

**CONSCIENTIOUSNESS, WORK-FAMILY-STUDY CONFLICT AND GENERAL WORK STRESS AMONGST  
EMPLOYED NON-RESIDENTIAL SOUTH AFRICAN MILITARY ACADEMY STUDENTS**

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University.**

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## **DECLARATION**

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March 2020

## ABSTRACT

Balancing the demands of work and family respectively has generated much research interest. A third area of demands, namely studies, is also worthy of examination. In a fast-changing work environment the importance of continued studies and further education and training for individuals' career advancement has become increasingly salient. The present study posits that balancing demands from three areas, namely work, family and studies adds complexity to the understanding of work stress. Furthermore, an understanding of how personality trait of conscientiousness may moderate the relations of work-family-study conflict (WFSC) with General work stress may be important especially for selecting persons for situations where there might be additive effects of work, family and study demands. The present study aimed to explore how performance of multiple roles resulted in WFSC and General Work Stress amongst non-residential military university students by; (a) investigating the relationship between Conscientiousness, WFSC and General Work Stress, (b) examining the combined effect of Conscientiousness and WFSC on General Work Stress, (c) examining the moderating role of Conscientiousness on the relations of WFSC with General Work Stress, and (d) examining whether work-study conflict and family-study conflict contributes to the explanation of General Work Stress above and beyond work-family conflict. The theoretical models consisted of role theory, job demands-resource model, General work stress, and big five model. The study was undertaken at the South African Military Academy, Faculty of Military Science in Saldanha based on a sample size of 113 (n=113) out of 137 (N=137) fulltime employed non-residential South African Military military university students. These students are Department of Defense full-time employees selected to enrol for undergraduate and postgraduate studies as non-residential Telematic Education students. The study was conducted through cross-sectional survey research where an invitation to voluntarily participate in the study was sent to all prospective respondents through emails. Data was collected using the Work-family-study interface Scale, General Work Stress Scale and the Big Five Inventory. The results of this study revealed that WFSC and Conscientiousness have a statistically significant combined effect on General Work Stress, however, Conscientiousness alone was found to have a non-significant moderating effect on WFSC and General Work Stress. Moreover, work-study conflict and family-study conflict were found to contribute significantly to the explanation of General Work Stress above and beyond the explanation provided by work-family conflict. This study findings point that study(ies) is an important variable to take into account when trying to understanding General Work Study.

**Keywords:** Conscientiousness, Work-family-study conflict, General Work Stress

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**TABLE OF CONTENTS**

DECLARATION	I
ABSTRACT	I
ACKNOWLEDGEMENTS	III
TABLE OF CONTENTS	IV
CHAPTER 1: INTRODUCTION	1
1.1 Reaserch Aim	6
1.2 Motivation of the Study	6
1.3 Background	7
1.4 Problem Statement	9
1.5 Overview of the Chapters	12
1.6 Chapter Summary	13
CHAPTER 2: LITERATURE REVIEW	14
2.1 Work-Family-Study Interface Defined	15
2.1.1 Antecedents of work-family-study conflict	15
2.2 Work-Family-Study Conflict Model	16
2.2.1 Work-family conflict	16
2.2.2 Work-study conflict	17
2.2.3 Family-study conflict	17
2.3 Role Theory	18
2.4 Job Demands-Resources model	19

2.5	General Work Stress	20
2.5.1	Sources of work stress	23
2.6	The Role of Personality	27
2.6.1	Big five model	28
2.6.2	Conscientiousness in the workplace	30
2.7	Conscientiousness and Work-Family-Study Conflict	30
2.8	Conscientiousness and General Work Stress	30
2.9	Work-Family-Study Conflict and General Work Stress	31
2.10	Conscientiousness, Work-Family-Study Conflict and General Work Stress	31
2.11	Moderating Role of Conscientiousness	33
2.12	Research Questions and Hypotheses	34
2.13	Summary	35
CHAPTER 3: METHOD		36
3.1	Participants	36
3.2	Procedure	38
3.3	Measures	38
3.4	Ethics	41
3.5	Data analysis	42
3.5.1	Reliability	43
3.5.2	Descriptive statistics	43
3.5.3	Correlations	43

3.5.4	Regression analysis	44
4.	Summary	44
CHAPTER 4: RESULTS		45
4.1	Descriptive Statistics	45
4.2	Correlations Between WFSC, WFC, WSC, FSC AND GWS	46
4.3	Multiple Regression Analyses of the Relations of GWS with WFSC and Conscientiousness	46
4.4	Summary	55
CHAPTER 5: DISCUSSION		56
5.1	Introduction	56
5.2	The Objectives and Hypotheses of the Study	58
5.2.1	Hypothesis 1	58
5.2.1.1	<i>Hypothesis 1a</i>	58
5.2.1.2	<i>Hypothesis 1b</i>	59
5.2.1.3	<i>Hypothesis 1c</i>	59
5.2.2	Hypothesis 2	60
5.2.3	Hypothesis 3	60
5.2.3.1	<i>Hypothesis 3a</i>	60
5.2.3.2	<i>Hypothesis 3b</i>	61
5.2.3.3	<i>Hypothesis 3c</i>	61
5.2.4	Hypothesis 4	62

5.2.4.1	<i>Hypothesis 4a</i>	62
5.2.4.2	<i>Hypothesis 4b</i>	62
5.2.4.3	<i>Hypothesis 4c</i>	63
5.2.5	Hypothesis 5	63
5.3	Competing Demands of Work, Family and Study and the Experience of General Work Stress	65
5.4	Conscientiousness and General Work Stress	69
5.4.1	Conscientiousness as the main effect	69
5.4.2	Conscientiousness as a moderator	70
5.5	Limitations of the Study	71
5.6	Implications of the Results for Further Research	72
5.7	Implications of the Results for Practice	72
5.7.1	Recommendations	73
5.8	Delimitation of the Study	73
5.9	Contribution of the Study	74
5.10	Conclusion	74
	References	77
	List of Figures	86
	Figure 1. Conceptual Research Model	86
	Figure 2. Adapted Jd-R Model And Wfsc Conceptual Model	86



## CHAPTER 1: INTRODUCTION

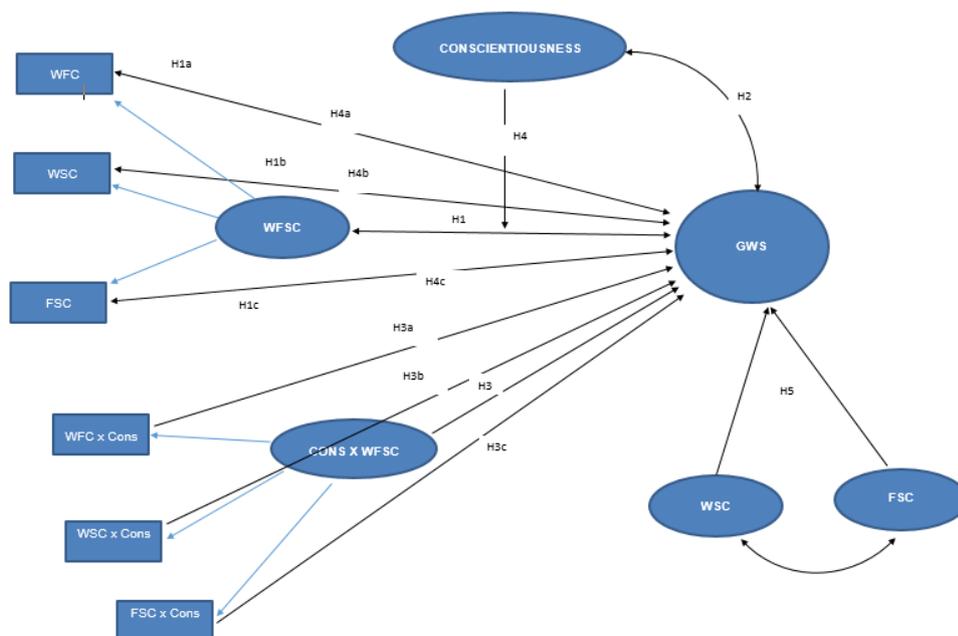
Previous studies have reported that work-family conflict has a significant influence on family distress, which is the experience of stress associated with one's family role (Bazana & Dodd, 2013). Mostert and Joubert (2005), added that striking a balance between work and family life is a challenge for employees. Compounding the challenge is the continued expectation of high employee commitment by the employers resulting in employees feeling pressured to work beyond formal working hours (Rothman & Rothman, 2010). Recently, many employees pursue their studies while being employed and have to care for their families. The modern world of work requires employees who will be able to perform multiple roles without putting a strain either on their well-being or performing their work role (Edwards & Rothbard, 2000; Smoot, 2005). Work, family and education domains are critical social systems central to the individuals' life. However, these domains do not always reconcile due to competing demands.

Most, if not all, work, family and study phenomena are dynamic; they emerge, evolve, and at times dissolve (Solinger, van Olffen, Roe, & Hofmans, 2013). In a fast-paced world, organisational and employees' demands change continuously, and new demands emerge regularly. One such change is the expectation that employees should study part-time while they are employed full-time. Often these employees have concurrent family responsibilities as parent, guardian or empathetic caretaker. Work-family-study conflict (WFSC) is likely to emerge. Work-family-study conflict is challenging, stressful and impacts organisational performance. Work, family and study roles, which are central to many employees' lives, do not easily reconcile when employees are faced with routine workplace stressors (Bazana & Dodd, 2013; Louw & Viviers, 2010). They are even less reconcilable amidst extraordinary workplace stressors combined with equally demanding study and family stressors.

Balancing the demands of work and family respectively has generated much research interest. A third area of demands, namely studies, is also worthy of examination. In a fast-changing work environment the importance of continued studies and further education and training for individuals' career advancement has become increasingly salient. The present study posits that balancing demands from three areas, namely work, family and studies adds complexity to the understanding of General Work Stress. Each of work, education, and family are critical social systems in which participants engage in organised activities to attain collective goals that define their self-worth (Greenhaus & Allen, 2011; Watson, 2000).

The present study focuses on participants' work, family and study roles in an attempt to measure their levels of inter-domain conflict relative to General Work Stress as a result of role performance. The selected sample, Telematic Education students is unique in that they are expected to fulfill the demands of work, family and study roles equally. However, these roles do not easily reconcile, especially when employees are faced with significant workplace stressors (Bazana & Dodd, 2013; Louw & Viviers, 2010). Inter-domain conflicts known as work-family-study conflict arise from conflicting demands by the organisation researched here, from its affiliated academic institution, the South African Military Academy (SAMA), and from family at the expense of study and family demands. Work-family-study conflict is due to changing work demands and priorities afforded to the work domain (Aslam, Shumalla, Azhar & Sadaqat, 2011) as well as the dynamics of contemporary world of work.

The contemporary dynamic workspace compels employers to retrain employees in order to remain competitive, and better facilitate work, family and study commitments; a construct known as work-family-study facilitation. Dynamic work-family-study demands strains employees as they strive to reconcile these inter-domain roles. These stressors, as a result of inter-domain conflict, have a detrimental effect on their well-being. Episodes of inter-domain role conflict result in WFSC, which leads to adverse effects on individual well-being (Bazana & Dodd, 2013). The present study suggests that individuals' conscientiousness potentially constitutes a positive moderating force in reconciling different roles of multiple domains (see Figure 1). This study addresses the void in research on the dynamics of work, family and study phenomena and the moderating role of Conscientiousness.



**Figure 1. Conceptual Research Model**

Modern workplaces have become competitive and challenging places for employees, especially adult employees who are expected to study while working fulltime to meet organisational demands through workplace learning (Goad, 2010; GUNi, 2017). For the South African National Defence Force (SANDF), workplace learning is followed by the acquisition of formal qualifications at an institution of higher learning, the Faculty of Military Science, housed by the South African Military Academy (SAMA). Its employees are expected to manage multiple role demands from work, family and study domains and to have a positive work-family-study interface. Participants' inability to manage multiple role demands have the potential to result in WFSC and General Work Stress (see Figure 1-2).

All these role demands point to the importance of the present study in its emphasis on role intersection known as the work-family-study interface (see Figure 1). The conceptual model of work-family-study interface acknowledges the significant positive contribution of employees' Conscientiousness to multiple role performances in work, family and education domains. Although these three domains do not always easily reconcile, especially where employees experience a high level of General Work Stress arising from conflicting demands. In cases like this, employees' level of Conscientiousness is hypothesised to moderate their experience of General Work Stress and WFSC (Hypothesis 4). This study suggests that individuals experience different levels of WFSC and General Work Stress based on their level of Conscientiousness in terms of managing work, family and study (education) demands.

The present study acknowledges the occurrence of episodes of interrole conflict results in WFSC which can bring about more adverse events than positive ones with regards to their effects on individual well-being (Nart & Bartur, 2014; Patterson, Chung & Swang, 2012; Rook, 2001) and may further contribute to one's experiences of General Work Stress. However, individuals' personality traits, specifically Conscientiousness is hypothesised to constitute a positive moderating force in reconciling different roles of multiple domains and decreasing employees' experience of WFSC and General Work Stress. An understanding of multiple role facilitation and the role of Conscientiousness is useful in assisting the SAMA Telematic Education students in proactively harmonising traditionally divergent roles.

Importantly, insight into the antecedents of the individual's inter-domain conflict, General Work Stress and Conscientiousness is a prerequisite for the identification of inter-person variance with respect to General Work Stress. By examining the moderating role of Conscientiousness through the use of valid measures, sound and plausible explanations of an individual's difference of WFSC and General Work Stress will be offered.

It is therefore important to investigate the moderating role of Conscientiousness on WFSC and General Work Stress and to determine whether there is sufficient variance in the individual's construct scores. Therefore, the present study suggests a focus on non-curvilinear relationship underpinned by two questions not yet adequately addressed in literature: (a) Is there an association between Conscientiousness, WFSC and General Work Stress? (b) Does Conscientiousness moderate the relations of WFSC with General Work Stress?

The examination of employees' personality trait of Conscientiousness and work-family-study facilitation may be relevant to the sample of the current study as they experience a high level of WFSC and General Work Stress daily. Fulfilling multiple role demands such being an employee, a student and a parent or guardian expose one to a certain degree of stress. Performance of such demanding multiple roles cause employees to be affected by stress (Patterson et al., 2012; Bruck & Allen, 2003) due to role spill-over effect. The current study emphasises that it is imperative that workplace stressors are managed effectively through work-family-study facilitation. It further posits that employees' conscientiousness may affect the interaction between their experiences of WFSC and General Work Stress.

Whereas significant advances have been made with respect to demonstrating a robust link between work-family conflict and General Work Stress, less is known about the environmental conditions under which the link may be stronger or weaker. Similarly, less is known about the role that personality attributes may play in the link between work-family-study conflict and General Work Stress. It appears reasonable to ask whether the effect of work-family conflict on General Work Stress is the same for all persons, or whether certain personality traits might render persons more or less vulnerable to the negative effects of work-family conflict (Smoot, 2005; Sweet, 2013) and even WFSC. In particular, the broad trait of Conscientiousness might play an important role. Persons who measure high on Conscientiousness tend to plan ahead, are well organised, and avoid procrastination (Vollrath & Torgersen, 2008; Wayne, Musisca & Fleeson, 2004). High Conscientiousness might reasonably be expected to buffer people against the negative effects of high demands. Conversely, low Conscientiousness might amplify the negative effects of high demands.

Although personality traits have been thoroughly researched in General Work Stress and organisational literature (Bazana & Dodd, 2013), an examination of the combined effects of WFSC and Conscientiousness on General Work Stress within the South African military context remain under-researched. The limited literature on Conscientiousness, WFSC and General Work Stress can be attributed to the limited research focus on fulltime employees who are studying part-time at a military higher education and training institution.

This sample of SANDF employees regularly experience General Work Stress and WFSC due to the diverse demands of balancing military professional, educational and family roles. In terms of inter-domain role conflict, certain personality traits were long associated with the likelihood of experiencing stress, while others moderated the impact of role conflict (Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011; Herbst, Coetzee & Visser, 2007). Explaining the relationship between Conscientiousness, WFSC and General Work Stress remains under-researched.

Moreover, the present study zooms in on the diverse role conflict in terms of time, strain and behaviour (see Figure 2), examine the positive moderating role of Conscientiousness on WFSC and General Work Stress, and highlights the moderating role of Conscientiousness in the relations of WFSC with General Work Stress (See Figure 1). This study hypothesises that Conscientiousness moderates the relationship of WFSC with General Work Stress (Hypothesis 1) and that the time has come to move from a role conflict-oriented perspective to positive traits and role facilitation. This allows the present study to gather an understanding of what happens, how things happen, why things happen, and how one may facilitate roles within work, family and study domains in the South African Military Academy (SAMA), a military Higher Education Institution affiliated to a leading SA university, Stellenbosch University.

According to Cameron and Spreitzer (2011), Conscientiousness is characterised by dependability and prosocial motivation. Conscientious individuals are described as dutiful, disciplined, competent, orderly and cautious. Furthermore, Conscientiousness has been linked to employees' job performance, but little attention has been given to its moderating role on the relations of WFSC with General Work Stress within a military higher education and training institution. The present study makes a contribution in this regard by examining the moderating role of Conscientiousness on WFSC and General Work Stress (Hypothesis 4). The present study suggests that Conscientiousness may be one of the strongest personality predictors of WFSC and General Work Stress. This suggestion is supported by Bruck and Allen (2003) as well as Wayne et al. (2004), who further stated that Conscientiousness is negatively related to family interference with work. Conscientious individuals tend to persevere in the face of a stressful environment (Koekemoer & Mostert, 2010).

In addition, the present study acknowledges the occurrence of inter-domain conflict due to time, strain and behaviour experienced by employees (see Figure 2), which result in WFSC that have adverse repercussions such as General Work Stress for them. Given the demands associated with work, family and study domains and the priority afforded to each, the present study suggests that there is a significant relationship between the participant's WFSC and General Work Stress (Hypothesis 1).

The selected sample is exposed to multiple sources of environmental and occupational stress; (a) as full-time SANDF employees, (b) as a part-time student of the SAMA and, (c) as a parent or guardian. However, their interaction with the stressors may be affected by their level of conscientiousness, as highlighted by Cameron and Spreitzer (2011) and Koekemoer and Mostert (2010). Respondents' experience of WFSC and General Work Stress is dependent on their level of Conscientiousness.

The present study suggests that individuals exposed to similar stressors may differ in their levels of General Work Stress and WFSC. In this regard, this study suggests that SAMA part-time students' possession of Conscientiousness influence their experience of WFSC and General Work Stress. Their experience of WFSC and General Work Stress may in part be attributed to their differences in their levels of Conscientiousness, in terms of their ways of coping and reacting to stressful and demanding situations in their work, family and study domains (Patterson et al., 2012). However, participants' Conscientiousness may reduce their levels of General Work Stress and WFSC. WFSC is exacerbated by time demands of either work, studies or family (see Figure 2). For instance, two people may experience the same objective work, family or study situation yet differ in their experience of conflict between work, family and study roles as pointed by Michel et al. (2011). The present study examine the extent to which their personality trait of Conscientiousness have a moderating effect on the relations of WFSC with General Work Stress (Hypothesis 4).

### 1.1 Research Aim

This study aims to explore how the performance of multiple roles resulted in WFSC and General Work Stress amongst non-residential military university students of the SAMA by; (a) investigating the relationship between Conscientiousness, WFSC and General Work Stress, (b) examining the combined effect of Conscientiousness and WFSC on General Work Stress, (c) examining the moderating role of Conscientiousness on the relations of WFSC with General Work Stress, and (d) examining whether work-study conflict and family-study conflict contributes to the explanation of General Work Stress above and beyond work-family conflict. It is hoped that the study will shed light on the interplay of the different types of demands as well as role of conscientiousness and how this relates to General Work Stress.

### 1.2 Motivation of the Study

The bulk of previous studies have treated work-family conflict as a one-directional process in such a way that work impacts negatively on family, which in turn leads to job stress as reported by Bazana and Dodd (2013) as well as Nart and Batur, (2014).

It is entirely possible, however, that job stress may also arise because of the impact that family commitments might have on work (Bazana & Dodd, 2013). Such bi-directional relations between work and family and its effect on General Work Stress remains an under-researched area.

In brief, previous studies have clearly demonstrated a positive relationship between work-family conflict and job stress (for an overview of these studies please see Annor, 2016; Bazana & Dodd, 2013; Greenhaus & Allen, 2011; Nart & Batur, 2014). In turn, General Work Stress has many undesirable consequences, such as burnout, reduced health, reduced engagement, and turnover (Akpochafo, 2012; Parsotam, 2009), which underlines the importance of understanding factors and processes that contribute to individual's General Work Stress.

This study is to contribute to the existing body of research by examining the moderating role of the personality trait of Conscientiousness in the multi-directional link between the demands of work, family and study, respectively, with General Work Stress. From a theoretical perspective it is hoped that the study will shed light on the interplay of the different types of inter-domain role demands and how this relates to General Work Stress. From a practical perspective it is hoped that the study will contribute to a better understanding of how work and study demands might be designed to allow for an optimal balance with family demands. In addition, it is hoped that the study will add to a better understanding of how personality might be used in either selecting persons for situations where there might be additive effects of work, family and study demands, or designing the work and study programs of persons who differ with respect to the trait of Conscientiousness.

### 1.3 Background

This study was undertaken at the South African Military Academy (SAMA) in the Department of Defense. The SAMA houses the Faculty of Military Science of Stellenbosch University and offers militarily contextualised higher education and training. The SAMA embraces a vision of being a leader in a militarily contextualised higher education and professional military development. Higher education has become a benchmark of the progress and prosperity of a country. Attaining this level of education is generally associated with improved well-being outcomes, employment and labour market opportunities, as well as improved earning potential (Reddy, Bhorat, Powell, Visser, & Arends, 2016).

Universities, therefore, have a central role to play in serving the needs of society by promoting and facilitating the enhancement of human potential and social development (GUNI, 2017). The SAMA, under the auspices of the Department of Defence specifically, the Faculty of Military Science, serves to provide a holistic tertiary education experience of knowledge acquisition, development,

dissemination and utilisation. The SAMA, Faculty of Military Science is tasked with mobilising and effecting human resource development through practical skills level training in the process of producing, acquiring, internalising and applying new knowledge within the military context. The effort of the Department of Defence in making provision for employees to study part-time point to the importance of studies in employees career advancement as well as self-enrichment and more to the greater transformation of the South African society.

The Department of Defence vision of ensuring that every officer obtains a university degree by 2020 is within the greater context of the development and transformation of the South African (SA) society. In this regard, the SAMA, Faculty of Military Science as an institution of higher education and training, has a pivotal role in driving socio-economic development and cohesion, promoting and defending multiculturalism (GUNi, 2017). Fulfilment of Department of Defence vision requires the development of well-rounded and skilled citizens adding social, cultural and scientific value to society. These efforts are seen to facilitate and support both Department of Defence and national goals through concerted efforts of SAMA, Faculty of Military Science and Stellenbosch University. The SAMA routinely selects students from diverse cultural groups. These students are largely first-generation tertiary students required to fulfil many different roles, including being career soldiers, university students and parents or guardians of children.

For this study, first-generation university students can be defined as individuals whose parent(s) did not graduate from an institution of higher learning, who thus experience greater difficulty in completing their studies than second or third generation university students (DeFreitas & Rinn, 2013). According to Chen (as cited in DeFreitas & Rinn, 2013) first-generation university students tend to earn fewer academic credits and are less likely to graduate from university than students whose parents attended and graduated from the Higher education institution. Knowledge acquired from the result of the study will equip first-generation university students, in particular, full-time employed, part-time university students with knowledge on how to adapt to role demands by developing appropriate behavioural response patterns.

The main focus is on full-time employed, part-time studying students of the SAMA who are either married or single. This study investigates the relationship between the samples' WFSC, Conscientiousness and General Work Stress and also examine the extent to which Conscientiousness and WFSC have a statistically combined effect on their General Work Stress. The study also investigates the relationship between WFSC, Conscientiousness and General Work Stress in order to explore how the performance of multiple roles results in WFSC and General Work Stress amongst non-residential military university students.

Furthermore, the study aims to examine the moderating role of Conscientiousness on student's WFSC with General Work Stress within a military higher education and training institution. The findings of this study are especially significant in promoting excellence through the management of human capital within this particular military higher education and training institution.

The results of this study are interpreted based on the following essential socio-demographic variables: (a) family-related factors, (b) work-related factors, (c) study-related factors. Based on the descriptive statistics of the study, most respondents were females (50%), single (59%) and mainly Africans (78%). In terms of age, 35% were between the age of 30-34 and 32% between the ages of 25-29 and 67% working for 40 hours per week on average while 23% working more than 40 hours per week. Majority of the respondents are first-year students (32%) and postgraduates (31%). Out of the selected sample, 34% are not parenting or fulfilling legal guardianship role, while 31% are fathers, 28% mothers and 7% are guardians. In terms of the number of children and dependents, 50% have 1-2 children/dependents and 37% have none. About half of the sample size have children or dependents, indicating that most respondents accounted for family responsibilities while studying part-time and working full-time as depicted in Table 3.1 to 3.1.1.

The results of the study may also help assist first-generation university students to develop knowledge on how to cope well and attain well-being. Furthermore, the findings offer insight into the complex aspects of role involvement in work, family and study domains, knowledge of WFSI, positive personality traits, and their effect on the experience of General Work Stress. The study results may be particularly useful in explaining differences in Military University students' academic success. The results may contribute to finding proactive ways to help first-generation university students manage their well-being and studies effectively. More importantly, informing SAMA admission criteria in terms of selecting students with a suitable work-family-study interface profile and high level of conscientiousness and recommending the number of modules to register based on their WFSC profile.

#### 1.4 Problem Statement

Work, family and studies are the most imprinted domains of an individual's life. Managing their demands is a big challenge (Greenhaus & Allen, 2011; Anafarta, 2011; Greenhaus & Powell, 2006). The conflict between these domains has generated intense inquiry amongst researchers and as such necessitated this present study. This is motivated by an increase in the number of full-time employed Department of Defence employees enrolling for part-time studies at SAMA, Faculty of Military Science.

Similar to any other population, part-time SAMA students who are full-time employees in the national security sector are not immune to work stress. Just like other employees of the security sector, this student population is under severe stress caused by the nature of their work, uncertainty about their future and often by their failure to manage and harmonise diverse demands, in this case, work-family-study demands. Compounding their stress is the pressure to ensure that they are educationally successful because they are also active members of the Department of Defence who study at state expense while receiving a salary. Therefore, the Faculty of Military Science to which they are affiliated needs to demonstrate a positive return on investment for the state through a favourable throughput rate.

The current study sought to demonstrate the positive contribution of Conscientiousness in reconciling different roles for optimal performance in work, family and study domains. Given today's changing work demands, employees have to retrain or upskill in order to remain competitive and balance work, family and study commitments. The changing work demands place a strain on them as they must reconcile the demands of work, family and studies. This strain may have a detrimental effect on their well-being. For full-time employees who are studying part-time, their well-being may be enhanced and achieved by ensuring positive work-family-study interface and by their possessing a high level of Conscientiousness. Cameron and Spreitzer (2011) and De Vries and Van Heck (2002) found that high Conscientiousness is related to personal accomplishment and low conscientiousness with emotional exhaustion. On that note, this study hypothesised that individuals high in Conscientiousness would be less affected by WFSC and General Work Stress.

General Work Stress in a security sector like the SANDF is often caused by job demands and a lack of resources which often results in burnout (Mostert & Joubert 2005) and WFSC as hypothesised. The current study sought to ascertain whether Conscientiousness may moderate or mitigate participant' WFSC and General Work Stress. Although other factors, such as social support (spouses, partners, children or friends) may be thought to moderate WFSC and General Work Stress, the same support base may also, ironically serve as a source of or contributor to stress. The contribution of this study is to provide empirical and theoretical findings on the combined effect of Conscientiousness and WFSC on student's levels of General Work Stress, especially those juggling work, family and study roles within a military higher education and training institution.

The final focus of the study is directed at identifying plausible or alternative explanations of the combined effect of WFSC and the moderating role of Conscientiousness on students' overall level of General Work Stress.

The main focus is on how the Department of Defense's human resource management policies can be designed in a way that work, family and study domains can be structured to render the work-family-study facilitation that is essential for students' psychological well-being. The main interest of the study is that of exploring the positive moderating role of Conscientiousness on the respondents' experience and level of WFSC and General Work Stress, who are currently employed by the Department of Defense and pursuing their part-time studies at the SAMA.

This study aimed to explore how the performance of multiple roles results in WFSC and General Work Stress amongst full-time employed Department of Defense employees who are studying part-time at the SAMA. Focus is on part-time students married and single with specific reference to their level of WFSC, Conscientiousness, and level of General Work Stress as well as the antecedents of WFSC. Furthermore, the study aimed to examine the moderating role of the personality trait of Conscientiousness in the multi-directional link between the demands of work, family and study, respectively, with General Work Stress as well as the combined effects of Conscientiousness and WFSC on student's level of General Work Stress in military higher education and training. The discussion of results and analysis are interpreted based on key selected demographic variables connected to the structural relationships of the chosen variables. The study is underpinned by the overarching research question: Does Conscientiousness moderate the relations of WFSC with General Work Stress for the SAMA part-time students?

In order to explore how the performance of multiple roles results in WFSC and General Work Stress amongst the selected sample, the following literature-related objectives were formulated: (a) To explore and describe the outcome of applying the theoretical model of Job Demands-Resources within the selected sample, (b) To investigate the theoretical and empirical relationship between Conscientiousness, WFSC and General Work Stress within a military higher education and training institution, (c) To explore and describe the outcome of the combined effect of WFSC and Conscientiousness on students' level of General Work Stress in the SAMA and, (e) Examine the moderating role of the personality trait of Conscientiousness in the multi-directional link between the demands of work, family and study, respectively, with General Work Stress.

To date, there is no literature available to provide a plausible explanation on (a) the moderating role of Conscientiousness on WFSC with General Work Stress as well as (b) the combined effect of conscientiousness and WFSC on General Work Stress. This study challenges the conventional thinking about the underlying nature of the causes of work stress. In the past researchers considered the perceptions of the work environment as state-based, and they were traditionally assessed using a static, between-person role conflict approach (Dalal, Bhawe & Fiset, 2014) instead of an inter-domain

approach facilitated by positive personality traits. The current study makes two primary contributions. First, provide theoretical and empirical evidence regarding the relationship between WFSC, Conscientiousness, and General Work Stress. Second, examine the extent measurements, and sample-related characteristics predict differences in WFSC, Conscientiousness and General Work Stress values. The outcome of the study is to scientifically measure the constructs, interpret results and draw a sound conclusion based on the selected sample. However, just like with other studies, there are delimitations and limitations to this study highlighted in chapter 5.

## 1.5 Overview of the Chapters

Chapter 1 reflected briefly on workplace learning, and WFSC, outlined the focus of the study in terms of the relevant variables, background and problem statement of full-time employees of Department of Defence who are part-time students of the SAMA, Faculty of Military Science in Saldanha. Chapter 1 also establishes the rationale and relevance of the present study. The examination of the research problem culminated in the research question and the objectives set for this study.

Chapter 2 begins with an in-depth description of the conceptual model of work-family-study interface contextualised within military higher education and training for SAMA part-time students. The literature review focused on theoretical frameworks on WFSC, General Work Stress and Conscientiousness. The discussion begins with an overview description of the work-family-study interface, role theory, Job Demands-Resource model, General Work Stress and personality theory, in particular, Conscientiousness, followed by research questions and hypotheses. The summary of the literature review lays the foundation for the subsequent chapter.

Chapter 3 provides a detailed description and justification of the guiding research paradigm, methodological approach and specific methods employed for data collection and analysis. The study was guided by an exploratory based research approach which consisted of correlation research supported by quantitative data collection methods.

Chapter 4 provides a presentation and description of the statistical results obtained from the data that was collected. The empirical investigation is reported and briefly discussed. An R-studio, lavaan statistical software package was employed to report the findings which are presented as three instrumental cases explicating the outcomes of the WFSC, Conscientiousness and General Work Stress carried out in each case.

Chapter 5 outlines the discussion of results, their practical implications and the conclusions reached in this study. The discussion of the findings is presented through the lens of the variables of interest for the study, namely, WFSC, Conscientiousness and General Work Stress.

Furthermore, limitations of the study, implications of the results for practice and recommendations for future research and concluding remarks are highlighted.

## 1.6 Chapter Summary

This chapter encapsulated the introductory arguments and motivation for the study. An overview of the research background was defined and described, followed by a research problem statement and summary of the chapter and overview of the subsequent chapters. The next chapter is the literature review chapter beginning with an examination of the conceptual work-family-study interface model, laying the foundation for WFSC. Thereafter, role theory, job demands-resources model, General Work Stress, personality theory broadly, in particular, Conscientiousness literature.

## CHAPTER 2: LITERATURE REVIEW

This chapter provides theoretical frameworks on WFSC, General Work Stress and Conscientiousness. The theories are contextualised in terms of full-time employees of the Department of Defence who are studying part-time at the SAMA. The discussions begin with an overview description of the work-family-study interface, role theory and the Job Demands-Resource model, General Work Stress and personality (conscientiousness), followed by research questions and hypotheses.

Although several studies conducted on the work-family interface in applied psychology since 1980 has provided insight into some role dynamics, these studies paid less attention to the importance of studies or rather study domain and positive personality traits in employees' career development. Past studies have focused more on the causal relationship between stress in the work and family domains while ignoring the study domain and the role of individuals' Conscientiousness. This narrowed approach is inadequate in comprehensively examining a person's inter-domain conflict variability and the positive effect of Conscientiousness on General Work Stress and WFSC. Greenhaus and Allen (2011) asserted that many facets of individuals' personal lives, such as family, studies, and leisure interconnect with the work sphere and this interconnection requires employees to be able to manage their General Work Stress and employers to consider work-family-study facilitation when designing workplace policies.

The current study suggests the importance of focusing on the third area of demands, namely, '*study(ies)*' to the existing work-family conflict literature and identifying the meaningfulness of respondents' variance in terms of WFSC and Conscientiousness on General Work Stress. The identification of meaningful person variability in the focal constructs requires (a) an investigation of the theoretical and empirical evidence of the relationship between WFSC, Conscientiousness and General Work Stress (b) using scientifically valid and reliable methods and analytical techniques to measure the meaningful person variability in the focal constructs. In this regard, the current study makes two contributions; (a) broadening the scope of the existing work-family interface literature to include the '*study(ies)*' domain and provide a benchmark for the WFSC estimates, (b) examine the extent to which the chosen measurements and design accurately predict sample's differences in their levels of WFSC, Conscientiousness and General Work Stress.

## 2.1 Work-Family-Study Interface Defined

Work-family-study interface is defined as the degree to which students' job-study involvement (work-study interface) and family-study involvement (family-study interface) impact their ability to meet study-related demands and responsibilities both positively and negatively (Butler, 2007; Creed, French, & Hood, 2015). Work, family and studies have always been and continue to be fundamental domains for individuals' psychological well-being and vocational success among people working while studying. Individual employees' self-worth is often defined by the type of work, a career they pursue, and the family structure they embrace. Positive interface (work-family-study facilitation) of the three domains is essential in ensuring that employees experience low General Work Stress in the workplace. Conversely, a negative interface is likely to result in high WFSC and General Work Stress.

When students' job and family involvement positively impact their ability to fulfil study-related demands and responsibilities, work-family-study facilitation occurs. Conversely, where students' involvement in both family and job domains negatively impacts on their ability to satisfy their study demands, WFSC is likely to occur (Ford, Heinen, & Langkamer, 2007). These resultant outcomes may be due to the antecedents of work-family-study interface in general and in particular, WFSC. The current study hypothesised that WFSC is related to General Work Stress (Hypothesis 1) and also that Conscientiousness moderate the relations of WFSC with General Work Stress (Chu, Fan, Li, Han & Han, 2015). Conscientiousness may either inflate or deflate an individual's experiences of WFSC and General Work Stress.

### 2.1.1 Antecedents of work-family-study conflict

For the current study, the concept 'antecedents' refers to a condition or event preceding or occasioning another event and consequently setting the stage for a particular response. According to Butler (2007), a positive work study congruence between students' job and study program is positively associated with work-family-study facilitation, which is essential for well-being. The current study asserts that for the chosen sample, work-study-family congruence, job support, and family support are essential for low WFSC, which in turn may have the potential to lead to low General Work Stress.

This study posits that a military occupation, as well as education and training, are potentially demanding and stressful (Chu et al., 2015). However, participants' level of Conscientiousness may moderate their experience of both WFSC and General Work Stress. The most useful outcome of work-family-study interface relevant to this study is WFSC. WFSC as depicted in figure 2 suggests that an individual experiences conflict when: (a) time and attention afforded to the requirements of one role renders it challenging to fulfil the demands of another; (b) strain from involvement in one role makes

it difficult to satisfy the requirements of another; and (c) specific behaviors required and expected in one role make it challenging to meet the demands of another (Bakker & Demerouti, 2018; Greenhaus & Allen, 2011). Difficulties in meeting the related demands of each domain may influence participants' levels of General Work Stress.

Drawing from findings on the relationship between work-family conflict, job stress, organisational commitment and job performance, indicated that there are several aspects to understanding role conflict (Nart & Batur, 2014; Reis, Hoppe & Schröder, 2015). The current study suggests the following aspects contribute to ones' experience of WFSC: (a) childcare, an individual who has a family and has a responsibility towards the care and keeping of children, (b) help with the housework, when individuals engage in three roles, it is possible to experience fatigue both physically and psychologically, (c) communication and interaction with his or her spouse and children, (d) time for family, (e) specify a priority- conflicts can arise when people have to decide who will be the priority and who should take precedence, and (f) career and family pressures. These aspects may be understood through the conceptual WFSC model (see figure 2) discussed next.

## 2.2 Work-Family-Study Conflict Model

The WFSC model is based on the conceptual model of the work-family-study interface depicted in Figure 1 (see p.84). This model is based on the earlier literature of Butler's work-study interface model. For this study, the work-family-study conflict is defined as the degree to which students' job, studies and family involvement negatively impact the ability to meet study related demands and responsibilities (Butler, 2007; Creed et al. 2015). In modelling the common antecedents and outcomes of the work-family-study interface, particularly WFSC. This study drew on models of the work-school interface (Butler 2007; Creed et al. 2015), work-family interface (Ford et al. 2007) and the family study interface (Meeuwisse et al. 2011). WFSC is better understood through the lenses of work-family conflict, work-study conflict and family-study conflict (see Figure 2, p. 85).

### 2.2.1 Work-family conflict

Work-family conflict continues to be a serious concern for both organisations as well as employees. Work-family interface "is the intersection of an individual's work and private life" (Greenhaus & Allen, 2011, p.165) where negative work-family interface results in work-family conflict. Furthermore, many aspects of one's personal life can intersect with work, including family, leisure, and health (Greenhaus & Allen, 2011; Smoot, 2005; Sweet, 2013). Therefore, this study acknowledges that the work-family interface of the SAMA sample is bidirectional in that the relationship between their two domains may be positive or negative.

This study posits that for the chosen sample, the bidirectional relationship of the domains might be negative, resulting in work-family conflict. This study theorised that for the chosen sample, a negative work-family interface results in work-family conflict, which in turn may transfer to other spheres of life. Therefore, this study hypothesised that work-family conflict is related to General Work Stress (Hypothesis 1a).

### 2.2.2 Work-study conflict

The model of the work-study conflict is based on the conceptual model of the work-study interface of Butler (2007). According to Butler (2007) and Creed et al. (2015), a work-study interface is defined as the degree to which work affects the ability of students to meet study-related demands and responsibilities in either a positive way, resulting in work-study facilitation or a negative way leading to work-study conflict. In previous research studies on multiple role conflict and facilitation, it was found that more work-study conflict results in less effortful study behaviour and lower academic outcomes. This study hypothesised that work-study conflict is related to General Work Stress (Hypothesis 1b). The question formulated for the study was whether work-study conflict model on multiple role conflicts is also valid for full-time employees of the Department of Defence who are also part-time students of the SAMA?

### 2.2.3 Family-study conflict

The intersection between family and study domains becomes crucial when one examines their effect relative to students' General Work Stress. This study defines family-study conflict as the degree to which students' family involvement negatively impact their ability to meet study related demands and responsibilities (Meeuwisse et al., 2011). In this regard, students' family-study interface may be described as the manner in which family and school domains relate or intersect with each other in a way that either allow (Family- study facilitation) or hinder students' ability (Family-study conflict) to fulfil study demands (Meeuwisse et al., 2011) and family demands.

For this study and in line with the proposed work-family-study conflict model as depicted in Figure 2, the current study asserts that involvement in either family or study activities might partly explain differences in participants' level of General Work Stress. The study hypothesised that family-study conflict is related to students' level of General Work Stress (Hypothesis 1c). The study's hypothesis is supported through a study by Meeuwisse et al. (2001) and theories of inter-role processes.

According to Meeuwisse et al. (2001) and Van Wingerden, Bakker and Derks (2016), individuals' involvement in family and study activities may predict either family-study conflict or family-study facilitation (see figure 1). Role theory and Job demand models are central in conceptualising the focus of the current study.

### 2.3 Role Theory

In the past, researchers have focused mostly on the interface between work and family, especially the conflict side; the study domain was overlooked. Also, further studies have drawn causal relationships between the work and family domains on the basis of role theory (Bakker & Demerouti, 2017; Edwards & Rothbard, 2000). Therefore, with changing times, generations and the nature of the world of work, the study domain becomes equally important. Following Butler, this study proposes a Work-family-study interface model (see Figure 1) and WFSC model (see Figure 2) in addressing the gap in the literature and role facilitation for the SAMA. Recently, many employees pursue their studies while having to care for their families. Also, the modern world of work requires employees who will be able to perform multiple roles without putting a strain either on their well-being or work role. According to Bagraim et al. (2011) and Smoot (2005), a role is defined as the behaviour expected of an individual based on their status in a given society. The role theory is relevant in explaining the role conflict experienced by the SAMA sample in terms of the earlier discussed antecedents of WFSC.

The current study defines a role as the assigned responsibilities and behaviours that an employee-student has in either domain. Building on the role theory, the current study posited that work, family and study domains entail the performance of multiple roles. Performance of each of the multiple roles places many and severe demands on a person (Bagraim et al, 2011; Greenhaus & Powell, 2006; Greenhaus & Allen, 2011), and this may result in WFSC and General Work Stress (see Figure 1). Drawing from role theory, the study postulates that WFSC and General Work Stress may be due to role incompatibility regarding time, strain, or behaviour (see Figure 2) which are also dimensions of work-family conflict (Edwards & Rothbard, 2000; Greenhaus & Allen, 2011; Reis, Hoppe & Schröder (2015). However, what is not known is whether Conscientiousness may serve a positive moderating role in reconciling different roles and lessen respondents' WFSC and General Work Stress.

To examine these, the study hypothesised that Conscientiousness moderate the relations of WFSC with General Work Stress (Hypothesis 4). In this regard, the study contributes to the body of knowledge by addressing the gap in the literature. These variables may be understood through the conceptualisation of the Job Demands-Resources model discussed next.

## 2.4 Job Demands-Resources model

The narrowed focus of work-family conflict research had become a significant area in organizational research, and several studies have been carried out in recent years (Bakker & Demerouti, 2018; Jin, Ford & Chen, 2013). However, the present study broadens the scope of the existing work-family research by adding the study domain and conceptualising work-family-study conflict through the Job-Demands Resources model. The Job-Demands Resource (JD-R) model incorporates and focuses on both the positive and negative aspects of employee well-being (Bakker & Demerouti, 2018; Demerouti & Bakker, 2011). For the current study, the JD-R model provided insight into the various factors that impacted well-being at work and even extended to other domains such as study and family. Application of the JD-R model to the current study contributes to an understanding of the antecedents of WFSC and General Work Stress. Present study broadens the scope of the existing research by conceptualising work-family-study conflict through the Job-Demands Resources model within military contexts focusing on full-time employees studying part-time.

Military occupational contexts, including military education and training, are demanding, stressful and challenging (Van Dyk, 2016). The non-generic nature of the military context puts unique work stresses and job demands on employees. In order to gain insight into the unique military occupational stresses and demands, the current study suggested the application of the JD-R model. According to Bakker and Demerouti (2018), the JD-R model is based on two main assumptions, these assumptions were contextualised within the military education and training domains for the purpose of the present study. The two main assumptions are discussed next:

The first central assumption is that although all organisations have unique factors, these factors can be grouped into two categories; job demands and job resources (Bakker & Demerouti, 2007). Job demands are defined as “those physical, social, or organisational aspects of the job that requires sustained physical or mental effort and are associated with certain physiological and psychological cost” (Demerouti, Bakker, Nachreiner & Schaufeli, 2001, p. 501).

Job demands drain employee's resources, and this can lead to adverse outcomes such as burnout and fatigue (Bakker & Demerouti, 2018; Bakker & Demerouti, 2007) and work stress. For SAMA non-residential students, job demands include; compulsory unit regimental duties, field operational exercises, internal deployments, attendance of military functional courses and physical training. All these job demands have the potential of resulting in work-family-study conflict.

Job resources can be defined as "those physical, psychological, social and organisational aspects of the job that are functional in achieving work goals, reducing job demands and the associated physiological and psychological costs, stimulating personal growth, learning, and development" (Bakker & Demerouti, 2017; Bakker & Demerouti, 2007, p. 312). For the SAMA university students, job resources include professional support services provided by the unit Chaplain, psychologists, and social workers and by the South African Military Health Services (SAMHS).

The second central assumption is that "two different underlying psychological processes influence the development of job strain and may also foster motivation" (Bakker & Demerouti, 2018; Bakker & Demerouti, 2007, p. 313). The first of these processes is the health impairment process: For SAMA non-residential students, health impairments factors include sleep deprivation activities, such as compulsory unit regimental duties, field exercises, internal deployments and physical training which disrupts unique regular sleeping patterns in some students and potentially resulting in work-family-study conflict and general work stress.

The second psychological process is a motivational process: this process assumes that job demands can motivate employees to reach their career goals (Bakker & Demerouti, 2018; Demerouti & Bakker, 2011). For this study, the motivational component or motivational job demands for the SAMA non-residential students include; (a) the attendance of promotional courses through which students as Department of Defence's full-time employees advance in their military careers, (b) physical training through which students with a passion for sports may participate in formal competitions. Besides, some undertake internal military deployments, which provides additional finances to those with financial challenges. However, within this context managing the demands of all three domains is a big challenge; the paradigm role-reversal is likely to increase commensurately and lead to General Work Stress. The study examines the extent to which participant's WFSC is associated with or predict their General Work Stress (Hypothesis 1).

## 2.5 General Work Stress

Several studies examined the prevalence and sources of occupational stress and the relationship between stress and emotional health. However, not much is known about the relations between General Work Stress and WFSC and whether ones' personality trait of Conscientiousness may mitigate or exacerbate the effect. As a person experiences conflict between his work and family roles, he or she is likely to have more distress at home, in trying to deal with the conflict that has arisen from any of the two roles (Bazana & Dodd, 2013; Broadbridge & Swanson, 2006). This research finding is insufficient to provide comprehensive explanations as it focuses only on work-family conflict and

stress in general. The current study suggests a multi-dimensional approach focusing on participants' work-family-study conflict and examine the extent to which it is associated with General Work Stress and Conscientiousness. This study is critical because General Work Stress exacts a heavy toll on the full-time working population who at the same time, pursue their part-time studies.

This study posits that General Work Stress is predominant in a modern society characterised by collective demands from work, family and study domains. This study, similar to Anafarta (2011) and Greenhaus and Allen (2011, p. 12) asserts that stressed employees often show "decreased productivity, increased workforce turnover, higher rates of absenteeism, more accidents, lower morale, and greater inter-domain conflict". In this regard, the study contributes to new body of knowledge by examining the effect of WFSC on sample's General Work Stress and the prevalence of reported General Work Stress in one specific professional environment; the SAMA.

The wealth of literature on the perception of stress mirrors the current study's suggestion. stress has been found to have a significant influence on employees' well-being and is related to physical and mental health (Anafarta, 2013; Bakker & Demerouti, 2018; Nell, 2005). Stress is experienced "as a regular, necessary and inevitable life phenomenon, which generates temporary discomfort, as well as long-term consequences" (Parsotam, 2009, p. 21). An examination of the samples' General Work Stress is relevant to this study due to their likely experiences of work, family and study-related demands.

The concept of stress was first presented in the medical terminology as early as 1936 by Canadian theorist and endocrinologist, Hans Selye (Dumitru & Cozman, 2012; Mintz, 2007; Parsotam, 2009). Studies suggest that stress can be described as "a potentially negative concept which causes maladaptation to the environment and could lead to psychological harm" (Parsotam, 2009, p. 22). However, these findings are inadequate in providing a plausible explanation for full-time working, part-time studying SAMA students who may experience WFSC resulting in General Work Stress. The previous research findings are inadequate in their broad approach to study stress. The current study suggests a narrowed research approach focusing on General Work Stress. A narrow research approach focusing on General Work Stress may help in conceptualising a person's inter-domain variability. Such a focussed approach allows for an examination of hypothesis 2 stating that Conscientiousness is related to General Work Stress.

Differences in individual respondents' General Work Stress levels may be understood through the lens of their respective degrees of Conscientiousness and WFSC (Hypothesis 3). Stress, work stress, in particular, is an integral part of every employee's life. Even though stress is perceived as a normal, inevitable life course for anyone (Chu, Fan, Li, Han & Han, 2015; Parsotam, 2009), it can affect one's cognitive, behavioural, physical and psychological functioning (Hanif, Tariq & Nadeem, 2011). According to a study by Aghhar (2012) and Akpochafo (2012, p. 40), work stress can be described as "the inability to cope effectively with the physical, mental and emotional strain caused by work-related demands which prevent people from functioning efficiently in their occupational roles". The current study asserts that General Work Stress is related to WFSC (Hypothesis 1) in that it affects optimal role performance in life domains. For the current study, the focus is specifically on participant's General Work Stress rather than stress in general.

Akpochafo (2012) refers to work stress as the 20th-century disease, as it is extensive and multifaceted. The current study suggests that the multifaceted nature of General Work Stress may be examined through the samples' levels of Conscientiousness and WFSC (Hypothesis 3). According to Rothmann and Cooper (2008), work stress is similar to general stress. However, the current study argues that this perspective is flawed as 'general stress' is multi-dimensional while General Work Stress emphasises unidimensionality in terms of the priority given to the work domain and not life in general. Practically, General Work Stress suggests that "a person cannot efficiently control job-related demands, such as work overload, role conflict in the workplace and poor working conditions" (Viljoen & Rothmann, 2009, p. 12). For the SAMA context, General Work Stress may be experienced by non-residential students when there is a mismatch between the demands made upon a person by the work, education and family domain and the ability to cope with them.

This study examines the extent to which Conscientiousness and WFSC have a statistically significant combined effect on participants' level of General Work Stress (Hypothesis 3). Work stress is still an inevitable life phenomenon that is given more attention by social scientists (Lin, 2013; Ozutku & Altindis, 2011; Chu, Fan, Li, Han & Han, 2015). Work stress is becoming more studied because if not appropriately managed, employees, families and organisations can be negatively affected. The results of the study conducted by Anafarta (2011), revealed that work stress has a negative impact on psychological well-being and employees' behaviour. Other studies reported that work stress has a significant negative effect on the employee's health, job performance and productivity (Ozutku & Altindis, 2011).

Consistent with Viljoen and Rothmann's (2009) findings, work stress may be similar to General Work Stress in that it is noticeable at a cognitive, behavioural, physical and psychological level. Individual's experience of work stress can alter the way they feel, think and behave, and can also produce changes in cognitive, behavioural, physical and psychological functions (Chu, Fan, Li, Han & Han, 2015; Hanif et al., 2011) and even lead to role conflict. For the SAMA, the study hypothesised that WFSC is related to General Work Stress (Hypothesis 1), which is likely to impact students' role performance. Therefore, General Work Stress can result in negative views of the environment, work-family-study domains and the self. Also, the current study asserts that individual's personality differences such as the Big Five personality traits, namely: extraversion, conscientiousness, agreeableness, neuroticism and openness to experience have the potential to predict the inter-domain conflict (Chu, Fan, Li, Han & Han, 2015). In this regard, this study hypothesised that Conscientiousness moderates the relation of WFSC with General Work Stress (Hypothesis 4). This study examines the extent to which the participant's Conscientiousness may moderate the adverse effects of respondents WFSC and General Work Stress in an attempt to reconcile the demands of divergent roles. This study also took into account the common sources of work stress.

#### 2.5.1 Sources of work stress

Several studies conducted among teachers in the educational sector have pointed out that there are many sources of work stress across the world. According to de Bruin and Taylor (2005), the sources of work stress are described as aspects of environmental conditions that hinder individuals from effectively coping with role demands. Employees of the SANDF like teachers in the educational sector are often responsible for service to others. Therefore, associated with their responsibilities are heightened expectations for job performance and emotional availability (Ozutku & Altindis, 2011; Sweet, 2013). The current study suggests that inability to meet such expectations for role performance and emotional availability for work, family and study domains may result in WFSC and General Work Stress.

According to Ozutku and Altindis (2011), stress in general, is an active condition in which a person is faced with challenging opportunities or role demands based on what the person desires and for which the consequence is perceived to be both unclear and significant. This definition is consistent with Akpochafo's (2012) description of work stress and is applicable in this study as stress is seen as a dynamic or multifaceted condition. Akpochafo's conceptualisation of work stress applies to the security and educational sector, especially to the full-time Department of Defence employees who are studying part-time at the SAMA in the SANDF.

The conceptualisation of work stress applies to the study sample because the SANDF functional role is characterised by constant change and uncertainty. Full-time employees of the SANDF, studying part-time at the SAMA are likely to experience General Work Stress as results of striving to meet work, family and study role demands.

The current study suggests that employees experiencing General Work Stress may find it difficult to perform efficiently in work, family and study roles. Employees experiencing work stress can be described as having the inability to cope effectively with the physical, mental and emotional strain caused by work-related demands. De Bruin and Taylor (2005) posited that work-related demands are the primary sources of work stress. The current study suggested a conceptualisation of Karasek's job-demands-control model (1979) in examining the primary sources of General Work Stress for the SAMA sample. Internationally, sources of work stress include unsatisfactory relationships with colleagues (Anafarta, 2011), feelings of inability to cope with workload (Mapfumo & Chitsiko, 2012), role ambiguity (Anafarta, 2011), shortage of tools and equipment (Mapfumo & Chitsiko, 2012), lack of autonomy, a lack of social support, unsatisfactory work hours (Mapfumo & Chitsiko, 2012) and an unacceptable work environment (Anafarta, 2011). This study suggests a re-examination of these sources of work stress for the South African military higher education and training population.

In South Africa, particularly the SAMA, Karasek's (1979) job-demands-control model is relevant in helping to identify the primary sources of General Work Stress. de Bruin and Taylor (2005) identified sources of work stress of the South African population. These sources are role ambiguity, relationships, workload, autonomy, bureaucracy, tools and equipment, physical environment, career advancement/job security and work/home interface. Similar sources of work stress have been identified by Rothmann and Rothmann (2010). In South Africa, several studies have focused on identifying many sources of work stress within teaching and learning in different South African provinces. The results differed per province, but most of the identified sources of work stress at national and provincial levels reflect those experienced by the chosen sample for this study.

Based on the international and inter-provincial research findings, the following were found to be the primary sources of work stress; inadequate working conditions, role conflict and role ambiguity, learner problems, time pressure, the threat of redundancy, work pressure, limited participation in decision making and distribution of tasks, and inadequate salaries (Nell, 2005); workload, contradictorily interpersonal relationships (Dalal, Bhave & Fiset, 2014); and workload (Putter, 2003). This study asserts that the sources, as mentioned earlier, reflects the common antecedents of WFSC, resulting in participant's General Work Stress. Karasek's (1979) job-demands-control model is relevant in conceptualising the stated sources within the SAMA samples' context.

### 2.5.1.1 Karasek's job-demand-control model

The current study identifies and conceptualises the primary sources of work stress as measured by the Sources of Work Stress Inventory (de Bruin & Taylor, 2005) based on the job-demand-control model by Robert Karasek (1979). The job-demands-control model was used as a theoretical foundation for the current study and has been subjected to empirical testing. Since the job-demands-control model is a well-known occupational stress model designed to predict negative outcomes or strains (Perrewé & Ganster, 2010), it is still relevant and applicable to the SAMA sample and for the purpose of this study.

Karasek (1979) identified job demands and job control as essential job characteristics influencing well-being. Häusser, Mojzisch, Niesel & Schulz-Hardt (2010, p. 10) refer to job demands as “quantitative aspects such as workload, role conflict, time pressure and physical and emotional demands”. They furthermore describe the second job characteristics, job control or decision latitude, as the extent to which a person is capable of controlling their tasks and general work activity. Job control refers to “the person’s abilities and skills to cope with demands and the latitude to decide how a specific task should be accomplished” Voydanoff (2005, p. 17). This study suggests that although not directly measured, job demands and job control are relevant in conceptualising General Work Stress and WFSC for the SAMA sample. This suggestion is examined through hypothesis 1 stating that WFSC is related to General Work Stress.

In order to conceptualise work stress within the SAMA context, the current study suggests 'Job Demand-Job decision model latitude'. Job Demand-Job decision model latitude provides an underlying theoretical basis for large-studies of job stress (Bakker & Demerouti, 2018; Karasek, 1979). To further qualify the model for the SAMA context in terms of General Work Stress, the model specifies two broad constructs; (a) Job demands and (b) Job decision latitude. These constructs are important in contextualising the sample’s experience of General Work Stress and WFSC. Their experiences are because of the bureaucratic and demanding nature of the military occupational role.

**Job demands:** the current study posits that for full-time employed students of the SAMA, the demanding nature of the military occupation coupled with the academic-related demands results is likely to results in General Work Stress and WFSC. Employees-students experience General Work Stress owing to the obligation to prioritise military duties over other life roles. *Job demands* arising from a military career and professional sphere result in General Work Stress and WFSC.

Such job demands result in work stress due to psychological stressors such as “working fast and hard, having a great deal to do, not having enough time and having conflicting demands” (Broadbridge & Swanson, 2006, p. 23; Dornelas, 2012).

The SAMA is a fast and demanding workplace as students are expected to fulfil both academic and military-related demands, with those of military being prioritised. The stress-related outcomes predicted by the model are related to the psychological effects of workload and the job control (Job decision latitude). The job-demands-control highlights two elements of the working environment contributing to job stress namely, (a) Job demands placed on the person and (b) the discretion the person is allowed in deciding how to meet the associated demands (Bakker & Demerouti, 2018); de Bruin & Taylor, 2006). For this study, job-demands-control is recommended through role facilitation, specifically work-family-study facilitation to minimise the levels of General Work Stress and WFSC.

**Job decision latitude:** For this study, job decision latitude comprises of two components; firstly, ‘Decision authority’- the worker's authority to decide on the job and secondly, ‘Skill discretion’- the variety of skills used by the worker on the job. Practically, these two components are combined into one measure of decision latitude or control (Bakker & Demerouti, 2017; Häusser et al., 2010). This study asserts that the Job Demand-Job decision model latitude applies to the chosen SAMA sample.

The study further posits that based on the model, a strain is likely to emerge due to work, family and study-related demands and results in stress (Dornelas, 2012; Anafarta, 2011) as depicted in Figure 2.

A strain which results from a respondent's stressful work condition has the potential effects on their psychological and physical wellness (Dornelas, 2012; Greenhaus & Allen, 2011). This study suggests that the effects of respondent's General Work Stress may further be examined relative to the levels of WFSC experienced (Hypothesis 1). A high level of General Work Stress characterised by high job demands results from the antecedents of WFSC, namely; time, strain and behaviour (see Figure 2). Therefore, the current study suggested that a constraint of response from the participants may be due to inadequate job resources and coping skills (Reis, Hoppe & Schröder 2015). In this regard, an individual's possession of high-level Conscientiousness may moderate their level of WFSC and General Work Stress (Hypothesis 4).

Moreover, the positive outcomes of the Job demands-control model in terms of work-family-study facilitation for the SAMA sample are likely. Positive outcomes such as motivation, learning and health regeneration are likely where respondents occupy an active role combination and have positive work-family-study interface or work-family-study facilitation. Work-family-study facilitation and active role combination are experienced when respondents are in high control of high demanding roles.

Attainment of these positive outcomes alludes to the importance of person-environment interaction or fit as highlighted by Dodd (as cited in Van Dyk, 2016) and work-family-study facilitation as suggested by this study. The current study asserts that the Job Demands-control model almost dominates the occupational epidemiology literature concerned with work stress (Bakker & Demerouti, 2018). This study capitalises some of the limitations of the Job demand-control model through its emphasis on work-family-study facilitation and the positive personality trait of Conscientiousness.

## 2.6 The Role of Personality

According to McCrae and Costa (2010), the behaviour of the individual is determined by the characteristics of his or her personality as measured through reliable and valid personality measures. Over the years organisational researchers and behaviour theorist have neglected to examine individual differences in a systematic way (Chu, Fan, Li, Han & Han, 2015; Klinger & Mallon, 2015). The current study suggests that an individual's personality have important implications in the workplace. This study asserted that personality, when used with other scientifically sound measures, can be used to predict organisational outcomes, WFSC and General Work Stress in this regard. Personality refers to the relatively enduring mental processes, structures and propensities that influence and explain general affective, cognitive and behaviour to their environment over time (Klinger & Mallon, 2015; James & Mazerolle, 2002).

There has been a decline in the empirical research finding relating to the correlation between personality and workplace outcomes through the late 1980s (Klinger & Mallon, 2015). Several critics of personality theory such as the behaviourism school of thought posited that behaviour was the function of situational factors rather than personality factors. The various schools of thoughts overlooked behavioural consistency and the relationship between human behaviour and personality traits. Therefore the relationship between personality traits and human behaviour as well as the use of personality tests in employment decisions were an illusion. Currently, there is a need for more empirical studies on personality traits and behaviour based on scientific methodology and measures.

Several meta-analytic investigations were conducted to examine the relevance of personality in predicting workplace outcomes. However, longitudinal research findings have led to increased optimism and more research focusing on the role of personality in the workplace. The researchers examined the consistency of personality traits over time, as well as the relationship between personality and work outcomes. Finn (1986) uncovered that there is considerable consistency in personality traits across a 30 year span.

Then a few years after, findings by Judge et al. (1999) revealed that childhood measures of personality predicted career success when assessed 50 years later. These longitudinal findings capitalises on the popular taxonomy of personality traits called the 'Big Five Factor Model', which aggregates personality into five broad trait domains (Fleeson, 2001; Klinger & Mallon, 2015).

Researchers agree that almost all personality measures could be categorised according to the five-factor model of personality (James & Mazerolle, 2002). Thalmayer, Saucier and Eigenhuis (2011), posited that it is also good to combine the Big Five with the HEXACO and BFI measures. One such combination of measures indicated better predictive validity than the Big Five measure alone. The current study examines the moderating role of conscientiousness on the relations of WFSC with General Work Stress (Hypothesis 4), its effect on workplace outcomes such as WFSC and General Work Stress and the implications for organisational human resource management policies and practices. This study briefly reviews the Big Five Factor Model and suggest its appropriateness for capturing a broad picture of individual personality and their behavioural patterns (McCrae & Costa, 2010). For this study, the model would aid in the interpretation of objective situations in terms of the sample's Conscientiousness relative to their levels of WFSC and General Work Stress in a variety of life domains, especially within militarily contextualised education and training.

### 2.6.1 Big five model

The emergence of the Big five taxonomy led to the introduction of meta-analytic techniques organising the vast array of personality traits into five broad factors (McCrae & Costa, 2010; Klinger & Mallon, 2015). The Big five taxonomy was based on the premise that the behaviour of the individual is determined by the characteristics of his or her personality. According to James and Mazerolle (2002), researchers concurred that almost all personality measures could be categorised according to the five-factor model of personality. These five factors have been shown to include hundreds of personality traits proposed by theorists to describe individual differences in behaviour (Fleeson, 2001; McCrae & Costa, 2010). The Big Five factors are: (a) openness to experience, (b) agreeableness, (c) neuroticism, (d) extraversion and (e) conscientiousness.

According to Lin (2013), several studies have found the Big Five personality dimensions to be associated with academic and job performance. The Big Five model capture the broad picture of individual personality and behaviour across social contexts (McCrae & Costa, 2010; Klinger & Mallon, 2015). The Big Five personality model has been extensively researched and has accumulated a substantial empirical foundation (John, Naumann & Soto, 2008).

Other researchers have found a similar five-factor structure of personality traits, and consistency in results contributed to the widespread acceptance of the model. According to McCrae and Costa (2010) and Fleeson (2001), the behaviour of the individual is determined by the characteristics of his or her personality as measured through reliable and valid personality measures.

Although the Big Five Factor Model seems appropriate for capturing a broad picture of individual personality and their behavioural patterns (Fleeson, 2001; McCrae & Costa, 2010), they also aid in the interpretation of objective situations in a variety of life domains. Therefore, the combined measures of personality dimensions represent some well empirically tested instruments with robust measurement attributes (De Vries, 2013). Of the individual dimensions, Conscientiousness - the desire to perform a given task well and reflects diligence, achievement orientation and organisation (Vollrath & Torgersen, 2008; Wayne et al. (2004), seems to have the highest predictive power with respect to work related outcomes (Hogan & Holland, 2003). For this study, only Conscientiousness is examined as a positive factor moderating respondents' divergent roles across social contexts. In this regard, the current study examines the extent to which: (a) Conscientiousness is related to General Work Stress (Hypothesis 2), (b) WFSC and Conscientiousness have a statistically significant combined effect on General Work Stress (Hypothesis 3), and (c) Conscientiousness moderate the relationship of WFSC with General Work Stress (Hypothesis 4).

Consistent with research findings by Wayne et al. (2004), this study posits that of all the Big Five traits, Conscientiousness seems relevant to have an effect on participants' WFSC and General Work Stress. Several other studies reported Conscientiousness to be relevant and the strongest Big five predictor of work outcomes and to be cross-cultural across occupations (Chu, Fan, Li, Han & Han, 2015 ; Klinger & Mallon, 2015). For this study, participants' Conscientiousness is hypothesised to either increase or decrease the likelihood of WFSC and General Work Stress experiences. The study's hypotheses and earlier research findings are further supported by Lin (2013), positing that individuals personality differences would predict conflict between the roles they participate in.

A thorough search of the literature in this area suggests that much research was done on the bi-directional nature (with work and family-related factors but not with study-related factors) of the conflict. More research is needed to facilitate the understanding of individual differences (personality factors) that influence WFSC and General Work Stress. The current study contributes in this regard; on the relevance of Conscientiousness in the workplace. The focus of the study is on the moderating role of Conscientiousness on the respondent's level of WFSC with General Work Stress within the military higher education and training institution.

## 2.6.2 Conscientiousness in the workplace

Out of all the Big Five traits, none is as relevant to workplace criteria as conscientiousness (Barrick, Mount & Judge, 2001; Klinger & Mallon, 2015). Conscientiousness was found to be the relevant and most reliable Big five predictor of work outcomes such as job performance. According to Klinger and Mallon (2015), the role and importance of conscientiousness were found to be cross-cultural, across occupations and performance criteria. In this regard, the current study examines whether Conscientiousness is related to General Work Stress (Hypothesis 2). Conscientious employees are more likely to engage in positive organisation citizenship behaviour by performing their job beyond the set job role standards (Li, Fay, Frese, Harms, & Gao, 2014). Employees possessing a high level of Conscientiousness are less likely to engage in counterproductive behaviour (Berry et al., 2007; Chu, Fan, Li, Han & Han, 2015). Therefore, the current study, examines the extent to which Conscientiousness moderates the relations of WFSC with General Work Stress (Hypothesis 4). This is because Conscientiousness has also proven to be important in the context of leadership positions (Klinger & Mallon, 2015). The study also examines the combined effect of Conscientiousness and WFSC on General Work Stress (Hypothesis 3).

## 2.7 Conscientiousness and Work-Family-Study Conflict

Earlier research models focused mostly on work and family domains and neglected the study domain. Earlier research models argued that work-family conflict is not only a function of work and family circumstances but also includes individual characteristics (Lin, Ma, Wang, & Wang, 2015; Wayne et al., 2004). However, the current study expanded these findings by adding the study domain and examines the the combined effect of Conscientiousness and WFSC on General Work Stress (Hypothesis 3). The current study posits that Conscientiousness and WFSC can have a statistically combined effect on participants' General Work Stress. Participant's Conscientiousness and WFSC jointly may either increase or decrease the likelihood of experiencing General Work Stress. In this regard, this study argue that participant's experience of General Work Stress is the function of their level of Conscientiousness and WFSC.

## 2.8 Conscientiousness and General Work Stress

The relationship between Conscientiousness and General Work Stress within the military context has not been thoroughly researched. Ozutku and Altindis (2011), described Conscientiousness as the opposite pole of undirectedness. The undirectedness means that the adjectives that describe Conscientiousness are divided into two, namely (a) the high scorer, and (b) the low scorer.

The high scorers are organised, hardworking committed and resilient while the low scorers are aimless, unreliable and weak-willed (McCrae & Costa, 2010). The findings further revealed that Conscientiousness was found to be linked to job performance. According to Lin et al., (2015) and Lin (2013), Conscientiousness has been identified as being one of the personality traits that influence how an individual handles stressful work situations. In this regard, the current study examines the extent to which Conscientiousness is related to General Work Stress (Hypothesis 2). This hypothesis was supported by Lin (2013) who revealed that stress reactivity is related to different personality traits, mostly Conscientiousness.

## 2.9 Work-Family-Study Conflict and General Work Stress

According to the study by Anafarta (2011), there is a positive correlation between work-family conflict and work stress. These findings were further confirmed by Bazana and Dodd (2013), positing that work-family conflict contributes to both family and job stress. These results are consistent with the study findings by Lin et al. (2015) and Anafarta (2011), positing that inter-role conflicts between work and non-work domains may result in unfavourable outcomes such as stress and negative family satisfaction. In particular, Martinez, Ordu, Della Sala, and McFarlane (2013) highlighted that stress remained unexamined among working students. Therefore, the current study contributes to the body of knowledge in this regard.

The current study posits that for the SAMA sample, although employed men and women have equally important roles in their scope of work, family and study, their levels of General Work Stress may differ. WFSC is likely to arise and result in General Work Stress when there are demands that are considered pressing from the domains. Therefore, this study hypothesised that WFSC is related to General Work Stress (Hypothesis 1). Furthermore, the relations of WFSC with General Work Stress is examined in terms of the extent to which; (a) work-family conflict is related to General Work Stress (Hypothesis 1a), (b) work-study conflict is related to General Work Stress (Hypothesis 1b), and (c) family-study conflict is related to General Work Stress (Hypothesis 1c).

## 2.10 Conscientiousness, Work-Family-Study Conflict and General Work Stress

An inter-role conflict between the role domains are often associated with stress; work interfering with study and family interfering with study and work interfering with family (Greenhaus & Allen, 2013; Jamadin, Mohamad, Syarkawi & Noordin, 2015). These results are consistent with the role theory. These models posits that multiple roles lead to interrole conflict which in turn lead to stress because of resources that are lost in the process of juggling roles. The potential or actual loss may lead to stress or even burnout (Anafarta, 2011; Greenhaus & Allen, 2011).

In examining the relationship amongst the variables, the current study hypothesised that WFSC and Conscientiousness have a statistically significant combined effect on General Work Stress (Hypothesis 3). According to findings by Bazana and Dodd (2013), there is a significant negative correlation between Conscientiousness and work-family conflict ( $r = -.20$ ,  $p = .05$ ). Therefore, the current study examined an extent to which these findings may also be reliable for SAMA sample in terms of the combined effect of WFSC and Conscientiousness on General Work Stress.

Bazana and Dodd (2013) and Lin et al., (2015) suggested that Conscientiousness may lead to the lowered experience of work-family conflict. This study re-examines this finding in terms of WFSC. This study posits that WFSC is role conflicts that arise due to the gap expectations in terms of role demands. The study hypothesises that Conscientiousness moderates the relationship between participants' work-family-study conflict and General Work Stress (Hypothesis 4). This study asserts that Conscientiousness is one factor that contributes to moderating the stress of work to employees who experience WFSC. This study further examines the relationship between Conscientiousness, WFSC and General Work Stress. The focus is on examining whether Conscientiousness has a statistically significant combined effect on General Work Stress (Hypothesis 3).

Furthermore, findings by Bazana and Dodd (2013) and Lin et al. (2015), indicated that work stress is negatively associated with conscientiousness ( $r = -.34$ ,  $p = .001$ ). To expand on this finding, the current study focuses on the participants' personality trait of Conscientiousness and their relative level of General Work Stress. According to Bazana and Dodd, conscientiousness was found not to have a significant correlation with family stress ( $r = -.09$ ,  $p > .05$ ). Family stress ( $r = .42$ ,  $p = .001$ ) and work stress ( $r = .33$ ,  $p = .001$ ) were found to be positively related. This study examines these findings within the SAMA sample in terms of Conscientiousness and General Work Stress. The current study hypothesised that Conscientiousness is related to General Work Stress (Hypothesis 2).

This study posits that no one is immune to stress and that individual's level of interrole conflict and Conscientiousness may influence their experience of General Work Stress. In addition to interrole conflict, the impact stress has on people differs depending partly on one's personality traits (Bazana & Dodd, 2013; Anafarta, 2011). These findings suggest that Conscientiousness and interrole conflict, in this regard, WFSC may affect how participants react to challenges as a result of their General Work Stress. General Work Stress may be influenced by the amount of conflict experienced between the role requirements of work, family and study domains. The current study further investigates these findings by examining whether WFSC and Conscientiousness have a statistically significant combined effect on General Work Stress (Hypothesis 3).

### 2.11 Moderating Role of Conscientiousness

According to Vollrath and Torgersen (2008) and Wayne et al. (2004) Conscientiousness is a personal characteristic and resource that provides time efficiency, organisational skills, active problem solving, and lower vulnerability to stress. All these resources are essential to enable the SAMA students to manage WFSC and General Work Stress effectively. Therefore, the current study suggests that high levels of Conscientiousness may enable non-residential students to manage multiple roles efficiently, and may moderate the negative impact of inter-domain or role conflict in terms of WFSC and General Work Stress. The study by Participants that scored higher on Conscientiousness were better than less conscientious people in balancing their time and energy (Lin et al., 2015; Bazana & Dodd, 2013).

Conscientiousness is a personal characteristic and resource that provides time efficiency, organisational skills, active problem solving, and lower vulnerability to stress (McCrae & Costa, 2010); Lin et al., 2015; Vollrath & Torgersen, 2008; Wayne et al., 2004). All these resources are essential to enable individuals to manage WFSC and General Work Stress effectively. Therefore, the study suggests that high levels of Conscientiousness may enable the participants to manage multiple roles efficiently, and may moderate the impact of inter-domain conflict in terms of WFSC as well as General Work Stress. Individuals' personality disposition (conscientiousness) potentially constitutes a positive moderating force in reconciling divergent roles of multiple domains (Bazana & Dodd, 2013; Ozutku & Altindis, 2011). The current study posits that the SAMA, non-residential students may experience general work stress such as job and family distress in reaction to WFSC. This study examines the extent to which Conscientiousness moderates the relation of WFSC with General Work Stress (Hypothesis 4).

Research conducted in South Africa by Storm and Rothmann (2003) and revealed that, among other personality traits, Conscientiousness is associated with lower levels of emotional exhaustion and depersonalisation and higher levels of personal accomplishment. The current study suggests that Conscientiousness acts as a moderator between the participants' General Work Stress and WFSC relationship. This suggestion is supported by Lin (2013) and Lin et al. (2015) who revealed that stress reactivity is related to different personality traits, mostly Conscientiousness. In this regard, the participants of this study are presumed to experience General Work Stress in reaction to their level of WFSC. The current study examines the extent to which Conscientiousness moderates the relation of WFSC with General Work Stress (Hypothesis 4). For this study, Conscientious students are described as efficient, diligent, hardworking and organised individuals. The study suggests that Conscientiousness is one of the most influential personality predictors of participant's WFSC and General Work Stress.

This suggestion is supported by Bazana and Dodd (2013), Bruck and Allen (2003) and Wayne et al. (2004) who further stated that Conscientiousness is negatively related to family interference with work. This findings further support hypothesis 4 of this study.

## 2.12 Research Questions and Hypotheses

Against the background of the preceding discussion, the research questions(s) that the current study sought to answer are:

Q<sup>1</sup>: What is the nature of the association between Conscientiousness, WFSC and General Work Stress for the SAMA part-time students?

Q<sup>2</sup>: Does Conscientiousness moderate the relations of WFSC with General Work Stress for the SAMA part-time students?

In addition to the research questions the following hypotheses were developed for this study and were navigated through theoretical and empirical findings:

Hypothesis 1: WFSC is related to General Work Stress.

Hypothesis 1a: Work-family conflict is related to General Work Stress.

Hypothesis 1b: Work-study conflict is related to General Work Stress.

Hypothesis 1c: Family-study conflict is related to General Work Stress.

Hypothesis 2: Conscientiousness is related to General Work Stress.

Hypothesis 3: WFSC and Conscientiousness have a statistically significant combined effect on General Work Stress.

Hypothesis 3a: Work-family conflict and Conscientiousness have a statistically significant combined effect on General Work Stress.

Hypothesis 3b: Work-study conflict and Conscientiousness have a statistically significant combined effect on General Work Stress.

Hypothesis 3c: Family-study conflict and Conscientiousness have a statistically significant combined effect on General Work Stress.

Hypothesis 4: Conscientiousness moderates the relation of WFSC with General Work Stress.

Hypothesis 4a: Conscientiousness moderates the relation of work-family conflict with General Work Stress.

Hypothesis 4b: Conscientiousness moderates the relation of work-study conflict with General Work Stress.

Hypothesis 4c: Conscientiousness moderates the relation of family-study conflict with General Work Stress.

Hypothesis 5: Work-study conflict and family-study conflict contribute significantly to the explanation of General Work Stress above and beyond the explanation provided by work-family conflict.

### 2.13 Summary

According to Dornelas (2012), the job demands-control model postulates that a combination of high psychological demands with low control at work leads to mental and physical illness. The findings by Dornelas (2012) is consistent with the current study's suggestion that conflicting role demands often lead to WFSC and General Work Stress. The two core dimensions of the job demands-control model- 'psychological job demands' and 'decision latitude' or 'control' form the theoretical basis for this study. Job-demand-control model forms a theoretical foundation for conceptualising WFSC and General Work Stress for the SAMA sample. The conceptualisation of the model is based on the premise that the sample's WFSC and General Work Stress results from the interactive effects of job and role demands and the amount of job control and role facilitation available to them.

In order to minimise participant's WFSC and General Work Stress, job and role demands should be matched to job control as well as resources in such a way that when job and role demands are high, job control and resources should correspondingly be high. The current study suggests that high job control and resources will results in work-family-study facilitation allowing the person to adapt to role demands by developing appropriate behavioural response patterns. As a result, the person can proactively manage the demands of work, family and study and can channel the appropriate energy in constructive ways, thus reducing the General Work Stress brought on by interrole conflict.

## CHAPTER 3: METHOD

The methodology of the current study and the different instruments administered are discussed below. The study followed a quantitative approach. A correlational study was conducted to examine the chosen variables. The purpose of the study was to examine the moderating role of the personality trait of conscientiousness in the bi-directional link between the demands of work, family and study, respectively with work. The current study utilised a quantitative, cross-sectional, correlational research design. Because this study was conducted using self-report psychometric scales, no manipulation of variables, no control group, and no random assignment was present, classifying it as non-experimental. Furthermore, it was cross-sectional as it involved observation of SAMA Telematic Education students that was made at one point in time (Babbie, 2010). Also, this study was correlational as it attempted to explore and describe the relationships between selected variables, namely Conscientiousness, WFSC and General Work Stress.

### 3.1 Participants

A diverse workforce characterises the SAMA student population. The population comprised of non-residential students, also known as Telematic Education students (N = 137). This population consists of diverse linguistic and cultural sub-groups (see Table 3.1). These students are Department of Defense full-time employees selected to enrol for undergraduate and postgraduate studies as non-residential Telematic Education students. Non-residential students comprised the largest student complement for this study. They have to account for both work, family and study responsibilities, and work during institutional recesses and are afforded only a few leave days. This population's demographic profile is relevant to an examination of the combined effect of conscientiousness and WFSC on students' general work stress. Given the small population size, an attempt was made to include the whole population in the study. However, due to practical constraints it was not possible.

A sample of 113 out of a population of 137 participants was selected from the Department of Defense's full-time employees who are studying part-time at the SAMA, Faculty of Military Science. A sample of 113 with a 3.16 percent margin of error provided a confidence level of 95 percent. Table 3.1 summarises the demographic composition of the participants with respect to race/ethnicity, gender, marital status, parental status, level of study, age, number of children/dependents and working hours per week on average.

Table 3.1  
*Demographic profile of Faculty of Military Science non-residential students*

Variables	N	%
<b>Ethnicity</b>		
African	89	79
Coloured	12	11
White	11	10
Other	1	1
<b>Gender</b>		
Female	58	51
Male	53	47
Other	2	2
<b>Marital Status</b>		
Married	33	29
Single	68	60
Living together (Cohabitation)	8	7
Separated	4	4
<b>Parental Status</b>		
Father	34	30
Mother	32	28
Guardian	8	9
None	39	35
<b>Level of study</b>		
First-year	37	33
Second-year	14	12
Third-year	26	23
Postgraduate	36	32
<b>Age</b>		
20-24	7	6
25-29	37	33
30-34	40	35
35-39	18	16
40-44	6	5
45-49	3	3
50-54	0	0
55-More	2	2
<b>Children/ Dependents</b>		
0	41	36.5
1-2	58	51.3

3-4	11	9.6
5-6	3	2.6
<b>Working Hours</b>		
20	4	3.5
30	8	7
40	76	67
More	25	22.6

*Note.* This table include demographic profile of the Faculty of Military Science non-residential student sample referred to as “Participants/respondents/students/TE students” in text.

**Units of analysis:** The respondents for this study included full-time employed, part-time non-residential Military university students of the SAMA (see Table 3.1). The selected sample is perceived by the military leadership to be struggling to cope with the conflicting demands of both their work, family and their study accountabilities. The present study focused on measuring respondent’s levels of WFSC, Conscientiousness and General Work Stress. Within the sample, the probability of WFSC is high, as the stresses and demands in the domains accrue and spill over into other roles.

### 3.2 Procedure

Permission to make use of the SAMA sample was sought from the institutional Commanding Officer and ethical clearance from Stellenbosch University Ethics Committee. After that, a contact list of all year groups was requested from the TE office. An invitation to voluntarily participate in the study was sent to all prospective respondents through emails. The purpose and procedure of the study were explained, and they were requested to complete a consent form before completing the questionnaire.

After the consent form has been signed, questionnaires were distributed via email. The instructions for each questionnaire were clear to the participants as per the technical requirements of the instruments. After reading the technical requirements of the instruments, the researcher confirmed if participants understood all instructions. Upon completion of the assessments, participants were thanked and questionnaires submitted.

### 3.3 Measures

A cross-sectional survey was utilised to gather data. It is advantageous to use questionnaires as they are cost-effective, can be easily analysed, and they are not overly/unduly intrusive. A quantitative measure was deemed to be a better research method for conducting this study as an analysis of results is likely to be more objective.

## Measuring Instruments

A cross-sectional survey was used to gather data from the selected sample. To evaluate the relationships among the variables of the study, the following instruments were utilised: (a) Self-developed demographic questionnaire to record respondent's selected demographic information (b) Work-family conflict scale developed by Netemeyer, Boles, and McMurrin (1996) to measure conflict between work and family domains amongst the respondents; (c) Work–study conflict scale with adapted items of the Work-family conflict scale of Netemeyer et al. (1996); (d) Family-study conflict scale with adapted items of Work-family conflict and Work-study scales.; and (e) General work stress scale developed by de Bruin (2006) to measure work stress in South Africa. Students' conscientiousness were measured using the Big Five Inventory developed by John, Donahue, and Kentle (1991).

### Work-family-study conflict scale (WFSCS)

Students' work-family-study conflict were examined using three sub-scales: work-family conflict, work-study conflict and family-study conflict. Internal consistencies for the work-family conflict, work-study conflict and family-study conflict scales ranged from .71 to .87 across the three surveys (Netemeyer et al. ,1996).

#### Work-family conflict scale (WFCS)

Conflicts between work and family were assessed with the WFCS developed by Netemeyer et al. (1996). The WFCS measures the three dimension of *conflict* (i.e. Time, Strain and Behaviour) in a way that explains the degree of conflict in each domain (Work and Family). The WFCS contains eighteen items measuring conflict between work and family, and *vice versa*. The WFCS takes approximately 20 minutes to complete. Items are scored on a 7-point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (7). Netemeyer et al. (1996) reported Cronbach alpha coefficients for the WFCS across three samples that ranged from .88 to .89.

#### Work-study conflict scale (WSCS)

The work–study conflict scale was used to measure conflicts between studies and work through modified versions of the work-family conflict scale developed by Netemeyer et al. (1996). In particular, the content of the work–family conflict scale items were modified to reflect conflict between work and studies. For example, item 1 of the work–family conflict scale is “My work keeps me away from my family activities more than I would like”, was adapted to read as “My work keeps

me away from my study activities more than I would like". The work–study conflict scale measures three dimensions of *conflict*, *i.e.* Time, Strain, and Behaviour, in a way that explains the degree of conflict in each of the domains (study or work). The scale contains eighteen items which measured conflict between studies and work and *vice versa*. The work–study conflict scale takes approximately 20 minutes to complete. Items are scored on a 7-point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (7).

#### Family-study conflict scale (FSCS)

The family–study conflict scale was used to measure conflicts between family and studies through modified versions of the work-family conflict scale developed by Netemeyer et al. (1996). In particular, the content of the work–family conflict scale items were modified to reflect conflict between family and studies. For example, item 1 of the work–family conflict scale is "My work keeps me away from my family activities more than I would like", was adapted to read as "My family keeps me away from my study activities more than I would like". The family–study conflict scale measures three dimensions of *conflict*, *i.e.* Time, Strain, and Behaviour, in a way that explains the degree of conflict in each of the domain (study or work). The scale contains eighteen items which measured conflict between family and studies and *vice versa*. The family–study conflict scale takes approximately 20 minutes to complete. Items are scored on a 7-point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (7).

#### **Big Five Inventory (BFI)**

The Big five inventory scale developed by John et al. (1991) was used to measure participants' conscientiousness. The Big five inventory scale was developed to allow efficient and flexible assessment of the five dimensions of personality dimensions in line with the Five Factor Model (McCrae & Allik, 2002). The Big five inventory scale contains nine items for measuring respondents score on personality trait of conscientiousness. The items are scored on a 5 point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (5). A total score is obtained by summing over the items. Overall internal consistency coefficients for the Big five inventory scale was calculated at 0.83. The conscientiousness facet of the Big Five showed the reliability exceeding .90, suggesting good reliability (John et al., 1991).

### **General Work Stress Scale (GWSS)**

The general work stress scale developed by de Bruin (2006) was used to measure participants' overall levels of subjectively experienced or "felt" work-related stress. The general work stress scale is a South African developed questionnaire which consists of questions concerning the level of stress caused by work. The scale was developed to measure individuals' overall levels of subjectively experienced or "felt" work-related stress. It aims to provide an answer to the following question: How stressed is the person at work? The general work stress scale contains nine items that tap into emotional, cognitive, motivational and social consequences of the interaction between an individual and perceived demands of the workplace. The scale takes approximately ten minutes to complete. Items are scored on a five-point Likert scale; the responses are: *Never*, *Rarely*, *Sometimes*, *Often* and *Always*, where *Never* is scored as 1, and *Always* is scored as 5. Internal consistency coefficients were calculated at 0.89 to 0.88. This measure was used because it shows good reliability estimates for the South African context (de Bruin, 2006).

### **3.4 Ethics**

Participation in this research study was entirely voluntary. Anonymity and confidentiality were upheld. Participants were informed of the reasons for the study and that they may withdraw at any point without any consequences. The risks, discomforts, and benefits of this study were explained to participants. Participants in this study were fully informed of the purpose of the study, their rights as participants, risks if there are any, and mitigations of those risks. They were also asked to give their consent by signing a consent form, which indicated that they have been informed and understand the reasons for their participation in the study.

Only participants who consented formed part of this study. The participants were told in advance what data will be shared and how research findings will be disseminated. All feedback was conducted in a secure, discreet venue where conversations could not be overheard. All ethical requirements as stipulated by the Psychological Society of South Africa (PsySSA) and Stellenbosch University Research Ethics Committee were adhered to.

Participants' identity and research records were kept confidential to the extent of the law. To ensure the protection of data, only the researcher and supervisor had access to the research data and could inspect the records from the research project. All the research data were locked in the researcher's office with stringent restricted access measures. These measures are to secure the research data and participants' confidentiality. Only the researcher or supervisor had access. Upon completion of the research project, the researcher safe-kept all research data and materials for a minimum of five years.

Participants were allowed to withdraw from the research project at any time without offering reasons. Participants were briefed during the consenting stage that should they feel uncomfortable to participate, they may discontinue from participation without drawing attention to themselves. In case of withdrawal, information gathered from the participants was treated as strictly confidential. Incomplete information as a result of withdrawal by the participant was disregarded. Incomplete data was not captured as it would negatively impact the results of the study. In the case where the study findings necessitated a new study area, general feedback would be given to interested and available participants.

Participant(s) may withdraw their participation at any time without penalty. Participant(s) did not waive any legal rights due to his or her participation in the study. If a participant(s) needed more information about his or her rights as a research participant, they were advised to contact the Stellenbosch University Research Ethics Committee (REC) Chairperson Ms Malene Fouché at [mfouche@sun.ac.za](mailto:mfouche@sun.ac.za).

The nature of the questions regarding the pressures arising from students' work, study and family domains could cause some discomfort for the participants. Questionnaires are lengthy and could be tiring to the participants. Any discomforts arising from participation in the study which required medical care were referred to Langebaanweg Military Sickbay Clinical Psychologist which offers professional health services as part of the SANDF medical aid benefits.

In light of potential risks and discomforts that may arise from the study, participants could experience some degree of stress necessitating counselling services. Participants experiencing stress and some discomforts arising from the study were referred to Langebaanweg Military Sickbay Clinical Psychologist. For further social and professional services, appointments were made with the social worker.

Participation in the study did not involve monetary compensation. Understanding and knowledge of the relationship between Work-Study-Family Conflict, Work stress and Conscientiousness could help in the attainment of Work-Study-Family Facilitation and employee well-being in the workplace as a competitive edge.

### 3.5 Data Analysis

Once the data obtained from the questionnaires, were coded into an Excel spreadsheet, the coded spreadsheet was then imported into Lavaan (R-studio) for statistical analysis.

Reliability of the instrumentation used in the present study was addressed, descriptive statistics, summary statistics and normality checks were carried out, and analyses relating to the research questions were conducted.

### 3.5.1 Reliability

Reliability refers to the dependability of the instrumentation being used (Black, 2010; Huck, 2004). Reliability is the process by which a scale is evaluated and made sufficiently reliable for use (Black, 2010; Huck, 2004). A perfect reliability score is 1.00 and therefore, the closer the value to 1.00, the more reliable the scale (Huck, 2004). Scores above .70 are regarded as acceptable for research purposes (Huck, 2004).

Internal reliability of the measures were assessed by using individuals' responses at one point in time to establish the extent to which individual questions or subsets of questions within each scale and subscale measured the same thing. In order to establish the internal consistency reliability of the instrumentation used in the present study, Cronbach alpha coefficients were addressed for each subscale total (see Table 4.1).

### 3.5.2 Descriptive statistics

Descriptive statistics were used to examine the demographic variable frequencies of the sample, as well as the mean and standard deviation where appropriate. Also, summary statistics were used to examine the subscale totals (see Table 4.1). Before answering the research questions, normality checks were carried out. Skewness coefficients, kurtosis coefficients and histograms were used to determine the normality of the variables.

### 3.5.3 Correlations

Pearson's correlation coefficients were used as an initial investigation into the nature of the relationships between the variables. Pearson's correlation coefficients are used to summarise and communicate the strength and direction of the relationship between two quantitative variables (Huck, 2004). The Pearson correlation coefficient ranges from .00 to +1.00 and .00 to -1.00 (Black, 2010; Huck, 2004). A correlation of .00 indicates that the two variables are not related at all, while the closer a correlation is to +1.00 or -1.00, the stronger the relationship (Huck, 2004). The positive and negative signs give information regarding the direction of the relationship (Huck, 2004). The correlation between the chosen variables are depicted in Table 4.1.

#### 3.5.4 Regression analysis

For this study, regression analysis is used to examine the effect of Conscientiousness and WFSC on General Work Stress. Regression analysis helps determine which variables matter most and how they influence each other. Multiple regression and moderated multiple regression analysis were conducted (see Table 4.2 to 4.3). Multiple regression analyses were conducted to evaluate how well Conscientiousness and WFSC predicted General Work Stress. In addition, Multiple regression technique was used to examine the joint relationship of the independent variables (WFSC and Conscientiousness) with the dependent variable (General Work Stress). Multiple regression enabled researchers to ask and answer the question 'Whether WFSC and Conscientiousness combined allow for a meaningful explanation of General Work Stress?', see Table 4.2 to 4.3.3.

#### 4. Summary

In this chapter, the relevant research paradigm, research approach and the methodology selected for this study were outlined and justified. The respondent's demographic profile and research design guiding this study were discussed together with the selected quantitative data collection techniques. The research questions and hypotheses, both literature-specific and empirical, were formulated and stated. What follows, in the next chapter, is the presentation and brief discussion of the results that stemmed from the systematic collection of research data following the scientific research ethics and process.

## CHAPTER 4: RESULTS

This chapter presents the results of the statistical analysis of the data. First, descriptive statistics—including means, standard deviations, reliability coefficients and correlations between scales—are presented. Second, the results of multiple regression analyses that focus on the explanatory value of WFSC and Conscientiousness are presented. Third, multiple linear regression results that focus on the contribution of work-study conflict, family-study conflict and work-family conflict on General Work Stress are presented. Last, the results of moderated multiple regression analyses that focus on the moderating role of Conscientiousness in the relation between General Work Stress and WFSC are presented.

### 4.1 Descriptive Statistics

Descriptive statistics were used to examine the demographic variable frequencies of the sample, as well as the mean and standard deviation where appropriate. In addition, summary statistics were used to examine the subscale totals. Before answering the research questions, normality checks were carried out. Skewness coefficients, kurtosis coefficients and histograms were used to determine the normality of the variables. Descriptive statistics, skewness coefficients and kurtosis coefficients were obtained for each of the variables in Table 4.1. In addition, histograms were utilised to visually evaluate normality.

Table 4.1  
*Inter-correlations and Descriptive Statistics of the WFSC Scales, Conscientiousness, and General Work Stress*

	WFC	WSC	FSC	WFSC	CON	GWS
WFC	1.00					
WSC	0.60	1.00				
FSC	0.59	0.70	1.00			
WFSC	0.83	0.89	0.88	1.00		
CON	-0.11 <sup>ns</sup>	-0.10 <sup>ns</sup>	0.05 <sup>ns</sup>	-0.06 <sup>ns</sup>	1.00	
GWS	0.36	0.44	0.52	0.51	-0.21 <sup>ns</sup>	1.00
Mean	67.90	74.70	71.02	213.62	38.54	20.04
SD	17.27	19.69	19.09	48.72	5.39	7.56
Skewness	-0.16	0.03	-0.17	-0.19	-0.78	0.47
Kurtosis	-0.13	-0.48	-0.42	-0.05	-0.35	-0.45
Alpha	0.86	0.87	0.90	0.94	0.78	0.89
Mean <sub>item</sub>	3.77	4.15	3.95	3.96	4.28	2.22

*Note.* Non-significant correlations ( $p > .05$ ) are indicated as *ns*. All values rounded to two decimal places. WFSC = Work-Family-Study Conflict; WSC = Work-Study-Conflict; WFC = Work-Family Conflict; FSC = Family-Study Conflict; CON = Conscientiousness; GWS = General Work Stress.

#### 4.2 Correlations between WFSC, WFC, WSC, FSC and GWS

Hypothesis 1 stated that WFSC is related to General Work Stress. Inspection of the correlations in Table 4.1 indicates a statistically significant correlation between WFSC and GWS ( $r = .51, p < .001$ ).

Hypothesis 1a stated that work-family conflict is related to General Work Stress. Inspection of the correlations in Table 4.1 indicates a statistically significant correlation between work-family conflict and General Work Stress ( $r = .36, p < .001$ ).

Hypothesis 1b stated that work-study conflict is related to General Work Stress. Inspection of the correlations in Table 4.1 indicates a statistically significant correlation between work-study conflict and General Work Stress ( $r = .44, p < .001$ ).

Hypothesis 1c stated that family-study conflict is related to General Work Stress. Inspection of the correlations in Table 4.1 indicates a statistically significant correlation between family-study conflict and General Work Stress ( $r = .52, p < .001$ ).

Hypothesis 2 stated that Conscientiousness is related to General Work Stress. Inspection of the correlations in Table 4.1 indicates a statistically non-significant and negative correlation between Conscientiousness and General Work Stress ( $r = -.21, p > .05$ ).

#### 4.3 Multiple Regression Analyses of the Relations of GWS with WFSC and Conscientiousness

To examine the relations of General Work Stress with WFSC and Conscientiousness, multiple regression was conducted. Multiple regression procedures were used to examine the joint relationship of the independent variables (WFSC and Conscientiousness) with the dependent variable (General Work Stress). Multiple regression enabled researchers to ask and answer the question 'Whether WFSC and Conscientiousness combined allow for a meaningful explanation of General Work Stress?' In the paragraphs that follow multiple regression was conducted to provide the answers to the stated hypotheses.

Hypothesis 3 stated that WFSC and Conscientiousness have a statistically significant combined effect on General Work Stress.

Table 4.2 contains the results of a multiple regression analysis where General Work Stress served as the dependent variable and WFSC and Conscientiousness served as the independent variables. The squared multiple correlation of General Work Stress with WFSC and Conscientiousness was statistically significant,  $R^2 = .29, F(2, 110) = 22.64, p < .001$ . Inspection of the individual regression coefficients indicated that WFSC had a significant positive effect in the presence of Conscientiousness, with an increase in WFSC leading to an increase in General Work Stress [ $b = .08, \text{standardized } b = .50$ ,

$t = 6.22, p < .001$ ]. In turn, Conscientiousness had a significant negative effect on General Work Stress in the presence of WFSC, with an increase in Conscientiousness leading to a decrease in General Work Stress [ $b = -.25$ , standardized  $b = .18, t = -2.18, p = .031$ ].

Table 4.2

*Multiple Regression Results of the Relations of General Work Stress with WFSC and Conscientiousness*

	Estimate	Standardized	Std. Error	t value	P
(Intercept)	20.04				
WFSC	0.08	0.50	0.01	6.22	< .001
CON	-0.25	-0.18	0.11	-2.18	0.031

$R^2 = .29$

$F(2, 110) = 22.64$

$p < .001$

*Note.* All values rounded to two decimal places. WFSC = Work-Family-Study Conflict; CON = Conscientiousness.

Hypothesis 3a stated that work-family conflict and Conscientiousness have a statistically significant combined effect on General Work Stress. Table 4.2.1 contains the results of a multiple regression analysis where General Work Stress served as the dependent variable and work-family conflict and Conscientiousness served as the independent variables. The squared multiple correlation of General Work Stress with work-family conflict and Conscientiousness was statistically significant,  $R^2 = .16, F(2, 110) = 10.23, p < .001$ . Inspection of the individual regression coefficients indicated that work-family conflict had a significant positive effect in the presence of Conscientiousness, with an increase in work-family conflict leading to an increase in General Work Stress [ $b = .15$ , standardized  $b = .34, t = 3.87, p < .001$ ]. In turn, Conscientiousness had a non-significant negative effect on General Work Stress in the presence of work-family conflict, with an increase in Conscientiousness leading to a decrease in General Work Stress [standardized  $b = -0.17, t = -1.90, p = 0.060$ ].

Table 4.2.1  
Multiple Regression Results of the Relations of GWS with WFC and CON

	Estimate	Standardized	Std. Error	t value	P
(Intercept)	20.04				
WFCC	0.15	0.34	0.04	3.87	< .001
CONC	-0.23	-0.17	0.12	-1.90	0.060

$R^2 = .16$

$F(2, 110) = 10.23$

$p < .001$

Note. All values rounded to two decimal places. WFCC = Work-Family Conflict Centered; CONC = Conscientiousness Centered.

Hypothesis 3b stated that work-study conflict and Conscientiousness have a statistically significant combined effect on General Work Stress. Table 4.2.2 contains the results of a multiple regression analysis where General Work Stress served as the dependent variable and work-study conflict and Conscientiousness served as the independent variables. The squared multiple correlation of General Work Stress with work-study conflict and Conscientiousness was statistically significant,  $R^2 = .22$ ,  $F(2, 110) = 15.58$ ,  $p < .001$ . Inspection of the individual regression coefficients indicated that work-study conflict had a positive significant effect [ $b = .15$ , standardized  $b = .34$ ,  $t = 3.87$ ,  $p < .001$ ]. In turn, Conscientiousness had a non-significant negative effect on General Work Stress in the presence of work-study conflict, with an increase in Conscientiousness leading to a decrease in General Work Stress [standardized  $b = -0.23$ ,  $t = -1.95$ ,  $p = 0.054$ ].

Table 4.2.2  
Multiple Regression Results of the Relations of GWS with WSC and CON

	Estimate	Standardized	Std. Error	t value	P
(Intercept)	20.04				
WSCC	0.16	0.42	0.03	5.02	< .001
CONC	-0.23	-0.17	0.12	-1.95	0.054

$R^2 = .22$

$F(2, 110) = 15.58$

$p < .001$

Note. All values rounded to two decimal places. WSCScale = Work-Study Conflict Centered; CONSC = Conscientiousness Centered.

Hypothesis 3c stated that family-study conflict and Conscientiousness have a statistically significant combined effect on General Work Stress. Table 4.2.3 contains the results of a multiple regression analysis where General Work Stress served as the dependent variable and family-study conflict and Conscientiousness served as the independent variables. The squared multiple correlation of General Work Stress with family-study conflict and Conscientiousness was statistically significant,  $R^2 = .33$ ,  $F(2, 110) = 26.86$ ,  $p < .001$ . Inspection of the individual regression coefficients indicated that family-study conflict had a significant positive effect [ $b = .21$ , standardized  $b = .54$ ,  $t = 6.84$ ,  $p < .001$ ]. In turn, Conscientiousness had a significant negative effect on General Work Stress in the presence of family-study conflict, with an increase in Conscientiousness leading to a decrease in General Work Stress [standardized  $b = -0.32$ ,  $t = -2.94$ ,  $p = 0.004$ ].

Table 4.2.3

*Multiple Regression Results of the Relations of GWS with FSC and CON*

	Estimate	Standardized	Std. Error	t value	P
(Intercept)	20.04				
FSCC	0.21	0.54	0.03	6.84	< .001
CONC	-0.32	-0.23	0.10	-2.94	0.004

$R^2 = .33$

$F(2, 110) = 26.86$

$p < .001$

*Note.* All values rounded to two decimal places. FSCC = Family-Study Conflict Centered; CONC = Conscientiousness Centered.

Hypothesis 4 stated that Conscientiousness moderates the relation of WFSC with General Work Stress. Table 4.3 contains the results of a moderated multiple regression analysis where General Work Stress served as the dependent variable, WFSC as the independent variable, and Conscientiousness served as the moderator. The squared multiple correlation of GWS with WFSC, Conscientiousness and the product term of WFSC and Conscientiousness was statistically significant,  $R^2 = .29$ ,  $F(3, 109) = 15.02$ ,  $p < .001$ . Inspection of the individual regression coefficients indicated a non-significant negative effect of the product term of Conscientiousness and WFSC, indicating a lack of support for the hypothesis of a moderating effect [ $b = -.00$ , standardized  $b = -.03$ ,  $t = -.38$ ,  $p = .71$ ].

Table 4.3  
Moderated Multiple Regression Analysis Results of the Relations of GWS with WFSC and CON

	Estimate	Standardized	Std. Error	t value	P
(Intercept)	20.02				
WFSCC	0.08	0.51	0.01	6.19	< .001
CONC	-0.25	-0.18	0.11	-2.20	0.03
WFSCSC x CONC	-0.00	-0.03	0.00	-0.38	0.71

$$R^2 = .29$$

$$F(3, 109) = 15.02$$

$$p < .001$$

*Note.* All values rounded to two decimal places. WFSCScale = Work-Family-Study Conflict Centered; CONC = Conscientiousness Centered; WFSCC: CONC = Work-Family-Study Conflict Centered: Conscientiousness Centered.

Hypothesis 4a stated that Conscientiousness moderates the relation of work-family conflict with General Work Stress. Table 4.3.1 contains the results of a moderated multiple regression analysis where General Work Stress served as the dependent variable, work-family conflict as the independent variable, and Conscientiousness served as the moderator. The squared multiple correlation of General Work Stress with work-family conflict, Conscientiousness and the product term of work-family conflict and Conscientiousness was statistically significant,  $R^2 = .16$ ,  $F(3, 109) = 6.78$ ,  $p < .001$ . Inspection of the individual regression coefficients indicated a non-significant negative effect of the product term of Conscientiousness and work-family conflict, indicating a lack of support for the hypothesis of a moderating effect [ $b = -.00$ , standardized  $b = -.02$ ,  $t = -.24$ ,  $p = .81$ ].

Table 4.3.1  
Moderated Multiple Regression Analysis Results of the Relations of GWS with WFC and CON

	Estimate	Standardized	Std. Error	t value	P
(Intercept)	20.01				
WFCC	0.15	0.34	0.04	3.86	0.000
CONC	-0.24	-0.17	0.12	-1.90	0.061
WFCC:CONC	-0.00	-0.02	0.00	-0.24	0.809

$$R^2 = .16$$

$$F(3, 109) = 6.78$$

$$p < .001$$

*Note.* All values rounded to two decimal places. WFCC = Work-Family Conflict Centered; CONC = Conscientiousness Centered; WFCC: CONC = Work-Family Conflict Centered: Conscientiousness Centered.

Hypothesis 4b stated that Conscientiousness moderates the relations of work-study conflict with General Work Stress. Table 4.3.2 contains the results of a moderated multiple regression analysis where General Work Stress served as the dependent variable, work-study conflict as the independent variable, and Conscientiousness served as the moderator. The squared multiple correlation of General Work Stress with work-study conflict, Conscientiousness and the product term of work-study conflict and Conscientiousness was statistically significant,  $R^2 = .22$ ,  $F(3, 109) = 10.29$ ,  $p < .001$ . Inspection of the individual regression coefficients indicated a non-significant negative effect of the product term of Conscientiousness and work-study conflict, indicating a lack of support for the hypothesis of a moderating effect [ $b = -.00$ , standardized  $b = -.01$ ,  $t = -.09$ ,  $p = .93$ ].

Table 4.3.2

*Moderated Multiple Regression Analysis Results of the Relations of GWS with WSC and CON*

	Estimate	Standardized	Std. Error	t value	P
(Intercept)	20.03				
WSCC	0.16	0.43	0.03	4.98	< .001
CONC	-0.23	-0.17	0.12	-1.94	0.054
WSCC:CONC	-0.00	-0.01	0.01	-0.09	0.932

$R^2 = .22$

$F(3, 109) = 10.29$

$p < .001$

*Note.* All values rounded to two decimal places. WSCC = Work-Study Conflict Centered; CONC = Conscientiousness Centered; WSCC: CONC = Work-Study Conflict Centered: Conscientiousness Centered.

Hypothesis 4c stated that Conscientiousness moderates the relations of family-study conflict with General Work Stress. Table 4.3.3 contains the results of a moderated multiple regression analysis where General Work Stress served as the dependent variable, family-study conflict as the independent variable, and Conscientiousness served as the moderator. The squared multiple correlation of General Work Stress with family-study conflict, Conscientiousness and the product term of family-study conflict and Conscientiousness was statistically significant,  $R^2 = .33$ ,  $F(3, 109) = 17.99$ ,  $p < .001$ . Inspection of the individual regression coefficients indicated a non-significant negative effect of the product term of Conscientiousness and family-study conflict, indicating a lack of support for the hypothesis of a moderating effect [ $b = -.00$ , standardized  $b = -.06$ ,  $t = -.70$ ,  $p = .48$ ].

Table 4.3.3

*Moderated Multiple Regression Analysis Results of the Relations of GWS with FSC and CON*

	Estimate	Standardized	Std. Error	t value	P
(Intercept)	20.06				
FSCC	0.22	0.55	0.03	6.79	< .001
CONC	-0.34	-0.24	0.11	-3.02	0.003
FSCC:CONC	-0.00	-0.06	0.01	-0.70	0.483

 $R^2 = .33$  $F(3, 109) = 17.99$  $p < .001$ 

*Note.* All values rounded to two decimal places. FSCScale = Family-Study Conflict Centered; CONC = Conscientiousness Centered; FSCC: CONC = Family-Study Conflict Centered: Conscientiousness Centered.

Hypothesis 5 stated that work-study conflict and family-study conflict contribute significantly to the explanation of General Work Stress above and beyond the explanation provided by work-family conflict. Table 4.4 contains the results of a hierarchical multiple regression analysis where General Work Stress served as the dependent variable and work-family conflict served as the first independent variables, followed by work-study conflict in the second step, and then by family-study conflict in the third step. In the first step the value of  $R^2 = .13$  [ $F(1, 111) = 16.47, p < .001$ ], indicating that work-family conflict accounted for of 13% of the variance of General Work Stress.

Table 4.4  
*Hierarchical Multiple Regression Analysis Results of the Contributions of WFC, WSC and FSC to GWS*

	Estimate	Standardized	Std. Error	t value	P
Step 1					
(Intercept)	20.04				
WFCC	0.16	0.36	0.04	4.06	< .001
$R^2 = .13$					
$F(1, 111) = 16.47$					
$p < .001$					
Step 2					
(Intercept)	20.04				
WFCC	0.06	0.15	0.05	1.38	0.17
WSCC	0.13	0.35	0.04	3.30	.001
$R^2 = .21$					
$F(2, 110) = 14.4$					
$p < .001$					
Step 3					
(Intercept)	8.47				
WFCC	0.02	0.04	0.05	0.37	0.712
WSCC	0.05	0.13	0.05	1.08	0.283
FSCSC	0.16	0.41	0.05	3.48	0.001
$R^2 = .29$					
$F(3, 109) = 14.61$					
$p < .001$					

*Note.* All values rounded to two decimal places. WFCC = Work-Family Conflict Centered; WSCC = Work-Study Conflict Centered; FCSC = Family-Study Conflict Centered.

In the second step, where work-study conflict was added as a predictor,  $R^2 = .21$  [ $F(2, 110) = 14.4$ ,  $p < 0.001$ ], indicating that jointly work-family conflict and work-study conflict account for 21% of the variance of General Work Stress. Work-study conflict explained an additional 8% of the variance in General Work Stress, above and beyond the explanation given by work-family conflict. In the third step, where family-study conflict was added as a predictor,  $R^2 = .29$  [ $F(3, 109) = 14.61$ ,  $p < .001$ ], indicating that jointly work-family conflict, work-study conflict and family-study conflict accounted for 29% of the variance of General Work Stress.

Similarly, family-study conflict explained an additional 8% of the variance in General Work Stress, above and beyond the explanation given by work-family conflict and work-study conflict.

To examine whether family-study conflict and work-study conflict add significantly to the explanation of General Work Stress above and beyond the explanation provided by work-family conflict, the  $R^2$  values of the competing multiple regression models were compared. In particular, analysis of variance (ANOVA) was conducted to determine whether there are any statistically significant differences between the  $R^2$  values of step 1 (with work-family conflict as the only predictor), step 2 (with work-family conflict and work-study conflict as predictors), and step 3 (with work-family conflict, work-study conflict and family-study conflict as predictors).

Table 4.5 contains the  $R^2$  values of the competing models, the difference in  $R^2$  ( $\Delta R^2$ ) of the successive models, and the results of  $F$  tests of  $\Delta R^2$ . These results show that work-study conflict added significantly to the prediction of General Work Stress above and beyond the prediction provided by work-family conflict [ $\Delta R^2 = .08$ ,  $F(1, 110.51) = 11.97$ ,  $p < .001$ ]. Similarly, family-study conflict adds significantly to the prediction of General Work Stress, above and beyond the prediction jointly provided by work-family conflict and work-study conflict [ $\Delta R^2 = .08$ ,  $F(1, 109.46) = 12.12$ ,  $p < .001$ ].

Table 4.5

*Comparison of Competing Multiple Regression Models*

Model and predictors	$R^2$	$\Delta R^2$	$F$	$Df$	$P$
Step 1: WFC	0.13			1, 111.00	$p < .001$
Step 2: WFC + WSC	0.21	0.08	11.97	1, 110.51	$p < .001$
Step 3: WFC + WSC + FSC	0.29	0.08	12.12	1, 109.46	$p < .001$

*Note.* All values rounded to two decimal places. WFC = Work-Family Conflict; WSC = Work-Study Conflict; FSC = Family-Study Conflict

#### 4.4 Summary

This chapter provided a presentation and description of the statistical results obtained from the data that was collected to test the stated hypotheses. Hypothesis 1, 3 and 5 were accepted whereas 2 and 4 were rejected. The results point that there is no statistically significant correlation between Conscientiousness and General Work Stress. Conscientiousness was found to have a non-significant moderating effect. Work-study conflict and family-study conflict contribute significantly to the explanation of General Work Stress above and beyond the explanation provided by work-family conflict.

## CHAPTER 5: DISCUSSION

### 5.1 Introduction

This chapter discusses the data analysis and findings from four questionnaires completed by the SAMA, Faculty of Military Science, non-residential students. The purpose of the study was to investigate and explore the relationship between WFSC, Conscientiousness and General Work Stress amongst non-residential military university students. The study was undertaken at the SAMA, Faculty of Military Science in Saldanha based on a sample size of 113 ( $n=113$ ) out of 137 ( $N=137$ ) non-residential military university students. The study aimed to establish (a) a possible relationship between WFSC, Conscientiousness and General Work Stress amongst employed non-residential military university students of the SAMA, and (b) explore the moderating role of Conscientiousness on the relations of WFSC with General Work Stress. In the hypothesised relationship, the sample was predicted to have high levels of WFSC and General Work Stress. However, their experiences of WFSC and General Work Stress were predicted to differ due to their level of Conscientiousness.

The research results were interpreted based on correlation, descriptive statistics, multiple regression, and multiple linear regression and moderated multiple regression analysis. The research findings contribute towards a better understanding of how work and study demands may be designed to allow for an optimal balance with family demands. In this regard, this study made two contributions; (a) broadened the scope of the existing work-family interface literature to include the 'studies' as the third domain or demand and provide benchmark for the WFSC estimates, (b) examined the extent to which the chosen measurements and design accurately predict sample's differences in their levels of WFSC, Conscientiousness and General Work Stress.

Findings of this study are discussed in relation to existing literature and stated hypotheses outlined earlier in this study. The main objective of this research is to contribute to the existing body of research by examining the moderating role of the personality trait of Conscientiousness in the multi-directional link between the demands of work, study and family, respectively, with General Work Stress. Also to gain more insight into the potentially positive moderating experience of ones' Conscientiousness in having to perform multiple roles. This study addresses different ways in which work, family and study roles can facilitate one another, in addition to examining how they can hinder each other. So doing, the study aimed to contribute to a more balanced and positive facilitative perspective of the work-family-study interface to expand findings on the work-family interface by Greenhaus and Allen (2011), Voydanoff (2005) and those on job stress by Bazana and Dodd (2013).

Furthermore, with this in-depth study, the focus was placed more on positive work-family-study-interface through the moderating role of conscientiousness on role facilitation rather in light of inter-domain conflict and experiences of General Work Stress. The study intended to expand the conflict paradigm (WFSC in case of the present study and work-family conflict in case of prior studies) to include the personality trait of Conscientiousness to achieve *role facilitation*, as suggested by Frone (2003) and Voydanoff (2005) through the moderating role of Conscientiousness. The stated hypotheses of this study were in line with the premises of role expansion theory and scarcity theory, emphasising the overdemanding nature of multiple roles and prior theoretical models on facilitation and conflict by Barnett and Hyde (2001), emphasising the importance multiple role combination and enrichment.

This study broadens the scope of work-family interface literature to include the third area of demand, namely, 'study(ies)' and to provide a benchmark for WFSC estimates. This study postulated that the three domains, namely; work, family and study are relevant to understanding the different role conflicting demands and General Work Stress experiences of military university non-residential students. Their experiences conceptualised based on WFSC and General Work Stress, in terms of strain-based, time-based and behavioural conflict and inter-domain facilitation based on their level of Conscientiousness is both important and statistically valid. The main outcome of this study is to (a) examine the moderating effect of Conscientiousness on the relation of WFSC with General Work Stress, (b) provide recommendations on attaining work-family-study facilitation ; how work and study demands can be designed to allow for an optimal balance with family demands.

One of the contributions of this study is to expand the findings by Greenhaus and Allen (2011), Voydanoff (2005) and those on job stress by Bazana and Dodd (2013) on the work-family conflict by including 'study' to the existing theory and on Conscientiousness and General Work Stress to provide a benchmark for WFSC estimates. The study aimed to report on the multi-directional relation between Conscientiousness, WFSC and their effect on General Work Stress as it is an under-researched area. The main research question navigated through relevant literature was, (a) whether the moderating effect of Conscientiousness on WFSC with General Work Stress is statistically significant for the SAMA sample? This research question is aimed at investigating the extent to which the respondents' personality trait of Conscientiousness may render them more or less vulnerable to the effect of WFSC General Work Stress. In line with previous research by Greenhaus and Allen (2011), it was reported that an individual's experience of role conflict was highly predictive of the stress-related outcomes. However, the inclusion of Conscientiousness sub-scale in addition to the WFSC scale and General Work Stress scales were thought to enhance the accuracy of predictions.

## 5.2 The Objectives and Hypotheses of the Study

The objectives of this study were to investigate: (a) the theoretical and empirical relationship between Conscientiousness, WFSC and General Work Stress, (b) measure the combined effect of WFSC and Conscientiousness on participants' General Work Stress in the SAMA, (c) measure the moderating role of Conscientiousness on the relation of WFSC with General Work Stress, (d) implications of the results for the practice and (e) provide recommendations for future research.

### 5.2.1 Hypothesis 1

Hypothesis 1 stated that WFSC is related to General Work Stress. Results in Table 4.1 indicated a statistically significant and moderately strong relation between WFSC and General Work Stress ( $r = .51, p < .001$ ). This result shows that conflict due to the competing demands of work, family and studies on the General Work Stress of students at the Military Academy jointly accounts for about 25% of the variance in General Work Stress. These results are consistent with the study findings by Anafarta (2011), positing that inter-role conflicts between work and non-work domains may result in unfavourable outcomes such as stress and negative family satisfaction. In particular, Martinez et al. (2013) highlighted that stress remained unexamined among working online students. For example, the experience of conflict in work domain may increase stressful situations for working students that may lead to decreased satisfaction in the receiving non-work domain. Also, this study contribute to the body of knowledge by examining the General Work Stress of non-residential working students and establishing empirical evidence on the statistically significant correlation between WFSC and General Work Stress.

#### 5.2.1.1 Hypothesis 1a

Hypothesis 1a stated that work-family conflict is related to General Work Stress. Results in Table 4.1 indicated a significant and moderately strong relation between work-family conflict and General Work Stress ( $r = .36, p < .001$ ). Work-family conflict accounted for about 13% of the variance in General Work Stress. These results are consistent with the study findings by Anafarta (2011), positing that there is a positive correlation between work-family conflict and work stress. These findings were further confirmed by Bazana and Dodd (2013); work-family conflict contributes to both family and job stress. These findings reveal that the incidence of high levels of General Work Stress does translate into work-family conflict, but not into the family to work conflict. Interrole conflicts between work and non-work domains may result in unfavourable outcomes such as stress, and negative family satisfaction (Anafarta, 2011).

This suggests that for the SAMA sample, the respondents are concerned more about meeting work obligations and less about family. This study posited that for the SAMA sample, employed men and women may have equally important roles in their lives but they tend to prioritise work and family over study. Therefore WFSC is likely to arise when there are demands that are considered pressing from the three domains.

#### 5.2.1.2 Hypothesis 1b

Hypothesis 1b stated that work-study conflict WSC is related to General Work Stress. Results in Table 4.1 indicated a significant and moderately strong relation between WSC and General Work Stress ( $r = .44, p < .001$ ). work-study conflict accounted for about 19% of the variance in General Work Stress. This result points toward the potential importance of conflict due to the competing demands of work and studies in the experience of General Work Stress. The results of this study reveal that work is prioritised over study in that study was not allowed to interfere greatly with work. The results of this study are consistent with previous study findings by Anafarta (2011) and Allen and Greenhaus and Allen (2011) inter-role conflicts between work and non-work domains may result in unfavourable outcomes such as stress. According to Grenhaus and Allen (2013), an inter-role conflict between the domains are often associated with stress; work interfering with the study. These results are consistent with role theory as well as resource drain theory stressing the overdemanding nature of performing multiple roles. Time resources afforded to work often get depleted when an individual is required to meet study-related demands resulting in stress (Mills, Lingard & McLaughlin, 2007).

#### 5.2.1.3 Hypothesis 1c

Hypothesis 1c stated that family-study conflict is related to General Work Stress. ( $r = .52, p < .001$ ). Results in Table 4.1 indicated a significant and moderately strong relation between family-study conflict and General Work Stress ( $r = .52, p < .001$ ). Family-study conflict accounted for about 27% of the variance in General Work Stress. This result underlines the potential importance of conflict due to balancing family demands and study demands in the experience of General Work Stress. The results of this study are consistent with previous study findings by Anafarta (2011) and Greenhaus and Allen (2011), positing that inter-role conflicts between work and non-work domains may result in unfavourable outcomes such as stress, burnout, lower levels of job satisfaction, and negative family satisfaction. According to Grenhaus and Allen (2011), an inter-role conflict between the domains are often associated with stress; family interfering with study. These results are consistent with the role theory as well as the resource drain theory asserting that when fulfilling multiple roles, an individual is confronted with multiple role pressures which result in unavoidable role conflict.

### 5.2.2 Hypothesis 2

Hypothesis 2 stated that Conscientiousness is related to General Work Stress. Results in Table 4.1 indicated a statistically non-significant and weak negative relation between Conscientiousness and General Work Stress ( $r = -.21, p > .05$ ). This result shows that the personality trait of Conscientiousness on General Work Stress of students at the Military Academy accounts for about -4% of the variance in General Work Stress. Although not statistically significant, these results are consistent with findings by Bazana and Dodd (2013), where job stress proved to be negatively associated with Conscientiousness. Several other studies reported Conscientiousness to be relevant and the strongest Big five predictor of work outcomes and to be cross-cultural across occupations (Klinger & Mallon, 2015). According to Barrick et al. (2001) and Klinger and Mallon (2015), out of all the Big Five traits, none is as relevant to workplace criteria as Conscientiousness. Conscientiousness was found to be the relevant and most reliable Big five predictor of work outcomes such as job performance.

### 5.2.3 Hypothesis 3

Hypothesis 3 stated that WFSC and Conscientiousness have a statistically significant combined effect on General Work Stress. The squared multiple correlation of General Work Stress with WFSC and Conscientiousness was statistically significant,  $R^2 = .29, F(2, 110) = 22.64, p < .001$ . Results in Table 4.2 indicates that the two variables jointly account for 29% of the variance in General Work Stress, but only WFSC significantly contributes to the explanation of General Work Stress. Consistent with the research findings by Bazana and Dodd (2013), work-family conflict was found to be related to job stress. According to Grenhaus and Allen (2013); Jamadin, Mohamad, Syarkawi, and Noordin (2015), an inter-role conflict between the domains are often associated with stress; work interfering with study and family interfering with study and work interfering with family. These results are also found to be consistent with the role theory as well as the resource drain theory.

#### 5.2.3.1 Hypothesis 3a

Hypothesis 3a stated that work-family conflict and Conscientiousness have a statistically significant combined effect on General Work Stress. The squared multiple correlation of General Work Stress with work-family conflict and Conscientiousness was statistically significant,  $R^2 = .16, F(2, 110) = 10.23, p < .001$ . Results in Table 4.2.1 indicated that the two variables jointly account for 16% of the variance in General Work Stress, but that only work-family conflict significantly contributes to an explanation of General Work Stress.

Consistent with the research findings by Bazana and Dodd (2013), the predictors (conscientiousness and work-family conflict) were significantly related to the criterion, job stress. However, in the study by Murphy, Miller and Wrosch, (2012), Conscientiousness was found not to be related to the frequency stressful events.

#### 5.2.3.2 Hypothesis 3b

Hypothesis 3b stated that work-study conflict and Conscientiousness have a statistically significant combined effect on General Work Stress. The squared multiple correlation of General Work Stress with work-study conflict and Conscientiousness was statistically significant,  $R^2 = .22$ ,  $F(2, 110) = 15.58$ ,  $p < .001$ . Results in Table 4.2.2 indicates that the two variables jointly account for 22% of the variance in General Work Stress, but that only work-study conflict significantly contributes to an explanation of General Work Stress. The results of this study are consistent with previous study findings by Anafarta (2011) and Allen and Greenhaus and Allen (2011), positing that inter-role conflicts between work and non-work domains may result in unfavourable outcomes such as stress. Interrole conflict between the domains is often associated with stress; work interfering with study. These results are also consistent with the role theory as well as the resource drain theory pointing to the potential of multiple roles and role strain resulting in interrole conflict.

#### 5.2.3.3 Hypothesis 3c

Hypothesis 3C stated that family-study conflict and Conscientiousness have a statistically significant combined effect on General Work Stress. The squared multiple correlation of General Work Stress with family-study conflict and Conscientiousness was statistically significant,  $R^2 = .33$ ,  $F(2, 110) = 26.86$ ,  $p < .001$ . Results in Table 4.2.3 indicates that the two variables jointly account for 33% of the variance in General Work Stress, but that only family-study conflict significantly contributes to an explanation of General Work Stress. The results of this study are consistent with previous study findings by Anafarta (2011) and Allen and Greenhaus and Allen (2011), positing that inter-role conflicts between work and non-work domains may result in unfavourable outcomes such as stress. According to Grenhaus and Allen (2013), inter role conflict between the domains is often associated with stress; family interfering with the study. Although Conscientiousness was found not to be related to General Work Stress, these results are consistent with the findings by conservation of the resource theory asserting that loss of resources, in this case, low conscientiousness, may drive individuals into certain levels of stress.

#### 5.2.4 Hypothesis 4

Hypothesis 4 stated that Conscientiousness moderates the relation of WFSC with General Work Stress. Results in Table 4.3 shows the squared multiple correlations of General Work Stress with WFSC, Conscientiousness and the product term of WFSC and Conscientiousness were statistically significant,  $R^2 = .29$ ,  $F(3, 109) = 15.02$ ,  $p < .001$ . Inspection of the individual regression coefficients indicates a non-significant negative effect of the product term of Conscientiousness and WFSC, indicating a lack of support for the hypothesis of a moderating effect [ $b = -.00$ , standardized  $b = -.03$ ,  $t = -.38$ ,  $p = .71$ ]. These findings are inconsistent with previous research suggesting that high conscientious individuals respond more positively to stress, thereby curbing the negative effects of stress and potentially conferring health benefits in the future (Lin et al., 2015; Penley & Tomaka, 2002). Also, findings by Gartland, O'Connor & Lawton (2012), found conscientiousness to be related to the appraisals of daily hassles and that conscientiousness moderates the experience of stress in daily life.

##### 5.2.4.1 Hypothesis 4a

Hypothesis 4a stated that Conscientiousness moderates the relation of work-family conflict with General Work Stress. Table 4.3.1 shows the squared multiple correlation of General Work Stress with work-family conflict, Conscientiousness and the product term of work-family conflict and Conscientiousness was statistically significant,  $R^2 = .16$ ,  $F(3, 109) = 6.78$ ,  $p < .001$ . Inspection of the individual regression coefficients indicated a non-significant negative effect of the product term of Conscientiousness and work-family conflict, indicating a lack of support for the hypothesis of a moderating effect [ $b = -.00$ , standardized  $b = -.02$ ,  $t = -.24$ ,  $p = .81$ ]. These findings are inconsistent with previous research by Gartland et al. (2012) and Lin et al. (2015) and Penley and Tomaka, (2002) suggesting that high conscientious individuals respond more positively to stress, thereby curbing the negative effects of stress and potentially conferring health benefits in the future.

##### 5.2.4.2 Hypothesis 4b

Hypothesis 4b stated that Conscientiousness moderates the relation of work-study conflict with General Work Stress. Table 4.3.2 shows the squared multiple correlation of General Work Stress with work-study conflict, Conscientiousness and the product term of work-study conflict and Conscientiousness was statistically significant,  $R^2 = .22$ ,  $F(3, 109) = 10.29$ ,  $p < .001$ . Inspection of the individual regression coefficients indicated a non-significant negative effect of the product term of Conscientiousness and work-study conflict, indicating a lack of support for the hypothesis of a moderating effect [ $b = -.00$ , standardized  $b = -.01$ ,  $t = -.09$ ,  $p = .93$ ].

These findings are inconsistent with previous research suggesting that high conscientious individuals respond more positively to stress, thereby curbing the negative effects of stress and potentially conferring health benefits in the future (Lin et al., 2015; Penley & Tomaka, 2002). Also, findings by Gartland et al. (2012), found Conscientiousness to be related to the appraisals of daily hassles and that conscientiousness moderates the experience of stress in daily life.

#### 5.2.4.3 Hypothesis 4c

Hypothesis 4c stated that Conscientiousness moderates the relation of family-study conflict with General Work Stress. Table 4.3.3 shows the squared multiple correlation of General Work Stress with FSC, Conscientiousness and the product term of family-study conflict and Conscientiousness was statistically significant,  $R^2 = .33$ ,  $F(3, 109) = 17.99$ ,  $p < .001$ . Inspection of the individual regression coefficients indicated a non-significant negative effect of the product term of Conscientiousness and family-study conflict, indicating a lack of support for the hypothesis of a moderating effect [ $b = -.00$ , standardized  $b = -.06$ ,  $t = -.70$ ,  $p = .48$ ]. These results are inconsistent with the study findings by Herbst et al. (2007) positing that personality moderates the impact of inter-role conflict, especially work-family conflict. Also, findings by Gartland et al. (2012) and Lin et al. (2015), found Conscientiousness to be related to the appraisals of daily hassles and that Conscientiousness moderates the experience of stress in daily life.

#### 5.2.5 Hypothesis 5

Hypothesis 5 stated that work-study conflict and family-study conflict contribute significantly to the explanation of General Work Stress above and beyond the explanation provided by work-family conflict. Table 4.4 shows the value of  $R^2 = .13$  [ $F(1, 111) = 16.47$ ,  $p < .001$ ], indicating that work-family conflict accounted for of 13% of the variance of General Work Stress. For this study, inter-role conflict was found when the demands of work interfered with study commitments. This could be because the sample have formal employment and as such fixed time commitments allocated to work limit the time available to study. Formal employment agreements do limit the time available to study (Mills, Lingard & McLaughlin, 2007). Also, family interfered with study when strain arising from family interfered with study commitments. The strain effects from both work and family have been linked to health-related outcomes (Bazana & Dodd, 2013; Anafarta, 2011; Greenhaus & Allen, 2011). Therefore, as a result of priority being given to work and secondly to family, individuals often experience general work stress (Mills et al., 2007).

Results in Table 4.4 shows the value of  $R^2 = .21$  [ $F(2, 110) = 14.4, p < .001$ ], indicating that jointly work-family conflict and work-study conflict account for 21% of the variance of General Work Stress. Work-study conflict explained an additional 8% of the variance in General Work Stress, above and beyond the explanation given by work-family conflict. This could be because the sample is engaged in both formal employment as well as formal education (studies) which may be more demanding and inflexible in terms of time. This could be because of fixed time commitments of both roles from the separate domains. The strain effects from study felt at work may result in General Work Stress. This implies that in most cases, work is prioritised over study so that study was not allowed to interfere greatly with work (Mills et al., 2007).

Results in Table 4.4 shows the results shows the value of  $R^2 = .29$  [ $F(3, 109) = 14.61, p < .001$ ], indicating that jointly the three variables accounted for 29% of the variance of General Work Stress. Similarly, family-study conflict explained an additional 8% of the variance in General Work Stress, above and beyond the explanation given by work-family conflict and work-study conflict. Unlike previous studies that found a positive correlation between work-family conflict and stress as reported by Bazana and Dodd (2013), this study found that family-study conflict contributes to individuals experience of General Work Stress ( $r = .52, p < .001$ ). In this regard, the samples' time commitments of family interfere with the study and results in General Work Stress. This could be because the strain effects from family spillover into study resulting in tiredness, reduced effort and stress of not meeting fixed formal deadlines.

Table 4.4 results show the  $R^2$  values of the competing models, the difference in  $R^2$  ( $\Delta R^2$ ) of the successive models. The results show that work-study conflict adds significantly to the prediction of General Work Stress above and beyond the prediction provided by work-family conflict [ $\Delta R^2 = .08, F(1, 110.51) = 11.97, p < .001$ ]. Similarly, family-study conflict adds significantly to the prediction of General Work Stress, above and beyond the prediction jointly provided by work-family conflict and work-study conflict [ $\Delta R^2 = .08, F(1, 109.46) = 12.12, p < .001$ ]. Overall, the results of this study reveal that work and family are prioritised over study in that study was not allowed to interfere greatly with work and family. According to Mills, Lingard and McLaughlin (2007), the time and strain demands of the study were not found to interfere substantially with work. Working students tend to prioritise work to meet financial demands which may include high university fees and living costs. Unlike with previous studies, work and family are the most protected domains in that respondents were least likely to allow study commitments to interfere with them.

### 5.3 Competing Demands of Work, Family and Study and the Experience of General Work Stress

In this study, the impact of combining work, family and study reflects the reality of competing demands of working student's work, family and study and their experiences of General Work Stress. It is important to explore the conflict between work, family and study because of its known association with General Work Stress. When individuals juggle between two or more roles, inter-role conflict is likely and in turn result in health-related outcomes such as stress (Greenhaus & Powell, 2006; Greenhaus & Allen, 2011; Nart & Bartur, 2014). According to Greenhaus and Allen (2011), as individuals try to meet the role demands, inter-role conflict in the form of time, strain and behaviour as depicted in Figure 2 is likely to occur (Greenhaus & Allen, 2011). The conflict between an individual's work and other life roles such as study and family is an important aspect of the relationship between work and non-work life.

For this study, it is, therefore, worth examining the effects of competing demands of work, family and study on General Work Stress. Jointly the results of this study are in accord with the existing theory and previous research, namely, role theory, scarcity theory, resource drain theory and conservation of resource theory. The result of this study similarly to Greenhaus and Allen (2011) as well as role theory revealed that involvement in one role can make involvement in the other role more difficult and is likely to result in stress. Performance of each of the roles places severe demands on a persons stress (Greenhaus & Powell, 2006; Greenhaus & Allen, 2011; Nart & Bartur, 2014) and may result in WFSC and General Work Stress as posited by this study; the results of this study indicate a statistically significant correlation between WFSC and General Work Stress ( $r = .51, p < .001$ ). This result shows that conflict due to the competing demands of work, family and studies combined on the General Work Stress accounts for about 25% of the variance in General Work Stress. These results are consistent with the findings by Anafarta (2011) positing that inter-role conflicts between work and non-work domains may result in unfavourable outcomes such as stress, burnout, lower levels of job satisfaction, and negative family satisfaction. And further contributes to the body of knowledge that stress remained unexamined among working students as suggested by Martinez et al. (2013).

The results of this study are also consistent with the role theory as well as study findings by Bazana and Dodd (2013); Anafarta (2011). Although previous studies have drawn causal relationships between the work and family domains from the role theory (Bazana & Dodd, 2013; Edwards & Rothbard, 2000). In examining the competing demands of respondent's work and family and their experience of General Work Stress, this study has further investigated the association between work-family conflict and General Work Stress.

The study results indicates a statistically significant correlation between work-family conflict and General Work Stress ( $r = .36, p < .001$ ). In this regard, work-family conflict accounted for about 13% of the variance in the respondent's experience of General Work Stress. These results are consistent with the study findings by Anafarta (2011), positing that there is a positive correlation between work-family conflict and General Work Stress. These findings are further consistent with the study findings by Bazana and Dodd (2013); work-family conflict contributes to both family and job stress .

Previous research has focused mostly on the interface between work and family, especially the conflict side; the study domain was overlooked. Therefore, with changing times, generations and the nature of the world of work, the study domain become equally important. Therefore, building on the role theory, and contributing to the existing work-family conflict literature, this study examined the competing demands of work and study on the respondent's General Work Stress. The results of this study indicate a statistically significant correlation between work-study conflict and General Work Stress ( $r = .44, p < .001$ ). Work-study conflict accounted for about 19% of the variance in General Work Stress. This result points toward the potential importance of conflict due to the competing demands of work and studies in the experience of General Work Stress. These results reveal that work is prioritised over study in that study was not allowed to interfere greatly with work. These results are consistent with previous study findings by Anafarta (2011); Greenhaus and Allen (2011), positing that inter-role conflicts between work and non-work domains may result in unfavourable outcomes such as stress. According to Greenhaus and Allen (2011), an inter-role conflict between the domains are often associated with stress; work interfering with the study.

The intersection between family and study domains becomes very crucial when one examines their effect relative to students' General Work Stress. According to Meeuwisse et al. (2001), individuals' involvement in family and study activities may predict either family-study conflict or family-study facilitation. Therefore, building on a study by Meeuwisse et al. (2001) and theories of inter-role processes, this study examined the competing demands of family and study on respondent's General Work Stress. The results of this study indicate a statistically significant correlation between family-study conflict and General Work Stress ( $r = .52, p < .001$ ). These results indicate that family-study conflict accounted for about 27% of the variance in General Work Stress. This result underlines the potential importance of conflict due to balancing family demands and study demands in the experience of General Work Stress.

The results of this study are consistent with previous study findings by Anafarta (2011) and Allen and Greenhaus and Allen (2011) inter-role conflicts between work and non-work domains may result in unfavourable outcomes such as stress and negative family satisfaction. According to Greenhaus and Allen (2013), an inter-role conflict between the domains are often associated with stress; family interfering with the study. These results are consistent with the role theory as well as the resource drain theory.

According to Mostert and Joubert (2005) balancing work and family life has become an increasing challenge for working individuals. Much as that is the case, organisations continue to foster a high level of cognitive and emotional commitment amongst employees (Rothman and Rothman 2010) resulting in employees working extra or longer hours due to work demands. This leads to stress which gets exacerbated by their family roles. Working non-traditional students enrolled in school may face the pressures of multiple roles that may sometimes leave them with a feeling of being overwhelmed, overloaded, or stressed (Olson, 2014). As a result, working students may already experience work-family conflicts, and an additional role as a student may lead to neglect of certain roles and or role overload. The results of this study revealed that respondents experienced statistically significantly higher work-study conflict and family-study conflict to the explanation of General Work Stress above and beyond the explanation of work-family conflict.

Interrole conflict research has limited itself largely to work and family domain conflict (Butler, 2007; Meeuwisse et al., 2011). Very little research has looked at other non-work roles or other types of domains. While much research has been conducted on work-family conflict, one aspect of demand that has remained unexamined is 'study(ies)'. Previous work by Bazana and Dodd (2013), supported by Anafarta (2011) and Greenhaus and Allen (2013) has established the link between work-family conflict and stress. To fill the void in the literature, this study looked at the conflict between non-work and work domain. In this regard, this study added and focused on the third area of demands called 'study(ies)'. The results of this study point out that the study domain is a very important variable to take into account when trying to understand General Work Stress.

While the study is often a temporary role in peoples' lives, it is mostly a primary and salient role for working university study. Therefore, this study posits that study is an important role to examine in conjunction with the other work and family domain. The study role is an added stressor when combined with work and family role. Study domain seems to play a dominant role in understanding General Work Stress. When combined with work and family role as in the existing work-family conflict literature, this study revealed that work-study conflict and family-study conflict contribute significantly to the explanation of General Work Stress above and beyond the explanation provided by work-family conflict.

This study revealed that work-study conflict adds significantly to the prediction of General Work Stress above and beyond the prediction provided by work-family conflict. Similarly, family-study conflict adds significantly to the prediction of General Work Stress, above and beyond the prediction jointly provided by work-family conflict and work-study conflict. This results highlight the importance of adding the study domain to the previously established link between work-family conflict and stress as researched by Bazana and Dodd (2013); Greenhaus and Allen (2011) as well as Anafarta (2011). Work-family conflict alone accounted for 13% of the variance of General Work Stress whereas jointly all three variables (WFSC) accounted for 29% of the variance of General Work Stress. This results point to the importance of continued learning and development (i.e. studies) for career advancement and the effect that this might have on General Work Stress. This is because the modern workplace has become a competitive and challenging place for employees, especially adult employees who are expected to study while working fulltime. Adult employees are under pressure to learn and to acquire knowledge and skills to meet organisational demands through formal as well as informal studies (workplace learning) (Goad, 2010).

In addition to the workplace and educational demands is constant pressure from the family domain. In this regard, employees are expected to manage multiple role demands from work, study and family domains and to have a positive work-study-family interface. Overall, the main contribution of this study is that of highlighting studies as an important variable to take into account when trying to understand General Work Stress. In this regard, focus on the study domain seems to play a dominant role in understanding General Work Stress. This is because working students are under pressure to learn and to acquire knowledge and skills to meet organisational demands through studies and workplace learning (Goad, 2010) or rather formal as well as informal studies. Also, for the working students, focus on studies highlight the importance of continued learning and development for career advancement and the effect that this might have on their experience of General Work Stress (Mills et al., 2007).

This is because unlike informal studies which may be more flexible, the formal university studies in which the working students are enrolled may be more demanding and inflexible in terms of time. Therefore, the demanding nature and inflexibility of formal university studies are likely to result in WSC and FSC which have the potential of the individual experiencing General Work Stress.

#### 5.4 Conscientiousness and General Work Stress

According to McCrae & Costa, (2010) and Wayne et al. (2004) Conscientiousness is a personal characteristic and resource that provides time efficiency, organisational skills, active problem solving, and lower vulnerability to stress (Vollrath & Torgersen, 2008). All these resources are essential to enable students to manage WSFC and General Work Stress effectively. Therefore, this study suggested that high levels of Conscientiousness may enable non-residential students to manage multiple roles efficiently, and may decrease the impact of inter-domain conflict and General Work Stress. Individuals' personality trait of Conscientiousness potentially constitutes a positive moderating force in reconciling divergent roles of multiple domains (Bazana & Dodd, 2013). Focus is on Conscientiousness as the main effect, and as a moderator:

##### 5.4.1 Conscientiousness as the main effect

Hypothesis 4 stated that Conscientiousness moderates the relation of WFSC with General Work Stress. Results in Table 4.5 shows the squared multiple correlations of General Work Stress with WFSC, Conscientiousness and the product term of WFSC and Conscientiousness were statistically significant,  $R^2 = .29$ ,  $F(3, 109) = 15.02$ ,  $p < .001$ . Inspection of the individual regression coefficients indicates a non-significant negative effect of the product term of Conscientiousness and WFSC. Although not significant, these findings are consistent with previous research suggesting that high conscientious individuals respond more positively to stress, thereby curbing the negative effects of stress and potentially conferring health benefits in the future (Penley & Tomaka, 2002). Also findings by Gartland et al. (2012), for all the three areas of domains, Conscientiousness was found to have a non-significant negative effect on work, family and study with GWS. This is because while Conscientiousness would help employees to get or maintain higher levels of performance under stressful work situations, in other instances it would act as a "detrimental" factor in strengthening the stressor–psychological strain relationship.

In that regard, when confronting challenge stressors, highly conscientious individuals tend to allocate more resources into meeting their high-performance standard to get more achievement. Because the total amount of personal resources is finite, their resource allocation strategy will gradually deplete their resources (Sonnetag & Frese, 2012). According to the Conservation of Resource (COR) theory, the depletion of personal resources would lead to an experience of stress and strain. Previous research findings demonstrated that the emotional and cognitive efforts put to deal with stressful demands would result in forms of strain such as anxiety, fatigue, and exhaustion. So, by allocating time and energy to meet with the challenging stressors, highly conscientious employees sacrifice their well-being in exchange for good performance (Sonnetag & Frese, 2012). While for those with low conscientiousness, because they do not care much about gaining achievement, they would not allocate such high levels of resources in the job as challenge stressors increase. Accordingly, they are less likely to demonstrate significant psychological reactions when confronted with challenge stressors.

#### 5.4.2 Conscientiousness as a moderator

In examining the moderating effect of Conscientiousness on the relation of WFSC with General Work Stress, the results of this study indicated a lack of support for the hypothesis of a moderating effect [ $b = -.00$ , standardized  $b = -.03$ ,  $t = -.38$ ,  $p = .71$ ]. The result of this study has shown a non-moderating effect of Conscientiousness in the relation of WFSC with General Work Stress. These findings are inconsistent with previous research suggesting that high conscientious individuals respond more positively to stress, thereby curbing the negative effects of stress and potentially conferring health benefits in the future (Penley & Tomaka, 2002). Also findings by Gartland et al. (2012). Also, these findings are inconsistent with previous research suggesting that high conscientious individuals respond more positively to stress, thereby curbing the negative effects of stress and potentially conferring health benefits in the future (Penley & Tomaka, 2002). Also, findings by Gartland et al. (2012), found Conscientiousness to be related to the appraisals of daily hassles and that Conscientiousness moderates the experience of stress in daily life.

Overall, Conscientiousness did not function as a main effect nor as a moderator. This is a surprising result. This is because stressors are stressful demands that are hard to deal with personally and that hinder achievement and personal growth (LePine et al., 2005). Nevertheless, highly conscientious individuals are likely to respond to adverse work situations in more productive ways. Employees with high Conscientiousness are more likely to focus on their job duties even when confronting organizational constraints or interpersonal injustice (Yang & Diefendorff, 2009).

Given that individuals with high Conscientiousness are more motivated and ambitious, Judge and Ilies (2002), proposed that in order to maintain their high level of performance, these individuals may direct more resources (e.g., time and energy) to deal with hindrance stressor, which offsets the negative effect of these stressors on performance.

In contrast, individuals with low Conscientiousness are less motivated to allocate their resources to deal with hindrance stressors, because they do not care much about the decrease in performance. Thus, their levels of performance are vulnerable to hindrance stressors. Accordingly, for highly conscientious employees, the impact of hindrance stressors on performance would be less severe than those with lower Conscientiousness. The results of this study are inconsistent with a recent finding by Nandkeolyar, Shaffer, Li, Ekkirala and Bagger (2014), showing that Conscientiousness would weaken the negative influence of abusive supervision on performance.

### 5.5 Limitations of the Study

There are a few limitations that need to be mentioned. Firstly, in this study, we used our sample as normative population and therefore we used cut off points based on this sample, as normative values for all the African Military Academy population are not yet available. Secondly, the study was cross-sectional, meaning that no firm conclusions regarding the causality of relationships can be drawn. Again the study was based on a single institution and the sample size was comparatively small, particularly for students of colour. Also, self-reported data have been used in this study, so the respondents might have given biased answers. Finally, our study group comprised only non-residential students of one SAMA, and results might not be generalizable to other settings.

One main limitation in the existing body of research is that the bulk of studies have treated work-family conflict as a one-directional process (i.e. work impacts negatively on family, which in turn leads to job stress) as reported by Bazana and Dodd (2013) as well as Nart & Batur, (2014). However, the current study contributed to the body of knowledge by adding a third area of demands, namely studies to examine the multi-directional relations between work, family and study and its effect on General Work Stress. Moreover, the study pointed out studies as an important variable to be taken into account when trying to understand General Work Stress. Therefore, the study results highlight the importance of continued learning and development for career development and the effect on General Work Stress.

## 5.6 Implications of the Results for Further Research

Given the amount of variance that may not be explained by this study, there is room for other variables in future studies such as time involvement in predicting respondent's WFSC, subjective perceptions of workload, involvement in academic and social activities in the Military Academy, cultural identity, personal development, available resources and support, socio-economic background and academic success and the amount of control respondents are able to have over their work and studies. In future studies, larger sample size and more institutions will increase the power of multiple analysis and generalizability of the results. A comparative study involving both residential and non-residential students need to be conducted.

## 5.7 Implications of the Results for Practice

The findings of this study have practical implications in terms of how WFSC and General Work Stress among working non-residential military university students. Military higher education and training institutions could develop training based on individual WSFC profile so that employees can effectively and efficiently manage their work, family and study stressors. The association between WFSC and General Work Stress as well as the combined effect of WFSC and Conscientiousness on General Work Stress insists that organisations develop proper training based on WFSC individual differences. Profiling employees based on their WFSC is crucial. Knowledge on WFSC and work-family-study facilitation profiling would enable organisations or managers to counsel their employees on issues relating to work, family and studies and design work-family-study friendly policies. Also work-family-study facilitation specific personality measures may be developed so that military higher education and training programs would help employees with coping-based strategies. Work-family-study facilitation and stress management training would benefit both the organisation and employees. This is because the results of this study revealed that WFSC is linked to health-related outcomes such as General Work Stress. To reduce employees' General Work Stress, the organisation needs to promote work-family-study facilitation through policies.

From a practical perspective, it is hoped that the findings from this study may contribute to a better understanding of how work and study demands might be designed to allow for an optimal balance with family demands. The findings derived from this study and discussed in this paper have important implications for organisational practice and academic outcomes, specifically academic success. The examination of the interface between SAMA non-residential students' work, family and study life roles shows that difficulties experienced in role combination such as WFSC can have detrimental consequences for the employee-student as well as the organisation.

These consequences include work stress, academic burnout, emotional exhaustion, dysfunctional interpersonal family relationships, lower productivity and lower work satisfaction. However, unlike previous work-family studies, the present study revealed that employees' personality trait of Conscientiousness does not significantly moderate the effect of WFSC and General Work Stress. Therefore, recommendations are made to helping respondents to attain inter-domain role facilitation such as work-family-study facilitation.

#### 5.7.1 Recommendations

Positive participation in certain life roles such as studies and work can facilitate the family role positively and vice versa. For the '*study*' domain, this positive facilitation may result in academic enrichment. Participation in the *study role* could revitalise an employee-student for his or her work and family responsibilities, and make the employee more efficient at work. Studies that support learning as not just knowledge acquisition opportunities but attitude enhancement will verify this claim (graduate attributes are after all closely linked with required job attitudes). Studies provide opportunities to acquire new skills and behaviours relevant not only to studies but capacitors of performance at work and home.

Although Conscientiousness was found not to be a moderator of WFSC and General Work Stress, it brings about psychological benefits in terms of a broader frame of reference that helps the employee-student to put work, studies and family matters into perspective and to attain work-family-study facilitation. The role of work-family-study facilitation becomes more relevant, useful and evident when applied to the South African Military Academy student population, non-residential students. These individuals are exclusively compelled to cope with the conflicting demands of their work, family and their study responsibilities. The military university environment is a relevant application of the proposed work-family-study interface model (see Figure 1). Military higher education and training need to design programs and policies on stress management with a focus on attaining work-family-study facilitation.

#### 5.8 Delimitation of the Study

Delimitations are factors that affect the study over which the research generally does have some degree of control. There are several delimitations for this study; First, the population for the study comprised only full-time employees of DoD, studying part-time at the SAMA.

This is because this sample of SANDF employees regularly experience General Work Stress and WFSC due to the diverse demands of balancing military professional, educational and family roles. Second, to assure manageability of the collected data, survey instruments used only multiple-choice items and not include open-ended response items.

### 5.9 Contribution of the Study

The majority of WFC research to date has focused on the consequences of WFC, and recent reviews have identified multiple work-related, non-work-related, and stress-related outcomes associated with WFC. To a lesser extent, research has examined possible antecedents of WFC like the influence of further studies. The present study investigated the correlates of WFC through an examination of the relationships between dispositional or personality variables and WFC. To date only a few studies have considered dispositional influences. For instance, Type A behaviour and negative affectivity have attracted research attention in relation to WFC. However, researchers have called for additional study of personality variables such as the 'Big Five' variables to provide further insight into the underpinnings of WFC. As a result, the present study contributes to the body of knowledge in this regard.

Specifically, this study investigated conscientiousness and extended research by also examining the role of further studies/training on Work–family study conflict (WFSC) and resultant General Work Stress. The present study builds on past efforts by examining both the form and direction of WFSC in relation to the dispositional variables of interest and General Work Stress. This research have paractical value and is important for several reasons; first, its findings broaden our understanding of the theoretical predictors of WFSC. Second, expands the representation of the concepts associated with this WFSC. Third, set the stage for future theory-building. Fourth, from a practical perspective, knowledge of the extent WFSC is dispositionally induced can inform practitioners concerning appropriate organizational interventions. Fifth, extends current research in the field endeavouring to determine whether there are differences in the level of General Work Stress between workers high and low on conscientiousness.

### 5.10 Conclusion

It could be concluded that, while work, family and study are fundamental domains for ones' psychological well-being, there is a gap in knowledge about the relationship between WFSC, Conscientiousness and General Work Stress within military higher education and training and skills to ensure work-family-study facilitation.

The results of this study have shown that respondents work long hours (average of 40 hours per week on average) while accounting for family demands and studying part-time. The incidence of a high level of involvement and commitment in work and family does translate into work-study conflict and family-study conflict, but surprisingly not into study-work conflict or study-family conflict. This research suggests that the respondents are more concerned about fulfilling the demands of work and family than those of their studies. The results of this study shed light into the relationship between participants' Conscientiousness, WFSC and General Work Stress.

The study findings indicated that, regardless of the respondents' demographics and their level of Conscientiousness, both genders experienced WFSC and General Work Stress relatively. The respondents' personality trait of Conscientiousness was found to be insignificant in moderating the relationship between WFSC and General Work Stress. For this reason, these findings disprove the scarcity theory conclusion. "Previous studies based on the scarcity perspective have suggested that [Performance of multiple roles], role-combining is particularly problematic for women" (Behson, 2002, p. 20). However, the results of this study indicate that the scarcity theory conclusion was based on a view that is negatively inclined (focus on role conflict), rather than positively inclined (focus on role facilitation). Current study findings suggest focussing on inter-domain role facilitation (WFSF) in the modern workplace arrangement, value systems, and work-family structure as well as in occupational-study context (e.g. military-academic, military professional-higher education student context).

The results discussed in this study complement and balance the scarcity perspective as well as the spill-over theory that has long prevailed in work-family interface literature. The main contribution of this study to the existing work-family literature is that of demonstrating a robust link between WFSC and work stress; that is work-study conflict and family-study conflict contributes significantly to the explanation of General Work Stress above and beyond the explanation provided by work-family conflict. This study suggested that more attention be afforded to all three domains of work, family and study, especially in balancing their respective demands. Balancing demands from three domains, and paying more attention to their interplay, may help in understanding the complexity of General Work Stress and whether certain personality traits that are not explored in this study might moderate the negative effects.

In addition to determining whether the effect of WFSC on General Work Stress is the same for all persons, the study contributed to the existing body of research by examining the moderating role of the personality trait of Conscientiousness in the multi-directional link between the demands of work, family and study, respectively, with General Work Stress.

The study results revealed that although WFSC and Conscientiousness have a significant combined effect on General Work Stress, Conscientiousness alone was found to have a non-significant moderating effect on WFSC and General Work Stress. However, the study posits that the performance of multiple roles in terms of work, family and study roles is not inherently difficult, or will participate in one role only negatively impact another role, resulting in WFSC. The scarcity perspective and spill-over theory have been valuable in identifying the role conflicts that individuals are likely to experience as well as the associated negative consequences which are significant phenomena with real negative consequences. The current study suggests a multi-directional perspective focusing on all the three domains of work, family and studies.

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List of Figures

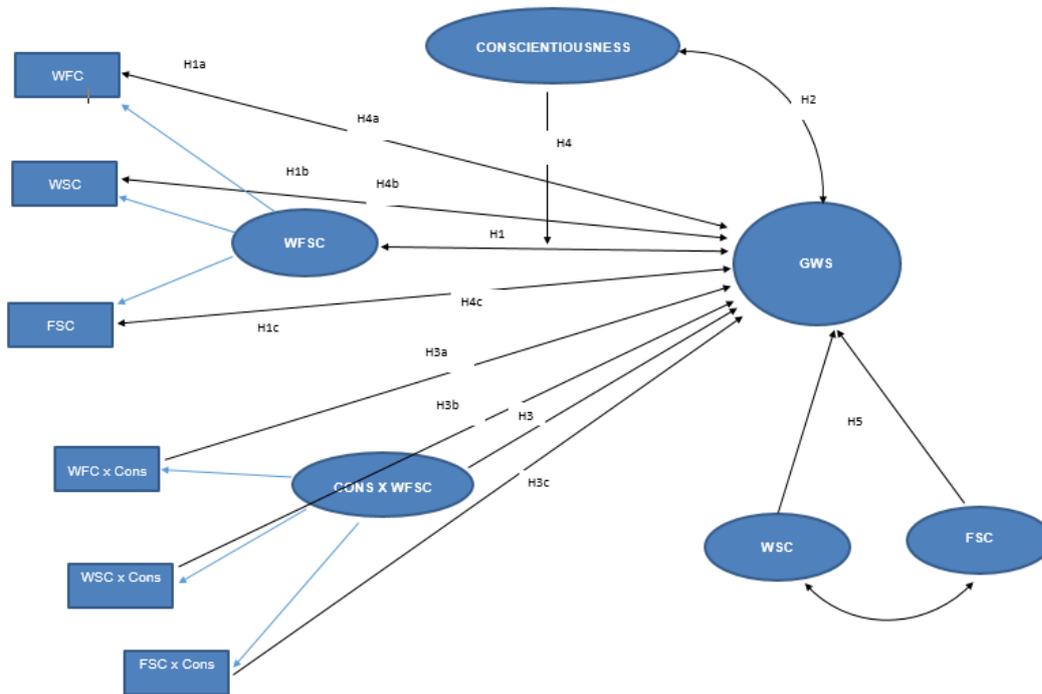


Figure 1. Conceptual Research Model

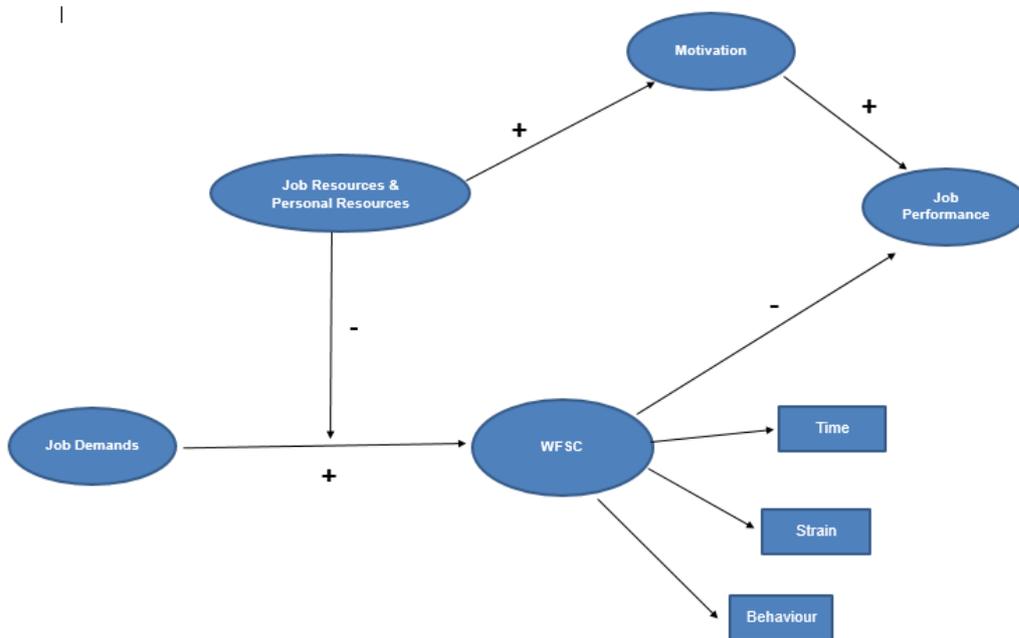


Figure 2. Adapted JD-R Model and WSFC Conceptual Model