce stress, horse ownership and involvement in equestrian sports may also facilitate stress through conflicting demands of time and resources (Pendry et al., 2014; Pummell, Harwood, & Lavallee, 2008). This study questions whether involvement in competitive equestrian sport, in conjunction with work and family roles, results in positive or negative effects on individual outcomes such as satisfaction and performance. Involvement in equestrian sport is expensive, in terms of time and resources, and horse riders often need to work in order to fund their sport. How do equestrian athletes work, sport and family roles interact? Does the involvement in equestrian sport benefit horse riders work and family lives, and vice versa? Or does involvement in equestrian sport, the time and resources required to look after a horse, conflict with work and family, lead to stress and reduced

performance?

This study investigates individual sportspeople, specifically individuals competing in equestrian sports. It has been shown that differences exist between coping, stress and satisfaction between team and individual sport athletes (Johnson, 2007). The differences in how athletes cope may influence the results of this study and involve extraneous variables. To control for these extraneous variables and mitigate confounding, only a sample of horse riders was used.

Given the previous literature examining work-life balance, the following study will examine these aspects in an equestrian population. Therefore, this study explores how horse riders experience the work-life interface, which consists of work-life enrichment, balance and conflict. This study aims to examine whether the constructs of work-life enrichment, balance and conflict are experienced by horse riders, and whether these work-life constructs are influential to individuals' job and life satisfaction, perceived stress and performance.

Literature Review

Chapter 1. The Work-Life Interface

Work-Life Balance

Terminology within work-life balance literature is diverse, and for this study work-life balance refers to distinct categories of work and life. As defined by Guest (2002), work is all paid employment, and life consists of all roles other than paid employment. A role is defined by Sieber (1974) as "a pattern of expectations which apply to a particular social position and which normally persist independently of the personalities occupying the position".

Work-life balance is conceptualised in suggesting the life category includes both sport and family domains. The majority of research in this field refers to work-family balance, assuming two key roles for individuals are work and family. This division of work and family is assumed to be dichotomous by many researchers. However, as suggested by Young (1996) this study will examine

aspects of life that involve more than just family, investigating how multiple roles fit within the work-life perspective. The terms 'work-family' and 'work-life' will be used interchangeably in this review depending on each researches' focus; however, this study investigates non-work roles which are more diverse than purely family roles. For example, this study will explore how two non-work roles, specifically the individuals' role in equestrian sport, their family role, and their work role interact under the concept of work-life balance.

Numerous definitions of work-family and work-life balance exist in literature, without one definition being universally accepted by researchers (Gryzwacz & Carlson, 2007). Early in the proliferation of work-family literature, balance was conceptualised as lack of conflict between the two roles (Rothbard, 2001). Next, balance was suggested to be a lack of conflict with as well as some positive relationship between the roles (Frone, 2003). Problems with these conceptualisations occurred, as distinction between work-family conflict, balance and enrichment/positive spill over/enhancement become difficult (Gryzwacz & Carlson, 2007).

In 2000, work-life balance was defined as satisfaction and effective functioning at work and in home life, with minimum role conflict (Clark, 2000). Kirchmeyer (2000) expands on this further, suggesting balance is satisfying experiences in all life domains, with suitable distribution of resources across these domains. Frone (2003) defines work-family balance similarly to Kirchmeyer, advocating work-family balance as a state of little conflict and substantial facilitation between work and family roles. Voydanoff (2005), basing definitions of person-environment fit theory, suggests balance is a global perception of work resources effectively meeting family demands and vice versa. These definitions are examples of the large body of definitions in this field that suggest an individuals' perception of satisfaction and performance in work and family roles constitutes work-life balance.

Grzywacz & Carlson (2007) suggest work-family balance also includes social factors, defining balance as "accomplishment of role-related expectations,

that are negotiated and shared between the individual and his/her role-related partners in work and family domains" (p. 458). The inclusion of social factors into this work-life balance definition is an important distinction, as it includes more measureable, observable variables into balance research. This definition also removes the emphasis on satisfaction and performance being necessary components of work-life balance. Conceptually, this suggests it is not necessary for individuals to be high performers or be exceedingly satisfied in work and family, in order to experience work-life balance. It also allows for integration of social factors that may expose greater depth to work-life balance, as an individual's experience of balance may not represent balance for role related partners and other social norms and expectations.

Previously, work-life balance has been suggested as the absence of work-life conflict or the presence of work-life enrichment (Frone, 2003). However, a number of new studies suggest a conceptual difference between conflict, enrichment and balance, displaying discriminant validity between the constructs. Carlson et al., (2010) found balance to explain variance over conflict and enrichment, suggesting it is a more global measure. Voydanoff (2005) also views work-family balance as global measure, using effectiveness within her definition of work-family balance. Work-life balance as defined by Carlson et al., (2010) and Voydanoff (2005) will be conceptualised in this study, where work-life balance is viewed as a global measure, distinct from work-life enrichment and conflict. Consequently, work-life conflict and work-life enrichment will be discussed in the following.

Consequences of Work-life Balance

Work-life balance, conflict and enrichment, are independent constructs that influence individual, organisational and societal wellbeing (Edwards & Rothbard, 2000). Extensive research has investigated conflict between roles, frequently concluding the absence of work-life conflict results in positive individual and organisational outcomes (Bryon, 2005). According to Clark (2000), who defines work-life balance as a lack of conflict, this literature would support theorising that

work-life balance is a beneficial state. Meta-analyses, such as those conducted by Allen et al., (2000) and Byron (2005) suggest conflict between roles precipitates a reduction in functioning, satisfaction, and health across individual and organisational circumstances. Consequently, authors have frequently merged an absence of work-life conflict with work-life balance, suggesting the concepts are definitely not mutually exclusive, but rather related by consequence. Therefore, this section will not expand further on this concept these consequences of work-life conflict are expanded upon in the following section.

Work-life balance has also been defined as a separate construct to work-life conflict, with Carlson and colleagues inferring work-life balance is not merely the absence of conflict and related consequences (Carlson, Kacmar, & Williams, 2000). Defining work-life balance and establishing it as a concept that is empirically distinct from conflict and enrichment, Carlson et al., (2010) found work-family balance correlated to job and family satisfaction, organisational commitment, family functioning and performance.

Work-Life Conflict

Work-family conflict, also known as work-family interference, job-family role strain, work-family tension, family/work role incompatibility and interrole conflict, is a widely researched phenomenon within the work-family domain (Bryon, 2005). Work-family conflict is an important concept as it has been shown to influence organisational, individual and familial success and wellbeing (Allen et al., 2000). The following paragraphs discuss the theoretical underpinnings of work-family conflict, and discuss the distinction of directionality within work-family conflict. Furthermore, work-family conflict is discussed in comparison to work-life conflict.

According to Kahn, Wolfe, Quinn, Snoek and Rosenthal (1964) work-family conflict is a form of role stress and interrole conflict. Conflict theory suggests interrole conflict occurs due to conflicting demands of work and life domains, assumed to be mutually irreconcilable (Byron, 2005). In other words, involvement

in the work domain makes involvement in the family domain more challenging, and vice versa (Greenhaus & Beutell, 1985). This depletion argument assumes that multiple roles are inherently incompatible, as insufficient resources are available to engage in both effectively (Rothbard, 2001). Role strain theorists argue that involvement in multiple roles elicits psychological stress and disorder (Sieber 1977). For example, Pummell and colleagues qualitatively examined adolescent horse riders' transitions between levels of equestrian sport, finding individuals cited lack of time and stress due to combination of competitive equestrian sport and other life roles, including school. In support of conflict theory, this study found involvement in equestrian sport and roles elicited stress and reduced performance in roles outside of equestrian sport. This example highlights how conflict is developed through involvement in multiple roles, in a population of horse riders.

Work-family role conflict can be divided into three major forms: time-based conflict, strain-based conflict and behaviour-based conflict (Greenhaus, Parasuraman, Granrose, Rabinowitz, & Beutell, 1989). A model of work-family conflict developed by Greenhaus & Beutell (1985) as time-based, strain-based and behaviour-based conflict is presented below.

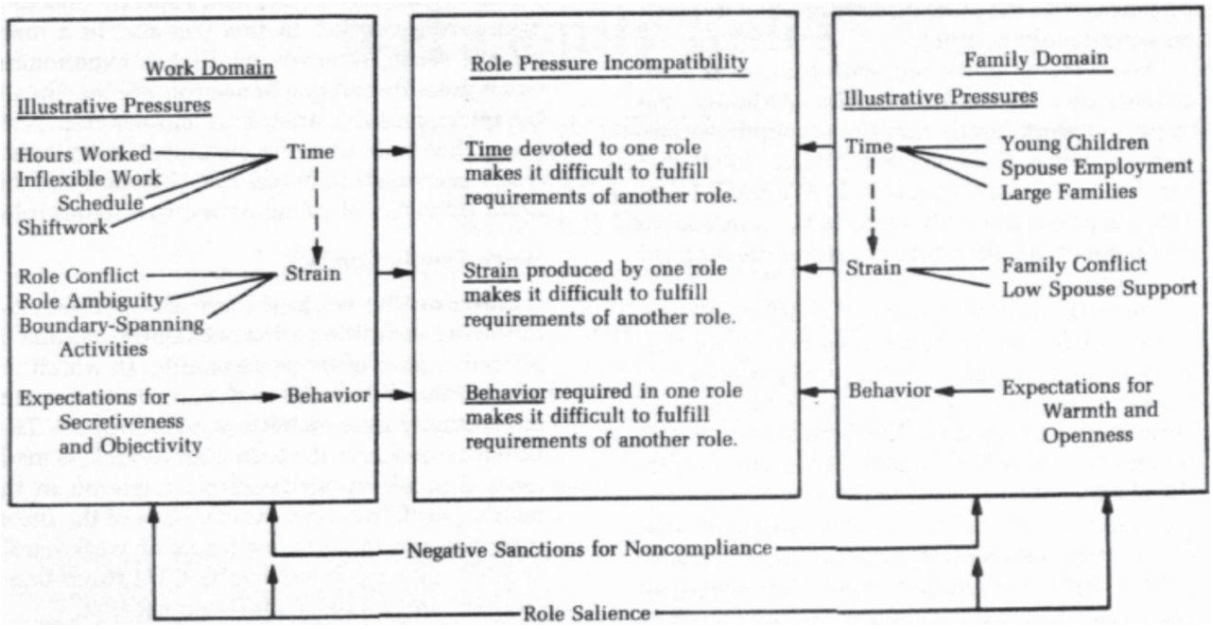

Figure 1. "Work family role pressure" As demonstrated by Greenhaus & Beutell (1985).

Time based role conflict occurs when the possible physical time allocated a role is insufficient to meet the expectations of the role due to involvement in another role (Greenhaus & Beutell, 1985). Time based conflict may also occur due to preoccupation with one role, even when the physical demands of both roles are attempted to be met (Greenhaus & Beutell, 1985). Time based role conflict is has been correlated to control of work hours, hours commuted, number of hours worked per week, work schedule control and overtime worked (Pleck Staines, & Lang, 1980). Therefore, as control over work hours, commute time and schedule reduce; work family conflict is amplified further. For example, Keith and Schafer (1980) found that as work hours increase for dual career families, the presence of role strain increased; as did depression in both males and females. Correspondingly, work-family conflict may be exacerbated by increasing family demands, such as marital status and number of children in the household. Using the premise that time intensive activities outside of work could exaggerate time based work-family conflict, sporting roles may therefore aggravate work life conflict in a similar direction.

Strain based conflict occurs when strain from one role compromises performance in the other role (Greenhaus & Beutell, 1985). For example, work stressors may produce symptoms such as fatigue, depression and anxiety, which may in turn reduce an individual's ability to function in their family role (Greenhaus et al., 1989). Also termed "negative emotional spillover", strain based conflict has been suggested to result from work stressors such as poor person job fit, coping with a new job, and repetitive or mundane work tasks, to name a few. Furthermore strain based conflict may rise from family/life domains, into the work role (Bruck et al., 2002). This situation may occur due to conflict within the family role, such as spousal disagreement regarding fundamental beliefs of appropriate career orientations (Greenhaus & Beutell, 1985). Increasingly, the presence of extensive time based conflict frequently results in strain symptoms, thus resulting in a combination of time and strain based conflict.

Behaviour based conflict is described as the crossover of inappropriate

behaviours between roles (Greenhaus et al., 1989). Some behaviours that are appropriate in one role, may not meet the role expectations of another, thus causing a conflict. Behaviour based conflict can been seen, for example, when males behave in a stereotypical masculine managerial manner in the home environment (Greenhaus & Beutell, 1985). Although effective in the workplace, family members may expect warm, emotional support rather than resilient, aggressive interpersonal interactions (Greenhaus & Beutell, 1985). Bruck and colleagues (2002) conjectured in their research that behaviour based conflict was the only form of work-family conflict which was significantly correlated to job satisfaction. The authors found that those individuals whose work behaviours were effective at work but not at home were the least satisfied (Bruck et al., 2002). Interestingly, behaviour based conflict is the least studied domain of work family conflict, and often work family balance initiatives heavily focus on time and strain based conflict, while neglecting behaviour based conflict (Bruck et al., 2002).

As suggested by (Frone, Russell & Cooper, 1992) conflict is bi-directional, meaning that both work and family domains may be negatively influenced its manifestation. Conflict may develop in either the family or work domain, subsequently causing negative crossover into the other domain (Kelloway, Gottlieb & Barham, 1999). Accordingly, work-to-family and family-to-work conflicts have been operationalized as distinct, yet related constructs (Allen et al., 2000; Frone, Russell & Cooper, 1992; Mesmer-Magnus & Viswesvaran, 2005). Some crossover been the two constructs is expected, as extensive conflict in one domain is likely expressed as conflict in the other as well.

Therefore, work-family conflict can be narrowed into fairly distinct categories, depending on the source of conflict and the nature of the conflict. For example, work-family conflict may be time-based from work-to-family. Conversely, work-family conflict may be strain-based conflict due to low spousal support incurring family-to-work conflict. Kelloway and colleagues (1999) conducted a longitudinal study, determining the source and nature of conflict influenced the type of consequences experienced. For example, the authors found strain-based family-to-work stress predicted turnover intentions and stress; also finding stress

was a predictor of strain-based family-to-work conflict after a period of six months (Kelloway et al., 1999). These findings are consistent with findings of Frone et al., (1992), who found differences between outcomes of work-to-family and family-to-work conflict.

Work-life conflict is a relatively new term for the field, which has had a predominant focus on work-family conflict. Work-family conflict differs from work-life conflict in that the family domain does not consider any other non-work roles, except family. The influence of this approach has resulted in family friendly workplace practices and an abundance of literature on the demographic of workers that are married and have children. This leaves a gap in literature on workers with significant non-work roles that are not family, such as singles. Perhaps scholars did not perceive workers without significant family responsibilities to experience significant work and non-work role conflict. However, Haar (2013) found that singles as with those with children, those without children, also experienced work-life conflict.

Not only does a focus on work-family conflict prevail in the literature, but the majority of practices in organisations cater for workers with family responsibilities. As suggested by (Young, 1996) this excludes workers without the responsibilities of children and it may contribute to the negative attitudes shown towards family friendly practices. According to exchange theory, individuals will reciprocate with attitudes and behaviours to that they receive (Homans, 1961). Therefore, at an organisational level, workers experiencing work-life conflict are less likely to be committed to the task or performing well (Siegel, Post, Brockner, Fishman & Garden, 2005). Young (1996) found that single workers, and those without children experienced reduced organizational citizenship behaviour, with increased turnover intention towards their organisation when family friendly practices were in place, which was also supported by Casper, Weltman, and Kwesiga's (2007) findings on single workers perceptions of organisational support.

Consequences of Work-Life Conflict

Work-family conflict has been fairly extensively studied, and its relationship with many psychological outcomes has been established. Further, definitions of work-family balance describing balance as lack of conflict are supported by this literature (Clark, 2000).

A meta-analytic review conducted by Kossek & Ozeki (1998) shows a significant negative relationship between life and family satisfaction with work-family conflict and family-work conflict. Finding 46 samples with correlations between work family conflict and satisfaction, and cumulating them to 32, the authors found a clear, and significant negative correlation between work family conflict and satisfaction (-.31 with 95% CI -.36 < p < -.27) (Kossek & Ozeki, 1998). A variety of scales were used to question work-family conflict: ranging from one-item scales (Quinn & Staines, 1979) to multidirectional scales of work-family conflict (Kossek & Ozeki, 1998). The review also included correlations with both job satisfaction and life satisfaction, to find a range of scales examining life and job satisfaction negatively correlated to work-family conflict (Kossek & Ozeki, 1998). Interestingly, the relationship between life satisfaction and work-family conflict was found to be stronger for females than males in this meta-analysis (Kossek & Ozeki, 1998). Resultantly, the authors show an absence of conflict leads to greater life and family satisfaction; and conversely, conflict between work and family roles leads to reduced satisfaction.

Expanding on Kossek and Ozeki's (1998) review, Allen et al., (2000) conducted a review study examining a variety of outcome variables and their relationship with work family conflict. Utilising 67 articles, the authors determined many significant consequences associated with work to family conflict, predominately focusing on the work to family direction rather than the family to work conflict (Allen et al., 2000). The authors grouped outcomes of work to family conflict into three categories, work-related outcomes, non-work related outcomes, and stress-related outcomes (Allen et al., 2000). Similarly to Kossek and Ozeki (1998), Allen and colleagues (2000) found a strong negative mean correlation

between job satisfaction and work to family conflict (-0.24). Expanding on Kossek and Ozeki's (1998) meta-analysis, Allen et al., (2000) found further correlations between work-family conflict and organisational commitment, turnover intention, absenteeism, job performance, career satisfaction and career success. Non-work outcomes correlated to work-family conflict included in this review were life, marital, leisure and family satisfaction, and family performance. Stress-related outcomes associated with work-family conflict included general psychological strain, somatic symptoms, depression, substance abuse, burnout, work-related stress and family related stress. The plethora of outcome variables used in this study, grouped into three categories, provides evidence for the assortment of negative effects work-family conflict has on organisational and individual outcomes (Allen et al., 2000).

Employing 25 independent samples comprising of 9079 participants, Mesmer-Magnus & Viswesvaran (2005) conducted a meta-analytic review examining the psychometric properties of a variety of scales used across the work-family conflict literature. As mentioned by Netemeyer and colleagues, the examination of the effects of work-family conflict may be inconsistent not due to the construct itself, but issues with the consistency and validity of measures and underlying theories (Netemeyer, Boles, & McMurrian, 1996). As work-family conflict was initially investigated as a unidirectional construct, when authors started to conjecture conflict was a bi-directional construct, questions arose in relation to the divergent validity of the proposed two constructs. Mesmer-Magnus and Viswesvaran (2005) concluded in their meta-analysis that the two constructs of work-family conflict and family-work conflict are correlated, yet have differential patterns of correlation with external correlates, thus satisfying requirements for discriminant validity. Accentuating on previously discussed meta-analyses, Mesmer-Magnus and Viswesvaran (2005) inferred work-family conflict was associated with organisational withdrawal, such as intent to turnover, tardiness and absenteeism. The authors additionally found work-family conflict to be strongly associated with job stress and family stress (Mesmer-Magnus & Viswesvaran, 2005).

Byron (2005) conducted a meta-analysis examining relationships between work-to-family interference (WIF) and family-to-work interference (FIW), with a plethora of non-work, work, demographic and individual factors. Utilising data from greater than 60 studies, Byron (2005) tended to find work factors related more strongly to WIF, with non-work factors tending to have a clearer relationships with FIW. Contrary to previous findings but consistent with Duxbury and Higgins (1991) suppositions, Bryon (2005) determined relationships between demographic variables, i.e. sex and marital status, were weakly associated with WIF and FIW. Furthermore, the author conjectured more positive coping skills provided some protection from both WIF and FIW (Bryon, 2005). Unlike most other demographic variables that interacted differently with WIF and FIW, coping skills and styles interacted similarly with both FIW and WIF measures.

In line with Mesmer-Magnus & Visweswvaran's (2005) meta-analysis, Ford and colleagues conducted a meta-analysis using 178 articles to investigate the permeability of the work-family interface (Ford et al., 2007). In support of Frone et al., 's (1992) model which articulates interference between work and family roles facilitates the crossover of stressors between domains, Ford et al., (2007) found work-interference-family and family-interference-work strongly related to job stress, family stress and cross-domain satisfaction. Finding stressors from each domain had the largest mediating effect on satisfaction, Ford et al., (2007) conjectured that stress from work has a larger impact on family specific satisfaction, than the impact of family stress through FIW impacting on job satisfaction.

Work-life Enrichment

Although work-family conflict has dominated the work-family domain, the positive side of involvement in work and family has also been questioned. Work-conflict theory suggests that work and family roles are incompatible, causing negative ramifications such as stress due to insufficient resources to cope with demands (Edwards & Rothbard, 2000). Contradicting this, Voydanoff (2001) hypothesized that an accumulation of roles actually results in positive outcomes

for individuals; termed role accumulation. Rice, Frone and McFarlin (1992) found satisfactory involvement in multiple roles provided greater life satisfaction, and quality of life, than involvement in one role, or dissatisfaction with one or more roles. Furthermore, involvement in more than one role is suggested to buffer the negative experiences in another role (Sieber, 1974). In addition, roles have been suggested to produce positive experiences in other roles, thereby increasing quality of life and satisfaction. This crossover of positive outcomes across roles is how Greenhaus & Powell (2006) define enrichment.

Positive association between work and family is operationalised within the literature as enrichment, enhancement, facilitation or positive spillover (Rothbard, 2001; Tiedje et al., 1990; Voydanoff, 2001; Frone, 2003). Enrichment suggests that the interaction between work and family is beneficial, and multiple domains facilitate successful functioning and affect due to increased resources (Greenhaus & Powell, 2006). This stems from conservation of resources theory and role accumulation theory; where resource gain leads to enrichment.

Sieber (1974) suggests role accumulation benefits individuals by influencing and enhancing role privileges, status and security, resources for role performance, and ego-gratification. The author determines that enrichment from multiple roles overshadows stress caused by involvement in multiple roles, thereby leading to a net gain for the individual (Sieber, 1974). Role accumulation does not deny the presence of role conflict, but suggests that multiple roles function to provide more than just negative psychological outcomes. Seiber (1974) suggests people are concerned with accumulating roles for individual benefit, and this is a normal sociological function. Super (1990) also contributes to theories of enrichment, proposing commitment to roles highlights resource depletion or gain to individuals, influencing work-life conflict/enrichment and outcomes.

Building on Seiber (1974) and Marks (1977) expansionist theory, Greenhaus and Powell (2006) provide an integrated theory of enrichment. Greenhaus and Powell (2006) define enrichment as ‘‘the extent to which experiences in one role improves the quality of life in the other role’’. The authors

use enrichment as an umbrella term, which encompasses what many authors consider as positive spillover, facilitation and enhancement (McNall et al., 2010). Greenhaus and Powell (2006) suggest resources consist of five different types, which may indirectly, via the affective path, or directly, via the instrumental path, assist performance in another role. The five categories of resources are *skills and perspectives, psychological and physical resources, social-capital resources, flexibility and material resources* (Greenhaus & Powell, 2006). Furthermore, Hobfoll (1989) suggests valued resources contribute to stress reduction, and the more individuals gain resources, the more they will be able to achieve success. The use of resources across domains explains how enrichment is benefitting the individual. For example, an employee may improve communication skills at work, and this may improve his/her communication with their spouse at home. Such behavioural changes could occur either directly, through transfer of communication skills, or indirectly through increased affect.

Consequently, theories of conflict and enrichment are paradoxical (Chen & Powell, 2012). Work-family conflict occurs due to strain inferred from resource depletion, and enrichment occurs due to increased resources from multiple roles (Rothbard, 2001). Rothbard (2001) discusses these competing theories with suggestion that engagement and emotional response regulates the reaction to performance of multiple roles. In other words, whether individuals experience role conflict or enrichment depends on their emotional regulation and engagement in roles (Rothbard, 2001). Further, applying Fredrickson's (1998, 2001) broaden-and-build theory, Carlson and associates (2014) suggest that enrichment may influence outcome variables (satisfaction, performance etc.) relative to the mediating variables of positive mood and psychological distress (Carlson, Hunter, Ferguson, & Whitten, 2014).

Allen and colleagues established that dispositional characteristics, such as negative affect, neuroticism and self-efficacy were related to both directions of work-family conflict (Allen et al., 2012). Further, Frone (2003) proposes extroversion and positive affect are additional resources which individuals use to increase harmony between roles through coping. Byron (2005) found that positive

coping style provided some protection from both directions of work family conflict.

Although these dispositional variables have not been extensively studied in the context of work-family balance, it is interesting to consider whether differing populations may experience the effects of work-family conflict and enrichment differently due to this phenomenon. In this case, would sporting populations, with allegedly greater self-efficacy and positive affect, experience less work-family conflict and more enrichment than other populations?

Researchers (Frone, 2003; Carlson et al., 2010) have determined conflict and enrichment are independent constructs, rather than opposite ends of a continuum. Therefore, individuals may experience both conflict and enrichment due to involvement in multiple roles. As Greenhaus and Powell (2006) suggest, individuals can then experience a net gain or loss, depending on the strength of the influence of enrichment and conflict.

Consequences of work-life enrichment

Enrichment, although a more recent conceptual distinction than conflict, has also been shown to improve psychological and physiological outcomes, and performance (Greenhaus & Powell, 2006).

Van Steenbergen & Ellemers (2009) conducted both a large-scale cross-sectional study (N=1134) and a 1-year longitudinal study (N=58) within a multinational financial services organisation. The cross-sectional study used 4-item self-report work-family conflict, family-work conflict, family-work enrichment, work-family enrichment scales, and body mass index (BMI) cholesterol and stamina scores to determine a dichotomous healthy or non-healthy score. The authors found enrichment associated with a lower chance of being overweight, and employees high in WF conflict were more likely to be overweight. Enriched employees were also likely to have more stamina, when assessed using the Astrand stationary cycle test. Longitudinally, the authors examined

relationships between self-reported enrichment, sickness absence, cholesterol levels, BMI, and objective job performance. Findings found enriched employees exhibited lower absenteeism, better physical health and improved job performance (Van Steenbergen & Ellemers, 2009).

McNall, Nicklin and Masuda (2010) conducted the first meta-analysis specifically focusing on work-family and family-work enrichment, utilizing 46 studies. The authors concluded enrichment was positively correlated to work satisfaction, family satisfaction and affective commitment (McNall et al., 2010). Further, results associated enrichment with enhanced psychological and physical health (McNall et al., 2010). Interestingly, the authors found no correlations between enrichment and turnover intentions. Therefore, while employees experiencing enrichment between work and family roles may reciprocate desired organisational attitudes to the organisation, this does not translate to intention to stay within the organisation.

Carlson et al., (2014) conducted a study using 310 full-time working adults, exploring how enrichment functions, under the premise that the relationship between enrichment and satisfaction is mediated by psychological distress and positive mood. Utilising bi-directional, nine -item measures of family-work and work-family enrichment developed by Carlson et al., (2006), the authors concluded enrichment directly, and indirectly via mediation of positive affect and psychological distress, influences job and family satisfaction. Further, Carlson and colleagues (2006) investigated whether effects were stronger in the receiving domain or the originating domain, i.e. enrichment from the work-to-family domain is strongest for job satisfaction rather than family satisfaction. This piece of research suggested that the originating domain of enrichment theory was supported, rather than the receiving domain model.

In 2005, Voydanoff analysed the data from the 1995 National Survey of Midwife Development to investigate linkages between work-family conflict, enrichment, marital satisfaction and stress. Ground in ecological systems theory, Voydanoff proposed community participation and affective community resources

were related to job satisfaction, marital satisfaction and stress, further suggesting work-family enrichment and conflict mediated those pathways.

Chapter 2. Sport and the Work-Life Interface

Gaps in the literature: Sport as a significant life role

Work-family literature is limited by the lack of supporting information on key roles, other than family, for workers. Although work-family balance is an important issue for workers with a family, examination of work-life balance for workers with other roles is needed. As suggested by Casper and colleagues (2007) non-work roles that are not family orientated need to be considered in order to ensure research is relevant for as many populations as possible. The generalisability of work-family literature has been criticised, and research is now beginning to consider other non-work roles of employees.

As conflict and conservation of resources theories suggest, role conflict occurs due to limited resources competing for more than one role. Consequently, these roles are not limited to family roles, they could by definition, be any role that fits within the construct of a role. Therefore the work role could be in conflict with many other non-work roles, as well as, or instead of, typical family roles. The number of roles that could interact with work is diverse, and includes numerous social or leisure activities (Siegel et al., 2005). Novel roles may negatively interact with work roles, yet they could also interact to produce positive psychological outcomes. Enrichment, built through role accumulation and expansionist theory, is another possibility due to interaction between novel non-work and work roles.

Using the premise that many roles could interact with the work role, sports roles should be seen to interact with work, in conjunction with family roles. Investigating the interaction between sport and work is an important research area, especially in New Zealand. In New Zealand, 92% of youth and 83% of adults participate in sport, with 79% of adults reporting they participate in sport weekly (Sport and Recreation New Zealand, 2002). This is a large percentage of the population that performs a sporting role, and investigation into how this role is

managed is important for continued participation in sport. As work-life conflict is suggested to rise over the coming decades, conflict may occur between work and sport for a majority of the adult population (Byron, 2005).

Additionally, limited funding for sport in New Zealand results in a large number of amateur athletes, rather than professional athletes at top levels. Lack of funding for athletes is one factor that results in them being unable to become professional as they cannot acquire sponsorship and funding (Stuff.co.nz, 2014). Therefore, athletes need to fund their own sport, which requires them working outside of their sport in order to participate. Judo for example, is not a sport that is funded in New Zealand, and Judokas were required to work outside of Judo to pay their own way to the 2014 Commonwealth Games in Glasgow (Stuff.co.nz, 2014). How this affects the athlete's management of multiple roles and psychological wellbeing has not been investigated, and warrants attention.

Consequences of Involvement in Sport

It is widely accepted that participation in sport and exercise protects from a variety of cardiovascular, metabolic and other causes of physiological morbidity and mortality such as osteoporosis (Blair, Kohl, Paffenbarger, Clark, Cooper, & Gibbons, 1989; Pate et al., 1995; Vuori, 2001). In conjunction to the physiological benefits of exercising, sporting populations have been suggested to have greater self-esteem, confidence, coping, happiness, and life satisfaction (Fejgin, 1994). Moveover, sporting populations show less depression, social stress, distress and stress (Eime, Young, Harvey, Charity, Payne, 2013).

Researchers have questioned whether sports' positive effect on psychological well-being is related to the direct physiological effects of exercise, or whether it influences well-being through other pathways, such as social support and mastery. Literature suggests involvement in sport influences psychological health through physical effects, and provides increased resources such as social support, coping, mastery, self-efficacy all of which also improve psychological affect (Fejgin, 1994; Eime, Young, Harvey, Charity, Payne, 2013).

Role Enrichment and Conflict in Sporting Populations

The following paragraphs discuss role conflict and enrichment within the sporting context. The majority of role conflict literature within a sporting context has focused on student athletes; with a definite North American perspective typically investigating commercialised college sport. This literature will be discussed, followed by enrichment and balance perspectives.

Adler and Adler (1987) ethnographically observed how college athletes managed basketball and academic commitments over a period of 4 years. The authors found athletes experienced significant role conflict between sporting and academic responsibilities; typically suggesting time conflict was the predominant cause of conflict (Adler & Adler, 1987). Fitting with identity theory, athletes tended to readjust and realign their academic goals by reducing them (changing to an easier major) or dropping out, which made athletes more able to cope with conflicting demands (Adler & Adler, 1987).

Settles and colleagues quantitatively questioned whether student athletes' psychological wellbeing was related to role conflict (Settles, Sellers, & Damas, 2002). The authors found athletes who conceptualised academic and athletic roles separately, experienced reduced psychological wellbeing, when they perceived role conflict to exist (Settles et al., 2002).

Lance (2004) found significant differences in perceived role conflict between male and female student athletes, but he did not find role conflict resulted in stress for the athletes. Instead, citing Marks (1977) expansionist theory, Lance suggests that multiple roles for the student-athletes resulted in increased energy to cope with demands. In line with Spreitzer and associates (1979), Lance suggests that increased self-esteem due to participation in sport benefits the performance of multiple roles and corresponding psychological outcomes of student athletes. Further, in a study of workers with paid jobs of over 20 hours per week, O'Driscoll,

Ilgen and Hildreth (1992) found time devoted to non-work commitments, including sport, reduced role interference and psychological strain.

Fejgin (1994) and Hanson and Kraus (1998; 1999) analysed the National Educational Longitudinal Study (1988) in the USA, and found positive associations between sport involvement and academic performance. In line with the previous researchers, Broh (2002) found high school students that played sport had greater academic achievement than those high school students that did not play sport. Specifically, Fejgin (1994) found that students that participated in competitive sport had higher grades, self-concept, educational aspirations and an internal locus of control. Although not directly measured, this study fits with Allen et al., (2012) who conjectured and found evidence that optimism, internal locus of control, self-efficacy and positive affect all assisted individuals in balancing the conflicting demands of work and family roles. Linking these two studies together, it could be questioned whether involvement in sport, which increases self-efficacy, and internalises individuals' locus of control, could result in those sporting individuals experiencing less role conflict.

Kirchmeyer (1992) quantitatively examined relationships between family, community and recreation activities in a group of young business alumni, finding the three non-work roles enriched rather than conflicted, with work. The author found recreation activities positively associated with work attitudes, work commitment, and job satisfaction (Kirchmeyer, 1992). Although recreation activities included a diverse range of hobbies and sports, Kirchmeyer's (1992) study suggests involvement in non-work sports and recreation enriches work.

Although literature has not directly quantitatively investigated the linkage between work and equestrian sport, inferences can be made from the surrounding literature regarding academia and sport. The body of literature suggests conflict exists for athletes with multiple roles, such as full-time study and sport, but authors also suggest there may be a positive linkage between roles. Positive outcome from multiple roles has been proposed, but not directly operationalised and investigated as enrichment or positive spillover.

As mentioned previously, it is common to see top New Zealand athletes juggling sport with a career. The linkage between these two roles has not been directly examined, and this study aims to explore whether working athletes experience work-life balance, conflict and/or enrichment, and how this interacts with psychological measures of health and performance.

Equestrian Sport

Equestrian sports are defined as those that depend on involvement of a horse, typically conducted by the horse being controlled by a rider on the horses back or a horse pulling a driver and carriage. Equestrian sports are typically characterised as individual sports, which involve not only the ridden/driven aspect of the sport but also the care and maintenance of the animal (Bloom, & Stevens, 2002). Equestrian sport may also be considered a team sport under certain circumstances, where individuals are required to perform the sport while riding for a team (Bloom, & Stevens, 2002). An example of this situation is the Olympic Games, where riders are concurrently involved in a four-person team riding for their country, but also riding for themselves in an individual competition.

Equestrian sport is divided into several disciplines; three of which are Olympic sports. The Olympic disciplines of equestrian sport are Dressage, Show Jumping and Three Day Eventing. In addition, more disciplines exist such as Endurance, Show Hunter and Showing, however, unlike the Olympic events, these disciplines are not funded by Sport New Zealand. Interestingly, Equestrian sports remain some of the only sports where men and women compete against one another equally (Whitaker, Hargreaves, & Wolframm, 2012). As well as this, it is common in equestrian sports for professional riders to compete against amateurs, as there is no separation of levels for riders of differing experience or competence (Pummell, Harwood, & Lavallee, 2008). For example, amateur riders competing at National Championships s or 'Horse of the Year' may compete against established, Olympic Medalists such as Mark Todd and Olympians such as Louisa Hill. In New

Zealand this is more pronounced than in other nations as the competitive equestrian community is relatively small. Equestrian Sport New Zealand, the national regulatory body for Eventing, Dressage, Show Jumping and Show Hunter, has 5,842 registered riders nationally (Matheson & Akoorie, 2012).

Equestrian sport has not been well researched in psychology, but has also been described as one of the most psychologically challenging sports due to its necessary interaction with a large, unpredictable animal (Bloom, & Stevens, 2002; Pummell, Harwood, & Lavallee, 2008). Researchers, such as Pummell, Harwood, and Lavallee, have cited the need for more academic investigation of the psychological aspects of equestrian sport and those individuals that participate in the sport. As equestrian sport is fairly unique due to the reliance on a horse for success, it could be suggested that it could differ from other individual sports, which do not involve cooperation and partnership with live animals. Furthermore, equestrian sports are expensive, in terms of time and resource allocation, for both competitive and non-competitive riders. The resource allocation required by equestrian sport may contribute to perceptions of stress and conflict in horse riders. Role conflict theory suggests involvement in multiple roles leads to stress and strain, as roles are incompatible. Therefore, involvement in equestrian sport, which requires large resource expenditure, could be expected to result in conflict between roles. Pummell et al., (2008) qualitatively found that adolescent horse riders experienced significant stress and conflict due to involvement in equestrian sport and other life roles (school and social/family life). These adolescent horse riders expressed their inability to successfully combine eventing with school and family roles, frequently suggesting they missed school and social functions in order to participate in equestrian sport. These riders cited that others did not understand the time and resources required to participate in equestrian sport, as equestrian sport does not just involve time spent training and at competition but also includes a significant amount of time caring for the horse.

Matheson and Akoorie (2012) suggest the average cost of keeping a horse in New Zealand is $12,456.71 per year, with approximately 70% of all horse owners owning the land that they keep their horse on. It has been suggested that

equestrian sport is one of the most expensive sports to in which to participate, from both a financial and time perspective (Pummell, Harwood, & Lavallee, 2008; Matheson and Akoorie, 2012). Therefore, equestrian sport does not only involve a large financial commitment, but also involves a large amount of time caring for the horse and participating in training and competitions. Consequently, as equestrian sport requires such substantial resource allocation, it could be expected that equestrian sport would significantly conflict with other roles, according to role conflict theory.

The previous paragraphs discuss the significance of involvement in equestrian sport, and how the time and resource allocation required by this sport may result in interrole conflict. However, although involvement in equestrian sport may facilitate conflict, the experience of multiple roles may also result in resource gain and subsequent work-life enrichment and work-life balance, as described by Sieber (1974) and Greenhaus and Powell (2006). Horse ownership and involvement in competitions may result in increased affect and increased resources such as new knowledge and building coping skills. Consequently, horse riders may experience work-life balance, and enrichment, as resources provided by participation in multiple roles, may buffer the effects of stress and contribute to increased life and job satisfaction.

Current Study

This study aims to examine areas of the work-life balance literature, which have not been examined. The plethora of work-family conflict literature, with a focus on time based strain for dual earner couples with children, has left many unexplored areas of interest for researchers. Recently, researchers have been diverging from this narrow field to begin to ask questions about how unmarried, single, or without dependents, populations experience the multiple roles of work and life. Unexpectedly, the findings have indicated that work-life conflict, enrichment and balance are significant issues for these populations and this also, suggests the field needs to adapt its focus to include broader populations.

Researchers have begun to ask how involvement in multiple roles affects individuals, as well as families and organisations.

A population that has not been directly investigated is that of workers who compete in sport. Involvement in sport has been suggested to increase life satisfaction, self-efficacy, self-esteem and job satisfaction. Work-life balance, enrichment and conflict are not concepts that have been explicitly investigated in previous literature, but authors have indirectly speculated these relationships are significant and important. Therefore, this study will quantitatively investigate relationships between work life balance, enrichment and conflict and previously explored variables such as work commitment and satisfaction. Furthermore, this study will use a sporting population that is largely under-researched, and remains unique in the time and emotional allocation that the sport requires due to the participation of a horse that demands a distinctive set of resources.

Research Questions

Relationships between variables are proposed by extrapolating correlations between known variables and models in the literature.

1. Enrichment, positive cross-over of affect and resources between work, equestrian sport and family roles, will correlate to life and job satisfaction, perceived stress and work, family and sport performance (Kirchmeyer, 1992).
2. Interrole conflict, incompatibility between work, equestrian sport and family, will correlate to life and job satisfaction, perceived stress, and work, family and sport performance (Kossek & Ozeki, 1998; Allen at al., 2000; Byron, 2005).
3. Similarly to Carlson et al., (2010) it is proposed work-life balance, global perceptions of balance between work, family and equestrian sport, is correlated to job and life satisfaction, perceived stress, and work, family and sport performance.

4. Equestrian sport commitment and organisational commitment are proposed to influence enrichment, conflict, and balance, as commitment to roles has been shown to both buffer and exacerbate fit between roles (Mathieu & Zajac, 1990; Chartrand & Lent, 1987).
5. Work-life conflict, enrichment and balance will be empirically distinct constructs as suggested by Carlson et al., (2010).
6. Coping influences relationships between enrichment/conflict/balance and perceived stress, performance and satisfaction (Byron, 2005; Perrone, Ægisdóttir, Webb, & Blalock, 2006).; Lapierre& Allen, 2006).

Method

Research Design

This study utilised a cross-sectional, quantitative design to investigate relationships between work-life balance, enrichment, conflict and psychological outcomes individual sportspeople, specifically horse riders. Participants completed a 174 item self-report questionnaire, consisting of 12 psychometric scales (See Appendix D). Statistical analyses were then completed on the data set, in order to test the hypotheses.

Participants

100 participants were recruited from 14 competitions of dressage, show jumping, eventing (horse trials and pony club one day events), ribbon days, agricultural and pastoral society shows, and Horse of the Year Show 2015 in the North Island of New Zealand. 97 of the participants were female, with only 3 males and none choosing not to specify their gender. One participant did not specify their age, but the remaining ages ranged from the youngest participant at 16 years old and the oldest at 65 years old, with the average age being 37 years old. The majority of the participants were New Zealand European, with 2% Chinese, 1% German and 2% English. The minimum hours worked in this population was 5 hours, and the maximum was 80 hours, on average, participants worked 36.5

hours per week. The majority of the participants had no children (77%), with 6% having one child, 11% having two children, 4% having 3 children, 1% having 4 children and 1% having 6 children. Further, the majority of participants were married (32%), with 27% single, 19% de facto, 5% either separated or divorced. Participants could also select other (12%), of which the majority that selected other, 66.7% selected a long-term, committed relationship. The majority of participants specified their sport was self-funded (78%), with 7% specifying their parents paid for their involvement in equestrian sport, and a number of combinations of how the participants financed their sport. 8% specified their involvement in equestrian sport was self-funded and funded by their parents, 3% suggested their equestrian sport was funded by a sponsor and themselves, and 1% suggested their equestrian sport was funded by themselves and their husband.

Participants varied in what they described as their main discipline of focus, and the levels they had competed to. Dressage riders (41%) ranged from competing at Preliminary (level 1), to competing at Grand Prix (level 9). Eventers (37%) ranged from competing at Introductory Pony Club level, to Open Pony Club level, and to Advanced 3 Day Events. Showjumpers (8%) ranged from competing at 90cm to competing at World Cup level. Those who specified they competed in Showhunter (4%) had competed at Open level (highest level), and those show riders (5%) specified they competed at A&P and HOY level (highest level).

35% of participants had no sick days over the last year, 1% had a half day sick, 12% had 1 sick day, 13% had two sick days, 11% had 3 sick days (1% had 2.5 sick days), 8% had 4 sick days, 11% had 5 sick days, 2% had 6 sick days, 1% had 8 sick days and 2% had 9 sick days. 2% had 30+ sick days and 1% had 50 sick days. These participants with more than 30 sick days/year indicated they were on ACC for significant injuries, which prevented them from working for an extended period of time.

Participants' occupations varied, from a General Practitioner, legal executive, teacher, and general manager. The list of occupations can be found in Appendix B.

Measures

A self-report questionnaire consisting of 174-items in English language was used for this study. The questionnaire consisted of 12 different, psychometric scales, all measuring different psychological constructs. The 12 scales were the BriefCOPE, Percieved Stress Scale, Work-life Balance, Work-Life Enrichment, Work-Life Conflict, Diener's Life Satisfaction Scale, Job Satisfaction, Sport Commitment Questionnaire, Work Performance, Family Performance and Sport Performance, and the Organisational Commitment Questionnaire. 15 key demographic questions were also included at the beginning of the questionnaire in each counterbalanced version. The order of the 12 scales were counterbalanced four times, to control for order effects. The response categories of each of the measures' scales were the same as previously validated versions of the scale. Weijters, Cabooter, Schillewaert (2010) suggest that comparison between data sets is flawed if differing response categories are used, even if the questions are the same. Weijters et al., (2010) suggest using the same scale format as the original, if a replication study is being performed.

Common method variance has been suggested to increase when surveys use all of the same response categories, therefore using different scales helped to reduce error through common method variance (Weijters et al., 2010).

The questionnaire was pilot tested 5 times to determine the approximate time to complete it, which was 20 minutes. It was also pilot tested to ensure participants understood all of the items. The questionnaire was administered in paper format to individuals, during competition days.

Work-Life Balance: The Work-Life Balance measure consisted of 6-items, constructed within the definition provided by Grzywacz and Carlson (2007) which suggests balance occurs when an individual is able to meet effectively role expectations of both work and family domains. This definition suggests that work-life balance is a conceptually distinct construct to work-life conflict and work-life enrichment, thus the measure used does not question conflict or enrichment but role related behaviours. Carlson et al., (2010) conducted an exploratory factor

analysis, finding the scale consists of one factor with a Cronbach α of 0.93. For this study, the measure designed by Carlson et al (2010) was adapted to examine the role-related behaviours of work, family and sport. For example "People who are close to me would say I do a good job of balancing work, family and sport". The responses were made on a 5-point likert scale, ranging from Strongly Disagree (1) to Strongly Agree (5). Cronbach's Alpha was α = 0.90.

Work-Life Enrichment: Work-Life Enrichment was measured using a scale developed by Carlson et al., (2006) to assess enrichment in both directions. This scale was developed to measure enrichment as defined by Greenhaus and Powell (2006) as the positive crossover of resources and/or affect across work and life roles. As mentioned previously, enrichment is bi-directional, occurring from work to life, and life to work. Therefore, the scale developed by Carlson and associates (2006) was appropriate as it features 9 items questioning work to life enrichment, and 9 items questioning life to work enrichment. Carlson et al., (2010) determined the Cronbach alpha for work to family enrichment as 0.94 and for family to work enrichment as 0.93. For this study, the questions for both directionalities were adapted to question participants how they experienced enrichment from work to sport and sport to work. For example "My involvement in my work … Helps me to understand different viewpoints and this helps me be a better horse rider", assessed work to sport enrichment. Sport to work enrichment was questioned using items such as "My involvement in my sport … Makes me feel happy and this helps me be a better worker". Furthermore, Carlson et al., (2006) conducted a confirmatory factor analysis, determining the enrichment scale consisted of six factors, three work-to-family (work to family development, work to family affect, and work to family efficiency) and three family-to-work (family to work development, family to work affect, family to work capital). The authors found the aforementioned 6 factor model to fit the data best, with df= 236.35, $\chi 2$= 120, CFI=0.95, RMSEA=0.06 (Carlson et al., 2006). Items were rated on a 5-point likert scale, ranging from Strongly Disagree (1) to Strongly Agree (5).

Work-Life Conflict: The scale used to measure work-life conflict was the Work-Family Conflict scale developed by Carlson et al (2000). This scale is similar to the enrichment scale mentioned formerly, as it is also a bi-directional scale. In line with literature that suggests work family conflict is split into the dimensions of time based, strain based, and behavior based conflict, this measure of conflict examines each of these dimensions (Bruck et al., 2002; Greenhaus & Beutell, 1985; Carlson et al., 2000). It consisted of 9-items measuring work to family conflict with a Cronbach alpha of 0.91, and 9-items questioning life to family conflict with a Cronbach alpha of 0.92 (Carlson et al., 2000). As suggested by Mesmer-Magnus and Viswesvaran in their 2005 meta-analysis, scales assessing both directions of WFC and FWC were used together in this study to further refine the constructs and provide evidence for further advancement of the theoretical underpinning of these constructs. This scale was also adapted to measure work, family and sport conflict in this study. An example of an item questioning time-based conflict from work to family and sport is as follows "My work keeps me from my family and sport activities more than I would like". Further, an example of non-work life, strain-based conflict with work is as follows "Tension and anxiety from my non-work life often weakens my ability to do my job". Responses were recorded on a 5-point likert scale, ranging from Strongly Disagree (1) to Strongly Agree (5).

Satisfaction with Life Scale: The Satisfaction with life scale (SWLS), developed by Diener and associates (1985), was used to measure global life satisfaction, also termed subjective wellbeing, in participants. Pavot and Diener (1993) determined the coefficient alpha for the SWLS ranged from 0.79 to 0.89 across six studies, with re-test reliability as 0.82 over 2 months. Further, a recent meta-analysis by Vassar (2007) examined 60 studies that utilized the SWLS. This meta-analysis determined the SWLS had a moderate mean reliability with a coefficient alpha of 0.78 across a wide range of populations (Vassar, 2007). Surujilal et al., (2013) also validated the SWLS using a student athlete population. Cronbach's Alpha was $\alpha = 0.89$ in this population.

Job Satisfaction: The Michigan Organizational Assessment Questionnaire (MOAQ), 3-item measure of global job satisfaction, was used in this study (Camman et al.,

1979). This short measure of job satisfaction is widely used in work-life research areas, with Carlson and colleagues determining a Cronbach alpha of 0.93 (Carlson et al., 2010). A global measure of job satisfaction, rather than a composite measure, was used in this study, as participant's job type was uncontrolled. Therefore, participants were involved in a variety of job types, rendering the use of a composite measure unsuitable as the facets may not apply to all employee groups (Spector, 1997). As suggested by Spector (1985) composite job satisfaction measures are suitable for specific roles/organisations. For example, the MOAQ is applicable for public, human service and nonprofit organisations (Spector, 1985). Bowling and Hammond (2008) determine the MOAQ a face-valid, reliable and construct valid measure of job satisfaction. Further, Spector (1997) recommends the use of the MOAQ for questionnaires that contain many scales. Face validity is an important concept for a measure of job satisfaction, as job satisfaction is an emotional, affective construct (Bowling & Hammond, 2008). Bowling and Hammond (2008) conducted a meta-analysis examining the properties of the Michigan Organizational Assessment Questionnaire, determining internal consistency reliability to be 0.84 using 79 samples, with a total number of participants being 30,623. Cronbach's Alpha for this study was $\alpha = 0.78$, once the negative item was recoded.

Work, Family and Sport Performance: Performance measures were all adapted from Williams and Anderson (1991) 5-item scale to assess self-reported in-role work performance. The measures used for this study were the same as those adapted by Frone, Yardley and Markel (1997) from Williams and Anderson (1991). Frone and associates (1997) found the work performance measure to have a coefficient alpha of 0.77, and the family performance measure to have a coefficient alpha of 0.84. These scales have been used extensively in work-family literature, and commonly adapted for purpose. Examples for work, family and sport performance are as follows "I fulfil the responsibilities specified in my job description", "I fulfill the responsibilities required by my family", and "I perform the tasks that are expected to contribute to my sport". Each item was rated on a 7-point likert scale ranging from Strongly Disagree (1) to Strongly Agree (7). In the current study, work performance had a Cronbach's Alpha of $\alpha = 0.87$, family

performance had a $\alpha = 0.93$ and sport performance had a Cronbach's Alpha of $\alpha = 0.93$.

Organisational Commitment Questionnaire: The original Organisational Commitment Questionnaire (OCQ) consisted of 15-items, developed by Mowday, Steers and Porter (1979) to measure attitudinal commitment. This measure was based on the aforementioned authors' definition of organisational commitment "as an individual's identification and involvement in a particular organisation" (Mowday et al., 1979). A shortened 9-item version was developed, using only positively worded items from the original 15-item measure. The internal reliability of the short-form and longer form of the OCQ were shown to be similar by Mowday, Steers and Porter (1979), with internal consistencies of 0.90 and 0.88 for the 9-item OCQ and 0.82-0.90 for the 15-item OCQ. Although removing the inversely scored items may increase acquiescence responding, it was more appropriate than the 15-item OCQ for this study due to the length of the total questionnaire with all of the items. Also may reduce the correlation of commitment to turnover, as Tett and Meyer (1993) suggest in their meta-analysis that the 15 item OCQ correlates with intent to turnover and the 9 item more with job satisfaction. Organisational commitment was measured as well as job satisfaction, as literature suggests organisational commitment is a more global measure of attachment to an organisation, rather than satisfaction with the day to day tasks of the job. Therefore, organisational commitment should be more stable over time than job satisfaction, which may fluctuate with daily stressors of the tasks required by the job (Mowday et al., 1979). Mowday et al., (1979) determined the OCQ was a global measure of job commitment, as their factor analysis revealed the one factor model was the best fit. Bozeman & Perrewe (2001) also found a single factor was the best fit for the OCQ 15-item and 9-item questionnaires, with a CFI of 0.95 and RMSEA of 0.7.

Perceived Stress Scale: The PSS was originally developed as a 14-item scale, with shorter versions of 10 and 4 items developed subsequently (Cohen & Williamson, 1988). The PSS-10 was used for this study, as validation information suggests the 10-item and 14-item PSS versions are equivalent, yet the 10-item PSS is more

convenient when using a questionnaire that is already of substantial length. Cohen and Williamson (1988) developed the PSS-10 by removing 4 items with the lowest factor loadings in the PSS-14. Thus the PSS-10 actually explained greater variance than the PSS-14, and also had a slightly larger internal reliability when normed on a population of 2,387 people (Cohen & Williamson, 1988). Roberti, Harrington and Storch (2011) conducted exploratory and confirmatory factor analyses of the 10-item PSS scale utilizing 281 undergraduates, 255 of which were female, to further examine the reliability and validity of the short format PSS. The authors determined the adequacy of the fit of a two factor model, consisting of perceived helplessness (6-item) and perceived self-efficacy (4 item) with fit statistics of χ^2 = 34, df =121.78, $p < .001$, RMSR = .039, CFI = .931 (Roberti, Harrington, & Storch, 2011).

BriefCOPE: The BriefCOPE is a 28-item short-form of the 60-item COPE questionnaire, which is a widely used questionnaire to examine non-specific coping. The BriefCOPE is based on Lazarus' transactional model of stress and the behavioural self-regulation model suggested by Carver (1997). Congruence may occur between work, family and sport; consequently, a measure of non-specific coping was used rather than a specific measure. The BriefCOPE consists of 14 subscales, all of which meet the standard for internal reliability set by Nunnally (1978) when normed on a population recovering from Hurricane Andrew (Carver, 1997). Furthermore, an exploratory factor analysis, conducted by Carver (1997), found factors assessed by the BriefCOPE to be very similar to those of the full COPE inventory. Zautra, Sheets and Sandler (1996) empirically tested Carver and colleagues' (1989) four factor model, confirming the existence of four factors, describing them as problem focused coping, cognitive restructuring coping, social support, and emotion focused coping. Problem focused coping included active coping and planning and had a reliability coefficient of α=0.78. Cognitive restructuring consisted of acceptance and humor, and had a Cronbach's Alpha of α = 0.72. Social support included emotional and instrumental support and had a scale reliability of α = 0.86, and emotion focused coping included behavioural disengagement and self-blame and had a Cronbach's Alpha of α = 0.73.

Sport Commitment Questionnaire (SCQ): The SCQ was developed to specifically measure commitment to sport, rather than non-specific commitment. Scanlan and colleagues (1993b) factor analysed the SCQ and determined it is comprised of six subscales, identified as sport commitment, sport enjoyment, involvement alternatives, personal investments, social constraints and involvement opportunities. Scanlan et al., (1993b) determined internal consistency for each scale was adequate except for personal investments (α =0.36). All of the other five scales were found to have an alpha greater than 0.75. Scanlan (1993b) explained the poor internal consistency of the personal investment scale due to the financial expenditure question, which elicited varying responses according to the age of the respondents. Sousa, Torregrosa, Viladrich, Villamarín, and Cruz (2007) conducted a factor analysis on the SCQ attempting to support the 6 factor model proposed by Scalan et al., (1993) in a population of young soccer players. The authors did not find evidence for a 6 factor model, but found support for a four factor model of sport enjoyment, sport commitment, social constraints and alternatives, which loaded an adequate goodness of fit in the adjusted CFA ($\chi 2$ (184, N= 437)= 597,711, $p<0.01$, RMSEA=0.72, CFI= 0.885) (Sousa, Torregrosa, Viladrich, Villamarín, & Cruz, 2007).

Abesenteeism: Absenteeism was assessed using the 1-item question "How many days off sick have you had over the last year?".

Demographic Variables: 15 key demographic questions were included on the first page of all versions of the questionnaire. These included gender; date of birth; marital status; ethnicity; number of dependents; occupation; financial contributor; hours worked per week; control over hours; absenteeism; discipline; highest level competed; and competitiveness. Literature has found varied relationships between gender, age, marital status, ethnicity and number of dependents in the work-family conflict and enrichment literature. Some literature suggests that gender, age, marital status, ethnicity and number of dependents moderate relationships in the work-family interface, but others suggest there is no interaction. Consequently, all of these variables were included in this research project to ensure these variables

were accounted for and controlled if need be, or used to determine moderation and mediation effects exist.

As discussed by Greenhaus and Beutell (1985), Pleck et al., (1980), Bohen & Viveros-Long, (1981) and Burke and colleagues (Burke, Weir, & Duwors, 1980) and Keith & Schafer (1980) work family conflict is positively related to number of hours worked per week, overtime worked and control over work schedule. As control over individuals work schedule and hours reduced, work family conflict increased. Therefore, in order to account for these relationships, questions regarding average total number of hours worked, control over hours worked and control over work schedule was included in the questionnaire.

Work-family strain has been found to change with age (Keith & Schafter, 1980). The authors found as age increased, perceptions of work family strain reduced. Reasons for this could include tenure in the occupation, length of partnership with spouse, and experience in a particular job. While these factors were not measured in this study, participants were asked to indicate their date of birth so that any correlation between age and other variables such as work life conflict could be evident.

As work demands influence work-family conflict, family demands similarly influence work-family conflict. Herman and Gyllstrom (1977) suggested married individuals tend to experience more work family conflict than non-married individuals. Therefore, marital and relationship status was questioned in this study. Keith and Schafter (1980) determined that the number of children in the household is correlated to work family strain, specifically as the number of children at home increases, work family strain increases for dual career families. Considering this research, the question “Please indicate how many children you are responsible for _____” was included in this questionnaire.

Equestrian athletes were also asked which discipline was their main focus, and what was the highest level they have competed to. The unique nature of equestrian sport dictates that not all high level riders are able to currently ride at

that level at certain shows. Many riders have multiple horses, and often had high level horses at home and were competing younger, inexperienced mounts at shows where data was collected. Furthermore, some riders were cross training their horses when data was collected. Cross training means that riders were competing horses that were very competitive one discipline, in another. For example, some very competitive event riders and horses were at dressage shows, cross training to improve their dressage for dressage phase of eventing. As the disciplines and levels of equestrian sport vary considerably in cost, time allocation and difficulty, it was important to ascertain the specifics of riders competition experience and discipline choice to determine if these variables interacted with sport commitment and the work-life scales.

Procedure

Ethical approval from the Massey University Human Ethics Committee: Northern was sought before any data collection commenced (Application number 14/039).

As previously described, participants were recruited as individuals, while at competitions. This protocol was determined as literature suggests approaching riders at competition is both a successful and valid method of collecting data for this population (Duff-Riddell & Louw, 2011). Riders were also contacted through networking, as the researcher is involved in equestrian sports. As such, a research assistant was used for dressage competitions to encourage participants to complete questionnaires, as they may know the researcher as a horse rider and be unwilling to provide personal information. Show secretaries and regional horse riding associations (such as pony clubs and riding clubs) were contacted to gain permission to access riders at each competition or rally. Once the researcher/research assistant was at the competition, they asked the show secretary to sign an information sheet, to ensure consent for their presence at the competition. Competitions were selected across disciplines to gather data across a range of horse riders, rather than once specific discipline. This was done as many horse riders only compete in one specific discipline, often only going to one type of

show (e.g. dressage). Competitions were located across the North Island, including pony club competitions, ESNZ, RAS [and unaffiliated] events.

The questionnaires were handed out to participants by the researcher or the research assistant, in conjunction with the information sheets (See Appendices C and D). As this was an anonymous questionnaire, participants were not required to give consent in writing. Further, riders were required to fill out a form to enter the draw to win a tack shop voucher. This form required participants to fill out their name, email address and they could tick if they would like a summary of the results and be entered into the draw. This was incentive for participation, but also allowed the researcher to ensure participants did not complete the questionnaire more than once. If participants completed the questionnaire more than once the results could be flawed. Once questionnaires were completed, they were collected and sealed in an envelope. Questionnaires were also marked with an alpha-numerical number so the researcher could determine which competition the questionnaires came from.

Riders could chose to fill out the questionnaire during the competition day, and the researcher or research assistant could then collect it once completed. Another option was the riders were offered an addressed (researchers address) and postage paid envelope to post the questionnaire back at a later stage. Some riders were interested in participating in the research, but were very busy at the competition, therefore giving the riders envelopes allowed them to participate with minimum disruption to their show schedule. Most riders who were given envelopes to return the questionnaires by post returned them.

Data Analysis

Descriptive Statistics

Initially all negatively worded items in the scales were re-coded to be reverse-scored. Following re-coding, item and scale descriptive statistics were calculated. Descriptives included for each item were means, standard deviations, skewness and kurtosis statistics.

Reliability Analysis

Reliability analyses were conducted for all of the first-order factors of the measurement models and the overall reliability of scales, by computing Cronbach's alpha. Internal consistency was interpreted in the current study, according to the specifications by Nunnally (1978). The majority of current research dictates Cronbach's alpha should be interpreted as follows: < .5 = Unacceptable, >.5 = Poor, > .6 = Questionable, > .7 = Acceptable, > .8 = Good, > 0.9 = Excellent (George & Mallery, 2003).

Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis (CFA) was used to determine the relationships between latent variables and observed variables in the measurement models. The CFA approach was chosen over the exploratory factor analysis approach in this study as the CFA's were used to confirm factor structure of measurement models that had been previously suggested in the literature. CFA models were analysed using Analysis of Moment Structures version 22 software using Maximum Likelihood Estimation.

Evaluation of fit

A range of fit indices were chosen in accordance with Hu and Bentler (1999) and Marsh, Balla and McDonald (1988). The chi- squared likelihood ratio ($\chi 2$) was not used as an indicator of fit in this study, due to the influence of sample size on its reliability, although the chi-squared statistic was reported (Marsh et al., 1988). The two measures of incremental fit used for the current study were the Comparative Fit Index (CFI; Bentler, 1990), and the Tucker-Lewis Index (TLI; Tucker & Lewis 1973). Comparing the proposed model to the null model, while holding covariance equal to zero, values for the CFI and TLI range between 1 and 0, with values above 0.90 indicating good fit (Hu & Bentler, 1999). The RMSEA was also used, and compares the proposed model to the saturated model, with results indicating the difference between the two models (Browne & Cudeck, 1993).

RMSEA values of <0.5 indicate good fit, 0.5-0.8 indicates reasonable fit and 0.8-0.1 indicates mediocre fit (Browne & Cudeck, 1993).

Results

Preliminary Data

Missing Data

The data had 74 missing cases, which was 0.43% of the total data, spread across the items and scales. Given the less than 1% of data was missing, missing data was not considered to be problematic.

Non-normality

Confirmatory factor analysis, using maximum likelihood estimation, assumes that data is normally distributed, thus the data collected needed to be assessed for normality. Descriptives were calculated for all of the items in each scale and each items skewness and kurtosis was checked. Kline (2005) suggests a cut off of ±3 and 10 for skewness and kurtosis. The data was checked in regards to the cut offs recommended by Kline and four items from the Sport Commitment Questionnaire, fit Kline's (2005) criteria for non-normality. These items lacked variability, and had significant positive skew. Three items from the Sport Commitment Questionnaire (Items SCQ19, SCQ20, SCQ21) were disregarded in the analysis as the factors they loaded into were not included in the final measurement model, and one (item 25) was dropped from the involvement opportunities factor.

Heywood Variables

Negative or near zero error variances were observed for three of the error variances in three measurement models (e30 in the BriefCOPE, e21 in the SCQ, and e1 in the job satisfaction scale). These cases were statistically insignificantly different from zero, therefore it was assumed they were due to random sampling error and were adjusted (Dillon, Kumar & Mulani, 1987). Heywood variables were adjusted by changing the error variance of the negative error value to 0.05 (Dillon et al., 1987). This allowed the CFA to run as the error variances were then positive (Dillon et al., 1987)

Descriptive Statistics

Enrichment Scale

Table 1 shows item means ranged from 2.75 (SD=1.21) for ERMT3 to 4.31 (SD=0.77) for ERMT14. Table 1 shows an approximately normal distribution with skewness values ranging from -1 to 0.29 and kurtosis values ranging from -1.05 to 0.83. The skewness and kurtosis values suggest the enrichment scale is fairly normally distributed and does not show any significant non-normality. Cronbach's Alpha ranged from α = 0.91 to 0.97, suggesting high internal reliability for enrichment items (see Table 1).

Table 1.
Summary Descriptive Statistics for Enrichment Items

	M	SD	Skewness	Kurtosis
ERMT1	3.22	1.12	-0.14	-0.60
ERMT2	2.88	1.19	0.13	-0.88
ERMT3	2.75	1.21	0.25	-0.89
ERMT4	2.90	1.26	0.29	-0.98
ERMT5	3.03	1.21	0.01	-1.05
ERMT6	3.01	1.17	0.06	-0.93
ERMT7	3.28	1.09	-0.25	-0.58
ERMT8	3.37	1.00	-0.37	-0.29
ERMT9	3.35	0.97	-0.21	-0.29
ERMT10	3.48	1.05	-0.38	-0.36
ERMT11	3.40	1.07	-0.31	-0.43
ERMT12	3.40	1.08	-0.47	-0.36
ERMT13	4.26	0.81	-0.86	0.06
ERMT14	4.31	0.77	-1.00	0.66
ERMT15	4.28	0.70	-0.81	0.83
ERMT16	3.62	1.20	-0.85	-0.09
ERMT17	3.79	1.03	-0.76	0.39
ERMT18	3.60	1.03	-0.58	-0.04

Note: N=10

Table 2.

Summary Descriptive Statistics and Reliabilities For Enrichment Subscales

	M	SD	Number of Items	Cronbach's Alpha
WTF Development	8.85	3.32	3	0.94
WTF Affect	8.94	3.52	3	0.97
WTF Capital	10.00	2.85	3	0.92
FTW Development	10.28	2.95	3	0.91
FTW Affect	12.85	2.15	3	0.93
FTW Efficacy	11.01	3.066	3	0.93

Note: N=100

Perceived Stress Scale

Table 3 shows item means ranged from 1.19 (SD=0.86) for PSS4 to 2.29 (SD=1.00) for PSS3. Items are approximately normally distributed, with skewness values ranging from -0.10 to 0.91 and kurtosis values ranging from -0.63 to 1.89, suggesting no substantial univariate kurtosis or skewness.

Cronbach's Alpha for perceived self-efficacy and perceived helplessness subscales were α = 0.74 and 0.89 (see Table 4), above the acceptable level suggested by Nunnally (1978) of 0.7, suggesting adequate internal consistency.

Table 3.

Summary Descriptive Statistics for the PSS

	M	SD	Skewness	Kurtosis
PSS1	1.77	0.95	0.19	-0.15
PSS2	1.66	1.08	0.37	-0.41
PSS3	2.29	1.00	0.01	-0.41
PSS4	1.19	0.86	0.49	0.22
PSS5	1.59	0.85	0.91	1.89
PSS6	1.68	0.95	0.26	0.03
PSS7	1.53	0.87	0.52	0.64
PSS8	1.50	0.98	0.43	-0.14

PSS9	1.91	1.04	-0.10	-0.50
PSS10	1.38	1.05	0.40	-0.63

Note: N=100

Table 4.

Summary Descriptive Statistics and Reliabilities for PSS Subscales

	M	SD	Number of Items	Cronbach's Alpha
Perceived Helplessness	10.69	4.89	6	0.89
Perceived Self-Efficacy	5.81	2.68	4	0.74

Note: N=100

BriefCOPE Scale

Item means ranged from 1.14 (SD=0.40) for COPE16 to 2.59 (SD=0.88) for COPE17. Table 6 shows the values for each items skewness and kurtosis, showing most values are normally distributed. A few items (COPE3, COPE6, COPE16 and COPE27) have fairly large skewness and kurtosis values, but these sit outside the cut off criteria for non-normality (± 3 and 10) (Kline 2005). Therefore these items were not considered to be significantly affecting the normality of the BriefCOPE scale in this population.

Table 5 shows the reliabilities of the four subscales were adequate, with Cronbach's Alpha ranging from α = 0.72 to α =0.86. All of these Cronbach's Alpha values reached an acceptable level, with the Social Support subscale having good internal reliability (Nunnally, 1978).

Table 5.

Summary Descriptive Statistics and Reliabilities for the BriefCOPE Subscales

	M	SD	Number of Items	Cronbach's Alpha
Problem Focused	9.87	3.16	3	0.78
Cognitive Restructuring	8.92	3.07	3	0.72
Social Support	8.29	3.01	4	0.86
Emotion Focused	6.48	2.29	4	0.73

Table 6.

Summary Descriptive Statistics for the BriefCOPE

	N	M	SD	Skewness	Kurtosis
COPE1	99.00	1.89	0.92	0.62	-0.72
COPE2	99.00	2.41	0.93	0.10	-0.81
COPE3	98.00	1.31	0.72	2.62	6.45
COPE4	99.00	1.29	0.56	1.78	2.25
COPE5	99.00	2.04	0.90	0.68	-0.16
COPE6	98.00	1.32	0.65	2.54	7.17
COPE7	99.00	2.54	0.99	-0.04	-1.02
COPE8	97.00	1.20	0.47	2.42	5.33
COPE9	99.00	1.67	0.82	1.14	0.75
COPE10	99.00	2.06	0.82	0.80	0.54
COPE11	99.00	1.18	0.44	2.39	5.29
COPE12	99.00	2.30	0.91	0.11	-0.81
COPE13	100.00	2.25	0.97	0.29	-0.87
COPE14	99.00	2.53	0.96	-0.04	-0.93
COPE15	99.00	2.26	0.94	0.27	-0.81
COPE16	99.00	1.14	0.40	2.98	8.81
COPE17	99.00	2.59	0.88	-0.27	-0.59
COPE18	99.00	2.21	0.92	0.29	-0.74
COPE19	98.00	1.96	0.85	0.49	-0.52

COPE20	98.00	2.58	1.00	-0.07	-1.05
COPE21	98.00	2.03	0.83	0.27	-0.77
COPE22	98.00	1.26	0.61	2.51	5.82
COPE23	98.00	2.03	0.85	0.75	0.21
COPE24	97.00	2.36	0.99	0.13	-1.01
COPE25	99.00	2.49	0.95	0.09	-0.89
COPE26	99.00	1.83	0.96	0.92	-0.19
COPE27	99.00	1.20	0.55	3.02	9.31
COPE28	99.00	1.93	0.84	0.67	-0.04

Note: N=100

The Sport Commitment Questionnaire

Item means ranged from 1.16 (SD=0.44) for item SCQ22 to 4.89 (SD=0.40) for item SCQ25. Skewness and kurtosis values are also illustrated in Table 7, showing that the majority of the items are within the recommended values for normality, however, some items display substantial skewness and kurtosis. The items with significant skewness and kurtosis are items SCQ19, SCQ20, SCQ21, and SCQ25. These items were removed from further analysis due to non-normality, as values should not exceed ±3 and 10 for skewness and kurtosis.

The Cronbach's alpha for the total SCQ was $\alpha = 0.81$, excluding the items mentioned previously with large skewness and kurtosis (SCQ19, SCQ20, SCQ21, and SCQ25). Table 8 shows the large range of Cronbach's Alpha values for the SCQ, from $\alpha = 0.57$ to $\alpha = 0.93$. The sport commitment and involvement opportunities internal reliability was questionable, with the sport enjoyment and personal investments subscales acceptable to high reliability internal reliability.

Table 7.

Summary Descriptive Statistics for the Sport Commitment Questionnaire

	N	Mean	SD	Skewness	Kurtosis
SCQ1	100.00	4.51	0.75	-1.16	-0.20
SCQ2	100.00	4.59	0.67	-1.58	2.00
SCQ3	100.00	4.14	0.91	-0.94	0.55
SCQ4	100.00	4.04	0.86	-0.46	-0.66
SCQ5	100.00	4.16	1.36	-1.45	0.62
SCQ6	100.00	4.15	1.00	-0.99	0.16
SCQ7	99.00	4.44	0.76	-1.67	3.89
SCQ8	100.00	4.33	0.92	-1.82	3.76
SCQ9	100.00	4.43	0.87	-2.01	4.59
SCQ10	100.00	4.47	0.85	-2.30	6.63
SCQ11	98.00	3.47	1.01	-0.38	-0.09
SCQ12	99.00	3.46	1.03	-0.47	-0.06
SCQ13	99.00	2.47	1.03	0.35	-0.19
SCQ14	95.00	2.85	1.54	0.20	-1.43
SCQ15	99.00	3.86	0.95	-0.52	-0.57
SCQ16	99.00	4.01	0.90	-0.63	-0.34
SCQ17	100.00	4.24	1.06	-1.32	0.81
SCQ18	100.00	1.75	0.93	1.23	1.08
SCQ19	100.00	1.25	0.72	3.80	15.95
SCQ20	100.00	1.29	0.67	3.06	11.39
SCQ21	100.00	1.27	0.72	3.47	13.69
SCQ22	100.00	1.16	0.44	2.87	7.88
SCQ23	100.00	1.36	0.87	2.79	7.43
SCQ24	100.00	1.40	0.90	2.61	6.36
SCQ25	100.00	4.89	0.40	-4.80	28.46
SCQ26	100.00	3.41	1.41	-0.33	-1.19
SCQ27	100.00	4.58	0.77	-2.12	5.02
SCQ28	100.00	4.05	1.14	-1.06	0.27

Table 8.

Summary Descriptive Statistics and Reliabilities For Sport Commitment Subscales

	M	SD	Number of Items	Cronbach's Alpha
Sport Enjoyment	12.35	2.41	4	0.93
Sport Commitment	17.63	3.23	3	0.57
Personal Investments	12.03	2.50	3	0.74
Involvement Op	12.04	2.51	3	0.57

Conflict Scale

As displayed in Table 9, all the conflict scale items are approximately normally distributed, with skewness values ranging from -0.40 to 1.03 and kurtosis items ranging from -1.05 to 0.17. These skewness and kurtosis values suggest the conflict scale does not have any substantial univariate kurtosis or skewness. Item means ranged from 0.82 (SD=1.01) for item CFLT12 to 3.43 (SD=1.29) for CFLT1. Table 10 demonstrates all the Cronbach's Alpha were acceptable to good, ranging from α = 0.72 to α =0.91.

Table 9.

Summary Descriptive Statistics for the Conflict Scale

	N	Mean	SD	Skewness	Kurtosis
CFLT1	99.00	3.43	1.29	-0.40	-0.99
CFLT2	100.00	3.25	1.27	-0.22	-1.17
CFLT3	100.00	2.88	1.27	0.14	-1.01
CFLT4	100.00	2.40	0.99	0.19	-0.72
CFLT5	100.00	2.59	1.17	0.28	-0.92
CFLT6	100.00	2.41	1.16	0.56	-0.47
CFLT7	100.00	2.58	1.11	0.31	-0.61
CFLT8	100.00	2.59	1.21	0.42	-0.74

CFLT9	99.00	2.67	1.28	0.32	-0.97
CFLT10	99.00	2.10	1.11	0.62	-0.80
CFLT11	100.00	1.95	1.06	0.89	-0.03
CFLT12	100.00	1.82	1.01	1.03	0.17
CFLT13	100.00	2.44	1.14	0.57	-0.23
CFLT14	100.00	2.01	0.89	0.33	-0.97
CFLT15	100.00	2.28	1.09	0.46	-0.53
CFLT16	100.00	2.20	0.95	0.16	-1.05
CFLT17	100.00	2.08	0.98	0.43	-0.92
CFLT18	100.00	2.14	0.94	0.38	-0.78

Table 10

Summary Descriptive Statistics and Reliabilities For Conflict Subscales

	M	SD	Number of Items	Cronbach's Alpha
WTF Time	9.53	3.46	3	0.88
WTF Strain	7.81	3.30	3	0.91
WTF Behaviour	6.73	2.59	3	0.77
FTW Time	7.40	2.68	3	0.72
FTW Strain	5.85	2.92	3	0.90
FTW Behaviour	6.42	2.52	3	0.85

Performance Scales

Summary descriptive statistics for the work performance, family performance and sport performance scales are depicted in Table 11, Table 12, and Table 13. Item means for work performance ranged from 5.75 (SD=1.34) for WP5 to 6.40 (SD=0.85) for WP2, with α = 0.87. Item means ranged from 5.35 (SD=1.27) for FP2 to 5.44 (SD=1.17) for FP1, with α = 0.93. Item means ranged from 5.09 (SD=1.23) for SP3 to 5.47 (SD=1.08) for SP2, with α = 0.93. Skewness and kurtosis values were all in the acceptable ranges as described by Kline (2005), with

skewness values ranging from -1.50 to -0.20 and kurtosis values ranging from -0.76 to 2.20, suggesting normal distribution.

Table 11.

Summary Descriptive Statistics for the Work Performance Scale

	N	Mean	SD	Skewness	Kurtosis
WP1	100.00	6.30	0.93	-1.18	0.41
WP2	100.00	6.40	0.85	-1.28	0.71
WP3	100.00	6.30	0.89	-1.15	0.49
WP4	100.00	6.38	0.86	-1.50	2.20
WP5	99.00	5.75	1.34	-1.13	1.45

Table 12.

Summary Descriptive Statistics for the Family Performance Scale

	N	Mean	SD	Skewness	Kurtosis
FP1	99.00	5.44	1.17	-0.78	0.99
FP2	100.00	5.35	1.27	-0.90	1.32
FP3	100.00	5.38	1.33	-0.60	-0.01
FP4	100.00	5.43	1.29	-0.68	0.36
FP5	100.00	5.36	1.10	-0.20	-0.76

Table 13.

Summary Descriptive Statistics for the Sport Performance Scale

	N	Mean	SD	Skewness	Kurtosis
SP1	100.00	5.43	1.21	-0.60	-0.03
SP2	100.00	5.47	1.08	-0.29	-0.72
SP3	100.00	5.09	1.23	-0.44	0.51
SP4	100.00	5.39	1.14	-0.69	0.45
SP5	99.00	5.32	1.33	-0.75	0.37

Organisational Commitment Questionnaire

Cronbach's alpha was $\alpha = 0.93$, with item means ranging from 4.06 (SD=1.72) for OC3 to 5.51 (SD=1.31) for OC1. Skewness and kurtosis values indicated an approximately normal distribution, with skewness values ranging from -1.04 to -0.23 and kurtosis values ranging from -0.73 to 0.02.

Table 14.

Summary Descriptive Statistics for the OCQ

	N	Mean	SD	Skewness	Kurtosis
OC1	100.00	5.51	1.31	-0.66	-0.40
OC2	100.00	5.11	1.47	-0.70	0.02
OC3	100.00	4.06	1.72	-0.23	-0.73
OC4	100.00	5.12	1.48	-0.54	-0.12
OC5	100.00	5.43	1.44	-0.61	-0.32
OC6	100.00	4.95	1.59	-0.72	-0.12
OC7	100.00	5.39	1.55	-0.78	-0.16
OC8	100.00	5.41	1.60	-1.04	0.42
OC9	99.00	4.89	1.73	-0.59	-0.44

Work-Life Balance Scale

Item means ranged from 3.61 (SD=0.90) for WLB1 to 3.86 (SD=0.86) for WLB5. Cronbach's alpha was $\alpha = 0.90$. Skewness values ranged from -1.01 to -0.17 and kurtosis values ranged from -0.29 to 1.62, suggesting approximate normal distribution.

Table 15.

Summary Descriptive Statistics for the Work-Life Balance Scale

	N	Mean	SD	Skewness	Kurtosis
WLB1	100.00	3.61	0.90	-0.17	-0.29
WLB2	100.00	3.74	0.84	-0.53	0.42
WLB3	100.00	3.67	1.03	-0.62	-0.10

WLB4	98.00	3.83	0.75	-0.62	1.36
WLB5	99.00	3.86	0.86	-1.01	1.62
WLB6	100.00	3.80	0.85	-0.50	0.29

Job Satisfaction

Table 16 shows Item means ranged from 3.63 (SD=1.08) for JOBSAT1 to 3.90 (SD=0.99) for JOBSAT3. Skewness values ranged from -0.81 to -0.69 and kurtosis values ranged from -0.42 to 0.24, suggesting normal distribution for the job satisfaction scale. Cronbch's alpha was acceptable with $\alpha = 0.78$.

Table 16.

Summary Descriptive Statistics for the Job Satisfaction Scale

	N	Mean	SD	Skewness	Kurtosis
JOBSAT1	100.00	3.63	1.08	-0.69	-0.02
JOBSAT2	99.00	3.74	1.29	-0.80	-0.42
JOBSAT3	99.00	3.90	0.99	-0.81	0.24

Life Satisfaction Scale

Means for items ranged from 4.72 (SD=1.63) for LIFESAT5 to 5.51 (SD=1.16) for LIFESAT3, with skewness values ranging from -1.10 to -0.51 and kurtosis values ranging from -0.41 to 1.44. Skewness and kurtosis values suggested normal distribution and $\alpha = 0.89$, suggesting good internal reliability.

Table 17.

Summary Descriptive Statistics for the Life Satisfaction Scale

	N	Mean	SD	Skewness	Kurtosis
LIFESAT1	100.00	5.18	1.18	-0.93	1.31
LIFESAT2	100.00	5.29	1.08	-0.71	0.71
LIFESAT3	100.00	5.51	1.16	-1.10	1.44
LIFESAT4	100.00	5.43	1.17	-0.86	1.27
LIFESAT5	100.00	4.72	1.63	-0.51	-0.41

Measurement Models

Measurement models were constructed for all of the scales, using confirmatory factor analysis and maximum likelihood estimation in AMOS (verion 22). Measurement models were developed using relevant literature and the factor structure was tested using AMOS (version 22) and then alternate models were also developed and tested (Arbuckle, 2010).

Enrichment Scale

Carlson and colleagues (2006) enrichment scale was factor analysed using maximum likelihood estimation CFA, with indices of fit displayed in Table 18. Initially, a one factor model was tested, followed by the two factor model and then the two 6 factor models were tested as suggested by Carlson, Kacmar, Wayne & Grzywacz (2006). All of the models tested were based on previous literature, with the 6 factor correlated model suggested as the best fit in the majority of the relevant articles (Carlson, Kacmar, Wayne, & Grzywacz, 2006; Hanson, Hammer & Colton, 2006). The four models were tested for the enrichment scale, with Model 1, the correlated 6 factor model selected as the best fitting model for this data. The 6 factors consisted of family to work development, family to work affect, family to work capital, work to family development, work to family affect, and work to family efficiency.

Table 18.

Fit Indices and Internal Reliability for the Enrichment Scale

CE model	df	χ2	p	CFI	RMSEA	TLI
Model 1 (Correlated 6F)	120	198.15	***	0.96	0.081	0.95
Model 2 (HO, 6F, uncorrelated)	129	248.59	***	0.95	0.088	0.94
Model 3 (Two Factor)	134	859.80	***	0.62	0.234	0.57
Model 4 (1 Factor)	135	1110.99	***	0.49	0.270	0.43

Note: CFI = Comparative Fit Index; RMSEA = root mean square error of approximation. **p<.01, ***p<.001

Perceived Stress Scale

CFA's were conducted to determine the factorial structure of the perceived stress scale. Initially the one factor model was tested, as this measure perceived stress has been previously described as a global measure of an individual's perception of stress. This fit the data poorly as seen in Table 19, therefore a two factor model was tested based on the previously supported model by Roberti, Harrington, and Storch (2011). The two factor model fit the data well, with the factors perceived helplessness and perceived self-efficacy, fitting as suggested by the previous authors.

Table 19.

Fit Indices and Internal Reliability for the Perceived Stress Scale

CE model	df	χ2	p	CFI	RMSEA	TLI
Model 1 (Two Factor Model)	34	63.75	***	0.94	0.094	0.92
Model 2 (One Factor Model)	35	72.62	***	0.92	0.104	0.90

BriefCOPE Scale

The BriefCOPE scale was analysed to determine factorial structure. Literature suggested the briefCOPE was constructed of 14 subcales, each of which had only two items. Due to insufficient reliability of factors with only two items, this measurement model was not tested. An EFA was conducted initially to determine the factor structure of the scale in this population. The EFA suggested that the BriefCOPE consisted of 3 factors, which was then tested using a CFA. The 3 factors tested in the CFA were emotional focused, problem focused and dysfunctional coping. Table 20 shows the 3 factor model fit the data marginally, so a four factor model was tested subsequently. The four factor model was tested as both a higher order model and a correlated model. The correlated, four factor model fit the data best (CFI and TLI closer to 1), with the factors consisting of problem focused, cognitive restructuring, social support and emotion focused coping (df = 98, $\chi 2$= 204.961, CFI = 0.847, TLI=0.86 RMSEA = 0.105). The RMSEA for the coping scale indicated marginal fit for all models, according to

recommendations made by Browne and Cudeck (1993). The large RMSEA may be attributed to the small sample size in this study, which has been suggested to artificially increase the RMSEA due to increased possibility of sampling error (MacCallum, Browne & Sugawara, 1996). Therefore some researchers have suggested not computing this fit statistic when using a small sample size (Kenny, Kaniskan, & McCoach, 2014). The small sample size used in this study was considered when using fit statistics such as the RMSEA, and more leniency was given for slightly increased RMSEA due to the possible impact from sample size.

Table 20.

Fit Indices and Internal Reliability for the BriefCOPE

CE model	df	χ2	p	CFI	RMSEA	TLI
3 Factor Higher Order Model	297	598.99	***	0.73	0.101	0.87
4 Factor Higher Order Model	101	217.51	***	0.83	0.108	0.84
3 Factor Correlated Model	296	596.75	***	0.73	0.101	0.69
4 Factor Correlated Model	98	204.96	***	0.85	0.105	0.86

Sport Commitment Questionnaire

CFA's were conducted on the SCQ to determine the best fit to the current data, and the fit indices for the SCQ can be seen in Table 2. A negative heywood variable (e21) was adjusted so the variance was 0.05 in order for the CFA's to run. Initially a 6 factor structure was tested, both correlated, uncorrelated and higher order, according to the 6 factors suggested by Scanlan et al (1993b). These models regression weights showed the involvement alternatives and social constraints factors were insignificant when loading into a higher order model, when the other 4 factors were significant (p=0.381 and p=0.932). Once these two factors were removed, the four factor correlated model fit the data best. Items 19, 20, 21 and 25 were removed due to kurtosis as described in the previous section.

Table 21.

Fit Indices and Internal Reliability for the Sport Commitment Questionnaire

CE model	df	χ^2	p	CFI	RMSEA	TLI
6 Factor Uncorrelated	211	448.96	***	0.79	0.107	0.75
6 Factor Correlated Higher	205	356.83	***	0.87	0.086	0.83
6 Factor Correlated	196	342.52	***	0.87	0.087	0.83
4 Factor Uncorrelated	78	198.37	***	0.86	0.125	0.82
4 Factor Correlated	61	141.550	***	0.90	0.115	0.85
4 Factor Higher Order	2	3.64	***	0.97	0.098	0.92

Conflict

The conflict scale has been proposed as a two factor and a six factor scale, with the two factors being work-family conflict and family-work conflict, and the six factor model being work-to-family time conflict, family-to-work time conflict, work-to-family strain, family-to-work strain, behavioural family-to-work conflict, and behavioural work-to-family conflict. Initially the two factor model was tested, using both correlated and higher order models, which both fit the data poorly. The 6 factor model was then tested, and the 6 factor correlated model fit the data best but still with reasonably poor fit as seen by Table 22.

Table 22.

Fit Indices and Internal Reliability for Conflict Scale

CE model	df	χ2	p	CFI	RMSEA	TLI
6 Factor Higher Order	130	297.46	***	0.84	0.114	0.79
6 Factor Correlated	129	289.69	***	0.85	0.112	0.79
2 Factor Correlated	134	651.12	***	0.50	0.197	0.36
2 Factor Higher Order	13	656.79	***	0.50	0.198	0.36
One Factor Higher Order	135	846.10	***	0.31	0.231	0.13

Performance

Performance was measured using three scales, sport performance, work performance and family performance. Each scale consisted of 5, self-report items. The factor structure of each measure was tested individually, as each scale has been proposed as a global measure of performance in the previous literature. However, a one factor model of each sport performance, family performance and work performance all fit poorly. Subsequently, a three factor model of performance was tested as there was a high correlation between performance measures. The three factor, correlated model of performance and the three factor higher order model both fit the data with the same RMSEA and CFI which were significantly better fit than the individual models, suggesting they were the best fitting models as seen by Table 23.

Table 23.

Fit Indices and Internal Reliability for Performance Scales

CE model	df	χ^2	p	CFI	RMSEA	TLI
Family Performance	5	49.26	***	0.91	0.299	0.72
Sport Performance	5	21.08	***	0.95	0.180	0.86
Work Performance	5	21.82	***	0.95	0.184	0.85
3 Factor Correlated	87	197.00	***	0.91	0.113	0.88
3 Factor Higher Order	87	197.00	***	0.91	0.113	0.88

Organisational commitment, Work-family balance, job and life satisfaction

Organisational commitment, work-family balance and job and life satisfaction scales used in the current study were all previously described in the literature as one factor scales. Therefore, CFA's were conducted on these scales, and the results can be seen in table 24.

Table 24.

Fit Indices and Internal Reliability for Global, One Factor measures

CE model	df	χ^2	p	CFI	RMSEA	TLI
Life Satisfaction One Factor	5	21.17	***	0.94	0.214	0.89
Higher Order OCQ	27	64.79	***	0.94	0.119	0.89
Job Satisfaction	1	.15	0.698	1	.000	0.10
Balance One Factor	9	79.36	***	0.81	0.281	0.57

Structural Models

Structural models were tested in accordance with the relevant literature and the hypotheses proposed in Chapter 1. Firstly, hypotheses 1, 2 and 3 were tested with the current data, following evidence from meta-analyses such as Byron (2005), Mesmer-Magnus & Viswesvaran, 2005, and McNall and associates (2010). In accordance with the literature, the bi-directional structure of enrichment and conflict was tested, as were one factor models, leading to the outcome variables (perceived stress, performance, job satisfaction and life satisfaction). Tables 25, 26 and 27 depict the models tested representing hypotheses 1, 2 and 3.

Table 25.

Fit Indices for CFA Models testing Hypothesis 1

CE model	df	χ2	p	CFI	RMSEA	TLI
FTW Enrichment	248	399.6	***	0.86	0.079	0.83
WTF Enrichment	248	438.83	***	0.85	0.088	0.81
1 Factor (Total) Enrichment	320	556.1	***	0.82	0.086	0.79

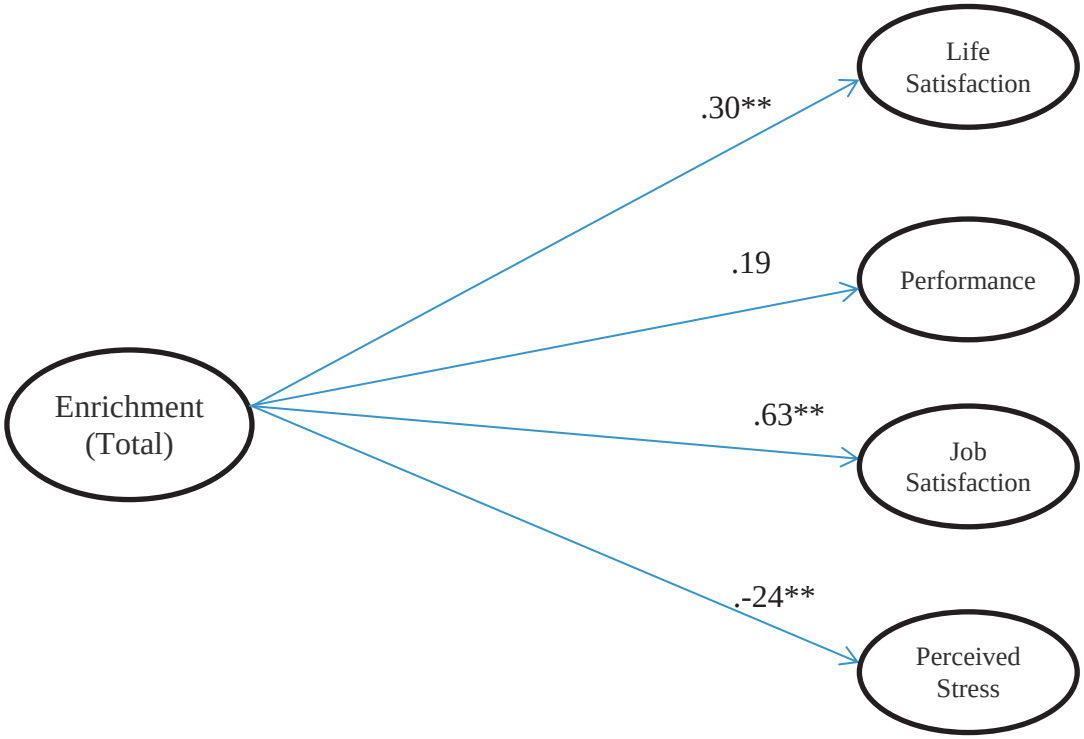

Figure 2. Total Enrichment (both FTW and WTF directions) and relationships with outcome variables of life satisfaction, performance, job satisfaction and perceived stress. Standardised factor loadings were used, where ** indicates $p<0.05$. Error and item loadings removed for illustrative reasons.

Table 25 shows relationships between enrichment, as work-family enrichment, family-work enrichment, and total enrichment, with the hypothesized outcome variables of perceived stress, job satisfaction, life satisfaction, and performance. The family-work enrichment model did not demonstrate any significant relationships ($p<0.05$) between family-work enrichment and the outcome variables. Interestingly, the work-family enrichment model, and total enrichment models, had significant ($p<0.05$) relationships with all of the outcome variables except total performance ($p>0.05$). The relationships between enrichment and outcome variables were all positive, except for the relationship between enrichment (FTW/WTF/Total) and perceived stress, which was negative.

Table 26.

Fit Indices for CFA Models testing Hypothesis 2

CE model	df	χ2	p	CFI	RMSEA	TLI
WTF Conflict	258	372.69	***	0.89	0.071	0.86
FTW Conflict	248	390.87	***	0.87	0.076	0.84
1 Factor (Total) Conflict	320	575.48	***	0.80	0.090	0.76

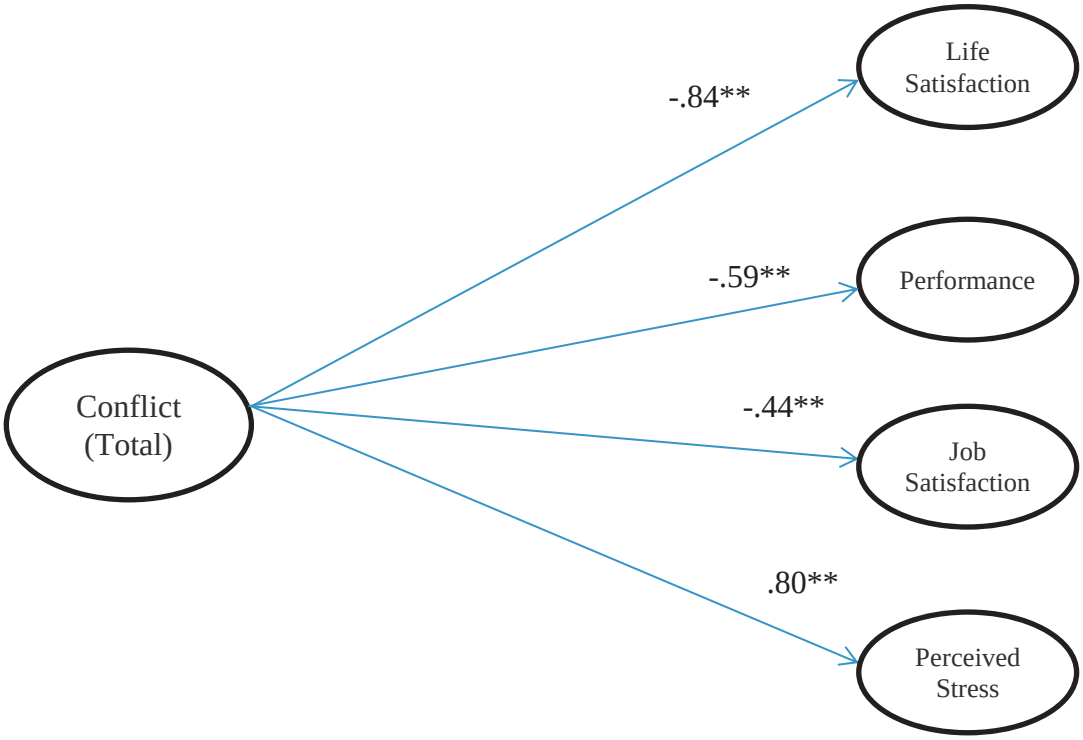

Figure 3. Total Conflict (both FTW and WTF directions) and relationships with outcome variables of life satisfaction, performance, job satisfaction and perceived stress. Standardised factor loadings were used, where ** indicates p<0.05. Error and item loadings removed for illustrative reasons.

Table 26 shows the fit statistics from testing hypothesis 2 using confirmatory factor analysis. As mentioned in the literature, and tested in the measurement models section, the conflict scale is comprised of 6 factors. It has been suggested that work-family conflict and family-work conflict may correlate differently to similar outcome variables; therefore three different models were proposed and tested. All of the relationships between conflicts (WTF Conflict/FTW Conflict/1 factor conflict) were significant with all of the outcome variables (stress,

job satisfaction, life satisfaction, and total performance) ($p<0.05$). The relationships between conflict and life satisfaction, job satisfaction, and performance were all significant and negative. The relationship between conflict and perceived stress was significant and positive.

Table 27.

Fit Indices for CFA Models testing Hypothesis 3

CE model	df	χ2	p	CFI	RMSEA	TLI
Work-Life Balance	322	626.120	***	0.79	0.098	0.75

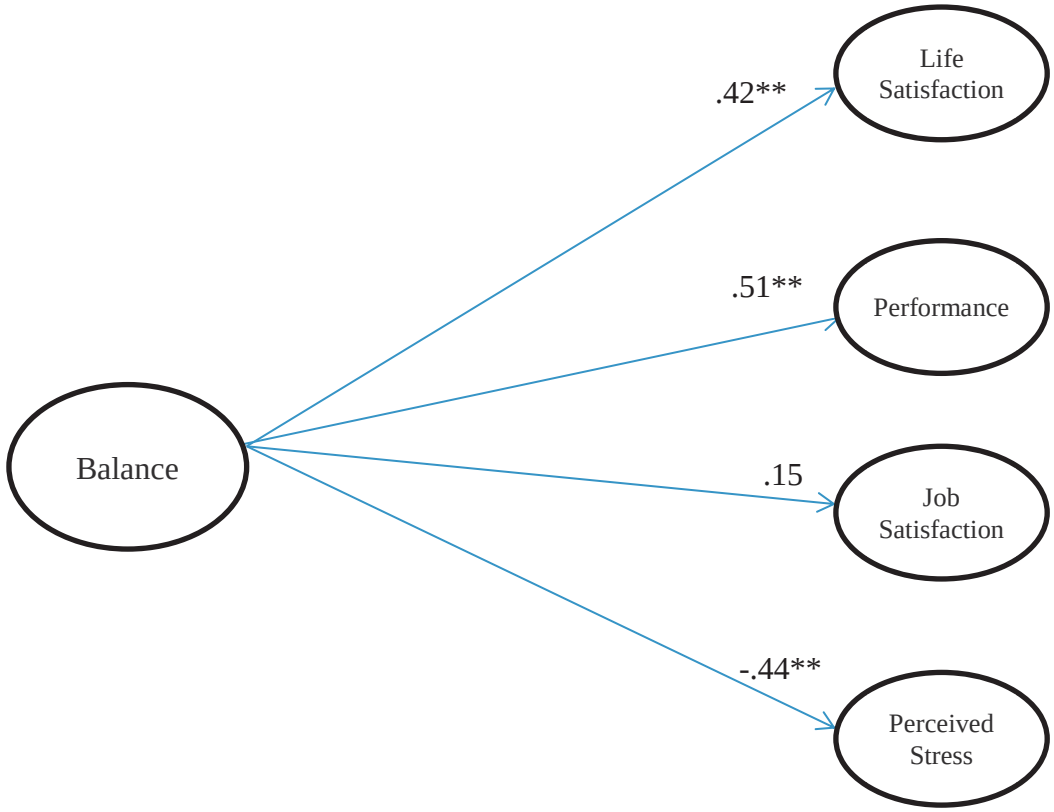

Figure 4. Work-life Balance and relationships with outcome variables of life satisfaction, performance, job satisfaction and perceived stress. Standardised factor loadings were used, where ** indicates $p<0.05$. Error and item loadings removed for illustrative reasons.

Table 27 shows the fit indices from testing hypothesis 3, questioning the correlations and model fit between work-life balance and outcome variables of perceived stress, job satisfaction, life satisfaction, and performance. All of the correlations between work-life balance and outcome variables were significant

($p<0.05$) except that between work-life balance and job satisfaction. The relationships between life satisfaction, performance and job satisfaction were all positive, with a negative relationship between work-life balance and perceived stress.

Hypothesis 4 was tested using confirmatory factor analysis, to determine the effect of sport and organisational commitment on enrichment, conflict, balance and outcome variables. Numerous models were tested, with one of the best fitting models suggesting enrichment was correlated with sport commitment and organisational commitment, to influence life satisfaction and subsequently life satisfaction negatively influenced perceived stress, which negatively influenced performance at work and in participants' families ($df=895$, $\chi 2=1443.23$, $CFI=0.81$, $TLI=0.79$, $RMSEA=0.079$). Sport performance did not have any significant relationships with variables in this model, so it was removed. All of the relationships between variables were significant in the previously mentioned model ($p<0.05$) and the model is visually depicted in Figure 5.

This model was also tested using the work-life conflict construct, with findings indicating sport commitment and organisational commitment negatively influenced work-life conflict, with the variables negatively influencing life satisfaction, which in turn negatively influenced perceived stress and work and family performance. Time FTW conflict was removed from this analysis, due to an insignificant relationship between time FTW conflict and the higher order factor of total conflict.

This model of organsiational commitment and sport commitment correlating to the work-life boundary measure was also tested using the work-life balance construct. Results suggest organisational commitment; sport commitment and work-life balance interact to significantly influence life satisfaction, which negatively influences perceived stress, and subsequently influences work and family performance. All of the relationships in this model were significant at the 0.05 level. The fit indices of these models of interactions between work-life

boundary constructs, with commitment and outcome variables are presented in Table 28.

Table 28.

Fit Indices for CFA Models testing Hypothesis 4

CE model	df	χ2	p	CFI	RMSEA	TLI
Enrichment	895	1443.23	***	0.81	0.079	0.79
Conflict	853	1460.26	***	0.79	0.085	0.77
Balance	895	1486.54	***	0.81	0.082	0.79

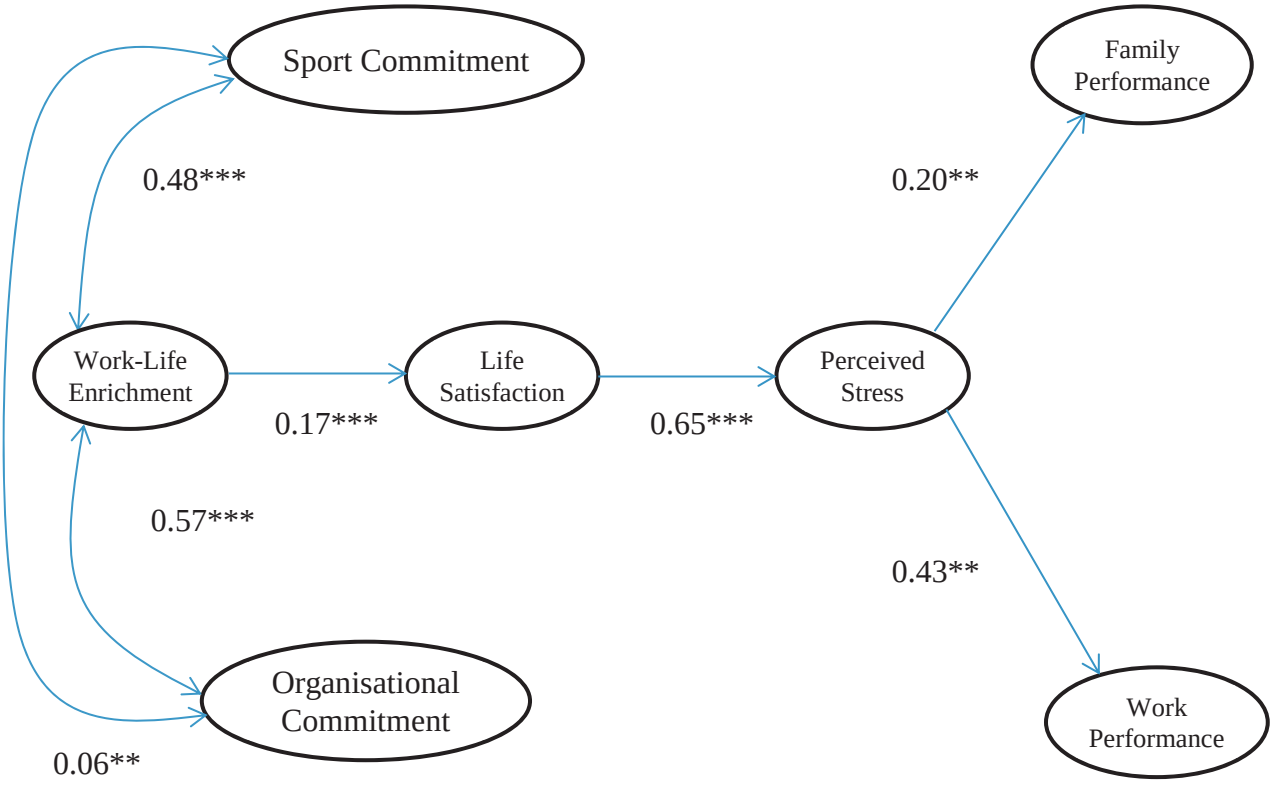

Figure 5. Structural model of Work-life enrichment, sport and organisational commitment correlated and influencing life satisfaction, perceived stress, work and family performance. Standardised factor loadings were used, where ** indicates p<0.05, *** indicates p<0.01. Error and item loadings removed for illustrative reasons.

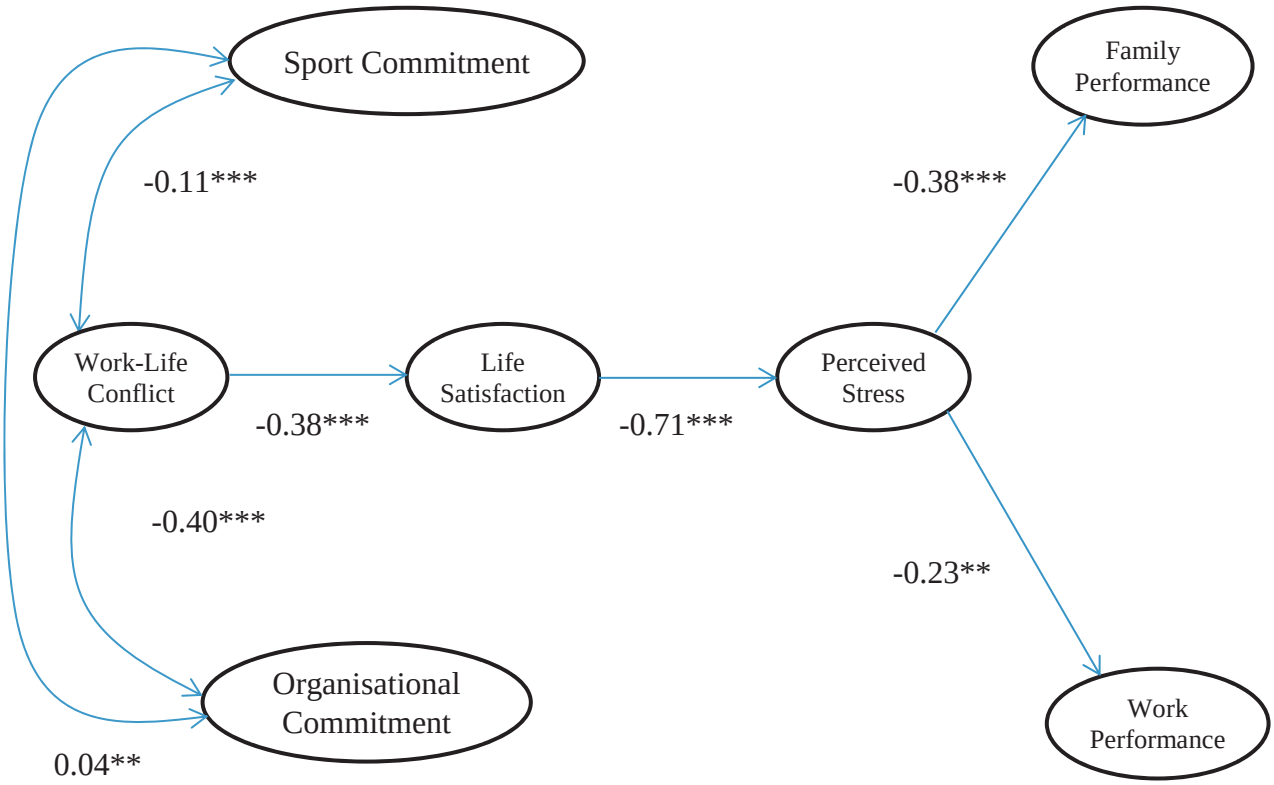

Figure 6. Structural model of Work-life conflict, sport and organisational commitment correlated and influencing life satisfaction, perceived stress, work and family performance. Standardised factor loadings were used, where ** indicates $p<0.05$, *** indicates $p<0.01$. Error and item loadings removed for illustrative reasons.

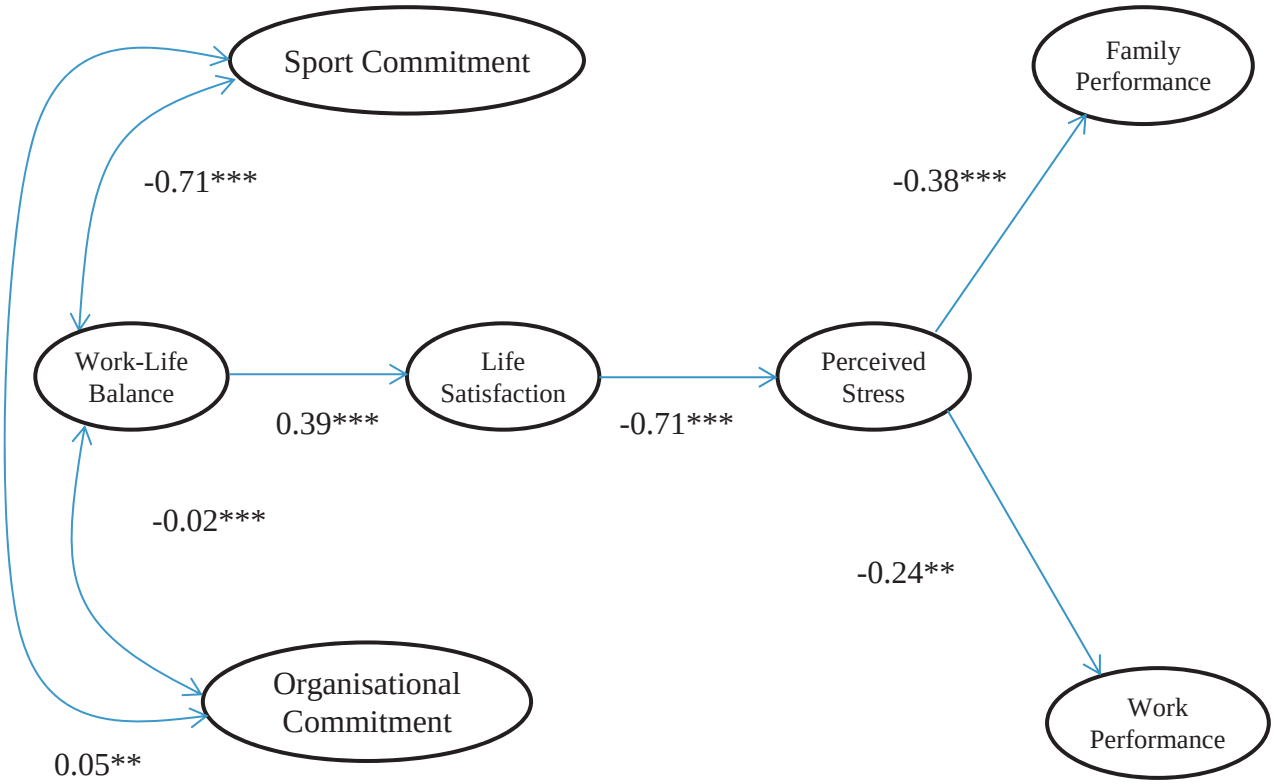

Figure 7. Structural model of Work-life balance, sport and organisational commitment correlated and influencing life satisfaction, perceived stress, work and family performance. Standardised factor loadings were used, where ** indicates $p<0.05$, *** indicates $p<0.01$. Error and item loadings removed for illustrative reasons.

Additionally, previously empirically established models such as those by Perrone et al., (2006) Haar (2013), and Michel & Clark (2009) were also tested using the data in this study. Table 29 shows these models fit the current data reasonably poorly in accordance to previously established fit indices criteria (Hu & Bentler, 1999).

Coping, as measured by the BriefCOPE, was tested as a mediator and moderator and as an outcome variable in this study. Coping was tested as a

mediator of the relationship between work-life conflict and outcome variables, as suggested by Voydanoff (2002) and Perrone et al., (2006). The results of this study suggested a mediocre fit of both the parsimoneous and alternate models suggested by Perrone et al., (2006) in this population.

Haar (2013) suggested work-life balance mediated the relationships between work-life conflict and work-life enrichment and outcome variables. This model was tested in this study, finding the model fit the data poorly. Work-life balance significantly influenced the outcome variables (perceived stress, performance, and satisfaction) however, relationships between work-life conflict and work-life balance, and work-life enrichment and work-life balance, were insignificant contributing to poor fit of the overall model.

Michel and Clark's (2009) model was also tested using the current data. Although the constructs measured in this study were not all equivalent to the constructs measured in Michel and Clark's (2009) model, the current data did not fit a partial model constructed off Michel and Clark's (2009) research.

Table 29.

Fit Indices for CFA Models testing previous models in the literature

CE model	df	χ2	p	CFI	RMSEA	TLI
Perrone et al., (2006) Model 1	491	937.387	***	0.74	0.096	0.70
Perrone et al., (2006) Model 2	488	954.169	***	0.74	0.096	0.70
Haar (2013) Model 1	429	945.531	***	0.68	0.11	0.63
Michel & Clark (2009)	149	325.372	***	0.80	0.11	0.77

Qualitative Data

Although this research project was designed to be quantitative, during data collection participants were very interested in the research and were often keen to discuss how they managed the competing demands of equestrian sport and work. With participants' permission, some quotes were noted down, and these are presented in the following section. These quotes were given freely, and the

researcher did not prompt any responses. These quotes were from the beginning of the conversations, typically straight after the researcher explained the informed consent and discussed the aims of the study.

“It’s too hard to fit it all in” – In relation to managing the time demands between equestrian sport and work.

“Something’s got to give.” –Suggesting one role (work/equestrian sport/family) is compromised by involvement in another (work/equestrian sport/family).

“What work-life balance?” - In relation to managing the time demands between equestrian sport and work. Variations of this quote were mentioned by numerous horse riders, who often found the concept of balance between work and life comical.

“I work to pay for my horses.”
“I work so I can ride.”

“I work flexible hours so I don’t have to ride in the dark in winter.” – Three participants mentioned they worked flexible hours, so they could ride.

Discussion

The present study examined the factorial structure of 12 commonly used psychometric scales in the sport and organisational psychology field, which were adapted to an equestrian population. Once the factorial structure of the scales was established, frequently cited models from relevant literature were tested in this unique population.

This study contributes to the existing literature in a number of ways. Firstly, it provides evidence for the use of modified measures of work-life conflict, enrichment, balance, and sport commitment. Secondly, it supports previous evidence for the validity of the measures used, and specifically provides evidence

for the measures use in a unique population of competitive equestrian athletes. Quantitative investigation into the interface between work and life for equestrian athletes has not been researched previously, and this study provides evidence for the significance of work-life interface in the lives of working, equestrian athletes. The study uses a population of working adults, with varying ages, marital status, and occupations. The use of a sample of working adults, rather than a convenience sample, adds to the external validity of this study. Furthermore, the variety of occupations, ages, marital status and other demographics increases the generalisability and external validity of this study.

This discussion will initially focus on the validation information gained from confirmatory factor analyses for each of the scales, followed by an examination of the proposed structural models and hypotheses concerning interactions between variables. Following this, limitations of the current study and potential future directions for this research field will be discussed.

Structure of Measures

The factorial structure of the scales used in this study was analysed using confirmatory factor analysis, to determine the validity of the scales and appropriateness to use in this population, as modified from the original scales.

The modified enrichment scale, measuring whether work, equestrian sport and family roles were positively interacting with each other, fit a six factor structure adequately, with good reliability (α = 0.91 to 0.97) as described by Nunnally (1978). These findings suggest that the enrichment scale maintains previously established factorial structure and reliability, when modified to focus on equestrian populations (Carlson et al., 2006). Furthermore, the modified work-life conflict scale showed adequate reliability in this population, and the six factor model best fit this data, however, the reasonably large RMSEA indicated inadequate fit. The influence of sample size on the RMSEA in this population must

be considered, as the general guideline for conducting a CFA is N=200; and this study only managed N=100 (MacCallum et al., 1996).

The BriefCOPE, is a shortened version of the COPE by Carver (1997), which is widely used in sporting literature. The findings of this study suggest coping in equestrian athletes can be categorised into problem focused coping, cognitive restructuring coping, social support, and emotion focused coping.

The modified Sport Commitment Questionnaire used here was analaysed based on the six factor structure suggested by Scanlan (1993b). Results from the CFA suggest sport commitment in equestrian athletes can be attributed to six factors, however, two factors were dropped from the final higher order model due to insignificant correlations between the involvement alternatives and social constraints factors with total sport commitment. The total reliability for the SCQ in this population was good ($\alpha>0.8$), however the reliability of two scales was questionable ($\alpha<0.7$). These findings add to the literature on the SCQ, suggesting that the SCQ is a reasonably valid measure for examining sport commitment in equestrian athletes.

The 10-item PPS was hypothesized to consist of two factors; perceived helplessness and perceived self-efficacy, as suggested by Roberti, Harrington and Storch (2011). With a similar gender distribution to the Roberti and associates (2011) study, the current study found that equestrian athletes experienced perceived helplessness and self-efficacy as part of their overall perceived stress.

The three performance scales; job, sport and family performance, showed the best fit when they were correlated as a three-factor structure leading to total performance, rather than three separate measures of performance. The two sport and family performance scales were modified from Anderson and Williams (1991), with the work performance scale remaining the same as the previously validated scale by Anderson and Williams (1991). These findings provide support for the use of a self-report measure of equestrian sport performance, and for the use of

the three measures of performance either by themselves as one variable, or as factors of overall performance.

Results from the factor analyses, conducted to determine the internal structure of the measures, fit with previous empirical support for each measure, although some of the measures fit statistics suggested mediocre or unacceptable fit. In several cases the CFI suggested good fit with the model, and the RMSEA was slightly above one, which was the established cut off recommended by Browne and Cudeck (1993). The calculation of the RMSEA depends on sample size, and can be artificially increased when small sample sizes are used during factor analysis (Kenny et al., 2014). Therefore, in this study, more lenience was given to RMSEA values that were slightly above the cut-off value for mediocre fit (values between 1 and 1.1). Future studies could investigate whether the RMSEA reduces for these models when a larger sample size of competitive horse riders is used.

The previous paragraphs discuss evidence for the validity of the scales used in this study. Interestingly, none of the scales used in this population had been used on a similar population to this one. Thus this study provides further validation and, therefore, justification for the use of these measures in a population of equestrian athletes.

Structural Model Hypothesis Testing

After the scales were validated and their factor structure was confirmed, the current data was tested against models previously supported in the relevant literature. Initially, the work-life balance, work-life enrichment and work-life conflict scales were examined to determine their relationships with the outcome variables of job satisfaction, life satisfaction, performance, and perceived stress. Relationships between work-life balance, enrichment and conflict and outcome variables are prolific in the literature, with many meta-analysis and review studies finding significant effects of work-life balance, enrichment and conflict (Allen et al., 2000; Byron, 2005; McNall et al., 2010). Therefore, it was important to establish whether the current population of working, equestrian athletes followed similar

trends to previous literature, as this has been largely unexplored in academic research.

Hypotheses 1, 2 and 3, suggested work-life conflict, enrichment and balance each influence the aforementioned outcome variables. These three hypotheses were supported in the current study, with significant relationships found between each work-life construct and outcome variables.

Hypothesis 1 suggested that work-life enrichment would influence life satisfaction, job satisfaction, performance and perceived stress. This study found work-life enrichment significantly influenced life satisfaction, job satisfaction and was significantly negatively correlated to perceived stress. Previously, authors such as Carlson et al., (2014) have questioned, based on the bi-directional composition of enrichment, whether the effects of enrichment are stronger in the receiving or originating domain. For example, does work-family enrichment lead to increased family satisfaction or increased job satisfaction? This study examined correlations between work-life enrichment, life-enrichment, and total enrichment to determine if the constructs differed in their relationships with outcome variables (seen in Table 25). All of the relationships between enrichment and work-family enrichment had similar, significant relationships with outcome variables. However, there were no significant relationships observed between life-to-work enrichment in this population. Therefore, this study suggests that enrichment from life outside of work alone may not influence life and job satisfaction, or perceived stress. However, in combination with enrichment from work-to-life, total enrichment significantly influences positive psychological outcomes.

These findings in relation to hypothesis 1 support previous literature in the field, that enrichment leads to positive psychological outcomes (McNall et al., 2010). However, it also adds to the literature regarding multiple roles in sportspeople. This study suggests that when horse riders work, equestrian and family roles have a positive relationship, the individual experiences greater satisfaction and less stress. For example, participation in one role is beneficial for

participation in another. These findings support findings by Lance (2004), O'Driscoll, Ilgen and Hildreth (1992), Fejgin (1994) and Hanson and Kraus (1998; 1999). These authors found positive associations between sport and non-sport life, such as academic achievement. Lance (2004) theorized that participants in his study were experiencing enrichment, from the combination of sport and other life roles. Results from this study expand on Lance's (2004) findings, suggesting that when horse riders are experiencing enrichment from combining work, equestrian sport and family, they experience greater life satisfaction, and less stress.

Previous sections questioned whether horse riders would experience enrichment from multiple roles, as horse riding requires such large time and resource allocation. Pummell et al., (2008) found adolescent horse riders to experience negative psychological and performance outcomes due to involvement in equestrian sport. However, this study also suggests that when horse riders perceive roles to enrich each other, they experience positive outcomes. Interestingly, this shows that although horses are a large commitment, in terms of time and resources required to participate in the sport, when they combine positively with work and family roles they provide horse riders with greater satisfaction, and reduced stress.

The current study also found evidence in support of hypothesis 2, which proposed work-life conflict would influence life satisfaction, job satisfaction, performance and perceived stress. A large body of research has suggested that work-life conflict leads to increased perceived stress, reduced life and job satisfaction and reduced performance (Kossek & Ozeki, 1998; Allen et al., 2000; Carlson et al., 2000). This study found significant, negative correlations between conflict (WTF, FTW or total) and performance, life and job satisfaction. The results also show a significant, positive relationship between work-family, family-work and total conflict and perceived stress. Similarly to enrichment, conflict is a six factor structure consisting of two directions, one representing conflict from life to work and one suggesting conflict from work to family (Carlson et al., 2000). Consequently, authors have questioned whether differences in outcomes occur due to the domain in which the conflict is experienced (Lapierre et al., 2008). This

study did not find any differences in relationships between outcome variables depending on which domain the conflict occurred in (see Table 26). Therefore, this study did not show a difference between the origin of where the conflict originated and where the negative outcome was experienced. These results may suggest that, in competitive horse riders, conflict is leading to negative outcomes across roles regardless of whether it is due to work conflicting with life or life conflicting with work.

These findings support Pummell and colleagues (2008) study, which found adolescent horse riders experienced significant role conflict due to involvement in eventing (a discipline of equestrian sport). This study showed that in a population of working adult horse riders, those who perceived their roles to be conflicting with each other, had reduced satisfaction, performance and increased stress. Involvement in equestrian sport is time consuming and expensive to participate in. From these results it can be seen that the large amount of resources required to participate in equestrian sport may lead to negative outcomes when combined with work and family, if the roles seem incompatible to the individual.

Table 27 provides evidence to support hypothesis 3, proposing balance between work and life significantly influences life satisfaction, performance, and perceived stress. These findings suggest that those competitive horse riders that experience balance between work and non-work life (including family and equestrian sport) experience greater life satisfaction and performance, while perceiving they are under less stress. Interestingly, the direct relationship between work-life enrichment and performance was not significant, yet the direct relationship between work-life balance and performance was significant (note: performance was indirectly, significantly affected by enrichment, when commitment to roles was considered). This may support Carlson and colleagues (2010) suggestion that balance is a more global measure of the work-family interface, and explains variance incrementally to other measures of the work-life interface. However, the work-life balance measure did not find a significant, direct relationship to job satisfaction, whereas the other two measures of work-life interface did. The differential findings and relationships with outcome variables

offer evidence for the measurement and consideration of all three constructs in work-life research.

Work-life balance has not been studied previously in a population of equestrian athletes. The findings of this study show that work-life balance is an important aspect to consider in equestrian athletes, as those individuals experiencing balance between work, equestrian sport and family roles experience positive outcomes. Although equestrian sport involves a large resource allocation, when individuals perceive that their equestrian sport, work and family roles are balanced, they experience greater life satisfaction, performance and reduced stress.

The differential findings between work-life balance, enrichment and conflict also provide support for hypothesis 5, which suggests the constructs are empirically distinct. Moreover, correlations between work-life enrichment, balance and conflict were all under 0.7 (0.17, -0.15, -0.42), indicating they were distinct constructs.

Haar (2013) found evidence for the role of work-life balance as a mediator between work-life conflict and enrichment, and outcome variables such as job and family satisfaction, anxiety, depression and emotional exhaustion. This model was tested in the current study, to determine whether work-life balance mediated the influence of work-life enrichment and conflict on outcome variables such as satisfaction. The data did not support Haar's (2013) model, finding no significant relationships between work-life enrichment and conflict with work-life balance, and the model exhibited poor fit. These findings suggest work-life balance does not mediate work-life conflict and enrichment in equestrian athletes, but individually influences outcome variables supporting conclusions by Carlon et al., (2010).

Previous research has suggested commitment to roles may both increase conflict between roles and increase enrichment between roles (Mathieu & Zajac, 1990; Chartrand & Lent, 1987). Multiple roles have been proposed as a source of conflict, a buffer of conflict, and a source of increased resources and affect (Super,

1990; Greenhaus & Powell, 2006). Super (1990) postulates that role salience, the importance of a role in one's life, is composed of commitment, values, expectations and participation (Super, 1982). Super suggests commitment is to a role is crucial to an individual's self-concept, which is key to satisfaction (Super, 1990). Individually, studies have suggested work commitment and sport commitment may influence conflict, enrichment and balance. Studies have also suggested family commitment and work commitment influence work-family conflict, which in turn influences coping, work and family satisfaction (Perrone et al., 2006). Therefore, the current study hypothesised that work and sport commitment would influence work-life conflict, enrichment and balance (Hypothesis 4). This hypothesis was supported by the results, which suggested that all three work-life boundary constructs were influenced by both work and sport commitment, leading to significant effects in outcome variables.

The results indicate that equestrian athletes were experiencing both role conflict and role enrichment, influenced by commitment to work and sporting roles. This fits with suggestions by Super (1990) who proposes that commitment to roles may lead to strain, satisfaction or both.

Commitment to a role implies that an individual is willing to expend either psychological or temporal resources in order to benefit that role (Mowday et al., 1982). Therefore when one role conflicts with another, individual does not have the resources to meet the demands of both roles, and sporting and work commitment reduces (Shaffer, Harrison, Gilley, Luka, 2001; Wiley, 1991). This study's findings support previous research, proposing when equestrian athletes are experiencing role conflict, life satisfaction is reduced. Lower life satisfaction was correlated to increased perceptions of stress, which predicted reduced work and family performance. Interestingly, sport performance was not significantly influenced by high stress levels. Adler and Adler (1978) found athletes experiencing work-life conflict, reduced their academic goals and achievement. This reduced their work-life conflict and allowed for improved functioning in their sport role. Consequently, this may explain why horse riders who experienced

work-life conflict, experienced reduced commitment to roles, work and family performance but not sport performance.

Enrichment suggests roles are beneficial, and resources gained from one role are useful for another (Carlson et al., 2006; Graves, Ohlott, & Ruderman, 2007). Therefore, commitment to roles, when roles are positively interacting, should lead to positive outcomes due to increased resources and affect (Greenhaus and Powell, 2006). Furthermore, according to social exchange theory, when an individual perceives benefit from one role, they should reciprocate anticipated attitudes by increasing commitment (Blau, 1964; Greenhaus & Powell, 2006). Results from the current study support the aforementioned theories; finding that when equestrian athletes are committed to work and equestrian sport, while experiencing enrichment, they have higher life satisfaction.

In this study, commitment to roles functioned in combination with both conflict and enrichment. Commitment may facilitate conflict by reducing available resources and exacerbating stress, resulting in reduced performance (Weer, Greenhaus, & Linnehan, 2010). Therefore, horse riders may reduce commitment to roles in order to reduce their experience of role conflict. Commitment to equestrian sport requires individuals to expend a large amount of time and other resources on training, competition and looking after the horse. Consequently, this may create additional stress and pressure due to resource depletion, which results in reduced performance in the work role. Weer and associates (2010) found strong, negative direct effect from non-work role commitment to job performance in non-managerial women. In addition, the study also found positive indirect effects on job performance through non-work resource gain.

However, commitment may also facilitate resource gain, which may lead to crossover of affect and resources into another role (Greenhaus and Powell, 2006). Ruderman and colleagues found managerial women's commitment to non-work roles was positively related to life satisfaction, self-esteem and these committed women experienced enrichment between non-work roles and work (Ruderman et al., 2002). Addtionally, Graves et al., (2007) found parental and marital

commitment enhanced managers' lives and career satisfaction and performance, and the authors did not find any evidence for increased interference due to commitment to multiple roles.

In the current study, those individuals who had high work and sport commitment while experiencing work-life enrichment experienced positive psychological outcomes. This may suggest commitment to equestrian sport and work provides individuals with resource gain, which crossover to be beneficial in sport, work and family domains. Increasing resources in one domain due to commitment is beneficial for that domain, however, when resources are domain-spanning, it results in positive outcomes across domains. For this sample of working, equestrian athletes, when resources span across work, family and sport domains, commitment to those roles provides more resources which benefit all of the domains. For example, when involvement in equestrian sport increases the affect of the individual, this may crossover to the work domain and increase job satisfaction.

Therefore, the experience of either work-life conflict or work-life enrichment influences commitment to work and equestrian sport roles and whether life satisfaction is positively or negatively influenced.

Similarly to enrichment, this study finds that high work-life balance with lower sport and organisational commitment is positively related to life satisfaction. Work-life balance has been shown as an empirically distinct construct to work-life enrichment (Carlson et al., 2010), with the authors suggesting work-life balance as a global measure of the work-family interface. Interestingly, the findings of this study indicate a negative relationship between work-life balance and role commitment. When equestrian athletes are experiencing a high degree of balance between work and life roles, lower commitment to the organisation and sport leads to higher life satisfaction.

Coping was also postulated in hypothesis 6 to influence relationships between work-life constructs and outcome variables, such as job and life

satisfaction. The coping subscales did not correlate significantly with many variables in this study. Significant relationships were not established between coping subscales and work-life balance, or between coping subscales and work-life enrichment. Work-life conflict subscales showed some significant relationships with coping styles, with strain work-to-family and family-to-work conflict positively correlated to emotion focused coping, as was time family-to-work conflict. Cognitive restructuring was also positively correlated to time family-to-work conflict. Coping was tested as a mediator and a moderator, using models such as Perrone et al., (2006). Relationships were weak for coping being an important factor in the relationships between work-life interface variables and outcome variables. As seen in the results section, models fit did not fit the data well. This is consistent with previous literature, which has discussed the inconsistency of results when considering coping in the work-life interface.

Qualitative Data

The small amount of qualitative data collected suggests that some horse riders are experiencing interrole conflict between equestrian sport and work roles. This can be seen with the quotes "It's too hard to fit it all in" and "Something's got to give". The former quote suggests that participant struggled to manage the competing demands of equestrian sport, work and family roles. This finding fits with the quantitative data collected; suggesting participants experiencing work-life conflict have greater dissatisfaction with life and their job, and perceive they are under more stress.

The latter comment may be interpreted as the participant compromising on resource expenditure in one role to ensure the other has enough resources. This fits with previous qualitative research in sportspeople by Adler and Adler (1987), with the authors finding athletes tended to manage work-life conflict by reducing the demands in one role, typically compromising the academic domain in order to ensure they could continue their sport. These findings align with structural models established in this study, suggesting that the experience of role conflict reduces participants' performance in family and work roles, but not in their sporting role.

Pummell and colleagues (2008) research also supports these findings, with their population of adolescent horse riders qualitatively suggesting their involvement in equestrian sports negatively influenced their academic performance at school.

The quotes “I work to pay for my horses” and “I work so I can ride” fit with previous research on work-life balance in horse riders conducted by Pummell, Harwood, and Lavallee (2008), who found horse riders experienced high levels of sport commitment. Interestingly, the quantitative analysis in this study suggested that sport and organisational commitment were positively correlated; therefore those horse riders with high sport commitment also had high organisational commitment. However, whether the high levels of commitment to roles lead to positive or negative outcomes, depended on whether the participants were experiencing work-life enrichment or conflict.

Additionally, the last quote recorded was “I work flexible hours so I don’t have to ride in the dark in winter”. A plethora of research has questioned family friendly practices and flexi-time work as a strategy for reducing work-family conflict in workers, finding flexible hours significantly reduce work-life conflict (Breaugh & Frye, 2008; Mesmer-Magnus, & Viswesvaran, 2006). This study contributes to the literature by suggesting equestrian athletes may realign their work role, by working flexible hours, in order to facilitate their participation in equestrian sport. Furthermore, enrichment subscales were found to be correlated positively with control over hours and control of flexibility of hours. Interestingly, only work-to-family time and strain based conflict had any significant relationships with control hours/control flexibility, and work-life balance did not correlate significantly to either control over hours or flexibility of hours. Additionally, number of hours worked was significantly correlated to time work-to-family conflict, fitting with previous work in the field (Pleck et al., 1980; Bohen & Viveros-Long, 1981).

These findings fit with previous literature, suggesting enrichment and conflict are significantly influenced by control over work hours, and control over flexibility of work hours (Greenhaus and Beutell, 1985). Additionally, the number

of hours worked per week significantly influenced the experience of work-to-family time conflict.

Contribution to the literature/Implications of the findings

This study contributes to the literature in a number of ways. Firstly, it supports previous literature regarding the validity and reliability of the BriefCOPE, Perceived Stress Scale, Work-life Balance, Work-Life Enrichment, Work-Life Conflict, Diener's Life Satisfaction Scale, Job Satisfaction, Sport Commitment Questionnaire, Work Performance, Family Performance and Sport Performance, and the Organisational Commitment Questionnaire, and provides support for the use of the measures in a unique, untested population of equestrian athletes.

This study also provides evidence for valid, reliable versions of the work-life enrichment, work-life conflict, work-life balance, sport commitment questionnaire, and sport performance measures for use in a working group of equestrian athletes. Factor analysis and reliability analysis suggested the aforementioned measures were reliable for use in this population. The sport commitment questionnaire was the only measure to exhibit questionable reliability, seen in two subscales. Notwithstanding, the total scale had good reliability which lead to this study using a higher order factor structure to improve reliability of this measure.

As this is the first quantitative study in New Zealand to investigate the relationships between work-life interface variables and outcome variables in equestrian athletes, it largely contributes to current knowledge about multiple roles in equestrian athletes. This study highlights the importance of the work-life interface for working equestrian athletes, showing how involvement in these two roles may lead to positive or negative outcomes depending on whether they enrich or conflict with each other. The findings of this study expand on previous research in the work-life sphere, suggesting work-life conflict predicts poor individual outcomes, and work-life enrichment and balance lead to positive individual outcomes. This study also supports previous empirical work on the constructs of

work-life balance, work-life enrichment and work-life conflict, suggesting the constructs are all distinct yet related (Carlson et al., 2010).

Limitations and future directions

Firstly, a limitation of the current study was the sample size. The sample size used in this study limited the size and complexity of the models possible to analyse. Schumacker and Lomax (1996) suggest 15 cases per variable is an appropriate sample size in structural equation modeling. Therefore the number of cases and variables in this study limited the complexity of models tested. The simple models fit the data reasonably well, and future research should investigate the fit of larger, more complex models using these variables in a sporting population.

Common method variance was considered in this study and possible remedies to control common method variance were applied as suggested by Podsakoff, MacKenzie, Lee, and Podsakoff (2003). Although these techniques were implemented, common method variance is a limitation to consider in most social science research that uses single source data (Podsakoff et al., 2003).

Researchers have suggested that self-ratings of performance are higher than those reported by other sources such as managers, due inclusion of third variables such as self-esteem (Conway, & Huffcutt, 1997). However, the validity of self-ratings has been shown to increase when anonymity of the responses was guaranteed (Pym, & Auld, 1965). Consequently although this study used self-reported measures of performance, the implication of anonymity should have increased the validity of the self-report items.

This research was exploratory, as investigation into the work-life interface in a population of working, equestrian athletes in New Zealand has not yet been conducted. Measurement using multi-source and/or longitudinal data, such as actual performance scores, was out of the scope of this research project due to time and financial constraints. This research has highlighted an important, under-researched area in the field of work-life research through the use of a

questionnaire. Future research could explore the work-life interface in equestrian athletes using a large sample size, with a longitudinally designed study and multi-source data.

Conclusion

The present research adds valuable contributions to the work-life interface literature, contributing by providing further empirical support for commonly used psychometric assessments in organisational and sport psychology, and providing new information regarding the importance of the work-life interface in working, equestrian athletes. This study suggests work-life conflict and enrichment are important aspects to consider in equestrian athletes, which influence life satisfaction, job satisfaction, performance and perceived stress. This study also contributes to the current literature by suggesting sport and organisational commitment are influential variables in the interaction between work-life enrichment and conflict, and outcome variables.

Reference List

Adler, P., & Adler, P. (1987). Role conflict and identity salience: College athletics and the academic role. *The Social Science Journal, 24*(4), 443-455. doi: 10.1016/0362-3319(87)90059-0

Allen, T. D., Herst, D. E. L., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. *Journal of Occupational Health Psychology, 5*(2), 278-308. doi: 10.1037/1076-8998.5.2.278

Allen, T. D., Johnson, R. C., Saboe, K. N., Cho, E., Dumani, S., & Evans, S. (2012). Disponsitional variables and work-family conflict: A meta-analysis. *Journal of Vocational Behavior, 80*(1), 17-26. doi: 10.1016/j.jvb.2011.04.004

Arbuckle, J. L. (2010). Amos (Version 19) [Computer Program]. Chicago: SPSS.

Aryee, S., Srinivas, E. S., & Tan, H. H. (2005). Rhythms of life: Antecedents and outcomes of work-family balance in employed parents. *Journal of Applied Psychology, 90*, 132-146. doi: 10.1037/0021-9010.90.1.132.

Balmforth, K., & Gardner, D. (2006). Conflict and facilitation between work and family: Realising the outcomes for organisations. *New Zealand Journal of Psychology, 35*(2), 69-76. Retrieved from http://www.psychology.org.nz/publications-media/new-zealand-journal-of-psychology

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107,*238–246. doi: 10.1037/0033-2909.107.2.238

Blair, S. N., Kohl, H. W., Paffenbarger, R. S., Clark, D. G., Cooper, K. H., & Gibbons, L. W. (1989). Physical fitness and all-cause mortality. *The Journal of the American Medical Association, 262*, 2395-2401.

Bloom, G. A., & Stevens, D. E. (2002). Case study: A team-building mental skills training program with an intercollegiate equestrian team. *Athletic Insight, 4*(1), 1-16. Retrieved from http://www.athleticinsight.com/

Bohen, H. C., & Viveros-Long, A. (1981). *Balancing jobs and family life: Do flexible work schedules help?* Philadelphia: Temple University Press.

Bowling, N. A., & Hammond, G. D. (2008). A meta-analytic examination of the construct validity of the Michigan Organizational Assessment Questionnaire Job Satisfaction Scale. *Journal of Vocational Behavior, 73*, 63-77. doi:10.1016/j.jvb.2008.01.004

Bozeman, D. P., & Perrewe, P. L. (2001). The effect of item content overlap on organizational commitment questionnaire-turnover cognitions relationships. *Journal of Applied Psychology, 86*(1), 161-175. doi: 10.1037//0021-9010.86.1.161

Breaugh, J. A., & Frye, N. K. (2008). Work–family conflict: The importance of family-friendly employment practices and family-supportive supervisors. *Journal of Business and Psychology, 22*(4), 345-353. doi: 10.1007/s10869-008-9081-1

Broh, B. A. (2002). Linking extracurricular programming to academic achievement: Who benefits and why? *Sociology of Education, 75*(1), 69-95. doi: 10.2307/3090254

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Newbury Park, CA: Sage.

Bruck, C. S., Allen, T. D., Spector, P. E. (2002). The relation between work-family conflict and job satisfaction: A finer-grained analysis. *Journal of Vocational Behavior, 60*, 336-353. doi:10.1006/jvbe.2001.1836

Burke, R. (1982). Impact of occupational demands on nonwork experiences of senior administrators. *Journal of Psychology, 112*, 195-211. doi: 10.1080/00223980.1982.9915375

Burke, R. J., Weir, T., & Duwors, R. E. (1980). Work demands on administrators and spouse well-being. *Human Relations, 33,* 253-278. Retrieved from http://hum.sagepub.com/

Byron, K. (2005). A meta-analytic review of work-family conflict and its antecedents. *Journal of Vocational Behavior, 67(*2), 169-198. doi: 10.1016/j.jvb.2004.08.009.

Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). The Michigan organizational assessment questionnaire. *Unpublished manuscript, University of Michigan, Ann Arbor*.

Carlson, D. S., Grzywacz, J. G., & Zivnuska, S. (2010). Is work-family balance more than conflict and enrichment? *Human Relations, 62(*10), 1459-. doi: 10.1177/0018726709336500

Carlson, D. S., Hunter, E. M., Ferguson, M., & Whitten, D. (2014). Work–Family Enrichment and Satisfaction Mediating Processes and Relative Impact of Originating and Receiving Domains. *Journal of Management* 40(3), 845-865. doi: 10.1177/0149206311414429

Carlson, D. S., Kacmar, K. M., & Williams, L. J. (2000). Construction and initial validation of a multidimensional measure of work–family conflict. *Journal of Vocational behavior, 56*(2), 249-276. doi:10.1006/jvbe.1999.1713

Carlson, D. S., Kacmar, K., Wayne, J. H., & Grzywacz, J. G. (2006). Measuring the positive side of the work family interface: Development and validation of a work-family enrichment scale. *Journal of Vocational Behavior, 68*(1), 131-164. doi: 10.1016/j.jvb.2005.02.002

Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine*, 4, 92-100. doi: 10.1207/s15327558ijbm0401_6

Casper, W. J., Eby, L. T., Bordeaux, C., Lockwood, A., & Lambert, D. (2007). A review of research methods in IO/OB work-family research. *Journal of Applied Psychology, 92*(1), 28-43. doi: 10.1037/0021-9010.92.1.28.

Casper, W. J., Weltman, D., & Kwesiga, E. (2007). Beyond family-friendly: The construct and measurement of singles-friendly work culture. *Journal of Vocational Behavior*, *70*(3), 478-501. doi:10.1016/j.jvb.2007.01.001

Chartrand, J. M., & Lent, R. W. (1987). Sports counselling: Enhancing the development of the student-athlete. *Journal of Counseling & Development, 66*(4), 164-167. doi: 10.1002/j.1556-6676.1987.tb00837.x

Chen, Z., & Powell, G. N. (2012). No pain, no gain? A resource-based model of work-to-family enrichment and conflict. *Journal of Vocational Behavior, 81*(1), 89-98. doi: 10.1016/j.jvb.2012.05.003

Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), *The social psychology of health* (pp. 31-68). Newbury Park, CA: Sage.

Conway, J. M., & Huffcutt, A. I. (1997). Psychometric properties of multisource performance ratings: A meta-analysis of subordinate, supervisor, peer, and self-ratings. *Human Performance, 10*(4), 331-360. doi: 10.1207/s15327043hup1004_2

Dillon, W. R., Kumar, A., & Mulani, N. (1987). Offending estimates in covariance structure analysis: Comments on the causes of and solutions to Heywood cases. *Psychological Bulletin, 101*(1), 126. doi: 10.1037/0033-2909.101.1.126

Duff-Riddell, C., Louw, J. (2011). Achievement goal profiles, trait-anxiety and state-emotion of young female competitive horse riders. *South African Journal for Research in Sport, Physical Education and Recreation, 33*(3), 37-49. Retrieved from http://www.ajol.info/index.php/sajrs

Duxbury, L. E., & Higgins, C. A. (1991). Gender differences in work–family conflict. *Journal of Applied Psychology, 76*(1), 60–74. doi: 10.1037/0021-9010.76.1.60

Edwards, J. R., & Rothbard, N. P. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review, 25*(1), 178-199. doi: 10.5465/AMR.2000.2791609

Eime, R. M., Young, J. A., Harvey, J. T., Charity, M. J., Payne, W. R. (2013). A systematic review of the psychological and social benefits of participation in sport for children and adolescents: Informing development of a conceptual model of health through sport. *International Journal of Behavioural Nutrition and Physical Activity, 10*(98), 1-21. doi:10.1186/1479-5868-10-98

Fejgin, N. (1994). Participation in high school competitive sports: A subversion of school mission or contribution to academic goals? *Sociology of Sport Journal, 11*, 211-230.

Ford, M. T., Heinen, B. A., Langkamer, K. (2007). Work and family satisfaction and conflict: A meta-analysis of cross-domain relations. *Journal of Applied Psychology, 92*(1), 57-80. doi: 10.1037/0021-9010.92.1.57.

Frone, M. R. (2003). Work-family balance. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of Occupational Health Psychology* (pp. 143-162). Washington, DC: American Psychological Association.

Frone, M. R., Russell, M., & Cooper, M. L. (1992). Antecedents and outcomes of work-family conflict: Testing a model of the work-family interface. *Journal of Applied Psychology, 77*, 65-78. doi: 10.1037/0021-9010.77.1.65

Frone, M. R., Yardley, J. K., & Markel, K. S. (1997). Developing and testing an integrative model of the work-family interface. *Journal of Vocational Behavior, 50*, 145-167. doi: 10.1006/jvbe.1996.1577

George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference*. *11.0 update* (4th ed.). Boston: Allyn & Bacon.

Graves, L. M., Ohlott, P. J., & Ruderman, M. N. (2007). Commitment to family roles: Effects on managers' attitudes and performance. *Journal of Applied Psychology, 92*(1), 44-56. doi: 10.1037/0027-9010.92.1.44

Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *The Academy of Management Review, 10*(1), 76-88. doi: 10.5465/AMR.1985.4277352

Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A theory of work-family enrichment. *Academy of Management Review, 31*(1), 72-92. doi: 10.5465/AMR.2006.19379625.

Greenhaus, J. H., Parasuraman, S., Granrose, C. S., Rabinowitz, S., & Beutell, N. J. (1989). Sources of work family conflict among two-career couples. *Journal of Vocational Behavior, 34*(2), 133-153. doi:10.1016/0001-8791(89)90010-9

Gryzwacz, J. G., & Carlson, D. S. (2007). Conceptualizing work-family balance: Implications for practice and research. *Advances in Developing Human Resources, 9*(4), 455-471. doi: 10.1177/1523422307305487

Guest, D. E. (2002). Perspectives on the study of work-life balance. *Social Science Information, 41*(2), 255-279. doi: 10.1177/0539018402041002005

Haar, J. M. (2004). Work-family conflict and turnover intention: Exploring the moderation effects of perceived family support. *New Zealand Journal of Psychology, 33*(1), 35-39. Retrieved from http://www.psychology.org.nz/publications-media/new-zealand-journal-of-psychology

Haar, J. M. (2013). Testing a new measure of work-life balance: A study of parent and non-parent employees from New Zealand. *The International Journal of Human Resource Management*, 24(17), 3305-3324. doi**:** 10.1080/09585192.2013.775175

Halpern, D. F. (2005). Psychology at the intersection of work and family: Recommendations for employers, working families, and policymakers. *American Psychologist, 60*(5), 397-409. doi: 10.1037/0003-066X.60.5.397

Hanson, G. C., Hammer, L. B., & Colton, C. L. (2006). Development and Validation of a Multidimensional Scale of Perceived Work–Family Positive Spillover. *Journal of Occupational Health Psychology, 11*(3), 249-265. doi: 10.1037/1076-8998.11.3.249

Hanson, S. L., & Kraus, R. S, (1998). Women, sports and science: Do female athletes have an advantage? *Sociology of Education, 71*, 93-110. doi: 10.2307/2673243

Herman, J. B., & Gyllstrom, K. K. (1977). Working men and women: Inter- and intra-role conflict. *Psychology of Women Quarterly*, 1, 319-333. doi: 10.1111/j.1471-6402.1977.tb00558.x

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*, 513–524. doi: 10.1037/0003-066X.44.3.513

Homans, G. C. (1961). *Social behavior: Its elementary forms*. Oxford, England: Harcourt, Brace.

Johnson, U. (2007). Coping strategies among long-term injured competitive athletes. A study of 81 men and women in team and individual sports. *Scandinavian Journal of Medicine & Science in Sports, 7*(6), 367-372. doi: 10.1111/j.1600-0838.1997.tb00169.x

Kahn, R. L., Wolfe, D. M., Quinn., R., Snoek, J. D., & Rosenthal, R. A. (1964). *Organizational Stress*. New York: Wiley.

Keith, P. M., & Schafer, R. B. (1980). Role strain and depression in two-job families. *Family Relations, 29*(4), 483-488. doi: 10.2307/584462

Kelloway, E. K., Gottlieb, B. H., Barham, L. (1999). The source, nature, and direction of work and family conflict: A longitudinal investigation. *Journal of Occupational Health Psychology, 4*(4), 337-346. doi: 10.1037/1076-8998.4.4.337

Kenny, D. A., Kaniskan, B., & McCoach, D. B. (2014). The performance of RMSEA in models with small degrees of freedom. *Sociological Methods & Research*, in press.

Kirchmeyer, C. (1992). Nonwork participation and work attitudes: A test of scarcity vs. expansion models of personal resources. *Human Relations, 45*(8), 775-795. doi: 10.1177/001872679204500802

Kline, T. J. (2005). *Psychological testing: A practical approach to design and evaluation.* London: Sage Publications.

Kossek, E. E., & Ozeki, C. (1998). Work-family conflict, policies, and the job-life satisfaction relationship: A review and directions for future organizational-behavior human resources research. *Journal of Applied Psychology, 83*, 139-149. doi: 10.1037/0021-9010.83.2.139

Lance, L. M. (2004). Gender differences in perceived role conflict among university student-athletes. *College Student Journal, 38*(2), 179-190. Retrieved from http://www.projectinnovation.biz/college_student_journal

Lapierre, L. M., & Allen, T. D. (2006). Work-supportive family, family-supportive supervision, use of organizational benefits, and problem-focused coping: implications for work-family conflict and employee well-being. *Journal of Occupational Health Psychology, 11*(2), 169. doi: 10.1037/1076-8998.11.2.169

Lapierre, L. M., Spector, P. E., Allen, T. D., Poelmans, S., Cooper, C. L., O'Driscoll, M. P., ... & Kinnunen, U. (2008). Family-supportive organization perceptions, multiple

dimensions of work–family conflict, and employee satisfaction: A test of model across five samples. *Journal of Vocational Behavior, 73*(1), 92-106. doi: 10.1016/j.jvb.2008.02.001

MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods, 1,* 130-149. doi: 10.1037/1082-989X.1.2.130

Marks, S. R. (1977). Multiple roles and role strain: Some notes on human energy, time and commitment. *American Sociological Review, 42*, 921-936. Retrieved from http://www.asanet.org/

Marsh, H. W., Balla, J. R., & McDonald, R. P. (1988). Goodness-of-fit indexes in confirmatory factor analysis: The effect of sample size. *Psychological bulletin*, *103*(3), 391. doi: 10.1037/0033-2909.103.3.391

Matheson, A., & Akoorie, M. E. M. (2012). Economic impact report on the New Zealand sport horse industry. Working Paper Series No 90, Department of Strategy and Human Resource Management. Hamilton: The University of Waikato. Retrieved from http://researchcommons.waikato.ac.nz/

Mathieu, J. E., & Zajac, D. M. (1990). A review and metaanalysis of the antecedents, correlates and consequences of organizational commitment. *Psychological Bulletin, 108*(2), 171-194. doi: 10.1037//0033-2909.108.2.171

McNall, L. A., Nicklin, J. M., Masuda, A. D. (2010). A meta-analytic review of the consequences associated with work-family enrichment. *Journal of Business and Psychology, 25,* 381-396. doi: 10.1007/s10869-009-9141-1

Mesmer-Magnus, J. R., & Viswesvaran, C. (2005). Convergence between measures of work-to-family and family-to-work conflict: A meta-analytic examination. *Journal of Vocational Behavior, 67*(2), 215-232. doi: 10.1016/j.jvb.2004.05.004

Mesmer-Magnus, J. R., & Viswesvaran, C. (2006). How family-friendly work environments affect work/family conflict: A meta-analytic examination. *Journal of Labor Research, 27*(4), 555-574. doi: 10.1007/s12122-006-1020-1

Michel, J. S., & Clark, M. A. (2009). Has it been affect all along? A test of work-to-family and family-to-work models of conflict, enrichment, and satisfaction. *Personality and Individual Differences*, *47*(3), 163-168. doi:10.1016/j.paid.2009.02.015

Mowday, R. T., & Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior, 14*, 224-247. doi:10.1016/0001-8791(79)90072-1

Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work–family conflict and family-work conflict scales. *Journal of Applied Psychology, 81*(4), 400–410. doi: 10.1037/0021-9010.81.4.400

Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.

O'Driscoll, M. P., Ilgen, D. R., & Hildreth, K. (1992). Devoted to job and off-job activities, interrole conflict, and affective experiences. *Journal of Applied Psychology, 77*(3), 272-292. doi: 10.1037/0021-9010.77.3.272

Pate, R. R., Pratt, M., Blair, S. N., Haskell, W. L., Macera, C. A., Bouchard, C., ... Wilmore, J. H. (1995). Physical activity and public health: A recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine. *Journal of the American Medical Association*, *273*(5), 402-407. doi: 10.1001/jama.1995.03520290054029.

Pavot, W., & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological Assessment, 5*(2), 164-172. doi: 10.1037/1040-3590.5.2.164

Pendry, P., Smith, A. N., & Roeter, S. M. (2014). Randomized Trial Examines Effects of Equine Facilitated Learning on Adolescents' Basal Cortisol Levels. *Human-Animal*

Interaction Bulletin, 2(1), 80-95. Retrieved from http://www.apa-hai.org/human-animal-interaction/human-animal-interaction-bulletin/

Perrone, K. M., Ægisdóttir, S., Webb, L. K., & Blalock, R. H. (2006). Work-family interface commitment, conflict, coping, and satisfaction. *Journal of Career Development*, *32*(3), 286-300. doi: 10.1177/0894845305283002

Pleck, J. H., Staines, G. L., & Lang, L. (1980) Conflicts between work and family life. *Monthly Labor Review*, 103(3), 29-32. Retrieved from https://www.ebscohost.com/academic/business-source-complete

Podsakoff, P.M., MacKenzie, S.B., Lee, Y. & Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879–903. doi: 10.1037/0021-9010.88.5.879

Pummell,B., Harwood, C., & Lavallee, D. (2008). Jumping to the next level: A qualitative examination of within-career transition in adolescent event riders. *Psychology of Sport and Exercise, 9*(4), 427-447. doi:10.1016/j.psychsport.2007.07.004

Pym, D. L., & Auld, H. D. (1965). The self-rating as a measure of employee satisfactoriness. *Occupational Psychology, 39*(2), 103-113.

Quinn, R. P., & Staines, G. L. (1978). *The 1977 Quality of Employment Survey*. Ann Arbor, MI: Survey Research Center.

Roberti, J. W., Harrington, L. N., & Storch, E. A. (2011). Further psychometric support for the 10-item version of the perceived stress scale. *Journal of College Counseling, 9*(2), 135-147. doi: 10.1002/j.2161-1882.2006.tb00100.x

Rothbard, N. P. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly, 46*, 655-684. doi: 10.2307/3094827

Ruderman, M. N., Ohlott, P. J., Panzer, K., & King, S. N. (2002). Benefits of multiple roles for managerial woman. *Academy of Management, 45*(2), 369-386. doi: 10.2307/3069352

Scanlan, T. K., Carpenter, P. J., Schmidt, G. W., Simons, J. P., & Keeler, B. (1993a). An introduction to the sport commitment model. *Journal of Sport & Exercise Psychology, 15*(1), 1-15. Retrieved from http://journals.humankinetics.com/jsep

Scanlan, T. K., Simons, J. P., Carpenter, P. J., Schmidt, G. W., Keeler, B. (1993b). The sport commitment model: Measurement development for the youth-sport domain. *Journal of Sport & Exercise Psychology, 15*(1), 16-38. Retrieved from http://journals.humankinetics.com/jsep

Schumacker, R. E., & Lomax, R. G. (1996). *A beginners guide to structural equation modeling*. Mahwah, NJ: Lawrence Erlbaum Associates.

Settles, I. H., Sellers, R. M., & Damas, A. J. (2002). One role or two? The function of psychological separation in role conflict. *Journal of Applied Psychology, 87*(3), 574-582. doi: 10.1037/0021-9010.87.3.574

Shaffer, M. A., Harrison, D. A., Gilley, K. M., & Luk, D. M. (2001). Struggling for balance amid turbulence on international assignments: work–family conflict, support and commitment. *Journal of Management, 27*(1), 99-121. doi: 10.1177/014920630102700106

Sieber, S. D. (1974). Toward a theory of role accumulation. *American Sociological Review, 36*, 567-578. Retrieved from http://www.asanet.org/

Siegel, P. A., Post, C., Brockner, J., Fishman, A. Y., & Garden, C. (2005). The moderating influence of procedural fairness on the relationship between work-life conflict and organizational commitment. *Journal of Applied Psychology, 90*(1), 13-24. doi: 10.1037/0021-9010.90.1.13.

Sousa, C., Torregrosa, M., Viladrich, C., Villamarín, F., & Cruz, J. (2007). The commitment of young soccer players. *Psicothema*, *19*(2), 256-262. Retrieved from http://www.psicothema.com/english/

Spector, P. E. (1985). Measurement of human service staff satisfaction: Development of the job satisfaction survey. *American Journal of Community Psychology, 13*(6), 693-713. doi: 10.1007/BF00929796

Spector, P. E. (1997). *Advanced Topics in Organization Behavior*: *Job satisfaction: Application, assessment, causes, and consequences.* Thousand Oaks, CA: SAGE Publications, Inc.

Sport and Recreation New Zealand. (2002). *NZ Sport and Physical Activity Surveys: SPARC Facts '97-'01*. Retrieved July 28, 2014, from http://www.activenzsurvey.org.nz/Results/NZ-Sport-and-Physical-Surveys-9701/SPARC-Facts-97-01/

Spreitzer, E., Snyder, E. E., & Larson, D. L. (1979). Multiple roles and psychological well-being. *Sociological Focus, 12*(2), 141-148. doi: 10.1080/00380237.1979.10570341

Stuff.co.nz. (2014). *Judokas to Sport NZ: Throw us some money.* Retrieved from http://www.stuff.co.nz/sport/commonwealth-games/other-events/10317567/Judokas-to-Sport-NZ-Throw-us-some-money

Super, D. E. (1982). The relative importance of work: Models and measures for meaningfuldata. *The Counseling Psychologist, 10*, 95-103. doi: 10.1177/0011000082104018

Super, D. E. (1990). A life-span, life-space approach to career development. In D. Brown & L. Brooks (Eds.), *Career choice and development* (pp. 167-261). San Francisco: Jossey-Bass.

Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: Path analyses based on meta-analytic findings. *Personnel psychology*, *46*(2), 259-293. doi: 10.1111/j.1744-6570.1993.tb00874.x

Tiedje, L. B., Wortman, C. B., Downey, G., Emmons, C., Biernat, M., & Lang, E. (1990). Women with multiple roles: Role-compatibility perceptions, satisfaction, and mental health. *Journal of Marriage and Family, 52*, 63-72. doi: 10.2307/352838

Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika, 38*, 1–10. doi: 10.1007/BF02291170

Van Steenbergen, E. F., & Ellemers, N. (2009). Is managing the work-family interface worthwhile? Benefits for employee health and performance. *Journal of Organizational Behavior, 30*, 617-642. doi: 10.1002/job.569

Vassar, M. (2007). A note on the score reliability for the satisfaction with life scale: An RG study. *Social Indicators Research, 86*, 47-57. doi: 10.1007/s11205-007-9113-7

Voydanoff, P. (2001). Incorporating community into work and family research: A review of basic relationships. *Human Relations, 54*, 1609-1637. doi: 10.1177/00187267015412003

Vuori, I. M. (2001). Dose-response of physical activity and low back pain, osteoarthritis and osteoporosis. *Medicine & Science in Sports & Exercise, 33*(6), S551-S586. doi: 10.1097/00005768-200106001-00026

Waumsley, J. A., Hemmings, B., & Payne, S. M. (2010). Work-life balance, role conflict and the UK sport psychology consultant. *The Sport Psychologist, 24, (*2) 245-262. Retrieved from http://home.heinonline.org/

Wayne, J. H., Casper, W. J., Matthews, R. A., & Allen, T. D. (2013). Family-supportive organisation perceptions and organizational commitment: The mediating role of work family conflict and enrichment and partner attitudes. *Journal of Applied Psychology, 98*(4), 606-622. doi: 10.1037/a0032491

Weer, C. H., Greenhaus, J. H., & Linnehan, F. (2010). Commitment to nonwork roles and job performance: Enrichment and conflict perspectives. *Journal of Vocational Behavior, 76*(2), 306-316. doi: 10.1016/j.jvb.2009.07.003

Weijters, B. Cabooter, E., & Schillewaert, N. (2010). The effect of rating scale format on response styles: The number of response categories and response category labels. *International Journal of Research and Marketing, 27*(3), 236-247. doi: 10.1016/j.ijresmar.2010.02.004

Whitaker, T., Hargreaves, A., & Wolframm, I.A. (2012). Differences in elite showjumping performance between male and female riders. *International Journal of Performance Analysis in Sport, 12*(2), 425-435. Retrieved from http://www.ingentaconnect.com/content/uwic/ujpa

Wiley, M. G. (1991). Gender, work, and stress: the potential impact of role-identity salience and commitment. *The Sociological Quarterly, 32*, 495–510. doi: 10.1111/j.1533-8525.1991.tb00150

Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management,* 17, 601–17. doi: 10.1177/014920639101700305

Young, M. (1996). Career issues for single adults without dependent children. In D. T. Hall (Ed.), *The career is dead-long live the career: A relational approach to careers*. San Francisco: Jossey-Bass.

Appendix A

Correlation Matrix

			Estimate	S.E.	C.R.	P
lifesatt	<---	enrichh	0.17	.08	2.16	.031
stresss	<---	lifesatt	-0.65	.09	-6.91	***
perff	<---	stresss	-0.20	.09	-2.19	.028
famperff	<---	stresss	-0.43	.12	-3.68	***
PSS10	<---	stresss	1.00			
PSS9	<---	stresss	0.82	.10	8.57	***
PSS8	<---	stresss	0.76	.09	8.35	***
PSS7	<---	stresss	0.38	.09	4.07	***
PSS6	<---	stresss	0.69	.09	7.56	***
PSS5	<---	stresss	0.48	.09	5.45	***
PSS4	<---	stresss	0.59	.08	6.98	***
PSS3	<---	stresss	0.75	.09	7.91	***
PSS2	<---	stresss	0.99	.09	11.02	***
PSS1	<---	stresss	0.71	.09	7.85	***
LIFESAT1	<---	lifesatt	1.00			
LIFESAT2	<---	lifesatt	0.93	.0	10.	***

				9	36	
LIFESAT3	<---	lifesatt	0.96	.10	9.79	***
LIFESAT4	<---	lifesatt	0.82	.11	7.62	***
LIFESAT5	<---	lifesatt	1.17	.15	7.92	***
ftwefficacy	<---	enrichh	1.00			
ftwaffect	<---	enrichh	0.60	.18	3.43	***
ftwdevelop	<---	enrichh	0.96	.25	3.81	***
wtfcapital	<---	enrichh	1.66	.33	5.12	***
wtfaffect	<---	enrichh	2.05	.40	5.12	***
wtfdevelop	<---	enrichh	1.64	.34	4.80	***
OC1	<---	orgcomitt	1.00			
OC2	<---	orgcomitt	1.53	.30	5.12	***
OC3	<---	orgcomitt	1.44	.32	4.50	***
OC4	<---	orgcomitt	1.57	.30	5.18	***
OC5	<---	orgcomitt	1.72	.31	5.49	***
OC6	<---	orgcomitt	2.09	.36	5.75	***
OC7	<---	orgcomitt	1.91	.34	5.58	***
OC8	<---	orgcomitt	1.97	.35	5.59	***

OC9	<---	orgcomitt	2.23	.39	5.69	***
WP1	<---	perff	1.00			
WP2	<---	perff	0.97	.08	12.51	***
WP3	<---	perff	1.00	.08	12.20	***
WP4	<---	perff	0.87	.09	10.16	***
WP5	<---	perff	0.75	.16	4.58	***
FP1	<---	famperff	1.00			
FP2	<---	famperff	1.08	.09	12.78	***
FP3	<---	famperff	1.18	.09	13.93	***
FP4	<---	famperff	1.19	.08	15.24	***
FP5	<---	famperff	0.59	.10	6.14	***
personalinvestments	<---	sportcomitt	1.00			
NEWinvolvementopps	<---	sportcomitt	0.86	.20	4.23	***
sportenjoyment	<---	sportcomitt	1.14	.26	4.33	***
sportcommitmentfactor	<---	sportcomitt	1.02	.22	4.69	***

Appendix B

Alphabetical list of Participants' Occupations.

Occupations of Participants	
Accountant	IT
Accounts	Kennel assistant (qualifed vet nurse)
Accounts	Key account manager
Accounts	Legal Executive
Accounts manager	Legal executive/P.A
Administration	Legal secretary
Administrator	Logistics and shipping
Administrator	Market Analyst
Banker	Marketing
Bookkeeper	Marketing
Brand manager	Masters student/pilates instructor
Business Development	Medical centre reception
Catering	Medical practice manager
Client services manager	Nurse
Consultant	Office manager
Corporate planner	Office manager
Counsellor	Pharmacist
CSR at BP (barrista)	Photographer
Customer Service Leader	Physiotherapist
Dairy farmer	Production Manager
Dairy farmer	Property Advisor
Director	Psychologist
Director/self employed	Real estate sales - lifestyle
Drystock farm manager	Registered Nurse
Early childhood teacher	Research fellow
Early childhood teacher	Retail Duty manager
Editor/writer	Retried
Emergency vet nurse	Risk and Compliance Manager
Executive assistant	Sales
Fencer	Sales
Financial controller	Sales manager
Funded PhD student/Dressage coach	Sales person
General manager	Store manager
General manager	Stud manager

General Practioner	Student
Gib stopper	Student
Graphic Designer	Student
Groom	Student
hairdresser	Student
Health and Safety Manager	Student
Healthcare Manager	Student/nanny
Home carer	Student/waitress
Home health care rep	Teacher
Horse trainer/coach/student (fulltime)	Teacher
Horticulturalist	Teacher (Technology)
Hospital Clerk	Teacher aide
HR admin/Facilities	Team manager in bank contact centre
HR Advisor	Trainer
Human resources	Travel agent
Instructor	Writer

Appendix C

Information Sheet for Participants

[Massey University letterhead]

Work-life balance: How do athletes experience the multiple roles of work, family and sport?

INFORMATION SHEET

Researcher(s) Introduction

This research is conducted for the completion of a Master of Science in Psychology for Suzy Craies. Research will be conducted by Suzy Craies and supervisor Dr. Richard Fletcher (PhD). This study examines how the roles of sport, work and family interact for competitive team sportspeople using a questionnaire.

Project Description and Invitation

- *This study aims to examine the work-life balance in competitive team sportspeople, to determine the effects of involvement in a sporting team on satisfaction, performance, and stress at work and in sport. Work-life balance has not been studied in competitive sportspeople in New Zealand, and it is unknown how sportspeople maintain sport, family and work roles. It is important to investigate how workers juggle work, sport and family commitments so that the best interests of athletes are catered for within sporting and work organisations. The high number of semi-elite athletes at top levels in New Zealand suggests many athletes work to fund their sport. Investigation into this may help these athletes achieve greater results in sport, at work and satisfaction in their family.*
- *Therefore, this information sheet invites you to participate in the aforementioned research project. Participation could not only benefit the literature base and potentially highlight ways to increase wellbeing, but would also benefit you by providing information to assist the maintenance of work-life balance.*

Participant Identification and Recruitment

- *Participants will be recruited from top level club teams across different team sports.*
- *The research applicant will approach teams after training and inquire if they are interested in filling out the questionnaire.*
- *To be included in this study, participants need to have a paid job or be studying, unrelated to their sport and be competitive team athletes.*
- *The focus on competitive team athletes of this study excludes recreational sportspeople, or those without a paid job or those who are full-time athletes.*
- *Participants will be invited to provide an email address in which they will enter the draw to win an iPod once they have completed the questionnaire.*

Project Procedures

- *Participants will be asked to read the information sheet, consent to the study and fill out the questionnaire.*
- *This questionnaire will require approximately 20mins to complete, taking a maximum of 30mins.*
- *If the participants have any questions, they are invited to ask the researcher.*

Data Management

- *Data is anonymous and will be used for the completion of Suzy Craies' Master of Science in Psychology. Anonymous data may also be published or used in conferences.*
- *Once data is collected, it will be analysed using statistical methods and it will be discussed in a written thesis and submitted for marking according to Massey University protocol.*

- *Data will be stored in a locked cabinet at the School of Psychology, Massey University Albany for 5 years.*
- *Participants are invited to provide their email address for the researcher to send a summary of the findings once the data has been analysed and conclusions drawn.*
- *No information which could reveal participants identity is collected, therefore all data is anonymous.*

Participant's Rights

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- *decline to answer any particular question;*
- *ask any questions about the study at any time during participation;*
- *provide information on the understanding that your name will not be used unless you give permission to the researcher;*
- *be given access to a summary of the project findings when it is concluded.*
- *Completion and return of the questionnaire implies consent.*

Project Contacts

- *Suzy Craies: suzycraies@gmail.com ph. 0210334952*
- *Dr. Richard Fletcher (PhD): R.B.Fletcher@massey.ac.nz*
- *Please contact the researcher or supervisor with any questions about this study.*
- *If you wish to discuss your experience anonymously with a counsellor you may call any of the numbers provided below:*
- *Lifeline: 0800543354*
- *Depression helpline: 0800111757*
- *Samaritans: 0800726666*

Committee Approval Statement

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application 14/039. If you have any concerns about the conduct of this research, please contact Dr Andrew Chrystall, Acting Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x 43317, email humanethicsnorth@massey.ac.nz.

Appendix D

Work-Life Balance Questionnaire (Counterbalance A)

WORK-LIFE BALANCE QUESTIONNAIRE

The following questionnaire will investigate the relationship between your paid work role, non-work sporting role and family role. Your answers are anonymous and none of the information provided will be enable you to be identified in any form. Please attempt to fill out all of the questions in each section even if you feel some are irrelevant or repetitive. You have the right to decline to answer any questions you do not feel comfortable answering.

By filling out and returning this questionnaire you are agreeing for this anonymous information to be used for research purposes. If you have any questions about this questionnaire or uses of the information, please feel free to ask the researcher at any time.

Demographic information

1. Gender (circle one):
   Female Male Other
2. Age (DOB dd/mm/yyyy) ___/___/_____
3. Ethnicity _____
4. Marital status (circle one):
   Married
   Separated
   Divorced
   De-facto
   Single
   Other
5. If other please specify:
   Short-term relationship
   Long-term relationship (committed)
6. Please indicate how many children you are responsible for _____
7. Occupation _____
8. Who is the main financial supporter of your involvement in equestrian sport?
   Self-funded
   Parents
   Sponsor
   Other

If Other, please specify:

9. How many hours do you work per week (on average)? _____Hours
10. How much control do you have over 1) the total hours you work and 2) when you work (e.g. weekdays, nights, weekends)?

	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1)	None	Some	Fair amount	A lot	Total
	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
2)	None	Some	Fair amount	A lot	Total

11. How many days off sick have you had over the past year? _____
12. Which discipline is your main focus?_____
13. What is the highest level you have competed to in your chosen discipline?

Please specify (E.g. Novice HT or Level 5 Dressage):

14. Do you describe yourself as a competitive sportsperson? (please circle):
    Yes or No

Coping

These items deal with ways you've been coping with the stress in your life. There are many ways to try to deal with problems. Each item says something about a particular way of coping. I want to know to what

extent you've been doing what the item says. How much or how frequently. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

1. I've been turning to work or other activities to take my mind off things.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

2. I've been concentrating my efforts on doing something about the situation I'm in.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

3. I've been saying to myself "this isn't real".

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

4. I've been using alcohol or other drugs to make myself feel better.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

5. I've been getting emotional support from others.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

6. I've been giving up trying to deal with it.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

7. I've been taking action to try to make the situation better.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

8. I've been refusing to believe that it has happened.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

9. I've been saying things to let my unpleasant feelings escape.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

10. I've been getting help and advice from other people.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

11. I've been using alcohol or other drugs to help me get through it.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

12. I've been trying to see it in a different light, to make it seem more positive.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

13. I've been criticizing myself.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

14. I've been trying to come up with a strategy about what to do.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

15. I've been getting comfort and understanding from someone.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

16. I've been giving up the attempt to cope.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

17. I've been looking for something good in what is happening.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

18. I've been making jokes about it.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

20. I've been accepting the reality of the fact that it has happened.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

21. I've been expressing my negative feelings.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

22. I've been trying to find comfort in my religion or spiritual beliefs.

☐	☐	☐	☐
1	2	3	4
Not at all	A little bit	Medium Amount	A lot

23. I've been trying to get advice or help from other people about what to do.

☐	☐	☐	☐

1	2	3	4
Not at all	A little bit	Medium Amount	A lot

24. I've been learning to live with it.

☐ 1	☐ 2	☐ 3	☐ 4
Not at all	A little bit	Medium Amount	A lot

25. I've been thinking hard about what steps to take.

☐ 1	☐ 2	☐ 3	☐ 4
Not at all	A little bit	Medium Amount	A lot

26. I've been blaming myself for things that happened.

☐ 1	☐ 2	☐ 3	☐ 4
Not at all	A little bit	Medium Amount	A lot

27. I've been praying or meditating.

☐ 1	☐ 2	☐ 3	☐ 4
Not at all	A little bit	Medium Amount	A lot

28. I've been making fun of the situation.

☐ 1	☐ 2	☐ 3	☐ 4
Not at all	A little bit	Medium Amount	A lot

PSS

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by circling how often you felt or thought a certain way.

1. In the last month, how often have you been upset because of something that happened unexpectedly?

☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
Never	Almost Never	Sometimes	Fairly Often	Very Often

2. In the last month, how often have you felt that you were unable to control the important things in your life?

☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
Never	Almost Never	Sometimes	Fairly Often	Very Often

3. In the last month, how often have you felt nervous and "stressed"?

☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
Never	Almost Never	Sometimes	Fairly Often	Very Often

4. In the last month, how often have you felt confident about your ability to handle your personal problems?

☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
Never	Almost Never	Sometimes	Fairly Often	Very Often

5. In the last month, how often have you felt that things were going your way?

☐ 0	☐ 1	☐ 2	☐ 3	☐ 4

Never Almost Never Sometimes Fairly Often Very Often

6. In the last month, how often have you found that you could not cope with all the things that you had to do?

☐ ☐ ☐ ☐ ☐
0 1 2 3 4
Never Almost Never Sometimes Fairly Often Very Often

7. In the last month, how often have you been able to control irritations in your life?

☐ ☐ ☐ ☐ ☐
0 1 2 3 4
Never Almost Never Sometimes Fairly Often Very Often

8. In the last month, how often have you felt that you were on top of things

☐ ☐ ☐ ☐ ☐
0 1 2 3 4
Never Almost Never Sometimes Fairly Often Very Often

9. In the last month, how often have you been angered because of things that were outside of your control?

☐ ☐ ☐ ☐ ☐
0 1 2 3 4
Never Almost Never Sometimes Fairly Often Very Often

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

☐ ☐ ☐ ☐ ☐
0 1 2 3 4
Never Almost Never Sometimes Fairly Often Very Often

Work-life balance

1. I am able to negotiate and accomplish what is expected of me at work, in my family and in my sport.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Disagree Strongly Agree

2. I do a good job of meeting the role expectations of critical people in my work, family life and sport.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Disagree Strongly Agree

3. People who are close to me would say that I do a good job of balancing work, family and sport.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Disagree Strongly Agree

4. I am able to accomplish the expectations that my supervisors, my family and coach have for me.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Disagree Strongly Agree

5. My co-workers, members of my family and coach would say that I am meeting their expectations.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly

Disagree Agree

6. It is clear to me, based on feedback from co-workers, family members, coaches that I am accomplishing both my work, family and sport responsibilities.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

Enrichment

My involvement in my work . . .

1. Helps me to understand different viewpoints and this helps me be a better horse rider.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

2. Helps me to gain knowledge and this helps me be a better horse rider.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

3. Helps me acquire skills and this helps me be a better horse rider.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

4. Puts me in a good mood and this helps me be a better horse rider.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

5. Makes me feel happy and this helps me be a better horse rider.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

6. Makes me cheerful and this helps me be a better horse rider.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

7. Helps me feel personally fulfilled and this helps me be a better horse rider.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

8. Provides me with a sense of accomplishment and this helps me be a better horse rider.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

9. Provides me with a sense of success and this helps me be a better horse rider.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

My involvement in equestrian sports . . .

1. Helps me to gain knowledge and this helps me be a better worker.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

2. Helps me acquire skills and this helps me be a better worker.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

3. Helps me expand my knowledge of new things and this helps me be a better worker.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

4. Puts me in a good mood and this helps me be a better worker.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

5. Makes me feel happy and this helps me be a better worker.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

6. Makes me cheerful and this helps me be a better worker.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

7. Requires me to avoid wasting time at work and this helps me be a better worker.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

8. Encourages me to use my work time in a focused manner and this helps me be a better worker.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

9. Causes me to be more focused at work and this helps me be a better worker.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

Conflict

1. My work keeps me from my family and sport activities more than I would like.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

2. The time I must devote to my job keeps me from participating equally in household and sporting responsibilities and activities.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

3. I have to miss family and sporting activities due to the amount of time I must spend on work responsibilities.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

4. The time I spend on family and sport responsibilities often interfere with my work responsibilities.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

5. The time I spend with my family and horse often causes me not to spend time in activities at work that could be helpful to my career.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

6. I have to miss work activities due to the amount of time I must spend on family and equestrian sport responsibilities.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

7. When I get home from work I am often too frazzled to participate in family and sport activities/responsibilities.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

8. I am often so emotionally drained when I get home from work that it prevents me from contributing to my family and equestrian sport.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

9. Due to all the pressures at work, sometimes when I come home I am too stressed to do the things I enjoy.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

10. Due to stress at home, I am often preoccupied with family and sport matters at work.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

11. Because I am often stressed from family and sport responsibilities, I have a hard time concentrating on my work.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

12. Tension and anxiety from my non-work life often weakens my ability to do my job.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Strongly
Disagree Agree

13. The problem-solving behaviours I use in my job are not effective in resolving problems at home or in my sport.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Disagree — Strongly Agree

14. Behaviour that is effective and necessary for me at work would be counterproductive at home or in my sport.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Disagree — Strongly Agree

15. The behaviours I perform that make me effective at work do not help me to be a better parent, spouse and horse rider.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Disagree — Strongly Agree

16. The behaviours that work for me at home and in my sport do not seem to be effective at work.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Disagree — Strongly Agree

17. Behaviour that is effective and necessary for me at home and in my sport would be counterproductive at work.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Disagree — Strongly Agree

18. The problem-solving behaviour that works for me at home and in my sport does not seem to be as useful at work.

☐ ☐ ☐ ☐ ☐
1 2 3 4 5
Strongly Disagree — Strongly Agree

Life Satisfaction

1. In most ways my life is close to my ideal.

☐ ☐ ☐ ☐ ☐ ☐ ☐
1 2 3 4 5 6 7
Strongly Disagree — Neither Agree or Disagree — Strongly Agree

2. The conditions of my life are excellent.

☐ ☐ ☐ ☐ ☐ ☐ ☐
1 2 3 4 5 6 7
Strongly Disagree — Neither Agree or Disagree — Strongly Agree

3. I am satisfied with life.

☐ ☐ ☐ ☐ ☐ ☐ ☐
1 2 3 4 5 6 7
Strongly Disagree — Neither Agree or Disagree — Strongly Agree

4. So far I have gotten the important things I want in life.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

5. If I could live my life over, I would change almost nothing.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

Job Satisfaction

1. ‘‘All in all I am satisfied with my job.”

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

2. ‘‘In general, I don’t like my job.”

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

3. ‘‘In general, I like working here.”

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

SCQ

1. How proud are you to tell other people that you are a horse rider?

☐	☐	☐	☐	☐
1	2	3	4	5
Not at all Proud				Very Proud

2. Do you want to keep riding competitively?

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

3. How dedicated are you to riding competitively?

☐	☐	☐	☐	☐
1	2	3	4	5
Not at all Dedicated				Very Dedicated

4. What would you be willing to do to keep riding competitively?

☐	☐	☐	☐	☐
1	2	3	4	5
Nothing				Almost Anything

5. How hard would it be for you to quit this sport?

☐	☐	☐	☐	☐
1	2	3	4	5
Very Difficult				Very Easy

6. How determined are you to keep riding competitively?

☐	☐	☐	☐	☐
1	2	3	4	5
Not at all Determined				Very Determined

7. Do you enjoy riding this season?

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

8. Are you happy riding this season?

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

9. Do you have fun riding this season?

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

10. Do you like riding this season?

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

For the next 4 questions, think of an activity that you would rather do, other than your sport

11. How interesting do you think this activity would be?

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

12. How much fun do you think this activity would be?

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

13. How much would you like to do this activity, instead of playing in your sport team?

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

14. How difficult was it to choose horse riding over this activity?

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

15. How much of your time have you put into riding this season?

☐	☐	☐	☐	☐
1	2	3	4	5
Minimum				Maximum

16. How much effort have you put into riding this season?

☐	☐	☐	☐	☐
1	2	3	4	5
None				Maximum

17. How much of your own money have you put into riding this season for things like entrance fees or equipment?

☐	☐	☐	☐	☐

1	2	3	4	5
None				Maximum

18. I feel I have to ride so that I can be with my friends.

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

19. I feel I have to ride to please my friends.

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

20. I feel I have to ride because my parents have done so much.

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

21. I feel I have to ride to please my mum.

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

22. I feel I have to ride to please my dad.

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

23. I feel I have to ride to please my head coach.

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

24. I feel I have to stay riding so that people won't think I'm a quitter.

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

25. Would you miss being a horse rider if you left?

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

26. Would you miss your coach if you left this sport?

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

27. Would you miss the good times you have had riding this season if you left?

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

28. Would you miss your friends in the sport if you left?

☐	☐	☐	☐	☐
1	2	3	4	5
Strongly Disagree				Strongly Agree

Work performance

1. I fulfil the responsibilities specified in my job description.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

2. I perform the tasks that are expected as part of the job.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

3. I meet performance expectations.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

4. I adequately complete responsibilities.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

5. I engage in activities that will directly affect my performance evaluation.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

Family performance

1. I fulfil the responsibilities required by my family.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

2. I perform the tasks that are expected to contribute to my family.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

3. I meet expectations of my family.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

4. I adequately complete family responsibilities.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

5. I engage in activities that will directly affect my family's functioning.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

Sport performance

1. I fulfil the responsibilities required by my sport.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

2. I perform the tasks that are expected to contribute to my sport.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

3. I meet expectations of my coach.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

4. I adequately complete responsibilities associated with my sport.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

5. I engage in activities that will directly affect my functioning in this sport.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

Organisational Commitment

(These questions refer to your paid work role)

1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organisation be successful.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

2. I talk up the organisation to my friends as a great organisation to work for.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

3. I would accept almost any type of job assignment in order to keep working for this organisation.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

4. I find that my values and the organisation's values are very similar.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

5. I am proud to tell others that I am part of this organisation.

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Strongly Disagree			Neither Agree or Disagree			Strongly Agree

6. This organisation really inspires the very best in me in the way of job performance.

☐ ☐ ☐ ☐ ☐ ☐ ☐

1 2 3 4 5 6 7

Strongly Disagree — Neither Agree or Disagree — Strongly Agree

7. I am extremely glad that I chose this organisation to work for over others I was considering at the time I joined.

☐ ☐ ☐ ☐ ☐ ☐ ☐

1 2 3 4 5 6 7

Strongly Disagree — Neither Agree or Disagree — Strongly Agree

8. I really care about the fate of this organisation.

☐ ☐ ☐ ☐ ☐ ☐ ☐

1 2 3 4 5 6 7

Strongly Disagree — Neither Agree or Disagree — Strongly Agree

9. For me this is the best of all possible organisations for which to work.

☐ ☐ ☐ ☐ ☐ ☐ ☐

1 2 3 4 5 6 7

Strongly Disagree — Neither Agree or Disagree — Strongly Agree

You have come to the end of the questionnaire. Thank you so much for taking the time to complete it ☺