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THE MODERATING ROLE OF STRESSFUL LIFE EVENTS ON THE RELATIONSHIP BETWEEN EMOTIONAL EXHAUSTION AND DEPERSONALISATION

by

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DECLARATION

I, Anna Elizabeth Buys, declare that the Moderating Role of Stressful Life Events on the Relationship between Emotional Exhaustion and Depersonalisation is my own unaided work both in content and execution. All the resources I used in this study are cited and referred to in the reference list by means of a comprehensive referencing system. Apart from the normal guidance from my study leader, I have received no assistance, except as stated in the acknowledgements.

I declare that the content of this thesis has never been used before for any qualification at any tertiary institution

I, Anna Elizabeth Buys, declare that the language in this thesis was edited by Marielle Tappan, owner of MT Editorial.

Anna Elizabeth Buys

Signature

Date: September 2016

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ABSTRACT

Purpose: The purpose of this study was three-fold. Firstly, it examined whether there was a positive relationship between the two burnout dimensions of emotional exhaustion and depersonalisation, for career women in particular. Secondly, this relationship was further examined by considering whether stressful life events and racial differences moderated the association between emotional exhaustion and depersonalisation. Thirdly, racial differences in depersonalisation were assessed.

Motivation for study: In the fast paced environment of the 21st century, individuals are faced with increased demands which they need to address at an ever-increasing rate. This can translate into burnout, which is quickly becoming an epidemic. Existing theories on burnout postulate that burnout and its dimensions develop in a specific order, in that depersonalisation develops from increased levels of emotional exhaustion. Although several studies have tested this theory, limited research exists on how the relationship between emotional exhaustion and depersonalisation may be influenced by negative factors outside of the work environment (i.e., stressful life events). In addition, the relationship between the burnout dimensions has not been assessed in relation to racial differences in the unique cultural context of South Africa. Studies have shown that burnout is detrimental both on an individual and collective level, and can result in extensive cost implications for organisations. Therefore, this research could assist organisations, perhaps including South African organisations, to understand which factors may accelerate the occurrence and development of burnout and its dimensions. Subsequently, organisations may be advised to introduce tailored interventions to reduce or prevent burnout from occurring.

Research design, approach, and method: A post-positivistic quantitative research strategy was used with a sample of 31 female participants, aged between 25 and 60 years of age. Participants were employed at a higher education institution in South Africa. Data were obtained through the use of an online questionnaire consisting of three measurement scales: the emotional exhaustion and depersonalisation scales from the Maslach Burnout

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Inventory General survey, and a stressful life events checklist. Data were analysed through the use of hierarchical multiple regression analysis and a one-way ANOVA.

Main Findings: The results contradicted previous studies on burnout dimensions as the relationship between emotional exhaustion and depersonalisation was not significant. Furthermore, both stressful life events and race did not have a significant impact on the relationship between emotional exhaustion and depersonalisation. Finally, the different racial groups assessed in this study did not differ significantly in terms of levels of depersonalisation.

Practical Implications: Based on the findings of this study, organisations should not gear burnout interventions toward specific groups of women, that is, women experiencing greater stressful life events or women from specific racial groups, as these factors do not appear to have an influence on the occurrence of burnout or its dimensions. In addition, the occurrence of depersonalisation does not seem to be avoided by addressing levels of emotional exhaustion in women.

Contribution/value-add: The study makes a knowledge contribution to the existing gap in burnout research regarding the development of emotional exhaustion and depersonalisation, and the impact that stressful life events and race can have on this relationship. Even though the hypotheses were not supported, it adds value by equipping organisations with additional information regarding which factors to include or exclude when designing interventions to address burnout.

Keywords: Burnout; Emotional exhaustion, Depersonalisation, Stressful life events, Race, South Africa.

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TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION AND BACKGROUND 1

1.1 BACKGROUND 1
1.2 RESEARCH PROBLEM 4
1.3 PURPOSE OF THIS STUDY 5
1.4 RESEARCH OBJECTIVES 5
1.5 ACADEMIC VALUE AND CONTRIBUTION OF THE STUDY 6
1.6 DELIMITATIONS 7
1.7 DEFINITIONS OF KEY TERMS 7
1.8 CHAPTER OUTLINE 8

CHAPTER 2: LITERATURE REVIEW 10

2.1 DEFINING BURNOUT 10
2.1.1 Dimensions of Burnout: 11
2.2 DEVELOPMENTAL MODELS OF BURNOUT 12
2.3 BURNOUT RESEARCH IN HIGHER EDUCATION 13
2.4 GENDER AND BURNOUT RESEARCH 14
2.5 ANTECEDENTS AND MODERATORS IN BURNOUT RESEARCH 15
2.5.1 Stressful life events 15
2.5.2. Ethnicity 17
2.6 CONCLUSION 19

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY 21

3.1 RESEARCH PARADIGM / PHILOSOPHY 21
3.2 DESCRIPTION OF INQUIRY STRATEGY AND BROAD RESEARCH DESIGN 23
3.3 SAMPLING 25
3.4 PARTICIPANTS 26
3.5 DATA COLLECTION 28
3.6 DATA ANALYSIS 30

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3.7 ASSESSING AND DEMONSTRATING THE QUALITY AND RIGOUR OF THE PROPOSED RESEARCH DESIGN....32
3.8 RESEARCH ETHICS....34

CHAPTER 4: RESULTS....37

4.1 PRELIMINARY DATA SCREENING....37
4.2 DESCRIPTIVE STATISTICS AND CORRELATIONS....37
4.3 HYPOTHESIS 1....38
4.4 HYPOTHESIS 2....39
4.5 HYPOTHESIS 3:....41
4.6 HYPOTHESIS 4....41

CHAPTER 5: DISCUSSION, CONCLUSION, LIMITATIONS AND RECOMMENDATIONS....44

5.1 OVERVIEW OF THE STUDY....44
5.2 DISCUSSION OF RESULTS....45
5.2.1 To determine if a positive relationship exists between emotional exhaustion and depersonalisation among professional women....45
5.2.3 To determine if the relationship between emotional exhaustion and depersonalisation is moderated by stressful life events such that greater reports of stressful life events strengthen the positive relationship between emotional exhaustion and depersonalisation.....46
5.2.3 To determine if depersonalisation is more common in women of certain South African ethnic groups than others.....47
5.2.4 To determine if the strength and nature of the relationship between emotional exhaustion and depersonalisation differs between different ethnic groups in South Africa....49
5.3 PRACTICAL IMPLICATIONS OF THE STUDY....50
5.4 LIMITATIONS OF THE STUDY....51
5.5 RECOMMENDATIONS FOR FUTURE RESEARCH....53
5.6 CONCLUSION....54
LIST OF REFERENCES....56

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APPENDICES

APPENDIX A: Informed Consent Form..... 63

APPENDIX B: Questionnaire..... 64

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LIST OF TABLES

TABLE 1: SUMMARY OF BURNOUT DEFINITIONS……..10
TABLE 2: POST-POSITIVIST ASSUMPTIONS DERIVED FROM GUBA AND LINCOLN (1994, P. 110) AND VOROS (2016, P. 7)……...22
TABLE 3: CHARACTERISTICS OF PARTICIPANTS (*N* = 31).....26
TABLE 4: CRONBACH'S ALPHAS, MEANS, STANDARD DEVIATIONS, AND BIVARIATE CORRELATIONS AMONG THE MEASURES (*N* = 31).....37
TABLE 5: *HIERARCHICAL REGRESSION ANALYSIS PREDICTING DEPERSONALISATION*.....39
TABLE 6: *HIERARCHICAL REGRESSION ANALYSIS PREDICTING DEPERSONALISATION*.....40
TABLE 7: *HIERARCHICAL REGRESSION ANALYSIS PREDICTING DEPERSONALISATION*.....42

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THE MODERATING ROLE OF STRESSFUL LIFE EVENTS ON THE RELATIONSHIP BETWEEN EMOTIONAL EXHAUSTION AND DEPERSONALISATION

CHAPTER 1: INTRODUCTION AND BACKGROUND

This chapter serves as an introduction to the study by presenting a comprehensive overview of its background and significance. The research problem the study aims to address is explained, followed by a discussion of the main purpose and objectives of the study. The chapter further describes the study's academic value and contributions, and delimitations. Finally, the definition of key terms used, and the description of the layout of the various chapters of the study, conclude this chapter.

1.1 BACKGROUND

In the fast paced environment of the 21st century, individuals are faced with an increased work load and demands which they need to address at an ever-increasing rate. The increased workload and demands can translate into burnout, which is quickly becoming an epidemic. Most researchers define burnout along three different dimensions: emotional exhaustion, depersonalisation, and diminished personal accomplishment (Adekola, 2010; Maslach & Jackson, 1981; Salanova, Llorens, Garcia-Renedo, Burriel, Breso, & Schaufeli, 2005; Spooner-Lane & Patton, 2007). These three elements are briefly defined by Houkes, Winants, Twellaar and Verdonk (2011, p.1) as "the depletion of emotional resources" (emotional exhaustion), "the development of a negative, callous and cynical attitude towards recipients of one's services" (depersonalisation), and "the tendency to evaluate one's work negatively, feelings of insufficiency and poor professional self-esteem" (reduced personal accomplishment).

Burnout can have detrimental effects both on an individual and collective level (Hollet-Haudebert, Mulki, & Fournier, 2011). People who experience higher levels of burnout face higher risks of physical and mental illness (Metin, 2010; Salami, 2011; Schaufeli, 2003). On a collective level, burnout impacts the working group as well as the organisation as a whole, as burnout can result in decreased work performance, reduced organisational commitment, absenteeism and turnover which all lead to financial costs for

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the organisation (profit loss, cost of new hires, poor service resulting in decreased market share) (Holleet-Haudebert *et al.,* 2011; Metin, 2010; Schaufeli, 2003; Schaufeli & Bakker, 2004; Shih, Jiang, Klein, & Wang, 2013; Taris, 2006; Totawar & Nambudiri, 2012). Lastly, burnout can affect aspects outside of the organisation, as the individual's family and personal network are also exposed to the negative consequences, resulting in outcomes such as marital issues and other family problems (Cordes & Dougherty, 1993; Maslach & Jackson, 1986 as cited in Rothmann, Malan, & Rothmann, 2001). It is therefore important to understand what factors are antecedent to burnout so that organisations can introduce interventions to reduce or prevent it from occurring (Cordes & Dougherty, 1993).

A large body of research already exist on burnout and its possible antecedents. Based on a review of the burnout literature, job stress due to job demands (workload, work pace, emotional demands and change), role ambiguity (lack of role boundaries and certainty), and job conflict (conflicting work roles) can be considered as some of the most common predictors of burnout (Cordes & Dougherty, 1993; Salami, 2011; Spooner-Lane & Patton, 2007; Metin, 2010; Mirvis, Graney, Ingram, Tang & Kilpatrick, 2006; Montgomery *et al.*, 2006; Pretorius, 2007; Zhang & Zhu, 2007). In studies of the relationship between burnout and job stress, several moderators and mediators have also been explored, ranging from different demographical characteristics such as age, gender and ethnicity, to work and social support (Adekola, 2010; Coetzee & Rothmann, 2004; Evans, Bryant, Owens & Koukos, 2004; Lim, Kim, Kim, Yang, & Lee, 2010). Although a range of existing literature explores how social support from outside the work environment (i.e., supportive spouse and family) can mitigate the relationship between job stress and burnout (Hendrix, Cantrell, & Steel, 1988; Salami, 2011; Yildirim, 2008; Zhang & Zhu, 2007), fewer studies focus on non-work aspects which could have a further negative impact, that is, exacerbate, the relationship between job stress and burnout.

One such non-work factor is stressful life events (i.e., the death of a spouse, illness, relocation, divorce) which have been shown to increase the prevalence and level of burnout at work (Brattberg, 2006; Dyrbye *et al.*, 2006; Justice *et al.*, 1981; Mather *et al.*, 2014; Plieger, Melchers, Montag, Meermann & Reuter, 2015). Several studies found a significant positive relationship between stressful life events and burnout (Dyrbye *et al.*, 2006; Justice *et al.*, 1981; Mather *et al.*, 2014). Understanding the negative external factors that contribute to job burnout is supported by Evans *et al.* (2004), who explored how physical demands in the home environment (i.e., financial difficulties, raising children)

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could contribute to the emotional exhaustion aspect of burnout. The increase in emotional exhaustion can have further burnout implications as higher levels of emotional exhaustion can result in the occurrence of the depersonalisation dimension of burnout (Houkes *et al.*, 2011). Although stressful life events have been studied in relation to burnout and its dimensions, they have not been considered as moderators of the relationship between different burnout dimensions. Therefore, this study explored stressful life events as a moderator, that is, a strengthener of the emotional exhaustion-depersonalisation relationship.

Evans *et al.* (2004) considered stressful life events outside of work to be more central to career women's well-being, as compared to men's, as career women tend to have dual responsibilities in terms of work and home demands. Although men also take on responsibilities in the home environment, women tend to take on more responsibility at home such as taking care of children (Adekola, 2010). Women also tend to have wider social networks which result in them being exposed to more instances of stressful life events related to those social connections (Kessler & McLeod, 1984). Therefore, women tend to experience more burnout stemming from stressful life events than their male counterparts (Hogan & McKnight, 2007; Purvanova & Muros, 2010).

Based on the above findings, gender is considered an important indicator of burnout and should be key in understanding the relations between the underlying dimensions of emotional exhaustion and depersonalisation. Studies have shown that women report higher emotional exhaustion whereas depersonalisation is more common among men (Lim *et al.*, 2010; Paladino, Murray, Newgent, & Gohn, 2005; Purvanonva & Muros, 2010). It should however be noted that depersonalisation also occurs in women. A study by Mirvis *et al.* (2006) found unusually high levels of depersonalisation in Hispanic women particularly. Furthermore, Houkes *et al.* (2011) stated that depersonalisation in women General Practitioners occurs as a result of higher levels of emotional exhaustion. It could therefore be valuable to further explore the relationship between emotional exhaustion and depersonalisation in women specifically, which was one of the aims of the current study.

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1.2 RESEARCH PROBLEM

The body of knowledge on burnout is excessive. A common topic in burnout research is the relationship between the underlying dimensions of burnout. Houkes *et al.* (2011) proposed a relationship between emotional exhaustion and depersonalisation, that is, that higher levels of emotional exhaustion lead to higher levels of depersonalisation. This finding has been confirmed by several other studies as well (Leiter & Maslach, 1988 as cited in Houkes *et al.*, 2011; Lee & Ashforth, 1996 as cited in Houkes *et al.*, 2011; Taris *et al.*, 2005). Although this seems to be a saturated topic, an extensive search of local and international research databases (SABINET, Science Direct, EBSCOHost, Google Scholar, Google, Jstor, and Springer) revealed that possible moderators of the relationship between emotional exhaustion and depersonalisation have not been studied previously. This study therefore endeavoured to address this research gap by exploring possible moderators of the emotional exhaustion-depersonalisation relationship.

Previous burnout research has considered several different antecedents. One of the most popular antecedents of burnout is job demands (Montgomery, Panagopolou, & Benos, 2006). A common moderator of the relationship between job demands and burnout is social support (Cordes & Dougherty, 1993; Hendrix, Cantrell, & Steel, 1988; Salami, 2011; Yildirim, 2008). Social support does not only refer to support provided in the work environment (i.e., co-worker support) but also stretches to the home environment (i.e., support from friends and one's spouse). A study by Yildirim (2008) showed a significant relationship between both work (school principals' support) and personal (friend support) support in mitigating burnout in individuals. Just as social support outside of the work environment is relevant to burnout research, negative aspects outside of work should also be considered. By evaluating aspects such as stressful life events in burnout research, one can have a more holistic perspective of work strain from a work and non-work stressor perspective. The existing literature shows that stressful life events increase the chances of burnout occurring (Dyrbye *et al.*, 2006; Justice *et al.*, 1981; Mather *et al.*, 2014). However, no research has been done on the impact that stressful life events can have on the relationship between burnout dimensions.

Research on demographic differences in burnout and its underlying dimensions is very popular (Evans, Bryant, Owens and Koukos, 2004; Houkes *et al.*, 2011; Lim, Kim, Kim, Yang, & Lee 2010). One demographic difference which has been explored is ethnic

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differences in emotional exhaustion and depersonalisation (Evans *et al.*, 2004; Paladino *et al.*, 2005). South Africa consists of multicultural groups which result in a unique ethnic profile compared to other countries (Rothman & Barkhuizen, 2008). Although there are a number of South African studies which have reported ethnic differences in burnout research, ethnic differences in the relationship between burnout dimensions is a neglected topic (Coetzee & Rothmann, 2004; Mostert *et al.*, 2007; Gauche, 2006). This lack of research on the ethnic differences in the relationship between burnout dimensions in South Africa, is a research gap which was investigated in this study.

1.3 PURPOSE OF THIS STUDY

The core purpose of this study was to investigate the relationship between emotional exhaustion and depersonalisation, among career women. In other words, the purpose was to determine if emotional exhaustion is antecedent to depersonalisation. The study further explored if the antecedent relationship between emotional exhaustion and depersonalisation is influenced by stressful life events outside of work. Lastly, the study explored ethnic differences in the relationship between emotional exhaustion and depersonalisation.

1.4 RESEARCH OBJECTIVES

The study was guided by the following specific research objectives:

- To determine if a positive relationship exists between emotional exhaustion and depersonalisation among professional women.
- To determine if the relationship between emotional exhaustion and depersonalisation is moderated by stressful life events such that greater reports of stressful life events strengthen the positive relationship between emotional exhaustion and depersonalisation.
- To determine if depersonalisation is more common in women of certain South African ethnic groups than others.
- To determine if the strength and nature of the relationship between emotional exhaustion and depersonalisation differs between women of different ethnic groups in South Africa.

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1.5 ACADEMIC VALUE AND CONTRIBUTION OF THE STUDY

In terms of the knowledge contribution of this study, it addressed three key research gaps in the extant body of knowledge relating to burnout. First of all, the study added to the existing research on the relationship between different burnout dimensions by exploring different moderators in this relationship. Secondly, this study explored the untapped field of stressful life events as a moderating variable on the emotional exhaustion-depersonalisation relationship. This was a unique contribution in that previous research on stressful life events only focused on the relationship between burnout and other variables (Montgomery *et al.*, 2006), whereas this study looked at stressful life events within the relationship of different dimensions of burnout. Thirdly, this study added to the existing body of knowledge on ethnicity in relation to emotional exhaustion and depersonalisation. Although some previous studies report differences between ethnic groups with regards to burnout dimensions (Evans *et al.*, 2004; Paladino *et al.*, 2005), this study was unique due to its focus on ethnic differences in the relationship between emotional exhaustion and depersonalisation.

In terms of practical significance, the study aimed to provide organisations and managers with an increased understanding of burnout as well as its underlying dimensions (Cordes & Dougherty, 1993; Shih *et al.*, 2013). This could assist them in developing interventions to decrease and prevent burnout in the future. It is important to reduce burnout as it results in detrimental consequences. In particular, emotional exhaustion can lead to poor health, while depersonalisation can damage interpersonal relationships at work and decrease job satisfaction (Arabaci, 2010; Maslach, Schaufeli, & Leiter, 2001). Furthermore, new information on stressful life events can provide a more holistic view of what contributes to burnout in individuals, which will encourage organisations to also look at aspects outside of the work environment when designing interventions to address burnout. This study further aimed to add practical value by giving insight into which ethnic groups are at a higher risk for emotional exhaustion and depersonalisation. This will allow organisations to aim burnout interventions at the groups which require them the most.

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1.6 DELIMITATIONS

In the proposed study a number of delimitations exist with reference to the research context, population, sample, and constructs. The context was limited to South Africa due to the unique cultural nature of this particular country. All neighbouring countries within the African continent as well as any other international destinations did not form part of the scope of this study. The population was focused on career women and therefore no data on male participants was collected and no comparisons were made between the two genders. Furthermore, women who were not employed at the time of the study did not participate in this study. The sample of participants was drawn from career women within the university context and no other profession which existed outside of this context was considered.

The main construct under investigation was burnout which consists of three dimensions: emotional exhaustion, depersonalisation, reduced personal accomplishment. This study focused on the relationships between burnout dimensions and not on burnout in general. Of the burnout dimensions only two dimensions were considered: emotional exhaustion and depersonalisation. Therefore, reduced personal accomplishment did not form part of this study. Furthermore, stressful life events were considered as a moderator in the relationship between emotional exhaustion and depersonalisation. Other stress related events, such as work related stress, did not form part of this study. Finally, in terms of demographical differences only the ethnic background of participants was considered. Ethnicity in this particular study only stretched as far as racial differences (White, Black, Indian and Coloured). Ethnic differences pertaining to language and cultural aspects fell outside of the scope of this study. In addition, other demographic characteristics such as age, educational level, and position at the university was collected as part of the data collection, but were not hypothesised as influencing the variables under study.

1.7 DEFINITIONS OF KEY TERMS

Throughout the study a number of key constructs are used such as *burnout, burnout dimensions, emotional exhaustion, depersonalisation,* and *stressful life events*. These terms are defined as follows for the purpose of this study:

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Burnout: There are several definitions of burnout in the literature (See Section 2.1 and Table 1). Based on a review of the literature the following definition was developed for the purpose of this study: Burnout is the manifestation of emotional exhaustion, depersonalisation and decreased personal accomplishment in individuals who experience excessive emotional demands in their work environment.

Burnout dimensions: The most popular definition of burnout indicates that burnout consists of three dimensions: emotional exhaustion, depersonalisation and reduced personal accomplishment (Maslach & Jackson, 1981) (See Section 2.1.2). Emotional exhaustion and depersonalisation are the dimensions which will be assessed in this study.

Emotional Exhaustion: Emotional exhaustion can be defined as "feelings of being overextended and depleted of one's emotional and physical resources" (Maslach *et al.*, 2001, p. 399) (See Section 2.1.2).

Depersonalisation: Depersonalisation is a form of mental distancing characterised by "negative, callous, or excessively detached responses to various aspects of the job" (Maslach *et al.*, 2001, p. 399; Schaufeli, 2003) (See Section 2.1.2).

Stressful life events: In this study stressful life events are considered as a moderator in the relationship between emotional exhaustion and depersonalisation. Stressful life events can be defined as "events that force individuals to undergo social readjustments and demand that they cope and adapt to such readjustments" (Bhagat, 1983, p. 662) (See Section 2.5.1).

1.8 CHAPTER OUTLINE

The mini-dissertation consists of five chapters which are laid out as follows. **Chapter 1** provides an overview of the background, problem statement, purpose and objectives, academic value and contributions, delimitations, and definitions of key terms of the study. In **Chapter 2** the key constructs of the study are defined and discussed through a comprehensive review of existing literature. More specifically, burnout and its dimensions are discussed with specific reference to developmental models, gender, the higher

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education environment, stressful life events, and ethnicity. **Chapter 3** outlines the research design and methodology used in this study. This is followed by **Chapter 4** in which the findings of the study are reported based on the proposed hypotheses derived from the literature review. Finally, **Chapter 5** is the concluding chapter in which the research findings are discussed in detail and compared to existing literature on burnout, its dimensions, stressful life events and ethnicity. This is followed by a reflection on the limitations of the study, recommendations for future research, and a summary on whether the objectives of the study were met.

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CHAPTER 2: LITERATURE REVIEW

The chapter will provide detailed insight into the key constructs (burnout and stressful life events) and dimensions of a construct (emotional exhaustion and depersonalisation) in the study. These elements will first be discussed separately, after which a discussion of the previous literature on the interaction between the different burnout dimensions will be provided. This will be followed by research on burnout within the higher education context as well as a reflection on gender-specific experiences of burnout and burnout dimensions. Finally, stressful life events and ethnicity will be discussed as possible moderators of the relationship between burnout dimensions. The literature review will conclude with a brief summary. The proposed hypotheses which were explored in the study, will be presented throughout the literature review.

2.1 DEFINING BURNOUT

Burnout research started to gain traction in the 1970's in professions which main functions consisted of helping people (Maslach, Schaufeli, & Leiter, 2001; Cordes & Dougherty, 1993). Since its inception it has been broadly researched and has been applied across various contexts outside the helping profession as well. The burnout concept has several different definitions, as indicated in Table 1. A review of the different definitions revealed recurrent themes. First of all, burnout is characterised by exhaustion. Secondly, burnout contains underlying dimensions such as emotional exhaustion, depersonalisation, and professional efficacy. Finally, burnout is linked to extreme emotional demands. Based on the above themes a definition was developed for this specific study: Burnout is the manifestation of emotional exhaustion, depersonalisation and decreased personal accomplishment in individuals who experience excessive emotional demands in their work environment.

Table 1:

Summary of Burnout Definitions

Source	Definition
Maslach & Jackson, 1981, p.99	"a syndrome of emotional exhaustion, depersonalisation and reduced personal accomplishment that can occur among

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	individuals who do 'people work' of some kind"
Schaufeli, 2003, p.1	"a metaphor to describe a state or process of mental exhaustion"
Pines & Aronson, 1998 (as cited in Montgomery *et al.*, 2006, p.204)	"a state of physical, emotional and mental exhaustion caused by long-term involvement in situations that are emotionally demanding"
Maslach, Schaufeli, & Leiter, 2001	"The three key dimensions ... are an overwhelming exhaustion, feelings of cynicism and, detachment from the job, and a sense of ineffectiveness and lack of accomplishment"
Schaufeli & Enzmann, 1998 (as cited in Asiwe *et al.*, 2014)	"Burnout is defined as a persistent, negative, work-related state in normal individuals that is primarily characterised by exhaustion, which is accompanied by distress, a sense of reduced effectiveness, decreased motivation and the development of dysfunctional attitudes and behaviours at work"

2.1.1 Dimensions of Burnout:

The most popular definition of burnout indicates that burnout consists of three dimensions: emotional exhaustion, depersonalisation and reduced personal accomplishment (Maslach & Jackson, 1981). Emotional exhaustion is considered to be at the heart of burnout and is recognised as the most apparent form of burnout, typically characterised by a lack of energy (Maslach et al, 2001; Schaufeli, 2003). Emotional exhaustion can be defined as "feelings of being overextended and depleted of one's emotional and physical resources" (Maslach *et al.*, 2001, p. 399). The second burnout dimension is depersonalisation which is a form of mental distancing characterised by "negative, callous, or excessively detached responses to various aspects of the job" (Maslach *et al.*, 2001, p. 399; Schaufeli, 2003). Finally, reduced personal accomplishment refers to "feelings of incompetence and a lack of achievement and productivity at work" (Maslach *et al.*, 2001, p.399)

However, since the inception of the burnout concept there has been a lot of debate on the above-mentioned dimension structure. The different proposals on the burnout factor

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structure range between a two-, three-, and four-factor model. The two-factor model combines depersonalisation and emotional exhaustion into a single factor and proposes engagement as the second factor (Schaufeli & Bakker, 2004). In terms of three-factor structures there are variations on the original three-factor structure such as the confirmed factor model in a study by Asiwe *et al.* (2014) which presented cognitive wariness, fatigue, and emotional exhaustion as the dimensions of burnout. Finally, the four-factor structure accepts the three dimensions as indicated by Maslach and Jackson (1981), but adds cynicism as an additional dimension of burnout (Salanova *et al.*, 2005; Simbula & Guglielmie, 2010).

For the purpose of this study the original dimension structure as stipulated in the Maslach and Jackson (1998) definition was used (emotional exhaustion, depersonalisation, reduced personal accomplishment) as measured by the MBI-GS (Maslach Burnout Inventory - General Survey). This structure is deemed suitable for the higher education context in which the study is performed (Schaufeli, Leiter, Maslach, & Jackson, 1996). Although reduced personal accomplishment is recognised as a dimension of burnout it was not included in this study outside of a brief discussion in developmental models of burnout below. The focus was on the core dimensions of burnout as identified by Schaufeli (2003): emotional exhaustion and depersonalisation.

2.2 DEVELOPMENTAL MODELS OF BURNOUT

There has been a lot of debate on the developmental order of the different burnout dimensions (Houkes *et al.*, 2011). One point of view states that no causal relationship exists between burnout dimensions (Adekola, 2010). On the other hand, a review by Taris, Le Blanc, Schaufeli, and Schreurs (2005), revealed three existing theories of burnout development. First of all, Golembiewski *et al.* (1986 as cited in Houkes *et al.*, 2011) postulates that depersonalisation is the first phase of burnout which is followed by emotional exhaustion. The second model supports the opposite in stating that emotional exhaustion appears first due to increased job demands, which is then followed by depersonalisation and decreased personal accomplishment (Leiter & Maslach, 1988 as cited in Houkes *et al.*, 2011). Finally, the third model by Lee and Ashforth (1996 as cited in Houkes *et al.*, 2011) also supports the notion of depersonalisation developing from

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emotional exhaustion, however personal accomplishment flows from emotional exhaustion in this model.

The causal model of depersonalisation developing from emotional exhaustion seems to be the most widely accepted in the literature (Houkes *et al.*, 2011; Maslach, Schaufeli, Leiter, 2001; Shih *et al.*, 2013; Taris *et al.*, 2005). This relationship has specifically been confirmed for female General Practitioners in a study by Houkes *et al.* (2011). The nature of the emotional exhaustion-depersonalisation relationship can possibly be explained by Hobfoll's conservation of resources (COR) theory. "According to COR theory, resource loss is the primary operating mechanism driving stress reactions" (Hobfoll, Johnson, Ennis, & Jackson, 2003, p. 632). As discussed previously emotional exhaustion is the "feelings of being overextended and depleted of one's emotional and physical resources" (Maslach *et al.*, 2001, p. 399). Therefore, the loss of physical and emotional resources can lead to emotional exhaustion. Furthermore, this theory states that resource losses have a greater impact than resource gains (Hobfoll *et al.*, 2003; Ito & Brotheridge, 2003). Therefore, it is particularly difficult to counter the impact of resource losses. According to Ito and Brotheridge (2003), individuals who have experienced resource losses tend to withdraw from activities which will potentially expose them to further resources losses, such as conflict situations. These situations will be avoided even if it has the potential to have a positive end result. Therefore, individuals with increased emotional exhaustion could have detached responses towards other individuals which in essence represents depersonalisation in Maslach *et al.*'s (2001) definition. As a result, increased emotional exhaustion leads to depersonalisation as the individual does not have the resources to effectively address other people. This relationship was further explored in the current study in two ways. First of all, the study aimed to establish if this model is relevant for a different sample of women outside of the General Practitioner context which will be discussed in Section 6.3. Secondly, the relationship was explored through adding specific moderators (stressful life events and ethnicity) to the equation, which will be discussed later in the literature review.

2.3 BURNOUT RESEARCH IN HIGHER EDUCATION

Burnout has been widely researched in higher education institutions (Adekola, 2010; Coetzee & Rothman, 2004; Hogan & McKnight, 2007; Pienaar & Sieberhagen, 2005;

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Rothman & Barkhuizen, 2008; Salami, 2011). The prevalence of burnout studies in this context could be due to the stressful nature of the higher education environment caused by increasing demands, difficult students, insufficient resources, and financial strain (Rothman & Barkhuizen, 2008; Salami, 2011). From the wide body of research in this context, several different antecedents of burnout in university contexts have been identified. These antecedents include: job stress, job demands, overload, poor communication, and lack of resources (Pienaar & Sieberhagen, 2005; Salami, 2011). Certain antecedents have been linked to specific burnout dimensions such as job demands to depersonalisation in particular, while overload was positively related to emotional exhaustion (Pienaar & Sieberhagen, 2005).

Further factors which influence burnout levels in higher education institutions are demographical variables such as age. A study by Rothman and Barkhuizen (2008) provides empirical evidence that younger academics experience more emotional exhaustion than older academics. However, Coetzee and Rothman (2004) counter these finding by stating that older, more experienced academics are more prone to emotional exhaustion. The body of knowledge on burnout in higher education also highlights certain factors which lessen burnout in higher education institutions. According to Salami (2011), social support can act as a buffer in the job stress-burnout relationship.

Although the body of research on burnout in higher education institutions is quite saturated, research on developmental models of burnout in this context is scarce. Therefore, this study focused on testing the relationship between emotional exhaustion and depersonalisation in higher education institutions.

2.4 GENDER AND BURNOUT RESEARCH

The existing literature reveals important differences in burnout between genders. First of all, women tend to experience more burnout than men (Hogan & McKnight, 2007; Purvanova & Muros, 2010). Secondly, gender differences exist in the experience of burnout dimensions in that women tend to experience more emotional exhaustion, while men are more likely to exhibit depersonalisation behaviour (Houkes *et al.*, 2011; Purvanova & Muros, 2010). Furthermore, the manifestation of burnout is different for men and women (Houkes *et al.*, 2011). For women, emotional exhaustion is the first phase of burnout which then gives way to depersonalisation. On the contrary, men exhibit

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depersonalisation first. These differences can be attributed to typical gender socialisation, which indicates that men tend to cope through depersonalisation due to being more aggressive and independent while women have a more emotional-focused coping style due to attributes of tenderness and kindness (Adekola, 2010; Houkes *et al.*, 2011). Therefore, the developmental model of Leister and Maslach (1988 as cited in Houkes *et al.*, 2011) is specifically applicable to women. This particular developmental model of burnout for women as well as their particular higher level of burnout gives rise to this study's focus on women only.

Based on a review of the literature on the development models of burnout, burnout in higher education institutions, and gender and burnout, the following hypothesis was developed:

> H1: There is a positive relationship between emotional exhaustion and depersonalisation for professional women.

2.5 ANTECEDENTS AND MODERATORS IN BURNOUT RESEARCH

As mentioned, there are several antecedents to burnout. Job demands, job conflict, role ambiguity, and job stress are popular antecedents in the burnout literature (Salami, 2011; Spooner-Lane & Patton, 2007; Metin, 2010; Mirvis, Graney, Ingram, Tang & Kilpatrick, 2006; Montgomery *et al.*, 2006; Pretorius, 2007; Zhang & Zhu, 2007). On the other hand, variables such as gender, age, and social support have been considered as moderators in burnout relationships with the above mentioned antecedents (Adekola, 2010; Cordes & Dougherty, 1993; Coetzee & Rothmann, 2004; Evans, Bryant, Owens and Koukos, 2004; Lim, Kim, Kim, Yang, & Lee, 2010). In this section, stressful life events and ethnicity will be discussed as possible moderators in the emotional exhaustion-depersonalisation relationship. Both stressful life events and ethnicity have been considered in burnout research previously but not in the relationship between different burnout dimensions.

2.5.1 Stressful life events

Stressful life events can be defined as "events that force individuals to undergo social readjustments and demand that they cope and adapt to such readjustments" (Bhagat,

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1983, p. 662). There are several factors that are proposed as stressful life events in the literature such as serious illnesses or injuries, divorce or separation, relocation, having children, a death in the family, and various forms of assault, robberies and other traumatic events (Bhagat, 1983; Dyrbye *et al.*, 2006; Goodman, Corcoran, Turner, Yuan, & Green, 1998; Kessler & McLeod, 1984). According to Bhagat (1983) and Hobson, Delunas and Kesic (2001), certain events are more stressful than others (i.e., a spouse passing away versus relocating for a job) and can result in serious adverse effects.

In previous research the adverse effects of stressful life events were largely discussed in relation to their impact on illnesses and psychological disorders (Bhagat, 1983; Dyrbye *et al.*, 2006). However, a stream of research which focused on the work context has revealed that stressful life events can have an adverse impact on the individual's work behaviour as well (Bhagat, 1983; Dyrbye *et al.*, 2006; Justice, Gold, & Klein, 1981; Mather, Blom, & Svedberg, 2014). This impact can include a lack of work engagement, decreased performance, lower levels of job satisfaction and overall decreased work effectiveness, which in turn can result in employee turnover, absenteeism, and tardiness (Bhagat, 1983).

Stressful life events have been linked to burnout in previous studies (Brattberg, 2006; Dyrbye *et al.*, 2006; Justice *et al.*, 1981; Mather *et al.*, 2014; Plieger *et al.*, 2015). According to a study by Justice *et al.* (1981), counsellors and social workers were more likely to experience burnout at work if they were exposed to more instances of stressful life events. This result was consistent with two other samples (medical students and Swedish twins) where the increase in negative life events also increased the prevalence of burnout (Dyrbye *et al.*, 2006; Mather *et al.*, 2014). In addition to this, stressful life events can also strengthen the level of burnout experienced as well as the resulting negative consequences (Justice *et al.*, 1981). Finally, certain traumatic stressful life events such as sexual assault, human suffering, and major illnesses show stronger positive correlations with burnout than others (Brattberg, 2006; Dyrbye *et al.*, 2006). Based on the above-mentioned results, stressful life events can be considered as an important variable in burnout research which is worth exploring further.

One aspect of the stressful life events/burnout relationship which still needs to be explored is the relationship between stressful life events and the different burnout dimension. A review of the literature reveals a single study by Plieger *et al.* (2015) which considers burnout dimensions and stressful life events. A positive relationship between

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stressful life events and emotional exhaustion was revealed. However, no significant relationship was found between stressful life events and depersonalisation. It should however be considered that depersonalisation could be influence by stressful life events through emotional exhaustion, due to the causal path between the two burnout dimensions (Houkes *et al.*, 2011). In other words, stressful life events can act as a moderator which could strengthen the relationship between emotional exhaustion and depersonalisation. This moderating effect can once again be explained by Hobfoll's COR theory. According to Hobfoll *et al.* (2003), the occurrence of stressful life events result in a loss of personal and emotional resources. This is problematical as Individuals will need to use personal and emotional resources in order to deal with stressful life events which further depletes these resources. Therefore, the more stressful life events occur the more resources are depleted and the higher the level of emotional exhaustion experienced (Maslach *et al.*, 2001). This then result in higher levels of depersonalisation as the individual does not have the necessary resources to effectively interact with other people. This study explored this relationship through the following hypothesis:

> H2: The relationship between emotional exhaustion and depersonalisation will be moderated by stressful life events such that an increase in stressful life events will strengthen the positive relationship between emotional exhaustion and depersonalisation.

2.5.2. Ethnicity

Similar to gender differences in burnout as indicated in section 2.4, other demographic characteristics such as ethnicity can also play a role in the experience of burnout (Cordes & Dougherty, 1993; Schaufeli, 2003). A study by Evans *et al.* (2004) showed that African-American childcare professionals were more prone to emotional exhaustion and depersonalisation than Caucasian childcare professionals. This result was echoed in a sample of resident assistants, where Caucasians were less likely to exhibit depersonalisation compared to resident assistants of colour (Paladino *et al.*, 2005). These differences in the burnout dimensions were attributed to feelings of isolation by non-Caucasian individuals due to being a minority in a mostly Caucasian environment (Paladino *et al.*, 2005).

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Ethnic differences are of specific interest in the South African context, which boasts a unique multicultural composition (Rothman & Barkhuizen, 2008). This unique composition gave rise to several South African-based burnout studies with specific reference to the assessment of burnout among different racial and language groups (Asiwe, Jorgensen, & Hill, 2014; Coetzee & Rothman, 2004; Jackson & Rothman, 2005; Mostert, Pienaar, Gauche, & Jackson, 2007; Gauche, 2006; Rothman & Barkhuizen, 2008; Storm & Rothman, 2003). The aim of the studies was mainly to determine the psychometric properties of the international measures of burnout such as the MBI (Maslach Burnout Inventory) on a South African sample. The results of the studies showed that the MBI is a sound measure of burnout which is reliable and valid across different language and racial groups in the South African context (Asiwe, Jorgensen, & Hill, 2014; Jackson & Rothman, 2005; Rothman & Barkhuizen, 2008; Storm & Rothman, 2003).

In addition to the psychometric properties of burnout measures among different groups, other studies have revealed differences between language and cultural groups in relation to burnout. A study by Mostert *et al.* (2007), showed that Afrikaans-speaking individuals were more prone to burnout than Setswana-speaking individuals in a university student sample. This was supported by results from Coetzee and Rothman (2004), which indicated that English and Afrikaans individuals experienced more burnout than individuals from African language groups. Furthermore, Afrikaans-speaking students also showed higher levels of emotional exhaustion and depersonalisation than their Setswana- and Sesotho-speaking counterparts (Gauche, 2006). Therefore, White (Afrikaans) individuals tend to exhibit a higher prevalence of burnout than Black (Setswana and Sesotho) individuals. This could be due to White South Africans more masculine cultural values (e.g., an individual focus on career and achievement) as compared to Black cultural groups, who have been ascribed more feminine cultural values (e.g., lower power distance) (Schaufeli, 2003). These findings contradict that of a study by Evans *et al.* (2004) and Paladino *et al.* (2005) conducted in the United States, which showed higher levels of emotional exhaustion and depersonalisation in Black individuals as compared to White individuals. This difference might be due to the contextual differences between South Africa and the United States. One such difference is that White individuals are a minority in South Africa while Black individuals are a minority in the United States (Coetzee & Rothman, 2004; Paladino *et al.*, 2005).

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As indicted previously, burnout experiences and the causal ordering of the burnout dimensions can differ across certain demographic factors such as gender. It is therefore worthwhile to determine if the burnout is experienced the same way across different South African ethnic groups as well. Based on a review of the South African burnout literature, there are no existing studies which compare burnout dimensions for different ethnic groups. Due to burnout being more prevalent among White individuals, it could be suggested that White individuals are more prone to experience depersonalisation as a result of increased emotional exhaustion. Furthermore, the higher prevalence of burnout in White individuals could indicate a stronger relationship between the path model of emotional exhaustion and depersonalisation for White individuals as compared to Black individuals. The cultural differences in burnout can possibly be explained by Hofstede's (1980) dimensions of cultural work values. The White South African has more individualist and masculine cultural values (Thomas & Bendixen, 2000). Similarly, Coloured South Africans also lean more to the individualistic side of the Hofstede dimension (Van Dyk & De Kock, 2004). On the other hand, Black individuals tend to hold more feminine and collectivist cultural values (Mangaliso & Damane, 2001; Thomas & Bendixen, 2000). It is therefore also possible that Black individuals experience less burnout due to their collectivist values as they have access to more resources and social support to deal with burnout and stressful life events. The same can be said for Indian individuals. According to Eaton and Louw (2000), Indian people also fall into the collectivist category of the Hofstede dimensions. Therefore, the following hypotheses were developed:

H3: White and Coloured women are more likely to experience depersonalisation than Black and Indian women in a South African context.

H4: The relationship between emotional exhaustion and depersonalisation will be stronger for White and Coloured women as compared to Black and Indian women in a South African context.

2.6 CONCLUSION

The above literature review provided evidence of various relations between burnout dimensions. This study focused on depersonalisation developing from emotional

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exhaustion which is particularly applicable to women (Houkes *et al.*, 2011). The emotional exhaustion-depersonalisation relationship was explored further in this study by considering different moderators of this relationship for female individuals in a higher education context. Furthermore, previous research revealed a positive relationship between stressful life events and burnout (Dyrbye *et al.*, 2006; Justice *et al.*, 1981; Mather *et al.*, 2014). However, research on stressful life events as a moderator in the relationship between specific burnout dimensions (emotional exhaustion and depersonalisation) has not been examined. This study therefore endeavoured to explore this untapped area in burnout research. Lastly, the literature supports the notion that ethnic groups may differ in terms of levels of burnout as well as their experience of the different burnout dimensions (Coetzee & Rothmann, 2004; Mostert *et al.*, 2007; Gauche, 2006). This is of particular interest in the South African context which boasts a multicultural composition (Rothman & Barkhuizen, 2008). Although evidence exists of ethnic differences in burnout, their effect on the relationship between burnout dimensions has not been explored previously. This study specifically focused on ethnic groups in the South African context and how they differ in terms of the emotional exhaustion-depersonalisation relationship.

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CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

This chapter outlines the scientific research methodology followed in order to test the proposed hypotheses of the study. First of all, the research paradigm that underpins this study is discussed. This is followed by a description of the strategy of inquiry and research design. The methodology is further discussed with regards to the sampling strategy, data collection methods, and the statistical analysis procedures used. Finally, the measures taken to ensure the quality and rigour of the results are discussed, followed by a description of the ethical aspects considered throughout the study.

3.1 RESEARCH PARADIGM / PHILOSOPHY

According to Terre Blanche (2006), paradigms can be defined as "all-encompassing systems of interrelated practice and thinking that define for researchers the nature of their enquiry along three dimensions: ontology, epistemology, and methodology" (p. 6). In addition to the above dimensions, Saunders, Lewis and Thornhill (2009) include axiology as the fourth dimension of a research paradigm. Ontology refers to the "specific nature of reality" under investigation (Terre Blanche, 2006, p. 6). Epistemology refers to "the nature of the relationship between the researcher and what can be known" (Terre Blanche, 2006, p. 6). Methodology indicates "how researchers may go about practically studying whatever they believe can be known" (Terre Blanche, 2006, p. 6). Finally, axiology refers to the researcher's values and how they approach the ethical behaviour when it comes to social inquiry (Killam, 2016; Saunders *et al.*, 2009). Based on the above definitions research paradigms can be seen as the "fundamental models or frames of reference we use to organise our observations and reasoning" (Babbie, 2008, p. 34). In other words, a paradigm encapsulates the way a person views social reality (Babbie, 2008; Saunders *et al.*, 2009). Paradigms are critical in research as they provide a framework that researchers can use to understand behaviour (Babbie, 2008). Furthermore, the chosen research paradigm will guide the research strategy and methods used in the research study (Saunders *et al.*, 2009).

The research paradigm guiding this study was post-positivism. According to Killam (2016) this paradigm shares several similarities with the positivist paradigm, however there are some clear differences between the two. In essence, the post-positivist paradigm

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developed as a response to some of the weaknesses of the positivist paradigm (Guba & Lincoln, 1994; Killam, 2016; Voros, 2006). Table 2 depicts a summary of the ontological, epistemological, axiological and methodological assumptions of the post-positivist research paradigm. From an ontological perspective, post-positivists believe that the nature of reality is external and can only be imperfectly known (Guba & Lincoln, 1994; Voros, 2006). The epistemology of the post-positivist paradigm differs from that of the positivist. Although the ideal is still for the researcher to remain objective, post-positivists see this as an impossible ideal (Guba & Lincoln, 1994; Killam, 2016). In terms of methodology, post-positivists attempt to disprove or falsify hypotheses, as opposed to positivists who attempt to prove that hypothesis are true (Killam, 2016; Voros, 2006). Therefore, various methods, including quantitative and quantitative methods, are used in order to prove that a hypothesis is not supported (Killam, 2016; Voros, 2006). The post-positivist researcher, also attempts to obtain data from more natural settings (Guba & Lincoln, 1994). Finally, the axiology of post-positivism, postulates that "propositional knowledge is an end in itself" (Voros, 2006, p. 7). In addition, there is a great emphasis on quality of research and beneficence (Killam, 2016).

Table 2:

Post-positivist assumptions derived from Guba and Lincoln (1994, p. 110) and Voros (2016, p. 7).

Dimension	Post-positivist approach
Ontology	Critical Realism
Epistemology	Modified dualist/objectivist
Axiology	Postulation of knowledge is an end in itself. Researcher is value-free
Methodology	Modified experimental/manipulative.

Although post-positivism addresses some of the criticism from the positivist paradigm (Guba & Lincoln, 1994; Killam, 2016; Voros, 2006), it has its own flaws. The main criticism of post-positivist research, is that even though it attempts to falsify hypotheses and rejects the notion of a single truth, it still considers objective assumptions about social phenomena as the ideal (Guba & Lincoln, 1994; Killam, 2016; Mack, 2010). Post-positivist attempts to achieve this ideal by applying extra care when making theoretical or empirical assumptions (Miller, 2000). However, even by being overly critical of theories and by conducting quality

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research (Killam, 2016; Mack, 2000), the researcher cannot remove his or her own objectivity and social nature from the study. Another criticism of the post-positivist paradigm is its reductionist nature (Creswell, 2003; Mack, 2000). According to Creswell (2003), it attempts to break theories down into smaller, simplistic ideas. This is contradictory to the complex nature of social science, which consists of multiple interpretations due to the different realities people hold (Mack, 2000). Therefore, when studying social phenomena through a post-positivist approach, several elements that could influence the results are not considered (Mack, 2000).

In spite of the above criticism, the post-positivist approach was deemed appropriate for this study. According to Creswell (2003) and Miller (2000), post-positivists attempt to find a causal relationship in the social context. This is in line with the aim of this study which was to establish ordered relationships between variables. In post-positivist research this is done by breaking theories down into smaller parts to be assessed (Creswell, 2003). In this study this was achieved by consulting existing literature and theory and breaking it down into specific hypotheses regarding relationships between variables and depersonalisation (Creswell, 2003; Saunders *et al.,* 2009). Finally, the aim of the research was to generalise the results to a larger population, which is supported by the epistemological framework of the post-positivist paradigm (Ponterotto, 2005).

3.2 DESCRIPTION OF INQUIRY STRATEGY AND BROAD RESEARCH DESIGN

According to Ponterotto (2005), post-positivism together with positivism “serves as the primary foundation and anchor of quantitative research” (p. 129). Therefore, this study followed a quantitative strategy of inquiry. Quantitative research is a deductive approach which is characterised by the collection and analysis of numerical data (Evans, 2007; Saunders *et al.*, 2009; Terre Blanche *et al.*, 2006). Numerical data is obtained through the use of quantitative measures designed to explain the variables under investigation (Terre Blanche *et al.*, 2006). Furthermore, quantitative research enables the researcher to make generalisations and comparisons between different groups of individuals with regard to specific variables and hypotheses (Evans, 2007; Terre Blanche *et al.*, 2006). The quantitative strategy of inquiry was therefore appropriate for this study as it consisted of empirical research where primary quantitative data was collected from research participants in the Economic and Management Sciences Faculty at the University of

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Pretoria. The aim of the study was to explain the relationship between different variables and to generalise the relationship to a larger population as well as compare the results between different cultural groups (Terre Blanche *et al.*, 2006). In addition, several previous studies on burnout and burnout dimensions have also leveraged this approach, which indicates that it has been deemed an appropriate approach for the topic at hand (Dyrbye, 2006; Evans, 2004; Houkes *et al.*, 2011; Justice, 1981; Mather, 2014).

In addition to its empirical quantitative nature, the research design of this study can further be classified as follows:

Applied: “Applied research aims to contribute towards practical issues of problem solving, decision making, policy analysis, and community development” (Babbie, 2008). This study consisted of an applied approach as the results can be used to assist organisations in addressing burnout by understanding this phenomenon and its dimensions better. This research can assist organisations in making decisions regarding policies to address burnout.

Explanatory – In explanatory research the main aim is to determine a relationship between variables (Saunders *et al.*, 2009). The explanatory approach was most appropriate for the study as it aimed to establish a relationship between the two variables of emotional exhaustion and depersonalisation through statistical analysis.

Survey - A survey research strategy was used. This is the most appropriate approach for explanatory research as it can be used to explain the relationship between variables (Saunders *et al.*, 2009). In particular, a self-administered structured electronic questionnaire was used to collect data. The data were analysed through descriptive and inferential statistics in order to determine relationships between the variables (Saunders, et el., 2009).

Cross-sectional research – Cross-sectional research involves the study of a "particular phenomenon (phenomena) at a particular time" (Saunders *et al.*, 2009, p. 155). This study was cross-sectional in nature as data were collected at one point in time via an electronic survey. There will be no follow-up survey at another point in time. The cross-sectional approach is popular and appropriate for a survey strategy (Saunders *et al.*, 2009). Furthermore, according to Babbie (2008), cross-sectional designs are widely used in explanatory studies as well. It should be noted that explanatory cross-sectional research designs have been criticised as they aim to establish a causal relationship which exists over time and not at a single point in time (Babbie, 2008). Therefore, it is difficult to

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generalise the results to other situations if this only represents a single point in time. This study did not aim to make causal assumptions, but rather focused on expanding the body of knowledge by explaining the relationship between different variables.

3.3 SAMPLING

The unit of analysis in this study referred to individuals and in particular career women. Individual women were selected as the unit of analysis as women tend to take on the primary responsibility in the home environment, which subsequently results in increased demands in a work and personal context (Adekola, 2010; Evans *et al.*, 2004). In this study, the target population was career women in the South African context. The study was limited to the South African context due to its unique cultural composition (Rothman & Barkhuizen, 2008). The sample for this particular study was drawn from the entire population of professional women at the University of Pretoria working in the Faculty of Economic and Management Sciences. The university context was selected based on the stressful nature of work in higher education institutions (Rothman & Barkhuizen, 2008; Salami, 2011). Furthermore, the University of Pretoria and the Faculty of Economic and Management Sciences is the home faculty of the researcher and research supervisor, which facilitated ease of access to participants.

Participants were selected on the following basis. In order to be eligible the participant had to be a full-time employee working in the Faculty of Economic and Management Sciences at the University of Pretoria for at least three months. Furthermore, the individual had to be female. A list of all current employees who met the above criteria was obtained from the Dean of the Faculty and served as the sampling frame for the study. It should however be considered that the database from the Dean could have been out of date which could have resulted in an incomplete sampling frame (Saunders *et al.*, 2009). Therefore, to ensure accuracy of the sampling frame, the list of employees was cross-referenced with the HR/Payroll list of staff. The sampling frame consisted of 171 individuals. According to Bartlett, Kotrlik, and Higgins (2001), when conducting multiple regression analysis, the sample size is determined by a ratio of observations to independent variables used in the study. The optimal ratio is ten observations per independent variable (Halinski, Ronald, & Feldt, 1970). In this particular study a total of nine independent variables were included in the hierarchical multiple regression analysis

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for Hypothesis 2. Therefore, the researcher aimed to draw a sample of 90 participants to participate in the study. Since data were gathered from the entire population of Economic and Management Sciences female employees at the University of Pretoria, no specific sampling technique was used. In other words, the questionnaire was distributed to the entire sampling frame.

The limitations pertaining to the sample of this study were that participants only came from one specific context. Therefore, the results may not be generalisable to career women who do not work in the university context. According to Saunders *et al.* (2009), one should not generalise findings of a particular study beyond the sampling frame of the study. Therefore, it may not be advisable to generalise the findings of the study beyond the higher education context. A further risk is the fact that a 100% response rate from the selected population was not possible (Saunders *et al.*, 2009). Therefore, at least a sample of 90 participants who are representative of the population should complete the questionnaire in order to meet the requirements for hierarchical multiple regression analysis, and to generalize findings to the higher education context (Bartlett *et al.*, 2001; Halinski *et al.*, 1970).

3.4 PARTICIPANTS

Electronic online surveys were distributed via email to all 171 female employees at the Faculty of Economic and Management Sciences at the University of Pretoria. Eight of the emails that were sent out failed, and out of the remaining 163, a final sample size of 31 valid responses was obtained. This equated to an 18% response rate. The characteristics in terms of race, age, number of children and hours worked per week of all participants are presented in Table 3.

***Table 3**:*

Characteristics of Participants (*N* = 31)

Item	Category	Frequency	Percentage
Race	White	25	80.65
	Black	2	6.45
	Indian	2	6.45
	Coloured	2	6.45

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Age	25-30	4	12.90
	31-40	7	22.58
	41-50	13	41.94
	51-60	7	22.58
Number of Children	0	8	25.81
	1	6	19.35
	2	9	29.03
	3	7	22.58
	4	1	3.23
Hours worked per week	8	1	3.23
	12	1	3.23
	30	1	3.23
	35	1	3.23
	40	16	51.61
	42.5	1	3.23
	45	1	3.23
	50	6	19.35
	60	1	3.23
	80	1	3.23
	A lot	1	3.23

In terms of race, the majority of the participants, 80%, were White individuals *N* = 25), followed by equal numbers of Indian (*N* = 2), Coloured (*N* = 2) and Black (*N* = 2) individuals accounting for 6.45% each.

The ages of the participants varied from 27 to 60 years old, of which 12.9% were between the age of 25 and 30 (*N* = 4), and 22.58% ranged between the age of 31 and 40 years (*N* = 7). The majority of the participants fell in the 41 to 50 years' age range (*N* = 13), while 22.58% were between the age of 51 and 60 (*N* = 7).

When examining the number of children each participant had, responses ranged from having zero to four children, of which 25.81% of the participants indicated that they did not have any children (*N* = 8). Whereas, 19.35% had one child (*N* = 6), 29.03% had two children (*N* = 9), and 22.58% had three children (*N* = 7). Only 3.23% of the participants had four children (*N* = 1).

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The final characteristic explored was the number of hours that participants worked per week. Participants' responses ranged from a minimum of eight hours to a maximum of 80, while one respondent wrote in the response option of "A lot" (3.23%). Of the 31 participants the majority worked 40 hours a week (51.61%; *N* = 16). 6 respondents indicated that they normally work 50 hours a week (19.35%). All the other categories received only one response each accounting for 3.23% of the participants per category.

3.5 DATA COLLECTION

Primary data were collected from women working in the Economic and Management Sciences faculty at the University of Pretoria. The contact details of the participants were obtained from the Dean of the Faculty. The data were obtained through the use of a self-administered electronic web-based survey. The survey was aimed at collecting primary data from the research participants through the use of a structured questionnaire. According to Saunders *et al.* (2009), questionnaires are appropriate for explanatory research where the main aim is to establish relationships between variables, which makes it suitable for this study. However, self-administered questionnaires hold some risk for contamination as there is no control over the participant who might discuss their answers to the questionnaire with other parties (Saunders *et al.*, 2009).

The data were collected by a professor within the faculty who was conducting a study on a similar topic. The questionnaire for the study was a portion of the full questionnaire sent out by the professor. Each participant took approximately 30 minutes to complete the full questionnaire. By sending the survey link in an email, the researcher increased the likelihood that the survey was completed by the individual receiving the email, thereby increasing the accuracy of results (Witmer *et al.*, 1999 as cited in Saunders *et al.*, 2009). Reminder emails were sent out to all participants and a sufficient response time of two months was allowed before the survey was closed (Saunders *et al.*, 2009).

There are certain aspects which could have interfered with obtaining the research data. First of all, participants were requested by email to participate via an online survey tool. It is possible that this email might not have been opened by the individual. It is also possible that the potential participants may not have been familiar with the online survey software and therefore were unable to complete it. To prevent this from happening a pre-survey email was sent out to all participants to make them aware of the study beforehand

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(Saunders *et al.*, 2009). A further aspect which could have inhibited participants to complete the questionnaire was the personal nature of the stressful life events checklist.

In order to obtain the data for this study, a number of special requirements needed to be met. First of all, each participant required access to a computer as well as an email address to have access to the questionnaire. Furthermore, the participant needed access to the Internet in order to complete the questionnaire online. Due to the nature of the participants' jobs they should all have had access to a computer, Internet and their university email address at the Faculty. The participants were also required to possess a level of computer literacy that would enable them to complete the questionnaire on the Qualtrics software. Qualtrics is a survey tool that is widely used at the University of Pretoria to collect research data; therefore, most participants should have been able to use this tool and successfully complete the questionnaire.

There were three constructs that formed part of this study: emotional exhaustion, depersonalisation and stressful life events. In addition, certain demographic details were considered as moderators in this study: ethnicity. The measurement instruments to assess the above constructs and variables will now be discussed. In addition, the questionnaire used in the study is provided in Appendix B.

First of all, the study included a demographic component. This included questions that required participants to identify details pertaining to their home department at the University of Pretoria, length of service, job title, nature of employment, gender, home language, and ethnicity. Participants were asked to select the description which closely matched their personal characteristics, or to type out their response where required.

Emotional exhaustion was assessed through the use of the Maslach Burnout Inventory General survey (Schaufeli, Leiter, Maslach, & Jackson, 1996) which measures the three dimensions of burnout: emotional exhaustion, depersonalisation, and personal accomplishment. Only the emotional exhaustion subscale of the inventory was used in this case. The emotional exhaustion scale consists of seven items which participants respond to by rating statements in terms of a frequency scale ranging from never (0) to every day (6). An example of one of the statements is: "I feel emotionally drained from my work". The emotional exhaustion scale shows sufficient internal consistency with a Cronbach’s Alpha above 0.7 (Van der Colff & Rothmann, 2009). To be more specific, Leiter and Schaufeli (1996) reported Cronbach’s Alphas between 0.84 and 0.90. The Cronbach's Alpha for the current study is consistent with Leiter and Schaufeli's (1996) findings, with a value of .91

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Depersonalisation was also assessed through the use of the Maslach Burnout Inventory general survey (Schaufeli *et al.*, 1996). However, in this case, only the depersonalisation subscale was utilised. The depersonalisation subscale consists of five items which participants rate in terms of frequency (0 - never to 6 - every day). One of the items in the depersonalisation scale is: "I feel I treat some people as if they were impersonal objects". A sufficient internal consistency of 0.79 for the depersonalisation scale was reported in Maslach and Jackson (1986, as cited in Jackson & Rothmann, 2005). This was supported by Leiter and Schaufeli (1996) who found a Cronbach's Alpha of between 0.74 and 0.84. The Cronbach's Alpha for the depersonalisation scale in this particular study was 0.825, which is in line with Leiter and Schaufeli's (1996) results.

Stressful life events. Previous studies which assessed the extent to which respondents experience stressful life events have drawn on different methods ranging from open-ended questionnaires, structured checklists, existing measures, interview based data collection, or a combination of different methods (Booker, Gallaher, Unger, Ritt-Olsen, & Johnson, 2004; Costello & Devins, 1988; Raphael, Cloitre & Dohrenwend, 1991; Hjembdal, Friborg, & Stiles, 2012; Work, Parker & Cowen, 1990). For the purpose of this study, a structured checklist consisting of 12 items by Brugha and Cragg (1990) was used. Some of the items included in the checklist were: "Did you suffer a non-work related serious illness, injury or assault?", "Did a serious illness, injury or assault happen to a close relative?". The checklist was included in the electronic based survey. A participant's score was calculated by summing all items which the participant responded yes to into a single combined stressful life events score out of 12. The closer the score to 12, the higher the prevalence of stressful life events. The internal consistency of this scale was not assessed by calculating a Cronbach's Alpha, as this was an index. Therefore, there is no expectation that any participant will respond yes to all or none of the events. The expectation is that responses will vary.

3.6 DATA ANALYSIS

All data obtained from the data collection phases were drawn from the Qualtrics online software and imported into the SPSS software in order to perform statistical analyses. Initially, descriptive statistics were obtained to describe the three variables--stressful life events, emotional exhaustion and depersonalisation--in terms of means and standard

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deviations. Descriptive statistics were also obtained for Black, White, Indian and Coloured participants independently.

In addition to descriptive statistics, correlation coefficients were used to determine the zero-order relationships between emotional exhaustion, depersonalisation and stressful life events. For the purpose of this study the level of statistical significance was set at 95% with $p<0.05$. The practical significance of the correlation was determined through the use of effect sizes (Schuele & Justice, 2006). The three effect sizes indicated the strength of the correlation as follows $r>0.10$ (small effect), $r>0.30$ (medium effect), $r>0.50$ (large effect). For the purpose of this study the practical significance level was set at 0.10 (Cohen, 1988).

For Hypothesis 1, hierarchical multiple regression analyses were performed to determine the relationship between emotional exhaustion and depersonalisation. The assumptions for multiple regression were assessed through the use of histograms and density plots to determine if the variables were normally distributed. Furthermore, outliers were identified through the use of Cook's distance values and Mahalanobis distance values. The assumption of linearity was assessed through the use of a scatterplot. Once the assumptions of multiple regression were confirmed, a hierarchical regression analysis, which consisted of two steps, was performed. In the first step, the control variables were entered into the analysis to examine their effect on depersonalisation. In the second step, emotional exhaustion was entered to determine if it significantly predicted depersonalisation.

For Hypothesis 2, a hierarchical moderated multiple regression analysis was performed. The assumptions for multiple regression were assessed by following the hierarchical regression analysis steps as indicated above. In the first step, the effects of the control variables on depersonalisation were assessed. In the second step, the two main effects, emotional exhaustion and stressful life events, were added to the equation to examine their effect on depersonalisation. Finally, in step three, the interaction effect of stressful life events and emotional exhaustion on depersonalisation was examined. The interaction term was represented by a variable consisting of the product of the two main effects (emotional exhaustion x stressful life events) (Aiken & West, 1991). In order to confirm if stressful life events had a moderating effect on the relationship between emotional exhaustion and depersonalisation, the significance of the interaction term in the third step was assessed.

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To assess Hypothesis 3, a one-way ANOVA was used to determine whether the mean score on depersonalisation for the two race groups, Black/Indian and White/Coloured, are statistically different from each other.

Lastly, a second hierarchical moderated regression was performed to assess the moderating effect of race on the relationship between emotional exhaustion and depersonalisation. First of all, the assumptions of multiple regression were assessed by following the steps as indicated in the first hierarchical multiple regression analysis above. Once the assumptions were confirmed, the effect of the control variables on depersonalisation was assessed in the first step of the regression. In the second step, emotional exhaustion and Race_WC_BI were entered into the regression analysis, and their effect on depersonalisation was assessed. Finally, in the third step, the interaction term (emotional exhaustion x race) was introduced. The moderating effect of race on the relationship between emotional exhaustion and depersonalisation was assessed by evaluating the significance of the interaction term in step 3.

3.7 ASSESSING AND DEMONSTRATING THE QUALITY AND RIGOUR OF THE PROPOSED RESEARCH DESIGN

Saunders *et al.* (2009) highlights several sources of bias and error which could influence the credibility of a study's research design. In particular, threats to reliability and validity are discussed. Reliability refers to the consistency of research results (Saunders *et al.*, 2009). In other words, will the results be consistent across different situations and different observers (Easterby-Smith *et al.*, 2008 as cited in Saunders *et al.*, 2009). On the other hand, validity considers whether the findings are what they claim to be about (Saunders *et al.*, 2009).

In terms of reliability, errors can arise both from the participants' and the observer's side (Saunders *et al.*, 2009). Participants could answer questionnaires erroneously due to external factors such as the specific time of day influencing their answers. Furthermore, bias can also be prevalent in both the participant and the observer (Saunders *et al.*, 2009). Bias in participants can occur if they attempt to give socially acceptable answers to questions as opposed to a true reflection of their perception on the specific point at hand. On the observer or researcher's side, potential sources of error can arise when reading

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data into the statistical software. This was addressed by directly importing the data from the Qualtrics software into SPSS.

The quality and rigour of quantitative research often refers to validity and reliability. One form of validity which should be achieved is external validity. External validity pertains to the generalisability of the research sample to the specific research population under investigation. In this case, the study aimed to generalise the findings to the entire population of professional women. According to Evans (2007), the sample of the study is critical in achieving external validity. In essence the sample should be representative of the population under study in order to generalise the findings. In this case, the sample consisted of professional women in the Faculty of Economic and Management Sciences at the University of Pretoria. In order for the sample to be representative of the population a minimum of 90 responses were required to achieve the optimal ratio of observations to independent variables for conducting multiple regression analysis (Bartlett *et al.*, 2001; Halinski *et al.*, 1970). Only 31 valid responses were obtained for this study, therefore the researchers did not attempt to generalise the findings to the entire population of professional women.

The validity and reliability of the measures used in this study have been demonstrated in previous burnout studies subjected to peer review and published in high quality journals such as The International Journal of Nursing studies (Poghosyan, Aiken, & Sloane, 2009), Journal of Occupational Behaviour (Maslach & Jackson, 1981), Journal of Occupation and Organizational Psychology (Schutte, Toppinen, Kalimo, & Schaufeli, 2000), Work and Stress (Taris, Schreurs, & Schaufeli, 1999), South African Journal of Higher Education (Mostert *et al.*, 2007) Stress and Health (Mäkikangas, Hätinen, Kinnunen, & Pekkonen,2011), and the South African Journal of Psychology (Storm & Rothman, 2003). These studies have been conducted both in international and South African contexts. A study by Poghosyan *et al.* (2009) assessed reliability of the Maslach burnout inventory and its dimensions across seven different countries. For all seven countries emotional exhaustion had Cronbach's Alphas above the required .7, and for six of the countries depersonalisation had a Cronbach's Alpha above .7. Therefore, the Maslach burnout inventory is considered as a reliable measure across countries. This is also true for the South African context as confirmed by Mostert *et al.* (2007). In addition, the Maslach burnout inventory and its dimensions show factorial validity across different occupational groups (Schutte *et al.*, 2000). Finally, the Maslach burnout inventory is

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consistent over time as indicated by the longitudinal study conducted by Mäkikangas et al (2011).

According to Saunders *et al.* (2009), scientific rigour can be obtained by ensuring the researcher is independent from the data collection phase. In this case, data collection was conducted through an electronic survey in which the researcher had no direct contact with the research participants.

3.8 RESEARCH ETHICS

There are several ethical aspects which were considered when conducting this study. First of all, the researcher adhered to the plagiarism policy of the University of Pretoria (Evans, 2007). Furthermore, the code of ethical practice of the University of Pretoria and the HPCSA was upheld throughout this study (Babbie, 2008). Since the study was conducted within the University of Pretoria in the Faculty of Economic and Management Sciences, written permission was obtained from the Dean of the Faculty before approaching the respondents in the study. Furthermore, to avoid harm to research participants, ethical clearance was obtained at the University of Pretoria in order to get an independent evaluation on whether the study has the potential to harm the participants (Babbie, 2008; Terre Blanche *et al.*, 2006).

All participants were provided with an informed consent letter (see Appendix A) which indicated the purpose and method of the study and what the information will be used for (Terre Blanche *et al.*, 2006). The informed consent letter acted as the front page of the electronic survey on the Qualtrics software. Participants were only able to complete the questionnaire once they have acknowledged that they had read, understood and agreed to the contents of the informed consent letter (Evans, 2007). As part of the informed consent letter, the following ethical aspects were addressed. First of all, participants were informed that participation was voluntary and that they may withdraw their participation at any point during the process without facing any negative consequences (Babbie, 2008; Evans, 2007; Terre Blanche *et al.*, 2006). Therefore, no participant was forced or coerced in any way to participate in the study. In addition, no incentive of any kind whether monetary or otherwise was offered in order to persuade individuals to take part in the process. If an individual chose to participate voluntarily, the researcher ensured that no harm came to the participant due to taking part in the study (Babbie, 2008; Terre Blanche *et al.*, 2006).

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Critical to the informed consent was highlighting any risks involved in taking part in this study (Babbie, 2008; Terre Blanche *et al.*, 2006). The following risks were highlighted in the informed consent letter. The study did not pose any immediate risk or harm to the participant. However, participants could experience some emotional discomfort when answering personal questions regarding stressful life events and burnout. In order to address the risk, the researchers provided the participants with contact details for the student support centre at the University of Pretoria, where participants could seek assistance and counselling regarding stressful life events or burnout. In addition, Terre Blanche *et al.* (2006) emphasises another important ethical aspect: beneficence. Beneficence indicates that participants should not only be made aware of the risks involved in taking part in the study, but also the benefits of taking part in the study. This will allow the participants to evaluate whether the benefits outweigh the risks and allow them to make an informed decision on whether they want to take part in the particular study (Terre Blanche *et al.*, 2006). In terms of the benefits of this study, the following was included in the informed consent letter. First of all, the study can benefit the participants by revealing valuable information pertaining to burnout, burnout dimensions, stressful life events and ethnic differences. This could assist the University in identifying burnout risks and managing them better in future. Furthermore, the results could lead to future research on the topic.

Although the study was anonymous, it formed part of another study in which the identities of the participants' domestic workers needed to be known, in order to conduct further interviews. Therefore, the possibility existed that the participant's identity could be revealed when interviewing their domestic workers. This was clearly stated in the informed consent letter. However, the confidentiality of all information received was maintained (Evans, 2007). Once data were collected all identifying information was coded into a number system in order to de-identify participants (Evans, 2007). At no point throughout the research study were the identities of participants made public (Babbie, 2008). The researchers further ensured that in reporting the results of the study, participants could not be identified in any way.

To further ensure the ethical nature of the research, the researcher only used rigorous research methods (Terre Blanche *et al.*, 2006). This applied to the gathering and analysis of data. Where the researcher lacked expertise in data analysis techniques, the supervisor or other external expertise assisted (Terre Blanche *et al.*, 2006). In addition, to

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portray accurate findings when reporting the results of the study, the researcher highlighted the limitations of the study (Babbie, 2008). To ensure accuracy, the researcher did not omit any detail pertaining to negative results or unexpected relationships (Babbie, 2008; Evans, 2007).

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CHAPTER 4: RESULTS

4.1 PRELIMINARY DATA SCREENING

The assessment of the assumptions for hierarchical multiple regression analysis revealed no obvious violations. Three potential multivariate outliers were identified through the examination of Mahalanobis distance values. In addition, the examination of Cook's distance values revealed two possible outliers. Due to the small sample size of this study, however, outliers were not removed when analysing the data. Therefore, the results for all 31 valid cases are reported below.

4.2 DESCRIPTIVE STATISTICS AND CORRELATIONS

Table 4:

Cronbach's Alphas, means, standard deviations, and bivariate correlations among the measures (N = 31)

Measure	1	2	3	4	5	6	7
1. Depersonalisation	1.00						
2. Emotional Exhaustion	.398*	1.00					
3. Stressful Life Events	.284	.289	1.00				
4. Race - White	.236	.297	-.029	1.00			
5. Race - Black	-.113	.121	-.208	-.536**	1.00		
6. Race - Indian	.008	-.299	-.041	-.536**	-.069	1.00	
7. Race - Coloured	-.275	-.299	.295	-.536**	-.069	-.069	1.00
Cronbach's Alphas	.825	.91					
M	2.49	3.47	1.78	.81	.65	.65	.65
SD	1.31	1.47	1.58	.40	.25	.25	.25

*Note: *. Correlation is significant at the 0.05 level (2-tailed).*

***. Correlation is significant at the 0.01 level (2-tailed)*

Table 4 depicts the means, standard deviations, Cronbach's Alphas, and bivariate correlations of emotional exhaustion, depersonalisation, stressful life events and the four

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race groups considered in this study. The Cronbach's Alphas of depersonalisation and emotional exhaustion indicate acceptable levels of internal consistency for both measures. The correlation results show a statistically significant positive relationship between emotional exhaustion and depersonalisation (r = .398, p < 05, medium effect). This result supports Hypothesis 1 and is in line with the findings from previous burnout studies (Adekola, 2010; Houkes *et al.*, 2011). There were no statistically significant correlations between stressful life events and any of the other variables. In addition, the race variables did not correlate significantly with depersonalisation, emotional exhaustion or stressful life events.

4.3 HYPOTHESIS 1

A hierarchical multiple regression analysis was performed to determine the relationship between emotional exhaustion and depersonalisation (See Table 5) including control variables. Four dummy variables were created for the categorical variable race: Race_White, Race_Black, Race_Indian, Race_Coloured. As Race_White was the most common race category in this study, it was selected as the reference variable to which to compare the other race categories. The Race_White variable was therefore omitted from all hierarchical multiple regression analyses to avoid multicollinearity. The following variables were controlled for in the regression analysis: age, number of children, hours worked per week, and race. In step 1, the control variables were entered into the regression analysis and accounted for 18.9% of the variance in depersonalisation (R^2 = .189, p > .05). The model was not significant and none of the control variables significantly predicted depersonalisation. In step 2, emotional exhaustion was added to the regression analysis and explained an additional 10.1% of the variance in depersonalisation, however the model was not significant (ΔR^2 = .101, R^2 = .290, p > .05). In addition, emotional exhaustion did not significantly predict depersonalisation (β = .412, SE = .234 p > .05). Therefore, Hypothesis 1 was not supported.

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Table 5:

Hierarchical regression analysis predicting depersonalisation

Independent Variables	β	SE	ΔR^2
Step 1: Control Variables			.189
Age	.071	.092	
Number of children	-.604	.388	
Hours worked per week	.117	.135	
Race_Black	-.661	.981	
Race_Indian	.292	1.189	
Race_Coloured	-1.022	1.020	
Step 2: Main Effect			.101
Age	.098	.089	
Number of children	-.390	.390	
Hours worked per week	-.089	.172	
Race_Black	-.726	.939	
Race_Indian	1.302	1.267	
Race_Coloured	-.686	.993	
Emotional Exhaustion	.442	.234	
Total R^2			.29
Adjusted R^2			.073

*Note: *. Value significant at the 0.05 level (2-tailed).*

4.4 HYPOTHESIS 2

Hierarchical moderated multiple regression analysis was performed to evaluate the moderating effect of stressful life events on the relationship between emotional exhaustion and depersonalisation. See Table 6 for results. Before conducting the analysis, the continuous variable, emotional exhaustion, was centered around zero by subtracting its mean to address possible multicollinearity (Aiken & West, 1991). Six control variables (age, number of children, hours worked per week, Race_Black, Race_Indian, Race_Coloured) were entered into the hierarchical regression analysis in step 1. Race_White was omitted from the regression analysis to avoid multicollinearity. The control variables in step 1 explained 12.5% of the variance in depersonalisation (R^2 = .125;

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p > .05), but no control variables were significant predictors of depersonalisation. By adding emotional exhaustion and stressful life events in step 2, an additional 21.1% (ΔR^2 = .211) of the variance in depersonalisation was explained, however the model was not statistically significant (R^2 = .336; p > .05). Neither stressful life events nor emotional exhaustion significantly predicted depersonalisation in step 2.

In step 3, the hypothesised interaction term (emotional exhaustion x stressful life events) was added to the regression analysis. The interaction term contributed a negligible increase in variance explained in depersonalisation (ΔR^2 = .003, R^2 = .339, p > .05). However, the interaction term in step 3 was not significant (β = .040, SE = .131, p > .05). Therefore, Hypothesis 2 was not supported, as stressful life events did not have a moderating effect on the relationship between emotional exhaustion and depersonalisation.

Table 6:

Hierarchical regression analysis predicting depersonalisation

Independent Variables	β	SE	ΔR^2
Step 1: Control Variables			.125
Age	.028	.061	
Number of children	-.249	.288	
Hours worked per week	.023	.114	
Race_Black	-.686	1.018	
Race_Indian	.024	1.123	
Race_Coloured	-1.384	1.029	
Step 2: Main effects			.211*
Age	.012	.056	
Number of children	-.291	.264	
Hours worked per week	-.118	.117	
Race_Black	.486	.962	
Race_Indian	.344	1.086	
Race_Coloured	-1.499	1.096	
Emotional Exhaustion_Centered	.289	.207	
Stressful life events	.279	.183	
Step 3: Interaction term			.003

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Age	.017	.059
Number of children	-.284	.271
Hours worked per week	-.124	.121
Race_Black	-.435	.997
Race_Indian	.420	1.136
Race_Coloured	-1.390	1.176
Emotional Exhaustion_Centered	.222	.305
Stressful life events	.257	.200
Emotional Exhaustion_Centered x Stressful life events	.040	.131
Total R^2		.339
Adjusted R^2		.056

*Note: *. Value Significant at the 0.05 level (2-tailed).*

4.5 HYPOTHESIS 3:

In hypothesis three, the means of Black and Indian participants were compared to that of White and Coloured participants, to establish if the two groups report different levels of depersonalisation. Results showed no statistically significant difference between the two race groups of Black and Indian (M = 2.20, SD = .542) versus White and Coloured (M = 2.496, SD = 1.40) participants, based on the one-way ANOVA (F (4.18) = .171, p = 682). Hypothesis 3 was therefore not supported.

4.6 HYPOTHESIS 4

To determine if the Race_WC_BI variable had a moderating effect on the relationship between depersonalisation and emotional exhaustion, a hierarchical moderated multiple regression analysis was performed (see Table 7). Before running the analysis, emotional exhaustion was centered around zero by subtracting its mean (Aiken & West, 1991). In step 1 of the regression analysis three control variables (age, number of children, hours worked per week) were entered. The control variables together accounted for 4.5% of the variance in depersonalisation yet did not significantly predict depersonalisation (R^2 = 0.045, p > .05). In step 2, emotional exhaustion and race were added to the regression

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analysis which increased the variance explained in depersonalisation to 20.4%, although the model was not significant (R^2 = 0.204, p > .05). In step 2, race did not have a significant effect on depersonalisation (p = .847), but emotional exhaustion did significantly predict depersonalisation (β = .397, SE = .180, p < .0.5).

In step 3, the interaction term (emotional exhaustion x race) was added to the regression analysis. The addition of the interaction term explained 7.1% more variance in depersonalisation, however the model was not significant (ΔR^2 = 0.071, R^2 = .274, p > .05). In step 3 only emotional exhaustion significantly predicted depersonalisation (β = 1.279, SE = .604, p < .05). The interaction term was not significant (β = -.793, SE =.519, p > .05). Therefore, Hypothesis 4 was not supported as there was no evidence of a stronger relationship between emotional exhaustion and depersonalisation for White and Coloured women as compared to Black and Indian women.

Table 7:

Hierarchical regression analysis predicting depersonalisation

Independent variables	β	SE	ΔR^2
Step 1: Control Variables			.045
Age	.032	.055	
Number of children	-.282	.278	
Hours worked per week	.039	.110	
Step 2: Main effects			.158
Age	.010	.055	
Number of children	-.228	.267	
Hours worked per week	-.083	.118	
Emotional Exhaustion_Centered	.397*	.180	
Race_WC_BI	-.118	.738	
Step 3: Interaction term			.071
Age	.023	.055	
Number of children	-.246	.261	
Hours worked per week	-.098	.116	
Emotional Exhaustion_Centered	1.279*	.604	
Race_WC_BI	-.402	.743	
Emotional Exhaustion_Centered x	-.793	.519	

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	Race_WC_BI
Total R^2	.274
Adjusted R^2	.093

*Note: *. Value significant at the 0.05 level (2-tailed).*

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CHAPTER 5: DISCUSSION, CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

This chapter will provide an overview of the study and will discuss the results reported in Chapter 4 with specific reference to the research objectives of the study. The findings will further be compared to that of previous studies as discussed in the literature review in Chapter 2. The chapter will conclude with the practical implications and limitations of the study, followed by recommendations for future research.

5.1 OVERVIEW OF THE STUDY

The main purpose of this study was to examine the relationship between two burnout dimensions (depersonalisation and emotional exhaustion) among career women in particular. This was accomplished through the use of hierarchical multiple regression analysis. The analysis further explored the moderating effect of stressful life events and race on the emotional exhaustion-depersonalisation relationship. In addition, racial differences in levels of reported depersonalisation were assessed.

The following research objectives guided the study:

- To determine if a positive relationship exists between emotional exhaustion and depersonalisation among professional women.
- To determine if the relationship between emotional exhaustion and depersonalisation is moderated by stressful life events such that greater reports of stressful life events strengthen the positive relationship between emotional exhaustion and depersonalisation.
- To determine if depersonalisation is more common in women of certain South African ethnic groups than others.
- To determine if the strength and nature of the relationship between emotional exhaustion and depersonalisation differs between women of different ethnic groups in South Africa.

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The results from the statistical analysis will now be discussed in relation to the above mentioned objectives, and similar research conducted previously.

5.2 DISCUSSION OF RESULTS

5.2.1 To determine if a positive relationship exists between emotional exhaustion and depersonalisation among professional women

As expected, emotional exhaustion correlated positively with depersonalisation. Thus, as the level of emotional exhaustion increases, professional women experience higher levels of depersonalisation. This finding is in line with the most widely accepted developmental model of burnout dimensions: emotional exhaustion occurs first, after which depersonalisation develops from increased levels of emotional exhaustion (Maslach, Schaufeli, Leiter, 2001; Shih *et al.*, 2013; Taris *et al.*, 2005). Houkes *et al.* (2011) also supported this developmental model when studying burnout in female General Practitioners. According to Houkes *et al.* (2011), burnout manifests differently in women compared to men, with women experiencing emotional exhaustion first, which can then lead to depersonalisation if levels of emotional exhaustion is sufficiently high.

Although the zero-order correlation results supported the findings of Houkes *et al.* (2011), that is, a positive relationship between emotional exhaustion and depersonalisation (r = .398, p < 05), the hierarchical regression analysis was not consistent with these findings (β = .412, SE = .234 p > .05). The results revealed that the positive relationship between emotional exhaustion and depersonalisation was not statistically significant when including the control variables of age, hours worked per week, number of children and race. The control variables therefore explained the same variance in depersonalisation as did emotional exhaustion. Therefore, as levels of emotional exhaustion increase, levels of depersonalisation did not necessarily increase. Depersonalisation can therefore be better explained by other factors than it is explained by emotional exhaustion. This result is more in line with that of Andekola (2010), who stated that no causal relationship exists between the various burnout dimensions. The absence of the relationship between the burnout dimensions could be explained in various ways. First of all, based on Houkes *et al.* (2010), women only display signs of depersonalisation once their level of emotional exhaustion is particularly high. In addition, the occurrence of depersonalisation in women is not that

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common, as women are more likely to display signs of emotional exhaustion when experiencing burnout (Houkes *et al.*, 2011; Purvanova & Muros, 2010). Therefore, it is possible that the women in this particular sample did not experience sufficient levels of emotional exhaustion in order for depersonalisation to manifest.

A second explanation could be due to the different industry in which this study was conducted. Houkes *et al.*'s (2011) study was conducted with women General Practitioners, in particular, as compared to women in the higher education sector in this study. Therefore, burnout may develop differently for women employed in the higher education industry. In addition, this study was conducted in South Africa, which has a unique cultural composition (Rothman & Barkhuizen, 2008). Therefore, the developmental model for South African career women could differ from that of other nationalities. Based on the results of this study, one can conclude that depersonalisation in South African career women working in the higher education industry does not develop from high increased levels of emotional exhaustion.

5.2.3 To determine if the relationship between emotional exhaustion and depersonalisation is moderated by stressful life events such that greater reports of stressful life events strengthen the positive relationship between emotional exhaustion and depersonalisation.

Based on the results of this study, participants with greater reports of stressful life events did not display a stronger relationship between emotional exhaustion and depersonalisation. This result does not support previous literature which indicated that negative events outside of the work environment are associated with increased levels of burnout and its dimensions (Brattberg, 2006; Dyrbye *et al.*, 2006; Justice *et al.*, 1981; Mather *et al.*, 2014; Plieger *et al.*, 2015). Since stressful life events did not impact the development of burnout in this study, the COR theory of Hobfoll *et al.* (2003) which explains the relationship between emotional exhaustion and depersonalisation was also not supported. According to this theory, increased reports of stressful life events will deplete the participants' physical and emotional resources. This depletion of resources combined with emotional exhaustion will then result in detached and depersonalised responses to stressors, in essence the relationship between emotional exhaustion and

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depersonalisation is strengthened (Ito & Brotheridge, 2003). However, this was not the case in this study.

The lack of support for stressful life events exacerbating the relation between emotional exhaustion and depersonalisation can be attributed to two factors. First of all, as seen in the lack of support for H1, the model of depersonalisation resulting from increased emotional exhaustion has not been confirmed in this study. Therefore, the impact of stressful life events on this relationship may not have been confirmed since the ordered relationship of emotional exhaustion and depersonalisation does not seem to apply to this particular sample. Furthermore, stressful life events may only impact burnout levels in general as opposed to acting as a moderator in the relationship between burnout dimensions.

Another factor to consider is that participants in this particular sample may not have experienced enough stressful life events to adequately deplete resources relating in an impact on the emotional exhaustion-depersonalisation relationship. This can be explained by the results from a study conducted by Justice *et al.* (1981), which found that negative life events were positively correlated with burnout and its dimensions. The absence of this relationship in the current study can be ascribed to the higher means on stressful or negative life events in the study by Justice *et al.* (1981). Justice *et al.* (1981) reported a mean of 8.23 for private sector employees, and 5.99 for government employees, whereas the current study reported a mean of 3.47. In other words, the occurrence of stressful life events was high enough in Justice *et al.* (1981) in order for it to adequately deplete resources and result in burnout. In the current study the mean was not high enough to have the same effect.

5.2.3 To determine if depersonalisation is more common in women of certain South African ethnic groups than others.

Previous research in both the international and South African context revealed that different racial groups experience burnout and its dimensions differently (Coetzee & Rothman, 2004; Evans *et al.*, 2004; Mostert *et al.*, 2007; Paladion *et al.*, 2005; Gauche, 2006). This notion was not supported by the results of this study, as there was no significant difference in levels of depersonalisation between White/Coloured and Black/Indian professional women. Therefore, the findings of Gauche (2006), which stated

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that White individuals tend to experience more depersonalisation compared to that of Black individuals, are not supported by these findings. This result could be explained by the particular sample used in this study. The sample consisted mainly of White individuals with very few responses from the other race categories. Therefore, it is possible that the data were not sufficient to adequately assess the difference in means on depersonalisation for the different race groups.

In addition, Gauche's (2006) study was conducted with a sample of students, whereas this particular study assessed individuals working in higher education. Therefore, the occurrence of depersonalisation may not be the same for the different populations of the two studies. The difference between the two populations could possibly be ascribed to the stressful nature of the higher education environment (Rothman & Barkhuizen, 2008; Salami, 2011). The women working in this environment are subject to very high job demands, which can subsequently lead to increased emotional exhaustion (Montgomery, Panagopolou, & Benos, 2006), which if sufficiently high leads to depersonalisation (Hookes *et al.*, 2011). The stress and demands involved in working in this environment could therefore play a bigger role in determining depersonalisation than the particular race of the individual. On the other hand, for students who are not necessarily exposed to the excessive demands of working in a higher education environment, race may play a more integral role in predicting depersonalisation.

Another possible explanation for this result could be that other demographic characteristics of the participants in this specific sample could have overridden cultural values when it came to burnout. The hypothesis was based on Hofstede's (1980) theory, which indicates that White and Coloured individuals ascribe to more individualistic values, compared to the collectivistic values of Black and Indian individuals (Eaton & Louw, 2000; Mangaliso & Damane, 2001; Thomas & Bendixen, 2000; Van Dyk & De Kock, 2004). Although several studies support this theory, gender may have played a stronger role in determining burnout in this particular study. The sample consisted of women only, who due to typical gender socialisation, may take on a more feminine and collectivist approach (Adekola, 2010; Houkes *et al.*, 2011). This would mean that women from different races in South Africa do not experience depersonalisation differently from each other as they ascribe to a more collaborative value system.

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5.2.4 To determine if the strength and nature of the relationship between emotional exhaustion and depersonalisation differs between different ethnic groups in South Africa.

Based on the findings in Chapter 4, there was no evidence of race playing a moderating role in the relationship between emotional exhaustion and depersonalisation. That is, the relationship between emotional exhaustion and depersonalisation was not stronger for White and Coloured participants as compared to Black and Indian participants. This result contradicts previous studies on burnout in the following way: According to Coetzee and Rothman (2004) and Mostert *et al.* (2007), White individuals tend to experience more burnout than Black individuals. Thus, if White individuals are more prone to burnout, one would expect that White females would experience higher levels of emotional exhaustion, as burnout tends to manifest as emotional exhaustion in women (Houkes *et al.*, 2011; Purvanova & Muros, 2010). Therefore, according to the developmental model of burnout for women as proposed by Houkes *et al.* (2011), White women will subsequently also experience higher levels of depersonalisation resulting from increased levels of emotional exhaustion. Furthermore, based on Hofstede's dimensions of cultural values, Coloured individuals show similar work values to White individuals, while Indians shared similar work values with Black individuals. Therefore, the race groups were paired in this study and this hypothesis was derived according to this. In essence, previous literature creates the expectation of a stronger relationship between emotional exhaustion and depersonalisation for White and Coloured women compared to that of Black and Indian women, which was not the case for this study.

The absence of racial influences on the emotional exhaustion-depersonalisation relationship could be due to the specific sample in this study. As discussed in the previous section, the sample did not include adequate representation from racial groups outside of the White category. Although the results could also indicate that the Hofstede dimensions of work values are not applicable to this specific sample, accurate inferences regarding this cannot be made without adequate representation from all race groups.

A further explanation of the findings could be the lack of relationship between emotional exhaustion and depersonalisation revealed in the results of Hypothesis 1. The objective was to make racial inferences regarding this relationship, which in essence does

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not exist in this sample. Therefore, the effect of race may not be present due to the developmental model of burnout not applying to career women in South Africa.

5.3 PRACTICAL IMPLICATIONS OF THE STUDY

Due to the extensive cost implications of burnout for organisations (Holleet-Haudebert *et al.*, 2011; Metin, 2010; Schaufeli, 2003; Schaufeli & Bakker, 2004; Shih, Jiang, Klein, & Wang, 2013; Taris, 2006; Totawar & Nambudiri, 2012), it is important to understand what factors are antecedent to burnout and how burnout develops (Cordes & Dougherty, 1993). Although previous studies suggest that burnout in women develops in the order of emotional exhaustion leading to depersonalisation (Houkes *et al.*, 2011), the results of this study did not support this notion. Therefore, organisations cannot likely prevent the occurrence of depersonalisation in women by introducing interventions focused on preventing certain levels of emotional exhaustion. Interventions should be geared at addressing burnout dimensions independently from each other.

Stressful Life Events did not significantly impact the relationship between emotional exhaustion and depersonalisation. Therefore, organisations cannot attribute higher levels of emotional exhaustion and resulting depersonalisation, to the co-occurrence of stressful events occurring outside of the work environment. Based on this result, organisations should not extend burnout interventions to negative aspects outside of the work environment. Interventions should perhaps be aimed at other work stressors which may contribute to burnout, such as job demands (workload, work pace, emotional demands and change), role ambiguity (lack of role boundaries and certainty), and job conflict (conflicting work roles) (Cordes & Dougherty, 1993; Salami, 2011; Spooner-Lane & Patton, 2007; Metin, 2010; Mirvis, Graney, Ingram, Tang & Kilpatrick, 2006; Montgomery *et al.*, 2006; Pretorius, 2007; Zhang & Zhu, 2007).

Racial group membership did not play a significant role in levels of depersonalisation, or in influencing the relationship between emotional exhaustion and depersonalisation. Organisations are therefore not advised to take race into account when attempting to reduce the occurrence of burnout. In other words, organisations cannot reduce the occurrence of burnout by creating burnout interventions specifically aimed at certain racial groups. More research is needed before organisations can link burnout interventions to race or stressful life events. In addition, more research is needed to

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determine the developmental sequence of burnout in career women in South Africa, and subsequently, how organisations can utilise this information to curb burnout in future.

5.4 LIMITATIONS OF THE STUDY

Several limitations were identified when conducting this study. Firstly, the sample size consisted of only 31 participants. This is a small sample size compared to the entire population of career women in higher education and career women in South Africa in general. Additionally, it only accounted for 18% of the particular faculty from which the sample was drawn. Based on the number of independent variables under investigation in the study, a sample size of at least 90 participants, who are representative of the population, is required to perform hierarchical multiple regression analysis (Bartlett *et al.*, 2001; Halinski *et al.*, 1970). In addition, the particular sample largely consisted of White participants, with only two participants in each of the other racial categories (Black, Indian, Coloured). The limited representation of other races likely influenced the accuracy of results, as it was not representative of the population and the power to detect significant effects was severely limited. This could influence the results pertaining to racial differences in depersonalisation as well, and the possible moderating effect of race on the emotional exhaustion-depersonalisation relationship. While the sample size was inadequate for publishing the results of this study, it is, however, sufficient for the purposes of the MCom Industrial Psychology mini-dissertation at the University of Pretoria, as the requirements are solely to demonstrate the ability to do a research project.

Secondly, the study was cross-sectional in nature. Therefore, data was collected at one point in time only, which means that determining the causality of relationships between the independent and dependent variables is not possible. Thirdly, the burnout dimensions and stressful life events were measured through the use of self-report measures. Therefore, the relationship between dimensions could be biased by common method variance and consistency effects. In other words, the results from this study may be due the method used to obtain the data as opposed to a true reflection of the correlation between constructs. The correlation between constructs may occur due to the consistency effect of answering questions to constructs contained in the same

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questionnaire in a consistent manner, which may not be related to each other outside of appearing in the same survey (Chang, Van Witteloostuihn & Eden, 2010).

Fourthly, the populations of participants were drawn from one higher education institution only. Therefore, the results may not be generalisable to other higher education institutions. Furthermore, since the study was limited to the higher education sector, results may not be representative of other organisations or institutions which are outside of this industry sector. Fifthly, the sample was drawn from one faculty only. The results may therefore not represent the entire higher education institution from which the sample was drawn.

The scale by Brugha and Cragg (1990) used to assess stressful life events in this study was the sixth limitation of the study. This limitation lies in the way scores are calculated for this particular scale. Based on Brugha and Cragg's (1990) scale, participants are required to respond to the stressful life events scale by indicating whether they have experienced the particular stressful live event in the past 12 months. The score per participant is then calculated by summing the number of events to which the participant responded yes. However, by only indicating if an event occurred or not, the way in which different individuals experience stressful events was not considered. Different participants may experience the same event as stressful or not stressful. This was not taken into account as participants did not indicate how stressful each event was for them, or whether the stressful impact was still present at the time of completing the questionnaire. In addition, all events were considered as equally stressful, whereas, in reality, certain events may be more stressful than others (i.e., breaking off a relationship versus a spouse dying). Therefore, a key limitation was not considering the way in which different stressful life events are experienced by different individuals, and that not all stressful life events are equal.

Another limitation pertains to the assumptions of multiple regression. Five possible outliers on the depersonalisation scale were identified through Cook's distance values and Mahalanobis distance values. These outliers were not removed when conducting the analysis, however, due to the small sample size of the study. Therefore, the outliers may have biased the results.

The final limitation is that only the moderating effect of stressful life events on the relationship between emotional exhaustion and depersonalisation was considered. The possibility of this variable playing a mediating role was not assessed. For stressful life

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events to play a mediating role, emotional exhaustion should lead to stressful life events, which in turn should lead to depersonalisation. This mediating relationship is supported by existing literature in the following way. First of all, the relationship between emotional exhaustion and stressful life events is supported by the idea that emotional exhaustion from the work environment spills over to the home environment (Liang, 2015). According to Liang (2015), the spill over of emotional exhaustion from the work environment, can lead to problems in the home environment, such as marital issues in particular. Marital issues are considered to be stressful life events according to the stressful life events checklist of Brugha and Cragg (1990). Thus, it is possible that emotional exhaustion can lead to an increase in stressful life events. Secondly, the possible relationship between stressful life events and depersonalisation can be explained by Hobfoll's COR theory (Hobfoll *et al.*, 2003). Stressful life events deplete the resources of individuals as it requires additional adjustment and coping (Bhagat, 1983). According to Hobfoll's COR theory, the depletion of resources can result in detached responses as individuals tend to withdraw from activities which will potentially lead to further resource losses (Ito & Brotheridge, 2003). These detached responses are consistent with the definition of depersonalisation (Maslach *et al.*, 2001; Schaufeli, 2003). Therefore, an increase in stressful life events due to high levels of emotional exhaustion, could deplete resources to such an extent that depersonalisation occurs. It could therefore be valuable to assess the mediating effect of stressful life events on the emotional exhaustion-depersonalisation relationship.

5.5 RECOMMENDATIONS FOR FUTURE RESEARCH

To address the limitations as presented above, recommendations for future research will now be discussed. First of all, similar studies should be conducted in a similar higher education institution using a larger sample size. A sample size with at least 90 participants and better representation of all racial categories should be drawn for future research. A larger sample size will allow for more accurate hierarchical regression analysis results, to meet the optimal ratio of observations to independent variables (Bartlett *et al.*, 2001; Halinski *et al.*, 1970). In addition, the larger sample size can provide more accurate results when comparing the means of different race categories on depersonalisation. Similar studies in different higher education institutions, and other types of industries should also

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be conducted to test the generalisability of the results to the larger population of professional women.

Secondly, for future research a different questionnaire should be used to assess stressful life events, which accounts for the severity of stressful life events. One alternative is the Recent Life Change Questionnaire (Miller & Rahe, 1997), which accounts for severity of events by assigning life change units (LCU) to events based on the psychological effort required to adapt to the event. Another alternative is the stressful event scale used in a study by Bouma, Ormel, Verhulst and Oldehinkel (2008), in which participants rate the stressfulness of events on a four-point scale. Events which are considered as more severe and stressful should then carry more weight when determining the overall stressful life events score for an individual. This will allow for a more accurate reflection of a participant's stressful life events score, which could produce more accurate results in relation to emotional exhaustion and depersonalisation.

Thirdly, in terms of determining differences in depersonalisation based on race, future research should not group the variables according to Hofstede's (1980) theory. Race categories should be considered on their own to determine if Hofstede's theory holds true for the specific sample.

Fourthly, longitudinal studies should be considered for future research to determine if the relationship between emotional exhaustion and depersonalisation is causal in nature. Finally, mediation studies should also be considered for future research to see whether stressful life events explain the relationship between emotional exhaustion and depersonalisation as opposed to influencing the relationship. In other words, emotional exhaustion leads to stressful life events, which in turn leads to depersonalisation.

5.6 CONCLUSION

In summary, the results of this study contradicted the findings of previous literature on burnout. Contrary to common burnout developmental models, emotional exhaustion and depersonalisation were not positively related to each other. Therefore, depersonalisation in South African women working in the higher education context does not develop from high levels of emotional exhaustion. In addition, this relationship was not strengthened by stressful life events occurring outside of the work environment. Similarly, race did not play a role in the emotional exhaustion-depersonalisation relationship. Finally,

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depersonalisation did not differ significantly between different racial groups of women in this study. More research is necessary on this topic in order to make proper inferences about the applicability of developmental models of burnout for South African career women, as well as the influence of stressful life events and race on these models.

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APPENDIX A

- Informed Consent Form -

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Economic and Management Sciences

Letter of Introduction and Informed Consent

Dept. of Human Resource Management

Work and Family Study

Research conducted by:
Prof JM Hoobler (P04805837)
Cell: 076 540 4084

Dear Participant:

You are invited to participate in an academic research study conducted by Prof Jenny M. Hoobler, Ph.D., from the Department of Human Resource Management at the University of Pretoria.

The purpose of the study is to understand working women's work and family life challenges and perceptions.

Please note the following:

- The answers you give will be treated as strictly confidential as you cannot be identified in person based on the answers you give.
- Your participation in this study is very important to us. You may, however, choose not to participate and you may also stop participating at any time without any negative consequences.
- Please answer the questions in the attached questionnaire as completely and honestly as possible. This should not take more than 25 minutes of your time
- The results of the study will be used for academic purposes only and may be published in an academic journal. We will provide you with a summary of our findings on request.
- Please contact me at 012 420 4664 or jenny.hoobler@up.ac.za if you have any questions or comments regarding the study.

Clicking to continue with the survey will signify that you

- have read and understand the information provided above.
- give your consent to participate in the study on a voluntary basis.

Thank you very much for your time and insights.

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APPENDIX B

- Questionnaire -

Please complete this survey by circling your choice, or fill in the details in the space provided

For office use only

A: BIOGRAPHICAL INFORMATION

1. Ethnicity

Black	1	White	2	Coloured	3	Indian	4
Other (Specify in block below)	5						

2. Gender

Male	1	Female	2

3. Nature of employment

Full-time	1	Part-time	2

4. Job Title (type it in the block below)

5. Months of service

Less than 3 months	1	3-6 months	2	6-12 months	3	1-2 years	4
3-5 years	5	6-10 years	6	11-15 years	7	More than 15 years	8

5. Home Language

English	1	Afrikaans	2	Sepedi	3	Sesotho	4
Setswana	5	isiTsonga	6	isiSwati	7	Tshivenda	8
isiZulu	9	isiNdebele	10	isiXhosa	11	Other (Specify in block below)	12

3. Home Faculty at the University of Pretoria

Economic and Management Sciences	1	Other (Specify in block below)	2

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B:	**BURNOUT:** **On the following page are 12 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way *about your job.*** **If you have *never* had this feeling, select the number under the *Never* column. If you have had this feeling, indicate *how often* you feel it by selecting the number under the phrase that best describes how frequently you feel that way.**	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
	EMOTIONAL EXHAUSTION:							
1.	I feel emotionally drained from my work	0	1	2	3	4	5	6
2.	I feel used up at the end of the workday	0	1	2	3	4	5	6
3.	I feel fatigued when I get up in the morning and have to face another day on the job	0	1	2	3	4	5	6
4.	I feel burned out from my work	0	1	2	3	4	5	6
5.	I feel frustrated by my job	0	1	2	3	4	5	6
6.	I feel I'm working too hard on my job	0	1	2	3	4	5	6
7.	I feel like I'm at the end of my rope at work	0	1	2	3	4	5	6
	DEPERSONALISATION:							
1.	I feel I treat some people as if they were impersonal objects	0	1	2	3	4	5	6
2.	I've become more callous toward people since I took this job	0	1	2	3	4	5	6
3.	I worry that this job is hardening me emotionally	0	1	2	3	4	5	6
4.	I don't really care what happens to some people at work	0	1	2	3	4	5	6
5.	I feel people at work blame me for some of their problems	0	1	2	3	4	5	6

C:	**STRESSFUL LIFE EVENTS** The next set of questions asks about life experiences you may have had **in the past 12 months**. Please indicate (by circling "yes," "no," or "don't know") if you have experienced the following **in the past 12 months**			
1.	Did you suffer a non-work related serious illness, injury or assault?	Yes	No	Don't know
2.	Did a serious illness, injury or assault happen to a close relative?	Yes	No	Don't know
3.	Did your parent, child, or spouse die?	Yes	No	Don't know
4.	Did a close friend or relative die?	Yes	No	Don't know
5.	Did you have a separation due to marital difficulties?	Yes	No	Don't know
6.	Did you break off a steady relationship?	Yes	No	Don't know

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7.	Did you have a serious problem with a close friend, neighbour, or relative?	Yes	No	Don't know
8.	Were you or a close family member laid off from your job, or did they seek work unsuccessfully for more than a month?	Yes	No	Don't know
9.	Were you or a close family member fired from your job?	Yes	No	Don't know
10.	Did you have a major financial crisis?	Yes	No	Don't know
11.	Did you have a court appearance or problems with the police?	Yes	No	Don't know
12.	Was something important to you lost or stolen?	Yes	No	Don't know

Thank you very much for your time and for participating in this survey!

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