THE SOURCES OF WORK STRESS AND COPING RESOURCES FOR HIGH SCHOOL TEACHERS IN THE GAUTENG PROVINCE WITHIN DIFFERENT CAREER STAGES

by

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DECLARATION

I, MICHELLE LOUISE HOPKINS, student number 50774980, declare that this dissertation, entitled "**The Sources of Work Stress and Coping Resources for High School Teachers in the Gauteng Province within different Career Stages**" is my own work. All the sources that I have used or have quoted from have been indicated and acknowledged by means of complete references. Ethical clearance to conduct the research has been obtained from the Department of Industrial and Organisational Psychology, University of South Africa, as well as from the Gauteng Department of Education.

I further declare that this dissertation has not been presented at any other institution in and outside South Africa for the same qualification

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SUMMARY

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Although several studies have been conducted regarding sources of stress for teachers, as well as the coping resources deployed by teachers to manage stress, no studies were found which explored these constructs for teachers within different career stages. Similarly, several studies explored the sources of stress for teachers in different South African provinces, but no studies were found which explored stress or coping resources for teachers in Gauteng. This study aims to address this identified lack in research.

Teaching ranks as one of the most stressful occupations, not only internationally, but also in South Africa and therefore, stress poses a threat to the quality of education in South Africa. This threat was recognised by the Gauteng Department of Education, and as a result, the goal to increase the wellness of teachers in Gauteng was set in the Annual Performance Plan of 2012/2013; making this study not only original, but also a necessity.

High school teachers (n = 193) were selected from 23 high schools in Gauteng to participate in this study. The Sources of Work Stress Inventory (SWSI), the Coping Resource Inventory (CRI) and the Adult Career Concerns Inventory (ACCI) were used to measure sources of stress, coping resources and career stages, respectively. Pearson product correlations were analysed and significant relationships were found between different sources of work stress, coping resources and career stages.

KEY TERMS

sources of work stress, coping resources, career stages, high school teachers, Gauteng, Gauteng Department of Education

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CHAPTER 1: SCIENTIFIC ORIENTATION TO THE RESEARCH

This dissertation focuses on the sources of stress and the coping sources deployed by high school teachers in Gauteng during different career stages. Chapter 1 provides the background and motivation, the problem statement, the aims, the paradigm perspective, the research design and method, and the chapter layout.

1.1   BACKGROUND AND MOTIVATION FOR THE RESEARCH

During the past years, there has been an increase in stress in almost every domain of human activity and especially in the workplace (Galankis, Stalikas, Kallia, Karagianni & Karela, 2009). The teaching profession is no exception. Teaching ranks among the most stressful professions worldwide (Aamir, Ullah, Habib & Shah, 2010; Gregory, 2009; Leung, Chiang, Chui, Lee & Mak, 2010; Zurlo, Pes & Cooper, 2007) and as a result, stress in the teaching profession has been a popular research tropic (Chan, Cheng & Chong, 2010; Harris, 2011; Hung, 2011; Klassen, 2010; Lambert, McCarthy, O'Donnell & Wang, 2009; Mintz, 2007; Platsidou & Agaliotis, 2008; Zurlo, et al., 2007).

Stress can be described as the development of behavioural, emotional, mental, and physical reactions grounded in continuous, escalating or novel strain or anxiety that are considerably greater than the accessibility of coping resources (Wang, Lin & Cao, 2009). Consequently, stress has a variety of destructive effects on the mind, body and the ability to perform professionally.

When teachers stress they tend to have poorer health (Gregory, 2009; McCormick & Bartnett, 2011), as stress increases the risk of cardiac diseases, cerebral apoplexy (Aghar, 2008), and cancer (Aamir, et al., 2010). According to McCormick and Bartnett (2011), stress is also associated with lower work satisfaction, depersonalisation, emotional exhaustion, and a decreased sense of accomplishment. It is also suggested that work stress could lead to ineffectiveness, low performance, poor motivation and ultimately high levels of turnover (Akpochafo, 2012).

Correspondingly, Klassen (2010) and Aghar (2008) suggest that stress has destructive effects on mental health, physical health and ultimately occupational functioning. Other consequences of excessive work stress experienced by teachers could include high levels of absenteeism. Akpochafo (2012) reported that approximately 50 per cent of all the absences

from work are stress-related. Ultimately, the destructive consequences of stress on teachers and the profession of teaching are not only experienced by the teachers, but moreover, the consequences affect the organisation, as well as the learners (Hung, 2011).

In recent years in South Africa, there has been an increase in the research of stress among teachers in particular provinces (Jackson & Rothmann, 2006; Milner & Khoza, 2008; Olivier & Venter, 2003; Paulse, 2005). However, no recent studies have been found on the study of stress experienced by teachers within Gauteng. Additionally, in the Annual Performance Plan 2012/2013 of the Gauteng Department of Education (http://www.education.gpg.gov.za), one of the key goals identified is to enhance the wellness of teachers and to strive for a healthy teacher workforce.

This study is therefore conducted in an attempt to provide information to the Gauteng Department of Education by reporting on the sources of stress and coping resources for teachers in Gauteng within different career stages.

1.2   PROBLEM STATEMENT

As indicated in the literature, when teachers stress they are often depersonalised, exhausted and may experience a decrease in self-accomplishment (McCormick & Bartnett, 2011). As a result, they often deploy coping resources in an attempt to cope with stress. However, it is important to note that teachers are in different career stages; thus, when studying stress in teachers it is important not to generalise, but to examine the sources of stress for teachers within different career stages.

A person is categorised within a career stage, but not limited to a specific career stage, through chronological age and work experience (Schreuder & Coetzee, 2011). Several studies, as proposed by literature has been conducted to examine sources of stress for teachers (Aamir, et al., 2010; Chan, et al., 2010; Leonard, 2009; Singh, 2009, Zurlo et al., 2007), as well as different coping resources (Brown, Howcroft & Jacobs, 2009; Hung, 2011; Lewis, Roache & Romi, 2011; Nell, 2005). However, no study was found which examined sources of stress and coping resources for teachers within different career stages.

Despite several studies on stress among teachers that have been conducted in other provinces of South Africa (Jackson & Rothman, 2006; Milner & Khosa, 2008; Olivier & Venter, 2003; Paulse, 2005), no studies could be found that focused on stress among teachers in Gauteng. This indicates a lack in research. In addition, the promotion of wellness

of teachers within Gauteng is one of the goals set out in the Gauteng Department of Education's Annual Performance Plan of 2012/2013 (http://www.education.gpg.gov.za), and therefore, there is a necessity for studying the sources of stress and coping resources for high school teachers in Gauteng within different career stages.

Based on the problem described above, this research was aimed at investigating and reporting on the following questions:

- What sources of stress are experienced and what coping resources are deployed by high school teachers in Gauteng?

- Is there a significant relationship between career stages and the specific sources of stress and coping resources experienced by high school teachers?

1.3   AIMS

The general and specific aims which were formulated, are listed below.

The general aim of the study is to identify the sources of stress and the coping resources of high school teachers within different career stages.

The specific aims relating to the literature review were:

- to conceptualise sources of stress from a theoretical perspective;
- to conceptualise coping resources from a theoretical perspective;
- to conceptualise career stages from a theoretical perspective;
- to conceptualise the theoretical relationship between sources of stress, coping resources and different career stages.

The specific aims relating to the empirical study were:

- to identify the sources of stress for high school teachers in Gauteng;
- to identify the coping resources for high school teachers in Gauteng;
- the identify if there is a significant relationship between career stages and sources of work stress and coping resources.

1.4   THE PARADIGM PERSPECTIVE

A paradigm perspective can be defined as "fundamental models or frames of reference we use to organise our observations and reasoning" (Babbie, 2012, p.42). What follows is a discussion on how this study relates to the field of Industrial and Organisational Psychology, the psychological paradigm and empirical paradigm in which the study is conducted, the meta-theoretical concepts that may possibly influence the results of the study, the theoretical model which forms the basis of the study, the conceptual descriptors and the central hypothesis.

1.4.1   Industrial Psychology and Organisational Psychology

This study forms part of the Industrial and Organisational Psychology discipline and the sub-discipline of Career Psychology. Industrial and Organisational Psychology is a branch of psychology that applies the principles of psychology to the workplace (Aamodt, 2012). According to Van Vuuren (2010), Career Psychology focuses mainly on understanding and improving the wellness of employees within the organisation (Aamodt, 2012). These fields relate to this study in the sense that this study focuses on the sources of stress and the coping resources for teachers within different career stages.

1.4.2   Psychological paradigm

In order to conceptualise sources of stress, coping resources and career stages; the humanistic paradigm was adopted in the literature review chapters. Meyer, Moore and Viljoen (2003) propose that the humanistic paradigm is based on certain assumptions. These assumptions include:

- the individual is an integrated whole;
- the positive nature of human beings is considered good or least neutral, while evil and destructive behaviour is ascribed to external factors;
- the conscious process of a person allows him or her to take part in conscious decision-making processes;
- the person is an active being, who is not reactive only to the environmental demands, but who is an active participant in determining his or her potential and his or her innate or creative abilities.

In addition, Meyer et al., (2003), state that this paradigm places emphasis on the psychic health, where the humanistic approach asserts that the psychologically healthy person should be the criterion used to examine human functioning. This paradigm therefore suggests that a person, such as a teacher, has freedom of choice and could therefore react to the different sources of stress by deploying certain coping strategies.

According to Hancock and Szalma (2012), the positive psychology paradigm focuses on working with human strengths to improve quality of life, subjective happiness, and productivity. Consequently, the positive psychology paradigm was also adopted in the literature review chapters.

1.4.3   Empirical paradigm

The epistemological basis for quantitative research is characterised as positivistic. Therefore, the empirical research paradigm for this study is the positivist paradigm (Aamodt, 2012). The general principles of the positivist paradigm are that only phenomena, and therefore knowledge, confirmed by the senses, can genuinely be warranted as knowledge; that the function of theory models is to generate hypotheses that can be tested and that will allow explanations of law to be considered (Katsirikou & Skiadas, 2010). This study proposed that stress for teachers in different career stages are caused by different sources and that different coping resources can be used to alter the experienced stress.

1.4.4   Meta-theoretical concepts

Meta-theoretical concepts that may possibly influence the results of this study are personality (Dumitru & Cozman, 2012), age (Dumitru & Cozman, 2012), marital status (Galankis, et al., 2009) and gender (Cardoso & Fernandes, 2011) as all of these factors influence the sources of stress and coping resources of employees. There are several other concepts that may have influenced the results of the study; however, several studies have shown that personality, age, marital status and gender were the most prominent (Dumitru & Cozman, 2012).

1.4.5   Theoretical models

Sources of work stress were studied based on the job-demand-control model (Karasek, 1979); whereas coping resources in the literature review were discussed in keeping with

Lazarus' (1966) model of stress and coping (Crane & Marshall, 2005). Career stages were presented in relation to Super's (1990) model of career development (Hung, 2011).

1.4.6   Conceptual descriptors

Three conceptual descriptors form part of this study. These conceptual descriptors were identified as sources of work stress, coping resources, and career stages.

1.4.6.1   *Sources of work stress*

Studies have suggested several main sources of work stress among teachers (Aamir, et al., 2010; Chan, et al., 2010 Leonard, 2009; Singh, 2009, Zurlo et al., 2007). Several sources of stress such as role ambiguity, relationships, tools and equipment, career advancement, job security, lack of autonomy, work/home interface and workload have been identified as possible sources of stress for teachers. According to De Bruin and Taylor (2005), these sources of work stress can be described as follows:

- *Role ambiguity*: Role ambiguity relates to the amount of stress experienced by a person due to vague specifications or constant change regarding the expectations or duties that define the individual's job.

- *Relationships*: This scale refers to the stress experienced by a person as a result of having poor interpersonal relationships with colleagues and superiors, as well as being subjected to interpersonal abuse.

- *Tools and equipment*: This scale relates to the stress experienced by a person due to a lack of relevant tools and equipment needed to do a job properly, or working with inappropriate, broken or complex machinery.

- *Career advancement*: Career advancement refers to the stress experienced by a person as a result of a perceived lack of opportunity to further his or her career prospects within the organisation for which they work.

- *Job security*: Job security relates to the amount of stress experienced by a person due to uncertainty about his or her future in the current workplace.

- *Lack of autonomy*: Lack of Autonomy refers to the amount of stress experienced by a person due to a lack of decision-making authority in the workplace. This can be due to either job constraints or workplace constraints.

- *Work/Home interface*: This category refers to the stress experienced as a result of a lack of social support, and work/non-work activity, spill-over, and conflict with regards to stress within and outside the workplace.

- *Workload*: Workload refers to the amount of stress experienced by the individual due to the perception that he or she is unable to cope or be productive with the amount of work allocated to him or her.

1.6.4.2   Coping resources

Coping resources can be described as the psychological capacities inherent in individuals that enable them to handle stressors more effectively, to experience fewer or less intense symptoms upon exposure to a stressor or to recover faster from exposure (Hammer, 1988). Teachers require effective coping resources in order to cope with stress (Lewis, et al., 2011).

Hammer (1988) identifies five coping resources that are deployed in order to cope with stress:

- *Cognitive resources*: These refer to the extent to which people maintain a positive sense of self-worth, a positive outlook towards others and optimism about life in general.

- *Social resources*: These refer to the degree to which people are imbedded in social networks that are able to provide support in times of stress.

- *Emotional resources*: These concern the degree to which people can accept and express a range of affect, based on the premise that a range of emotional responses helps to ameliorate long-term negative consequences of stress.

- *Spiritual / philosophical resources*: These involve the degree to which a person's actions are guided by stable and consistent values derived from his or her religious, familial or cultural tradition, or from personal philosophy. These values may actually

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define the meaning of potentially stressful events and prescribe strategies that enable the individual to respond effectively.

- *Physical resources*: These have to do with the degree to which people enact the health-promoting behaviours believed to contribute to increased physical wellbeing. Physical wellbeing is thought to decrease the level of negative response to stress and to enable people to recover faster.

1.4.6.3   Career stages

Super proposes five career stages (Coetzee & Roythorne-Jacobs 2012). However, only four stages are relevant to this study as the participants in the study are between the ages of 19 and 65 or older than 65; and therefore the participants typically fall within the following stages:

- *Exploratory stage*: People in the age group 14 to 25 are typically within this stage and should be likely to explore career possibilities and experience the experience of a first full time job. In addition, they are likely to have encounters with supervisors and colleagues.

- *Establishment stage*: People in the age group 25 to 45 are typically in this stage and should be likely to advance at work. They are likely to experience events such as promotion and an increase in salary and should feel a sense of stability at work.

- *Maintenance stage*: People in the age group 45 to 65 are typically in this stage and should be likely to deal with new technological advancements. Factors such as reputation and improving performance are important during this stage.

- *Disengagement stage*: People in the age group 65 and older are typically in this stage, and factors such physical limitations and declining health are often experienced during this stage. People in this career stage often prefer working part-time.

1.4.7   Central hypothesis

The central hypothesis of the research is stated below:

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Teachers in different career stages will experience different sources of stress and will deploy different coping resources specifically pertaining to their particular career stage.

1.5 RESEARCH DESIGN

According to Babbie & Mouton (2009), a research design can be described as a plan on how you intend to conduct research. The research design includes the research approach and the research method. The research method concerns the research participants, measuring instruments, research procedure and ethical considerations, and statistical analysis. The research design for this study is presented below.

1.5.1 Research approach

A quantitative approach was followed in this research. A quantitative research approach relies on tests, rating scales, questionnaires, and psychological measures and yield numerical results (Landy & Conte, 2010). In addition, an exploratory research approach was followed. Babbie (2012) proposes that exploratory research is used when problems are in a preliminary stage and is flexible and can address different research questions.

1.5.2 The variables

An independent variable is presumed to cause or determine a dependent variable (Babbie & Mouton, 2009). The independent variable for this study was the different career stages of the high school teachers. A dependent variable is a variable assumed to depend or be caused by another (independent variable) (Babbie & Mouton, 2009). The dependent variables in this research were sources of stress and coping resources.

1.5.3 Unit of analysis

Babbie (2012) describes unit of analysis as the people or things and the characteristics which social researchers observe, describe and explain. The unit of analysis for this study was the individual (the high school teacher). Schools in Gauteng consisted of teachers who individually formed the unit of analysis. Sources of stress and coping resources for teachers within different career stages were examined on a person basis according to biographical groups to determine the relationship between sources of stress, the coping resources deployed and the career stages of the teachers being assessed.

1.5.4   Methods to ensure reliability and validity

1.5.4.1   *Reliability*

Foxcroft and Roodt (2009) refer to reliability as the consistency with which a test measures whatever it measures. To enhance the reliability of the study, the following mechanisms were implemented.

a) Informed consent and intention
    The participants were informed of the process and the goal of the study.

b) Confidentiality
    The participants were informed of their right to confidentiality and this was maintained throughout the process.

c) Reliability of the measuring instruments
    The measuring instruments used fulfilled reliability and validity requirements.

d) Construct and measuring instrument replication
    The constructs in this study were measured with instruments that had been used effectively in other similar international and South African studies.

1.5.4.2   *Validity*

Validity is what the test measures and how well it does so (Foxcroft & Roodt, 2009). The validity of this study was enhanced by selection of valid, suitable and relevant constructs; the use of valid measuring instruments; and ensuring reliable data in order to reach valid conclusions.

1.6   RESEARCH METHOD

The research method is presented in two phases: the literature review and the empirical study.

1.6.1   Phase 1: Conceptualisation and literature review

The following steps were taken in the literature review phase.

Sources of Work Stress, Coping Resources and Career Stages are conceptualised from a theoretical perspective and an integration of the findings follows to explain the theoretical relationship among these constructs. Information was obtained from different international and South African sources such as journals, textbooks, theses and dissertations. As a result, a comprehensive literature study is used as a foundation to maintain sufficient information on the key topics.

1.6.2 Phase 2: Empirical investigation

The following steps were followed in the empirical phase.

Step 1: Population and sample

The target population included high school teachers in Gauteng and stratified random sampling was used. The stratified random sampling technique is generally applied to obtain a representative sample. The population was divided into several sub-populations that were individually more homogenous than the total population (Kothari, 2006). The sampling procedure was probability sampling and included 250 teachers all working in Gauteng-based schools. A basic principle of probability sampling is that a sample will be representative of the population from which it is selected if all members of the population have an equal chance of being selected in the sample (Maxfield & Babbie, 2012).

Step 2: Choosing and motivating the psychometric battery

Three instruments were used to collect the data: The Sources of Work Stress Inventory (SWSI); The Coping Resource Inventory (CRI); and The Adult Career Concerns Inventory:

a) *The Sources of Work Stress Inventory (SWSI).*

Generally, the SWSI (De Bruin & Taylor, 2006), aims to indicate a general level of work stress and to determine the possible sources of work stress. The questionnaire is divided into two parts: (a) the General Work Stress Scale, which consists of questions concerning the level of stress caused by work and (b) the Sources of Stress scales, which consist of statements regarding aspects of work that may cause stress (De Bruin & Taylor, 2005). Only part (b), the Sources of stress scales was used for the purpose of this study.

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The SWSI (De Bruin & Taylor, 2006) consists of nine sources of work stress, namely: role ambiguity, relationships, working environment, tools and equipment, work/home interface, workload, bureaucracy, autonomy and career advancement/job security. This section contains 79 items. Respondents are asked to indicate to what extent each source of stress contributes to their level of stress at work.

The format is a five-point Likert-type scale, with responses ranging from 1 to 5 in the following order: none at all, very little, some, quite a lot and very much. An example of a source of stress item is: 'Being unsure about what my job really involves' (Item 1: Role Ambiguity) (De Bruin & Taylor, 2005).

The SWSI (De Bruin & Taylor, 2006) was developed in South Africa by using academic university staff as participants. As mentioned, the aim of the SWSI is to identify the sources of stress; thus, this instrument is ideal for determining sources of work stress for high school teachers in South Africa.

Alternative-form reliability demonstrated high reliability coefficients for all the constructs measured by the SWSI; hence, proving that the instrument measures sources of work stress consistently over time.

The Cronbach alpha coefficients for the various sources of work stress was calculated by De Bruin and Taylor (2005) and reported as: Role ambiguity (α= .89); relationships (α = .93); tools and equipment (α = .91); job security (α = .93); career advancement (α = .90); bureaucracy /autonomy (α = .95); work/home interface (α = .86); workload (α = .93). Brand (2007) also found high Cronbach alpha coefficients for the various sources of work stress and reported as: Role ambiguity (α = .79); relationships (α = .92); tools and equipment (α = .94); job security (α = .94); career advancement (α = .84); bureaucracy/autonomy (α = .85); work/home interface (α = .79); workload (α = .78).

This indicates high reliability for all the sources of work stress. Through examining the dimensionality of the SWSI and by conducting a joint factor analysis of the job demands, job control and SWSI items, results provided support for the construct validity of the SWSI (De Bruin & Taylor, 2006).

The SWSI has successfully been used in studies in South Africa. A study by Brand (2007) investigated the relationship between burnout, occupational stress and emotional intelligence in the nursing industry by using the SWSI as instrument to determine the sources of occupational stress for South African nurses. In another South African study, De Bruin and Yiannakis (2012) used the SWSI in a study where the self-directed learning, job resources and job satisfaction among South African women were measured. This provides evidence of the utility of the SWSI in a South African context.

b) *The Coping Resources Inventory (CRI).*

The CRI was developed by Hammer (1988) to identify resources that are currently available to people for managing stress. The CRI has been used in a variety of settings and therefore it is seen as a test with multiple uses. The CRI is a 60-item instrument that measures resources in five domains. These domains are cognitive, social, emotional, spiritual/philosophical and physical (Hammer, 1988):

- *Cognitive resources:* These refer to the extent to which people maintain a positive sense of self-worth, a positive outlook towards others and optimism about life in general.

- *Social resources*: These refer to the degree to which people are imbedded in social networks that are able to provide support in times of stress.

- *Emotional resources*: These concern the degree to which people can accept and express a range of effects, based on the premise that a range of emotional responses helps to ameliorate long-term negative consequences of stress.

- *Spiritual/philosophical resources*: These involve the degree to which a person's actions are guided by stable and consistent values derived from his or her religious, familial or cultural tradition, or from personal philosophy. These values may actually define the meaning of potentially stressful events and prescribe strategies that enable the individual to respond effectively.

- *Physical resources*: These have to do with the degree to which people enact the health-promoting behaviours believed to contribute to increased physical

wellbeing. Physical wellbeing is thought to lower the level of negative response to stress and to enable people to recover faster.

Test-retest reliability coefficients were found to be high, thus, proving that the instrument is reliable over time. In addition, Cronbach alpha coefficients were reported for Cognitive (α = .77); Social (α = .79); Emotional (α = .84); Spiritual/Philosophical (α = .80); Physical (α = .71) and for the total CRI (α = .91). This suggests that the CRI is a reliable measure. Regarding validity, the CRI was found to have some scale inter-correlations, as well as predictive, convergent, divergent, discriminant and concurrent validity (Hammer, 1988).

The CRI has successfully been used in a wide variety of South African research. Tshabalala (2011) used the CRI to coping resources of air traffic controllers within South Africa, whereas several other studies, such as Kayal (2004) and Pretorius, Basson and Ogunbanjo (2010), have also successfully used the CRI to determine the coping resources of policemen and medical vocational trainees, respectively.

c) *The Adult Career Concerns Inventory (ACCI).*

The ACCI is an inventory appropriate to access career concerns of adults of any age and occupation (Halpin, Ralph & Halpin 1990). It was specifically designed to use with adults in the work world who are rethinking their own careers, but also with older adolescents who are about to complete their schooling and are considering entry into an occupation (Super, Thomson & Lindeman, 1988). Focused on the planfulness and exploration factors of Super's (1990) theoretical model of vocational maturity, the ACCI assesses exploration, establishment, maintenance, disengagement, and career change (Halpin et al., 1990). According to Super, et al., (1988), the stages can be described as follows:

- *The Exploration Stage*: The exploration stage is sub-divided into three stages, i.e. crystallisation, specification and implementation.

  – Crystallisation refers to developing ideas as to the field and level of work desired, and of occupations that seem appealing, upon which educational, training, and pre-occupational decisions are based.

- Specification implies that general preferences must become specific, as there are pressures to act and choose an occupation, a speciality or a job. This is a concern specifically relevant to those in their early 20s, and again during career transitions and mid-career crises.

- Implementation refers to when an objective is chosen and plans are carried out. Again, these tasks are typically carried out in the early 20s, or mid-career when the desire for greater self-realisation causes career review, and or implementing retirement when a different kind of review is called for.

- *The Establishment Stage*:

  - During the first substage of this stage, the stabilisation stage, the expectation that people will make and act on plans is followed by the expectation that they will settle down, support themselves and contribute to family support, develop an appropriate lifestyle, make use of abilities and training, and pursue meaningful interest. This is common among people in their late 20s and early 30s and again after mid-career changes.

  - The second substage, the consolidation stage, is the time when people are commonly concerned with their place in an occupation or in an organisation. During this substage, security is the objective, although in unstable careers, it is elusive and sometimes not even desired.

  - In the last substage, the advancement substage, there is generally an expectation that individuals will get ahead financially and move to more challenging levels of responsibility, and of what is sometimes called "behaviour control" or independence. It is not likely that everyone would want to advance, but this is a common concern among those in white-collor occupations and who range in age from 25 to 45 or 50.

- *The Maintenance Stage*: This stage is concerned with three substages.

  - The first substage, the holding stage, implies that people within this substage are likely to have attained a position, and are expected to hold onto this position or

improve it. Competition from others, technological change, health problems, or family demands may threaten it. This is a common concern after the age of 45.

- The second substage, the updating stage refers to certain situations where the person is expected to keep abreast new developments as field change and as the person's goals change

- During the third substage, the innovating stage, people may be expected to explore and establish something different, even if they are well established.

- *The Disengagement Stage*: This stage is similar to the other stages, characterised by three substages.

    - The decelerating substage, the first substage, is characterised by people need to reduce the pace or load of work before retirement. This is common for people in their 60s, and may even be applicable to people in their 50s, depending on the level of control these people experience at work.

    - The second substage, the retirement planning substage, is an active concern for people who anticipate retirement or when they realise that they are expected to retire. This is a development task that is very clearly related to a particular age and to stage.

    - The last substage, the retirement living substage is concerned with allowing time for other interests or hobbies outside the world of work and this may bring about new concerns. This substage is typically characterised by people in their late 60s and 70s.

Participants are required to respond to 65 statements which reflect career concerns at these stages. Statements are rated on a Likert scale ranging from (1) "no concern" to (5) "great concern". Sample items include: "finding a line of work that really interests me (exploration stage); "developing a reputation in my line of work" (establishment stage); "maintaining the occupational position that I have achieved" (maintenance stage); "planning well for retirement" (disengagement stage); and "clarifying my thinking about whether or not to make my career change" (career change) (Halpin et al., 1990).

For the purpose of this study, the items concerning career change will not be considered as it is irrelevant to the study (items 61 to items 65). Ratings are given to the items comprising the respective stages and an average rating is calculated as the resulting score for each stage.

All validity criteria were satisfied with the development of the ACCI. Content validity was established by Super (1957) and Zelkowitz (1974). Concurrent validity was established by Slocum and Cron (1985) and Super (1957); whereas predictive validity was established by Stout, Slocum and Cron (1987). In addition, canonical correlation analysis support Super's (1990) career development model and the construct validity of the ACCI (Halpin et al., 1990). As a result, it seems that the ACCI measures what it was designed to measure and therefore it is seen as a valid instrument for measuring the career stages.

The ACCI is a reliable measure as the alpha coefficients supports the internal consistency of the five subscales (exploration, establishment, maintenance, disengagement and career change) (Super, 1987). The Cronbach alpha coefficients were reported as $\alpha = .92$ for the exploration stage, $\alpha = .92$ for the establishment stage, $\alpha = .93$ for the maintenance stage; and $\alpha = .93$ for the disengagement stage. Likewise, Halpin et al., (1990) reported similar findings and this lends credibility to the claim that the ACCI is a reliable measure.

Step 3: Administration of the psychometric battery

In order for research to be conducted in high schools in Gauteng, permission and ethical clearance was obtained from the Gauteng Department of Education, followed by authorisation from the principals of each school. The teachers were briefed regarding voluntary participation, informed consent, confidentiality and the purpose and aim of the study, including the focus of each of the questionnaires. This was followed by a complete explanation of each of the instruments.

Step 4: Scoring of the psychometric battery

The scores obtained by the participants in the SWSI were presented to the researchers at Jopie van Rooyen and Partners for scoring, whereas the CRI and ACCI were manually scored by the researcher.

Step 5: Statistical processing of data

The statistical analysis was conducted using the SPSS Programme Version 21.0 (SPSS 2013). Descriptive, correlational and inferential statistics were used to analyse the data. An independent samples t-test was used to assess whether teachers in different career stages differed significantly regarding the sources of work stress and coping resources.

Analysis of variance (ANOVA) was used to investigate whether career stages significantly explained the variance of work stress and coping resources, and descriptive statistics (mean and standard deviations) were used to provide descriptive data of the total sample, as well as the different groups.

ANOVA allows for the testing of differences between more than two groups of subjects and the influence of more than one independent variable (Durrheim, 2007). To confirm where the differences occurred between groups, a Sheffé post-hoc test was calculated. Lastly, to assess the direction and strength of the relationship between the variables, Pearson product-moment correlations were calculated. In order to counter the probability of type I error, it was decided to set the significance value at 95% confidence interval level ($p \leq .05$).

Step 6: Formulation of the research hypothesis

In order to operationalise the study, an empirical hypothesis will be formulated from the central hypothesis to test the following:

Career stages will significantly predict the sources of work stress and the coping resources experienced by high school teachers.

Step 7: Reporting and interpreting of the results

The statistical data were studied and investigated to assist inductive analysis and to draw conclusions from it with reference to the central hypothesis. The results were presented on tables, which were discussed and interpreted.

Step 8: Integration of the research findings

The research findings were integrated and discussed while making reference to previous studies. The findings from this study were also discussed in terms of novel results obtained from this study.

Step 9: Formulation of research conclusions, limitations and recommendations

Research conclusions were formulated from the results obtained in this study and limitations were discussed. Furthermore, recommendations were made for future research.

1.7   CHAPTER LAYOUT

The chapters of this dissertation follow that of Master's Degree Option 1 and the chapters are as follow:

Chapter 1: Scientific orientation to the research

This chapter contains the background and motivation, the problem statement, the aims, paradigm perspective, research design and method, as well as the chapter layout.

Chapter 2: Literature review

The aim of this chapter is to provide a theoretical background to the study, as well as to conceptualise sources of stress, coping resources and career stages. The constructs are examined in terms of definitions and results from previous studies. A theoretical integration of sources of stress, coping resources and career stages are also presented in this chapter.

Chapter 3: Article

In this chapter the results are presented in article format. The empirical procedure is presented in terms of the sample, measuring instruments, administration of the questionnaire, data collection and processing, statistical methods and formulated hypothesis, and the results are presented in tables. Conclusions, recommendations and limitations are presented based on the research findings.

Chapter 4: Conclusions, limitations and recommendations

In this chapter, conclusions are drawn in terms of the specific aims of the research. The limitations of the research are discussed and recommendations are made on the basis of the findings of the research.

1.8   CHAPTER SUMMARY

This chapter provides an introduction and a broad background to the study. All the variables relevant to the current study were introduced and briefly discussed. In addition, the chapter introduces the problem statement and clearly defines the research questions. The paradigm and the meta-theoretical concepts in which this study was conducted are also discussed. Following this, an overview of the layout of this dissertation is provided.

CHAPTER 2: SOURCES OF WORK STRESS, COPING RESOURCES AND CAREER STAGES CONCEPTUALISED FROM THE LITERATURE

This chapter focuses on the conceptualisation of sources of work stress, coping resources and career stages. Sources of work stress, coping sources and career stages are discussed in terms of a brief overview, definitions, models and the appearance in an educational setting. These constructs will also be integrated and the theoretical relationships determined.

2.1   SOURCES OF WORK STRESS

Below is the literacy review on sources of work stress. It is aimed at exploring sources of work stress in terms of a brief overview, definition, components and the appearance and implications of stress in an educational setting.

2.1.1   A brief overview of stress and work stress

Stress is predominant in modern society. The wealth of literature on the perception of stress mirrors researchers' beliefs that stress has a major influence on people's lives and is linked to physical and mental health (Nell, 2005). Stress is seen as a normal, necessary and inevitable life phenomenon which generates temporary discomfort, as well as long-term consequences (Parsotam, 2009).

The concept of stress was presented in the medical terminology as early as 1936 by the Canadian theorist and endocrinologist, Hans Seley (Dumitru & Cozman, 2012; Mintz, 2007; Parsotam, 2009). Seyle (1936) was among the first researchers to refer to stress as a potentially negative concept which causes maladaptation to the environment and could lead to psychological harm (Parsotam, 2009).

Seyle (1956) also found that there was a similarity in the rats that he studied and the patients who consulted him. While the rats developed ulcers, his patients reported that they were "just feeling sick", not in a specific way, but it seemed in direct response of external pressures or stimuli (Akpochafo, 2011; Parsotam, 2009). Wood (2007) further noted that according to Seyle (1956), stress is the non-specific response of the body to any demands.

However, specifically, stress is more likely in some situations than others and in some people than others (Singh, 2009); and as a result, the sources of stress seems to be unique to how a person experience it. Typically, conditions that cause stress is called stressors and refers to the demands placed on a person, which act as a stimulus for evoking a response, such as negative emotions, anxiety and stress. An external stressor or an internal stressor can activate stress and it is usually a combination of stressors that could cause major stress (Rothmann & Cooper, 2008; Viljoen & Rothmann, 2009).

Akpochafo (2012) refers to work stress as the 20th century disease, as it is extensive and multifaceted. According to Rothmann and Cooper (2008), work stress is similar to general stress, but it is characterised by the person's incapacity to cope with occupational stresses on the mind and body within a work context. It suggests that a person cannot efficiently control job-related demands, such as work overload, role conflict in the workplace and poor working conditions (Viljoen & Rothmann, 2009).

 In congruence, Weinberg & Cooper (2007) also mention that work stress is triggered by a "mismatch" concerning the demands made upon a person and his/her ability to cope with them. Consequently, work stress can have a wide and harmful impact on the quality of wellbeing of a person (Cardoso & Fernandes, 2011). Similarly, Viljoen & Rothmann (2009) state that it is noticeable at a cognitive, behavioural, physical and psychological level. As a result, the experience of work stress can alter the way the person feels, thinks and behaves, and can also produce changes in cognitive, behavioural, physical and psychological functions (Hanif, Tariq & Nadeem, 2011).

Moreover, work stress may also lead to incompetence, increased absenteeism, low performance, poor motivation, and high turnover (Akpochafo, 2012). Stress may lead to other negative outcomes such as lower work satisfaction, depersonalisation, emotional exhaustion and a decreased sense of accomplishment (Eres & Atanasoska, 2011; Gregory, 2009).

2.1.2   Defining Stress and work stress

According to De Bruin and Taylor (2005), defining stress is a difficult task as there are currently many definitions available. Similarly, Nell (2005) declares that in spite of stress being a very widely researched area, theorists and researchers have been unable to agree on a common definition of the term "stress".

Gregory (2009) states that the term "stress" is used loosely in the general population, as well as across stress research, and this may cause considerable confusion. The concept of stress is derived from the Latin word "strictus", which literally means taut (tightly strung) (Olivier & Venter, 2003). Seyle (1978) defines stress as any external events or internal drive which threatens to upset the organisational equilibrium. Richards (1989) defines stress as the physical, emotional and mental strain resulting from this mismatch between a person and his/her environment, which results from a three-way relationship between demands on a person, the person's feelings about those demands and his/her ability to cope with those demands. Dunham (1992) similarly defines stress as a process of behavioural, emotional, mental, and physical reactions caused by prolonged, increasing, or new pressures that are greater than the availability of coping strategies.

Stress can also be referred to as a combination of a stressor, stress reactivity, and the existence of strain (Greenberg, 2011). Chan, Chen and Chong (2010) define stress as unpleasant emotions, which arise when people worry that they cannot cope with excessive pressures or other types of demands placed on them.

Coetzee, Jansen and Muller (2009) noted that the term stress has been used to refer to the level of pressure and demands made on the individual. Le Blanc, De Jange & Shaufeli (2008) noted that even though there is lack of consensus on the definition, most researchers in the field of stress do agree that three different meanings of the term stress can be distinguish: stress as a stimulus, stress as a response, and stress as mediational process between stressor (stimulus) and reaction (response).

Robbins, Millet and Waters-Marsh (2008) describe stress as a dynamic condition in which a person is confronted with an opportunity, demand or resource related to what the individual desires and for which the outcome is perceived to be both uncertain and important. This definition was chosen as the representative definition for this study because stress is seen as a dynamic condition, and it is relevant to the educational sector especially the teaching environment where there is constant change and uncertainty.

Work stress, as referred to by Tshabalala (2011), is the stress experienced in the workplace and it is studied and researched in a different way from the concept of general stress. Cardoso and Fernandes (2011) describe work stress as the lack of fit between the person and the job environment. In addition, they also refer to work stress as the inability to cope with pressures in the job, since there is a lack of fit between the individual's abilities and his competency to work effectively.

Akpochafo (2012) refers to work stress as the physical, mental and emotional wear and tear brought about by the incongruence between the requirements of the job and the capabilities, resources and needs of the employee to cope with job demands. From these definitions, it seems that work stress prevails when an employee's work demands exceeds his or her adaptive capacity. Ahghar (2008) describes work stress as harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker. Singh (2009) refers to work stress as the harmful and emotional responses that occur when the requirements of the job do not match the capabilities, the resources or the needs of the worker.

2.1.3 Conceptualising sources of work stress

Sources of work stress have been identified by many authors (De Bruin & Taylor, 2005; Cope, 2009; Mostert, Rothmann, Mostert & Nell, 2008; Oosthuizen & Koortzen, 2009). The sources of work stress identified by De Bruin and Taylor (2005) are most relevant in this study.

Research within an educational setting by De Bruin and Taylor (2005) suggest that there are several sources of work stress, namely role ambiguity, relationships, workload, autonomy, bureaucracy, tools and equipment, physical environment, career advancement/job security and work/home interface. Similar sources of work stress have been identified by Cartwright and Cooper (2002), Coetzer and Rothmann (2007), De Bruin & Taylor (2006), Labuschagne, Bosman and Buitendach (2005), Martin (2005) and Rollinson (2005). These sources of work stress are discussed below.

   a) *Role ambiguity*

   Role ambiguity typically refers to the amount of stress a person is subjected to due to unclear conditions or continuous change regarding the expectations, responsibilities and limitations that describe the individual's job (De Bruin and Taylor, 2005). A similar description is given by Spector (2000), who describes role ambiguity as the extent to which people lack clarity about their role or the task demands at work.

   Michie (2002) also states that role ambiguity relates to unclear or conflicting roles and this can cause stress. Furthermore, Idris (2011) suggests that role ambiguity is particularly noticeable in academia. This is consistent with prior research (Dua, 1994; Margolis, 1974; Sharpley, Reynolds, Acosta & Dua, 1996). Paulse (2005) and Sharpley et al., (1996) additionally suggest that a lack of feedback and guidance

increases stress regarding role ambiguity as teachers are uncertain of their expectations and responsibilities.

b) *Relationships*

Relationships refer to the stress experienced as a result of having poor interpersonal relationship with colleague and superiors, as well as being subjected to interpersonal abuse (De Bruin & Taylor, 2005). Similarly, Michie (2002) implies that superiors and colleagues who are critical, demanding, unsupportive or bullying create stress. In a study conducted by Moustaka and Constantinidis (2010), poor relationships are identified as major sources of stress.

This is congruent with prior research conducted by Beehr and McGrath (1992) and Blair and Littlewood (1995); they emphasise that conflict between colleagues and a lack of staff support are two major sources of stress. Paulse (2005) furthermore proposes that competition between colleagues and conflicting personalities are also two contributing factors to forming poor relationships, which can also lead to extensive stress.

c) *Workload*

Workload as a source of stress is the amount of stress felt by people due to the perception that they are incapable to cope or be constructive due to the amount of work allocated to them (De Bruin & Taylor, 2005). Research by De Bruin and Taylor (2005) also implies that teachers have to manage a variety of tasks that occasionally require them to use abilities they may not have developed; creating excessive stress for teachers. In addition, an excessive workload may also create time pressure in terms of simultaneous deadlines for various tasks (De Bruin & Taylor, 2005).

Similar to the findings of De Bruin and Taylor (2005), Blaug, Kenyon & Lekhi (2007) propose that workload is particularly a problem in education and refers to workload as the most pervasive factor linked to work-related stress. In a survey conducted by Nelson (2003) it was indicated that workload seems to be the biggest source of stress which is congruent with Blaug et al., (2007).

d) Lack of autonomy

According to De Bruin and Taylor (2005), autonomy refers to the amount of stress experienced by a person due to a lack of empowerment in the workplace. Autonomy can also be seen as job-control or job-decision latitude, which forms a part of Karasek's (1979) model of occupational stress. Nelson (2003) elaborates by stating that autonomy is especially a problem within an educational setting as teachers are often not able to make decisions by using own initiative, and as a result they do not feel empowered and this particularly causes stress.

e) Bureaucracy

Bureaucracy is described by De Bruin and Taylor (2005) as the stress experienced by a person due to working for an organisation where rules are inflexible and processes and procedures must be strictly followed. In addition, De Bruin and Taylor (2005) elaborate by stating that bureaucracy is especially pertinent to large organisations; it could therefore be expected that schools are characterised by bureaucracy.

As a result, it could also be expected that within schools there are a distinct hierarchy and specific rules to be followed regarding decisions and requests. Literature supports the notion that bureaucracy seems to be a prominent source of stress as seen in studies conducted by Cherniss (1980); Burke, Greenglass and Schwarzer (1996); Leiter and Harvie (1996); Paulse (2005) and Shane (2010).

f) Tools and equipment

Tools and equipment can be described as stress experienced as a result of a lack of the necessary or appropriate tools and equipment required to function in the job (De Bruin & Taylor, 2005). Likewise, Coetzee and De Villliers (2010) propose that people not only require the relevant tools and equipment, but also the necessary training to operate the tools and equipment, since a lack of the relevant skills is also likely to cause stress. Stress can furthermore be caused by working with broken or complex tools and equipment (De Bruin & Taylor, 2005).

g) Physical environment

Physical environment refers to the stress felt by a person as a result of their physical working environment (De Bruin & Taylor, 2005). The physical environment may be a key contributor to the incapacity to focus or reach goals, which in turn could be a source of stress. According to Burke (1988); Gray-Toff and Adderson (1981) and Michie (2002), continuous disruptions, uncomfortable temperature, excessive noise levels and poor lighting are all examples of such environmental factors. Paulse (2005) also emphasises that crime and violence adds to a poor physical environment and as a result, this is likely to cause stress.

h) Career advancement/Job security

Career advancement is the stress experienced by a person due to a seeming absence of opportunities to further his or her career prospects within the organisation (De Bruin & Taylor, 2005). Congruently, Gyllensten and Palmer (2005) suggest that a lack of career progress is a major source of work stress and specifically refer to the "glass ceiling" as being problematic. The glass ceiling refers to a subtle, but powerful barrier that limits career advancement to top management in organisations (Davidson & Burke, 2000).

Job security on the other hand refers to a person's insecurity about his or her future in the workplace (De Bruin & Taylor, 2005) and can also refer to an overall concern of losing one's job or the discontinuation of one's job (Coetzee & De Villiers, 2010).

i) Work/home interface

De Bruin and Taylor (2005) refer to this as the stress experienced by a person as a result of a lack of social support at home or from friends and work – non-work additivity, spillover and conflict with regard to stress within and outside the workplace. Coetzee and De Villiers (2010) elaborate by stating that the demands of work have the potential to spill over and interfere with individual's personal and home lives.

A similar description is proposed by Dubrin (1980), and Beh and Loo (2012) who suggest that women are often most likely to experience this type of stress as they are likely to experience guilt due to a lack of domestic social support. As a result, this can also put strain on relationships outside work and have an impact on the level of stress (Coetzee & De Villiers, 2010).

2.1.4 Sources of work stress: Karasek's (1979) job-demand-control model

This study explores the Sources of Work Stress as measured by the Sources of Work Stress Inventory (De Bruin & Taylor, 2005) which is based on the job-demand-control model as presented by Robert Karasek (1979). The job-demands-control model has been used as a theoretical foundation for research and has been subjected to empirical testing. As the job-demands-control model is an occupational stress model, it is designed to predict negative outcomes or strains (Perrewé & Ganster, 2010).

Karasek (1979) identified job demands and job control as essential job characteristics influencing well-being. Hausser, Mojzisch, Niesel & Schulz-Hardt (2010) refer to job demands as quantitative aspects such as workload, role conflict, time pressure and physical and emotional demands. They furthermore describe the second job characteristics, job control or decision latitude, as the extent to which a person is capable of controlling their tasks and general work activity. Thus, job control refers to the person's abilities and skills to cope with demands and the latitude to decide how a specific task should be accomplished (Hussain & Khalid, 2010).

Karasek (1979) distinguishes between two elements of the working environment that contribute to job stress, or job strain, namely job demands placed on the person and the discretion the person is allowed in deciding how to meet the demands (De Bruin & Taylor, 2006). According to Dornelas (2012), the job demands-control model postulates that a combination of high psychological demands with low control at work leads to mental and physical illness.

The two core dimensions of the model – "psychological job demands" and "decision latitude" or "control" were later supplemented with a third dimension of social support at work. In summary, Wong, Desanctis and Staudenmayer (2007) describe Karasek's (1979) job-demand-control model as a theoretical foundation for stress research where the person's psychological strain results from the interactive effects of his/her job demands and the amount of job control available to that individual's job.

More specifically, Karasek (1979) implies that in order to minimise psychological strain, job demands should be matched to job control in such a way that when job demands are high, job control should correspondingly be high. High job demands allow the person to adapt to demands by developing appropriate behavioural response patterns. As a result, the person can proactively manage how his/her work is done and can channel the approriate energy in

constructive ways, thus reducing the stress brought on by job challenges (De Croon, Sluiter, Broersen, Blonk & Frings-Dresen, 2004).

2.1.5   Sources of work stress pertaining to teachers

Globally, studies conducted by various researchers have suggested several main sources of work stress among teachers. Sources of work stress can be described as those aspects of the environment that prevent a person or group from coping with demands (De Bruin & Taylor, 2005). Teachers are often responsible for others and therefore it may heighten expectations for job performance and emotional availability (Paulse, 2005).

Tnetteman and Punch (2005) asserted that teachers are exposed to high levels of stress regardless of the level they teach. According to Akpochafo (2012), stress can lead to ineffectiveness, low performance, job dissatisfaction, poor motivation, absenteeism and turnover; and the teaching profession is no exception. Mapfumo, Chitsiko and Cherishe (2012) highlights that due to the work stress in teaching, the attrition rate for teachers has reached alarming proportions in some parts of the world.

International research implies that sources of work stress among teachers include unsatisfactory relationships with colleagues (Aamir, et al., 2010; Okeke & Dlamini, 2013; Singh, 2009, Zurlo et al., 2007), feelings of incapability to cope with workload (Chan, et al., 2010; Mapfumo, et al., 2012; Leonard, 2009; Singh, 2009; Zurlo et al., 2007), role ambiguity (Chan, et al., 2010; Okeke & Dlamini, 2013; Singh, 2009), shortage of tools and equipment (Mapfumo et al., 2012; Singh, 2009), lack of autonomy (Zurlo et al., 2007), a lack of social support (Zurlo et al., 2007), unsatisfactory work hours (Mapfumo et al., 2012) and an unacceptable work environment (Okeke & Dlamini, 2013).

South African research indicate that teachers in South Africa are not excluded from being exposed to high levels of stress (Steyn & Kamper, 2006). Teachers' work is becoming more complex and demanding and the roles of teachers are not easily defined (Jackson & Rothmann, 2006). Specifically in South Africa, it appears that teachers are among other challenges, facing severe challenges with the passing of the South African Schools Act, 1996 (Steyn & Kamper, 2006). Innovations such as inclusive education, the abolition of corporal punishment, additional mediums of instruction, lack of discipline, learner problems, unmotivated learners, inadequate salaries and the new curriculum are often to blame for the rising levels of stress among South African teachers (Olivier & Venter, 2003; Steyn & Kamper, 2006).

Several studies regarding stress among teachers in different South African provinces have been conducted. Olivier and Venter (2003) reported that the major sources of work stress for teachers in the Western Cape were inadequate salaries, unmotivated learners, big classes and time demands; whereas Jackson and Rothmann (2006) also conducted a study on teachers in the North West Province and reported that working unsocial hours, lack of proper equipment, not receiving recognition for their work, and constant change were the major sources of work stress.

Earlier studies conducted in the North West province by Van der Linde, Van der Westhuizen and Wissing (1999) suggest that changes within the curriculum, as well as work overload and role ambiguity were prominent sources of work stress among secondary teachers. Nell (2005) proposed that stressors of teachers in the Eastern Cape include issues such as inadequate working conditions, role conflict and role ambiguity, learner problems, time pressure, the threat of redundancy, work pressure, limited participation in decision making and distribution of tasks, stereotypes and discrimination against minority groups, and inadequate salaries. In a study conducted by Pienaar and Van Wyk (2006) on teachers in the Free State, workload seemed to be a great source of stress, whereas Motseke (1998) found that interpersonal relationships was a great source of stress among teachers from this province. Putter (2003) conducted a similar study in KwaZulu-Natal and suggests workload to be the greatest source of work stress for teachers.

A similar study conducted by Schulze & Steyn (2007) among the general South African teaching population implies that the major source of work stress for teachers in South Africa are parents' and learners' poor attitude towards learning and frequent changes within the education system. Schulze & Steyn (2007) suggest that these findings should be interpreted by considering South Africa's history, as well as the current context of the education system. The aim of this study will be to identify sources of work stress and as a result, this study will contribute to the body of literature.

2.2   COPING RESOURCES

Coping resources is conceptualised from the literature below. Firstly, the reader will find a discussion on the overview of coping resources. Thereafter, the concept of coping resources will be defined and specific reference will be made to the different coping resources. Lazarus' (1966) model of coping and stress from which the literature on coping resources is conceptualised will be discussed and reference will be made to typical coping resources deployed by teachers.

2.2.1 A brief overview of coping resources

Coping is one of the most important concepts in research on stress (Nell, 2005). There are generally multiple ways to cope with stressors (Lewis, et al., 2009) and a person can make use of a number of different coping resources when experiencing a stressful situation (Nell, 2005). Consequently, coping resources are rarely, if ever, used in isolation (Gardner & Fletcher, 2009; Taylor & Stanton, 2007). Hung (2011) suggests that the use of coping resources is essential in coping with stress.

Coping resources affect coping processes, that is, the specific intra-psychic or behavioural actions that people use for managing stress (Taylor & Stanton, 2007). According to Lewis, et al. (2011), specific coping resources are neither inherently universally good nor bad, because different situations call for different responses.

In addition, Nell (2005) suggests that how well people cope with stress in life is likely to depend on several unique factors. People are likely to cope better when they are able to access coping resources which are comfortable and familiar (Van Jaarsveld, 2009).

2.2.2 Coping and coping resources

The first sentence does not read clearly, consider changing it to "Lazarus and Folkman (1984), who are pioneers in the study if coping, defines coping as constantly changing cognitive- and behavioural efforts to manage specific external and or internal demands. These demands are appraised as taxing or exceeding the resources of a person. Lazarus and Launier (1978) similarly describe coping as the efforts, both action-orientated and intra-psychic, to manage environmental and internal demands and conflicts among them which tax or exceed a person's resource.

Schafer (2000) states that coping is directed at mastering, tolerating, reducing or minimizing environmental and internal demands and conflicts that strain a person's resources. Herbst (2006) suggests that coping can be defined as an effort to create conditions that permit a person to continue moving forward to desired goals or an effort to disengage from goals that are no longer seen as attainable. Lewis, et al., (2011) suggest that coping is essentially a dynamic phenomenon whereby the individual and the environment are engaged in an interactive process.

In this study, the coping resources are presented from the theoretical perspective developed by Hammer (1988) who based the theory of coping resources on Lazarus' (1966) model of coping resources. Hammer (1988), describes career resources as those psychological capacities inherent in people that enable them to handle stressors, more effectively, to experience fewer or less intense symptoms upon exposure to a stressor or to recover faster from a stressful experience. It is proposed that the coping process comprises two phases, namely, appraisal and coping.

During primary appraisal, an event is evaluated as being irrelevant, relevant but not threatening, or stressful. Once the event has been evaluated as being stressful, secondary appraisal, whereby a person forms an impression of his or her ability to control or cope with the stressor including an evaluation of the coping resources at his or her disposal (Lazarus & Folkman, 1984). During the coping phase, the person acts on the stressor, and the activities and efforts chosen are largely dependent on the variety of personal and environmental resources that are at the disposal of the person (Schafer, 2000).

Lewis, et al., (2011), refer to coping as the cognitive and affective responses used by a person to deal with problems encountered in everyday life. It seems that coping has been conceived in research in several ways. Research were conducted suggesting that coping could be seen as a personality trait and a situational-determined response; as a dynamic process and a static construct; as a strategy that is mature, adaptive and flexible, but also a reaction that is neurotic, maladaptive and rigid; and as a global, generally dichotomous concept, but also an intricate, hierarchically structured, multi-levelled concept (Rothmann, Jorgenson & Hill, 2011). However, Lewis, et al., (2011) proclaims that the choice of these resources can to some extent be influenced by the situational context of the stressor.

The construct psychological career resources is defined as the set of career-related preferences, values, attitudes, abilities and attributes that lead to self-empowering, proactive career behaviour that promotes general employability (Coetzee, 2008). In addition, psychological career resources can also be seen as meta-competencies that enable them to adapt to changing or uncertain career circumstances and to shape and select environments in order to attain success within a particular socio-cultural context (Coetzee & Esterhuizen, 2010).

As a result, the following conclusions can be drawn from the mentioned definitions: coping is a process, meaning that it takes place over time (Lazurus & Folkman, 1984; Nell, 2005); coping is a learned pattern of responding to stressful situations and therefore it cannot be seen as an automatic response to stress (Brannon & Feist, 1997; Nell, 2005); coping requires effort, even if the person who is confronted with the stressor is not entirely aware of his or her coping response (Lazarus & Folkman, 1984); and coping entails managing situations and does not necessarily imply a positive outcome (Lazarus & Folkman, 1984).

2.2.3 Components of coping resources

The resource domains outlined in Hammer's (1988) theoretical framework of coping resources were established on the basis of an extensive literature review, including his experience in conducting stress programmes and in working with individual clients. The construct coping resource refers to a range of psychological coping capacities. These capacities are: cognitive-, social-, emotional-, spiritual/philosophical- and physical resources (Coetzee & Esterhuizen, 2010).

These coping resources are described below.

a) *Cognitive resources*

Cognitive resources are the extent to which people maintain a positive sense of self-worth, a positive outlook towards others and optimism about life in general (Hammer, 1988). In a study conducted by Coetzee and Esterhuizen (2010), the findings indicated that making use of cognitive resources is indicative of a positive self-concept and an optimistic outlook. This demonstrates that people with negative affect could be likely to contemplate over negative events and usually have a negative view of themselves and the world, which in return leads to developing difficulty in coping with stress (Watson & Clark, 1984).

b) *Social resources*

Social resources refer to the degree to which people are embedded in social networks that are able to provide support in times of stress (Hammer, 1988). Research conducted by Holahan and Moos (1994) and Moos and Holahan (2003), implies that social resources play a significant role in coping when faced with stress.

Congruently, prior research by Billings and Moos (1995) propose that the sense of being supported by family, friends, and other people can encourage an individual to confront stressful situations that otherwise might seem overwhelming. In a similar study, Moos (1995) found that people who make use of social resources (support from family, friends and colleagues) are less likely to avoid coping, especially cognitive avoidance and emotional discharge. Hence, people who deploy social resources are more likely to deal with stress and as a result, they are more likely to stress less than other people (Moos, 1995).

c) *Emotional resources*

Emotional resources are defined as the degree to which people can accept and express a range of affect, based on the premise that a range of emotional responses helps to ameliorate long-term positive consequences (Hammer, 1988). More recently, De Jonge, le Blanc, Peeters and Noordam (2008) described emotional resources as emotional support that could be employed to deal with job demands.

d) *Spiritual/philosophical resources*

Hammer (1988) describes spiritual/philosophical resources as the degree to which a person's actions are guided by stable and consistent values derived from his or her religious, familial or cultural tradition, or from personal philosophy. According to Mabusela (2010), religion can provide a sense of relief and peace, even when a person is faced with extremely stressful circumstances. These values may actually define the meaning of potentially stressful events and prescribe strategies that enable the person to respond effectively (Coetzee & Esterhuizen, 2010).

e) *Physical resources*

Physical resources refer to the degree to which people enact the health-promoting behaviours believed to contribute to increased physical wellbeing. Physical wellbeing is thought to decrease the level of negative response to stress and to enable people to recover faster (Hammer, 1988).

Nell (2005) proclaims that upon examination of the definitions of the various coping resources provided by Hammer (1988), it becomes clear that they constitute a biopsychosocial conceptualisation. The physical domain constitutes the biological

component of the biopsychosocial model whereas the cognitive and emotional domains could constitute the more psychological component of the model.

Lastly, the spiritual/philosophical domains constitute the social component of the biopsychosocial model. The CRI, developed by Hammer (1988) is based on Lazarus' (1966) model of stress and coping (Hammer, 1988).

2.2.4   Lazarus' (1966) model of stress and coping

Several models of stress and coping are available. This includes the Cybernetic Model, proposed by Edwards (1992); and Hobfoll's (1988) Conservation of Resources model. However, this study is based on Lazarus' (1966) model of stress and coping as this model is most applicable to this study.

Lazarus (1966) has provided researchers with one of the most comprehensive models of coping, which does accommodate the possibility of accelerating the coping process. It is based on the cognitive phenomenological theory of stress and focuses on a transactional framework. The model stresses a flexible, process-centred approach to coping, where it is seen to be responsive to contextual variations and feedback from the flow of events which affect adaptational outcome.

The conceptualisation put forward by Lazarus defined appraisal and coping as the two primary cognitive processes in the stress system. The relationship between appraisal and coping is such that the two processes influence each other in a dynamic and interdependent way. In other words, a person's perception and evaluation of a stressor influences his/her way of coping, which in turn influences one's perception of the stressor (Van Jaarsveld, 2009).

2.2.5   The appearance and implications of coping resources in an educational setting

According to Hung (2011), people deploy different resources or a combination of these resources to cope with stress. Bilz (2008) emphasises the importance of deploying coping resources in an educational setting by stating that if teachers do not develop coping skills, they are likely to remain in a state of disenchantment. Bilz (2008) explains that this state influences teachers' state of mind, as they become frustrated to the point of either leaving the profession or turning the feelings of frustration to bitterness that they carry around with them for the remainder of the year.

In a study conducted by Lewis, et al., (2011) and Hung (2011), the coping resource used most by teachers when faced with stress were reported to be the social resource, as teachers attempted to stay socially connected to manage stress or when trying to solve the problem causing the stress. Brown, et al., (2009) conducted a similar study and found conflicting results as they identified the Cognitive resource as the most prominent coping resource when teachers are faced with stress.

Teachers who participated in this study stated that they often adopt coping strategies that involve positive self-talk, believing in the self, maintaining a positive self-image, feeling motivated and developing a positive outlook on life. A similar study conducted by Nell (2005) in South Africa, proposed that teachers are most inclined to make use of their spiritual/philosophical coping resources when confronted with stressors; thus, teachers who participated in this study often referred to religion or family as coping mechanisms/resources.

2.3   CAREER STAGES

Career stages are discussed below with reference to a brief overview of career stages, the definition, the components of career stages and career stages in an educational setting.

2.3.1   A brief overview of career stages

According to Coetzee and Roythorne-Jacobs (2011), career development involves a person's career choices; the evolution of their personal identity regarding work; the transition, induction, and adjustment to work; and the on-going adjustments adults make as they incorporate new information about themselves and the world of work into their career behaviour. Career development can be studied by relating career stages to the stages of a person's lifespan.

People go through relatively predictable phases or stages in their lives and careers (Schreuder & Coetzee, 2011). Each life/career stage is characterised by a fairly distinctive set of developmental themes or tasks that need to be confronted (Super, 1990). Coetzee and Roythorne-Jacobs (2011) state that a career is therefore more than a single job, or a single role; it is a developmental process of progression over a person's lifespan that comprises several career life stages across the career life-cycle.

The career life-cycle is differentiated in terms of the early, mid and late career life stages of people (Schreuder & Coetzee, 2011). In the context of careers in the 21st century, people will often have multiple career paths with different career stages. These career stages do not have specific age boundaries and characterise the reiterative or cyclical nature of people's psychological (subjective) career experiences as they experiment with various career possibilities in the implementation of their evolving self-concept. People with multiple careers or who experience career breaks will have different numbers of career stages (Coetzee & Roythorne-Jacobs, 2011).

2.3.2 Careers and career stages

To fully comprehend the concept of career stages, it is important to understand the meaning of a career. Geet and Deshpande (2008) describe a career in two ways. According to them, career can be seen as a sequence of positions a person or an employee progresses through during a course of their life (objective career); and as an amalgamation of various changes in values, motivations, attitudes and aptitudes which occur as a person grows older (subjective career). Both have an effect on the person's career.

Geet and Deshpande (2008) also proclaim that a career can best be analysed on the basis of career stages. According to Chattopadhyay and Gupta (2005), career stages are concerned with the world of work and involve work-related behaviours though which people seek to define, clarify or fulfil their psychological make-up, needs and values. The term career stage refers to sequenced work-related stages, movements, or points in a person's profession (Reyes, 2007).

2.3.3 Career stages as defined by Super's (1990) model

Super's model of career development promotes understanding of the different career stages a person undergoes throughout his or her lifespan (Ferreira, 2012). These stages enable a person to make career-related choices, which in turn has an impact on their psychological coping resources as defined by Hammer (1988).

Super's (1990) career stage theory adds to our understanding of how people go through different stages or experiences in their career development process and how each stage has certain elements that enable the person to strive towards a successful career (Ferreira, 2012).

Although many models of career stages are available, this study focuses on career stages as defined by Super (1990), as most other models view the stages as rather firmly determined and as progressing in a well-ordered sequence. Super (1990) proposes that not only are the ages of transition very flexible, but each transition involves key developmental characteristics.

According to Ornstein, Cron and Slocum (1989), it is generally expected that the career stages proposed by Super (1990) proceed in chronological order, it is possible for people to be at any stage at various points in their lives or careers. Consequently, teachers may also enter the teaching profession at a later stage of their lives and as a result, age may not be an indicator of their current career stage (DiVito, 2009).

Anderson and Vandehey (2011) assert that the stages proposed by Super (1990) are the growth stage; exploratory stage; establishment stage; maintenance stage; and the disengagement stage.

a) *Growth stage*

The first stage, the growth stage, represents the early development of childhood; and during this stage, children form physical abilities and learn skills that are the bases of the unique self-concept (Anderson & Vandehey, 2011). According to Coetzee and Roythorne-Jacobs (2012) the core life themes are being a part of the school system, being around family and friends and wanting relationships to grow with teachers, peers, parents and siblings.

Coetzee and Roythorne-Jacobs (2012) elaborates by proposing that the self-related development tasks lead to the formation of the self-concept through interaction with adult figures; whereas the work-related development tasks are concerned with the orientation to work through chores and responsibilities at school and home. This could also include developing new work-related interests.

b) *Exploratory stage*

In the second stage, the exploratory stage, the individual becomes aware of occupations (Anderson & Vandehey, 2011) and according to Geet and Deshpande (2008), an adult tries to fit into the world of work through exploring interests. Coetzee and Roythorne-Jacobs (2012) suggest that the core life themes in this stage are

exploring career possibilities, working for the first time en working with supervisors and colleagues for the first time.

The self-related development tasks include developing an identity (by experimenting with several identities) in the workplace and making tentative career choices, while learning more about opportunities (Coetzee & Roythorne-Jacobs, 2012). The work-related development tasks are identifying types of work through part-time jobs or job shadowing and making the transition from school to work or further education (Coetzee & Roythorne-Jacobs, 2012).

c) *Establishment stage*

In the third stage, the establishment stage, a person enters the job market (Anderson & Vandehey, 2011). This stage is characterised by understanding capabilities and constraints, and attempting to establish a balance between responding to directives and initiating various activities (Geet & Deshpande, 2008).

Coetzee and Roythorne-Jacobs (2012) suggest that the core life themes include advancing in one's work through promotion or an increase in salary, experiencing a sense of stability in the workplace, knowing basic requirements of the job and viewing oneself as a dependable and efficient worker.

The self-related development tasks include working towards becoming an expert in a specific field of work, choosing a permanent position, learning to relate to others and developing a true self-concept (Coetzee & Roythorne-Jacobs, 2012). In addition to the self-related development tasks, Coetzee and Roythorne-Jacobs (2012) propose that the work-related development tasks are likely to include pursuing advancement and gaining more responsibility in the workplace, economic stability, succession of job changes before making a final choice, and prioritising stability and security.

d) *Maintenance stage*

In the fourth stage, the maintenance stage, people adapt and continue to develop skills and interests, which will lead to success and satisfaction (Anderson & Vandehey, 2011). The maintenance stage is also generally marked by a continuous improvement in performance and efficiency and adults in this stage are often expected to act as role models for younger employees (Geet & Deshpande, 2008). The core life themes could include dealing with new technological advancement,

improving performance and having a reputation for delivering quality work (Coetzee & Roythorne-Jacobs, 2012).

According to Coetzee and Roythorne-Jacobs (2012), the self-related development tasks include realistic self-assessment, creating and recognising opportunities to develop new skills and sharing these skills and expertise with others. The work-related development tasks, as identified by Coetzee and Roythorne-Jacobs (2012), include maintaining levels of achievement despite having to deal with challenges of competition or rapid changes in technology or family.

e) Disengagement stage

The disengagement stage are characterised by preparation for retirement or retirement itself and may possibly involve a psychological withdrawal from the organisation long before the physical separation occurs. As a result, it could be expected that this stage will also include less responsibility and a shift from a power role to one of a consultant (Anderson & Vandehey, 2011; Geet & Deshpande, 2008).

Coetzee and Roythorne-Jacobs (2012) propose that core life themes in this stage could include losing one's job due to declining health or physical limitation, working part-time or fewer hours and planning retirement. Self-related developmental tasks are finding new balance of involvement with society and with oneself and reconsideration of the self-concept (Coetzee & Roythorne-Jacobs, 2012). Coetzee and Roythorne-Jacobs (2012) include decline in work activity and taking up greater roles in the family and community.

2.3.4   Career stages in an educational setting

Over the past decades, several researchers have attempted to define and explain the career stages of teachers (Bullough & Baughman, 1997; Cole & Knowles, 1993; Goddard & Foster, 2001; Veenman, 1984). The results of these studies corresponded with each other, as they indicated a gradual transition from an unrealistic perception of teaching to a reality shock and finally to a realistic perception and class maintenance.

In a study conducted by Kagan (1992), it was found that during the early stages (i.e. the exploration stage) teachers are characterised by an increased awareness regarding their learners and their knowledge, and that this knowledge is altered by rectifying ideal and

erroneous images of teaching by progressing from concentrating on themselves to concentrating on teaching their learner, by developing teaching and class-management skills, and by developing a multidimensional perception – a change that leads to better problem solving.

During the establishment stage, teachers are often concerned with becoming proficient in their work and furthermore, teachers are also likely to plan for career advancement (Brent, 1999). Brent (1999) also elaborates by stating that the maintenance stage is characterised by teachers wanting to keep up to date with new trends and to identify and solve problems due to having a greater deal of teaching experience. McCormick and Barnett (2006) assert that the declining stage describes a period in which teachers begin cognitive and behavioural withdrawal from their teaching careers.

2.4 INTEGRATION OF SOURCES OF WORK STRESS, COPING RESOURCES AND CAREER STAGES

This section aims to identify how the constructs relate to each other by exploring the similarities and differences between the constructs.

Stress can be seen as a dynamic condition where a person is confronted with opportunities, demands and resources related to the individual's desires and for which the outcome is perceived to be both undefined and important (Robbins, et al., 2008). This is particularly pertinent to the teaching profession as stress is a dynamic condition and teachers are often confronted with change and uncertainty (Paulse, 2005; Schulze & Steyn, 2007).

Drawing upon recent definition of work stress by Aghhar (2012), Akpochafo (2011), Cardoso and Fernandes (2011) and Singh (2009), work stress can be described as the inability to cope effectively with the physical, mental and emotional strain caused by work-related demands which disable a person to function efficiently within an occupational role.

These demands can be seen as sources of work stress (De Bruin & Taylor, 2005). Due to the stressful nature of teachers' work, several researchers, both globally and locally have continuously explored the different sources of work stress specifically pertaining to teachers (Aamir, et al., 2010; Okeke & Dlamini, 2013; Motseke, 1998; Nell, 2005; Pienaar & Van Wyk, 2006; Putter, 2003; Schulze & Steyn, 2007; Van der Linde, et al., 1999).

According to Lazarus and Folkman (1984), there is a strong relationship between sources of work stress and coping resources. Congruently, Hiebert (2002) proposes that as an individual engages in a situation, there is likely to be an appraisal of the demand characteristics of the situations (i.e. job demands) and when the person feels inadequate to

deal with these job demands, it is likely to cause stress. As a result, the individual is likely to deploy certain coping resources to manage the stress effectively.

Drawing upon definitions by Herbst (2006) and Lewis, et al., (2011), coping can be seen as a dynamic process which enables a person to continue moving forward to desired goals and to remain interactive and engaged within the environment. More specifically, coping resources can be described as career resources, as those psychological capacities intrinsic in people that allow them to manage sources of stress more efficiently, to experience fewer or less extreme symptoms upon exposure to a source of stress or to recuperate faster from experience (Hammer, 1984). This is similar for teachers.

Hung (2011) and Bilz (2008) proclaim that teachers are likely to deploy specific coping resources or a combination of coping resources to manage stress; and if they are unable to deploy coping resources, they are likely to be disenchanted. Several studies have been conducted to determine coping resources deployed by teachers; however, no congruent results were found (Brown, et al., 2009; Hung, 2011; Lewis, et al., 2011; Nell, 2005). The only congruent result found was that when teachers are likely to experience stress, they are likely to deploy coping resources to manage this effectively (Bilz, 2008).

It is expected that teachers in different stages of their careers are likely to experience different sources of work stress and that they are likely to deploy different coping resources to manage stress effectively. Geet and Deshpande (2008) propose that a career can be described as a sequence of positions a person progresses during the course of his or her life and that the individual will be faced with various changes in values, motivations, attitudes and aptitudes which occur as the individual grows older. In addition, Geet and Deshpande (2008) state that a career can be best analysed and understood on the basis of career stages.

According to Chattopadhyay and Gupta (2005), career stages are concerned with the world of work and involve work-related behaviours though which the people seeks to define, clarify or fulfil their psychological make-up, needs and values. Consequently, different career stages are likely to pose different sources of work stress.

In a study conducted by Bayer, Brinkkjaer and Plauborg (2008), the results suggested that the career entry phase is associated with a period of survival and discovery, and as a result, teachers in this phase may experience more stress. A similar study by Hung (2011) implied congruent results, as it was suggested that younger or less experienced teachers are more likely to experience stress whereas older, more experienced teachers tend to experience

less stress. In this particular study, it is noteworthy that younger, less experienced teachers preferred deploying coping resources which relates to emotion; whereas no significant preferences in coping resources were reported for older, more experienced teachers.

2.5   CHAPTER SUMMARY

This chapter provided a conceptualisation of sources of work stress, coping resources and career stages by providing a brief overview and definition of each of the concepts. In addition, the variables were further conceptualised by discussing the models relevant to this study and by discussing the components of each of the variables.

Following this, the variables were discussed with reference to the variables in an educational context by explaining the way it relates to the profession of teaching. In this chapter, the following research aims were fulfilled: conceptualisation of sources of work stress from a theoretical perspective; conceptualisation of coping resources from a theoretical perspective; conceptualisation of career stages from a theoretical perspective; and conceptualisation of the theoretical relationship between sources of work stress, coping resources and different career stages.

Chapter 3 discusses the research article for this study and reports on the research process and findings.

CHAPTER 3: RESEARCH ARTICLE

SOURCES OF WORK STRESS AND COPING RESOURCES FOR HIGH SCHOOL TEACHERS IN GAUTENG WITHIN DIFFERENT CAREER STAGES

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Orientation

Although several studies have been conducted regarding sources of work stress for teachers, as well as the coping resources deployed by teachers to manage stress, no studies were found which explored these constructs for teachers within different career stages. Similarly, several studies explored the sources of work stress for teachers in different South African provinces, however no studies were found which explored stress or coping resources for teachers in the Gauteng province.

Research purpose

The purpose of this study is to explore the sources of work stress and the coping resources of high school teachers in Gauteng within different career stages.

Motivation for this study

Teaching ranks as one of the most stressful occupations, not only internationally, but also in South Africa and therefore, stress poses a threat to the quality of education in South Africa. This threat was recognised by the Gauteng Department of Education, and as a result, the goal to increase the wellness of teachers in Gauteng was set in the department's Annual Performance Plan for 2012/2013 (http:www.education.gpg.gov.za); making this study not only original, but also a necessity.

Research design, approach and method

High school teachers (n = 193) were selected from 23 high schools in Gauteng to participate in this study. The Sources of Work Stress Inventory (De Bruin & Taylor, 2005), the Coping

Resource Inventory (Hammer, 1988) and the Adult Career Concerns Inventory (Super, 1990) used to measure sources of work stress, coping resources and career stages, respectively. Pearson product correlations were analysed and significant relationships were found between different sources of work stress, coping resources and career stages.

Main findings

Workload was found to be the greatest sources of work stress for teachers during all four career stages. A lack of job security, on the other hand, was reported to be the least stressful aspect of teaching. With regard to coping resources, emotional resources were seen to be the most prominent coping resources for teaching during all four stages, whereas, physical resources were seen to be least likely deployed to manage stress.
The results also indicated that career stages do not explain sources of work stress or coping resources. Lastly, it was also found in this study, that sources of work stress and coping resources did not differ for teachers in different career stages.

Practical implications

Due to the stressful nature of the teaching profession, the wellness of teachers has deteriorated drastically. The study provides insight into which sources of work stress are experienced and which coping resources are deployed to manage stress effectively.
This study will assist the Gauteng Department of Education, as well as wellness practitioners to identify the sources of work stress experienced by high school teachers in Gauteng. It will also assist in identifying specific coping resources that teachers in Gauteng are likely to deploy to manage stress.

Contribution

This study creates awareness for Industrial Psychologists from a wellness perspective to assess, intervene and support employees from different industries (i.e. not only in a corporate or business environment).

> Key words: sources of work stress, coping resources, career stages, high school teachers, Gauteng, Gauteng Department of Education.

INTRODUCTION

The aim of this research study is to explore the sources of work stress and the coping resources of high school teachers in Gauteng during different career stages. Stress is seen as the 20th century disease (Akpochafo, 2012). A multitude of research indicates that stress is considered to be one of the major factors that have an impact on society; and expectedly the phenomenon of stress has become inevitable in the world of work.

Due to the high demands placed on teachers, teaching ranks among the most stressful professions worldwide (Aamir, Ullah, Habib & Shah, 2010; Gregory, 2009; Leung, Chiang, Chui, Lee & Mak, 2010; Zurlo, Pes & Cooper, 2007). As a result, research about stress in the teaching profession has become an international research trend (Chan, Cheng & Chong, 2010; Harris, 2011; Hung, 2011; Klassen, 2010; Lambert, McCarthy, O'Donnell & Wang, 2009; Mintz, 2007; Platsidou & Agaliotis, 2008; Zurlo et al., 2007) and has progressively become an important research topic in different South African provinces (Jackson & Rothmann, 2006; Motseke, 1998; Nell, 2005; Olivier & Venter, 2003; Pienaar & Van Wyk, 2006; Putter, 2003; Steyn & Kamper, 2006; Van der Linde, Van der Westhuizen & Wissing, 1999).

Furthermore, due to the detrimental effect on teachers' physical health (Aamir, et al.,2010; Aghar, 2008; Gregory, 2009; McCormick & Bartnett, 2011), teachers' mental health and teacher's occupational functioning (Aghar, 2008; Akpochafo, 2012; Klassen, 2010; McCormick & Barnett, 2011), stress pose dire consequences not only for teachers, but also for the schools and learners involved (Hung, 2011).

The process of managing stress is seen as critical and inherently people deploy a multitude of coping resources in order to counteract the effects of stress (Gardner & Fletcher, 2009; Lewis, Roache & Romi, 2009; Taylor & Stanton, 2007). Moreover, people are more likely to deploy coping resources that they have access to and that they are familiar with (Van Jaarsveld, 2009). Similar results have been indicated for teachers (Brown, Howcroft & Jacobs, 2009; Hung, 2011; Lewis, et al., 2011).

Teaching in Gauteng high schools

Almost two decades after the introduction of several education reform policies which is aimed at addressing access, equity, quality, efficiency and democracy (Ndhlovu, 2012), education in South Africa still continues to be unequal and complicated (Berry, 2012).

The aspiration of reforming education in South Africa is seen in the implementation of new policies, such as the provisioning norms, rationalisation and redeployment of educators, as well as the policy on National Norms and Standards for School Funding (Ndhlovu, 2012). However, research by Steyn and Kamper (2006) indicates that with the passing of South African Schools Act, 1996 (Act 84 of 1996), which encompasses these policies, create severe challenges for teachers.

Throughout the years, research findings have indicated that inclusive education, the abolition of corporal punishment, additional mediums of instruction, lack of discipline, learner problems, unmotivated learners, inadequate salaries, the new curriculum and the inability of teachers to adapt to continuous change, are often to blame for the rising levels of stress among South African teachers (Chorney, 1998; Engelbrecht, Swart & Eloff, 2001; Olivier & Venter, 2003; Prinsloo, 2001; Sethosa, 2001; Steyn & Kamper, 2006; Van Zyl & Pietersen, 1999; Weeks, 2000). Arends (2012), Lee (2002) and Prinsloo (2001) congruently propose that although there have been many attempts from the Department of Education to train and equip teachers to deal with the ongoing changes and challenges in schools, teachers are still likely to experience a sense of powerlessness and a sense of not being in control of their situation.

Although the stated problems pertain to all provinces in South Africa, this study focuses on high schools in Gauteng. Gauteng is one of South Africa's nine provinces. According to Pampallis (2003), Gauteng has always had a special place in the South Africa's history. Additionally, Gauteng has also been regarded as the educational leader among South Africa's provinces. This contributes towards greater material, intellectual and human resources in the province and places a responsibility on the province to make sure it succeeds in building an effective and successful education system (Arends, 2012).

Sources of work stress

Stress is an integral part of modern society. Although stress is seen as a normal, necessary and inevitable life phenomenon (Parsotam, 2009), it can produce changes in cognitive, behavioural, physical and psychological functions (Hanif, Tariq & Nadeem, 2011).

Robbins, Millet & Waters-Marsh (2008) assert that stress is an active condition in which a person is challenged with an opportunity or demand relating to what the individual desires and for which the consequence is perceived to be both unclear and significant. This definition is applicable in this study as stress is seen as a dynamic condition, and it is

relevant to the educational sector especially the teaching environment in South Africa where there is constant change and uncertainty.

Drawing upon definitions of work stress by Aghhar (2012), Akpochafo (2011), Cardoso and Fernandes (2011) and Singh (2009), work stress can be described as the inability to cope effectively with the physical, mental and emotional strain caused by work-related demands which prevent people from functioning efficiently in their occupational roles.

Work-related demands are described by De Bruin and Taylor (2005) as sources of work stress. By focusing on Karasek's (1979) job-demands-control model, De Bruin and Taylor (2005) identified sources of work stress pertaining to the South African population, namely, role ambiguity, relationships, workload, autonomy, bureaucracy, tools and equipment, physical environment, career advancement/job security and work/home interface. Similar sources of work stress have been identified by Cartwright and Cooper (2002), Coetzer and Rothmann (2007), Labuschagne, Bosman and Buitendach (2005), Martin (2005) and Rollinson (2005).

Internationally, sources of work stress include unsatisfactory relationships with colleagues (Aamir, et al., 2010; Okeke & Dlamini, 2013; Singh, 2009, Zurlo et al., 2007), feelings of inability to cope with workload (Chan, et al., 2010; Mapfumo, Chitsiko & Chireshe, 2012; Leonard, 2009; Singh, 2009; Zurlo et al., 2007), role ambiguity (Chan, et al., 2010; Okeke & Dlamini, 2013; Singh, 2009), shortage of tools and equipment (Mapfumo et al., 2012; Singh, 2009), lack of autonomy (Zurlo et al., 2007), a lack of social support (Zurlo et al., 2007), unsatisfactory work hours (Mapfumo et al., 2012) and an unacceptable work environment (Okeke & Dlamini, 2013).

In South Africa, several studies have focused on identifying sources of work stress for teachers in different South African provinces. In the Western Cape, inadequate salaries, unmotivated learners, big classes and time (Olivier & Venter, 2003); in the North West province, working unsocial hours, lack of proper equipment, not receiving recognition for their work, and constant change (Jackson & Rothmann, 2006) and contradictorily changes within the curriculum, as well as work overload and role ambiguity (Van der Linde, et al., 1999); in the Eastern Cape, inadequate working conditions, role conflict and role ambiguity, learner problems, time pressure, the threat of redundancy, work pressure, limited participation in decision making and distribution of tasks, stereotypes and discrimination against minority groups, and inadequate salaries (Nell, 2005); in the Free State, workload (Pienaar & Van Wyk, 2006) and contradictorily interpersonal relationships (Motseke, 1998);

and in KwaZulu-Natal, workload (Putter, 2003), was found to be the major sources of work stress for teachers.

Coping resources

Coping can be described as continuously changing cognitive and behavioural efforts in controlling specific external and or internal demands that are appraised as taxing or exceeding the resources of a person (Lazarus & Folkman, 1984). More recently, Lewis, et al., (2011) put forward that coping is a dynamic occurrence whereby the individual and the environment are engaged in an interactive process.

Drawing upon research regarding coping resources, four deductions can be made, namely that: coping is a process, meaning that it takes place over time (Lazarus & Folkman, 1984; Nell, 2005); coping is a learned pattern of responding to stressful situations and therefore it cannot be seen as an automatic response to stress (Brannon & Feist, 1997; Nell, 2005); coping requires effort, even if the person who is confronted with the stressor is not entirely aware of his or her coping response (Lazarus & Folkman, 1984); and coping requires effort and entails managing situations and does not necessarily imply a positive outcome (Lazarus & Folkman, 1984).

In this study, the coping resources are presented from the theoretical perspective developed by Hammer (1988), who based the theory of coping resources on Lazarus' (1966) model of coping resources. Hammer (1988) describes coping resources as those psychological capacities inherent in people that enable them to handle stressors, more effectively, to experience fewer or less intense symptoms upon exposure to a stressor or to recover faster from experience. Hammer (1988) identifies five coping resources: cognitive resources, social resources, emotional resources, spiritual/philosophical resources and physical resources.

In recent years, several studies have been conducted to investigate coping resources deployed by teachers (Brown, et al., 2009; Hung, 2011; Lewis, et al., 2011). Results proposed that teachers were more likely to deploy social resources (Hung, 2011; Lewis, et al., 2011) and cognitive resources (Brown, et al., 2009) to manage stress. In a South African context, similar studies by Nell (2005) and Willers (2009) have suggested that South African teachers are inclined to deploy spiritual/philosophical coping resources when confronted with stressors.

Career stages

Career development can be studied by relating career stages to stages during lifespan (Coetzee & Roythorne-Jacobs, 2012). Super's (1990) model of career development promotes understanding of the different career stages a person undergoes throughout a lifespan (Ferreira, 2012). These stages enable a person to make career-related choices, which in turn impact on his or her psychological coping resources as defined by Hammer (1988). Although many models of career stages are available, this study focuses on career stages as defined by Super (1990), as most other models view the stages as rather firmly determined and as progressing in well-ordered sequence.

Super (1990) alternatively suggests that it is possible to be at any of the stages at various points in the individual's life or career (Ornstein, Cron and Slocum, 1989). Correspondingly, teachers may also enter the teaching profession at a later stage of their lives and as a result, age may not be an indicator of their current career stage (Bullough & Baughman, 1997; Cole & Knowles, 1993; DiVito, 2009; Goddard & Foster, 2001; Veenman, 1984). Anderson and Vandehey (2011) proclaim that the stages proposed by Super (1990) are the growth stage; exploratory stage; establishment stage; maintenance stage; and the disengagement stage. Brent (1999) postulates that the career stages of teachers indicate that during the early stages (exploration stage), teachers are more likely to increase awareness regarding their learners and their knowledge, and that this knowledge is altered by rectifying ideal and erroneous images of teaching by progressing from concentrating on themselves to concentrating on teaching their learners, by developing teaching and class-management skills, and by developing a multidimensional perception – a change that leads to better problem solving.

During the establishment stage teachers are often concerned with becoming proficient in their work and furthermore, teachers are also likely to plan for career advancement (Brent, 1999). Brent (1999) also elaborates by stating that the maintenance stage is characterised by teachers wanting to keep up to date with new trends and to identify and solve problems due to having a greater deal of teaching experience. McCormick and Barnett (2006) proclaim that the declining stage describes a period in which teachers begin cognitive and behavioural withdrawal from the work of teaching.

Work stress is seen as an inability to cope effectively with the physical, mental and emotional strain caused by work-related demands which disables a person to function efficiently within an occupational role (Aghhar, 2012; Akpochafo, 2011; Cardoso &

Fernandes, 2011; Singh, 2009). Among others (Cartwright & Cooper, 2002; Coetzer & Rothmann, 2007; De Bruin and Taylor, 2006; Labuschagne, et al., 2005; Rollinson, 2005), De Bruin and Taylor (2005) refers to these work demands as sources of work stress (De Bruin & Taylor, 2005).

When a person is faced with excessive work demands, the individual could be expected to engage in a process of coping (Herbst, 2006; Hiebert, 2002; Lewis, et al., 2011) by deploying coping resources (Hammer, 1988). Consequently, it is expected that teachers during different stages of their careers are likely to experience different sources of work stress and that teachers are likely to deploy different coping resources to manage stress effectively.

The results of a study conducted by Bayer, Brinkkjaer, Plauborg and Rolls (2012) and Hung (2011), suggest that the career entry phase is typically associated with a period of survival and discovery and as a result, teachers in this phase are likely to experience more stress than older teachers due to a lack of experience of younger teachers.

Although no reference was made as to what sources of work stress were experienced by the younger teachers, it is noteworthy that younger, less experienced teachers preferred deploying coping resources which relate to emotion; whereas not significant preferences in coping resources were reported for older, more experienced teachers (Hung, 2011).

Several studies have been conducted to determine coping resources deployed by teachers; however, no congruent results were found (Brown, et al., 2009; Hung, 2011; Lewis, et al., 2011; Nell, 2005). The only congruent result from these studies is that when teachers experience stress, they are likely to deploy coping resources to manage their stress effectively. This is also congruent with research conducted by Hammer (1988), Herbst (2006), Hiebert (2002) and Lewis et al., (2011).

Research objectives

Despite several studies on stress among teachers that have been conducted in other provinces of South Africa (Jackson & Rothman, 2006; Milner & Khoza, 2008; Olivier & Venter, 2003; Paulse, 2005), no studies could be found that focused on stress among teachers in Gauteng. This indicates a lack of research pertaining to wellness of teachers in Gauteng. In addition, the promotion of wellness of teachers in Gauteng is one of the goals set out in the Gauteng Department of Education's Annual Performance Plan of 2012/2013 (http://www.education.gpg.gov.za). This indicates that there is a need to study the sources of

work stress and coping resources for high school teachers in Gauteng in different career stages.

Based on the need described above, this research was aimed at investigating and reporting on the following questions:

What sources of stress are experienced and what coping resources are deployed by high school teachers in Gauteng?

Is there a significant relationship between career stages and the specific sources of stress and coping resources experienced by high school teachers?

Central hypothesis

The central hypothesis of the research is stated as follows:

Teachers within different career stages will experience different sources of stress and will deploy different coping resources specifically pertaining to their career stage.

RESEARCH DESIGN

Research approach

A quantitative approach was followed in this research. A quantitative research approach relies on tests, rating scales, questionnaires, and psychological measures and yield numerical results (Landy & Conte, 2010). In addition, an exploratory research approach was followed. Babbie (2012) proposes that exploratory research is used when problems are in a preliminary stage, as it is flexible and can address different research questions.

Research method

Research participants

Table 1 presents the biographical data of the participants in this study and contains information regarding the age, gender, race and years of work experience of high school teachers in Gauteng.

Table 1

Biographical data of participants (n=193)

	Category	Frequency	%	Cumulative %	Mean	SD
Age	<30	62	32.1	32.1		
	31 – 40	39	20.2	52.3		
	41 – 50	45	23.3	75.6		
	50>	47	24.4	100.0		
	Total	193	100.0		40	12
Gender	Female	153	79.3	79.3		
	Male	40	20.7	100.0		
Race	Africa	96	49.7	49.7		
	White	85	44.0	51.3		
	Indian	9	4.7	56.0		
	Coloured	3	1.6	100.0		
	Total	193	100.0			
Years of work experience	<5 years	52	29.0	26.9		
	5 – 10 years	34	17.6	44.6		
	11 – 20 years	51	26.4	71.0		
	years	56	26,9	100.0		
	20> years	193	100.0			
	Total				12	11

The participants were a stratified random sample of 193 high school teachers from the 250 questionnaires that were distributed to 25 Gauteng-based high schools. As presented by Table 1, the sample was made up of 62 (32%) teachers that were 30 years old or younger; 39 (20%) teachers that were between 31 and 40 years old; 45 (23%) teachers that were between 41 and 50 years old and 47 (24%) teachers that were 50 years or older. The majority of the participants were female at 153 (79%), while only 40 (21%) were male. Regarding race, 96 (50) participants are African; 85 (44%) participants are White; nine participants (5%) are Indian; and only three (2%) are Coloured.

The sample was further made up of 56 (29%) participants with less than five years' work experience; 34 (18%) participants with between five and 10 years of work experience; 51 (26%) participants with between 11 and 20 years work experience; and the majority of

participants, 52 (27%) participants, with more than 20 years of work experience. The Gauteng Provincial Profile as presented by Statistics South Africa (Stats SA) (http://statssa.gov.za), indicates that this sample is representative of the population of teachers currently teaching in Gauteng.

Measuring instruments

Three instruments were used to collect the data: The Sources of Work Stress Inventory (SWSI) (2006); the Coping Resources Inventory (CRI) (1988); and the Adult Career Concerns Inventory (ACCI) (1990).

The Sources of Work Stress Inventory (SWSI) (2006)

The 79-item SWSI (De Bruin & Taylor, 2006) aims to indicate a general level of work stress through the General Work Stress scale and additionally aims to determine nine possible sources of work stress through the Sources of Stress scales.

In this study, only the latter will be relevant, as this study focuses on sources of stress for high school teachers in Gauteng. Alternative-form reliability demonstrated high reliability coefficients for all constructs measured by the SWSI, while the Cronbach alpha coefficients calculated by De Bruin and Taylor (2005) and Brand (2007) was shown to be high (ranging from $\alpha = .78$ to $\alpha = .95$) for all sources of work stress.

By examining the dimensionality of the SWSI and by conducting a joint factor analysis of the job demands, job controls and SWSI items, results provided support for the construct validity of the SWSI (De Bruin & Taylor, 2006). The SWSI has successfully been used in studies in South Africa (Brand, 2007; De Bruin & Yiannakis, 2012). This provides evidence of the utility of the SWSI in a South African context.

The Coping Resources Inventory (CRI)(1988)

The CRI was developed by Hammer (1988) to identify resources that are currently available to people for managing stress. The Coping Resource Inventory is a 60-item instrument that measures resources in five domains. These domains are cognitive, social, emotional, spiritual/philosophical and physical resources (Hammer, 1988).

The CRI is proven to be a reliable instrument as test-retest reliability coefficients and Cronbach alpha coefficients were found to be high (ranging between .71 and .84) (Hammer 1988; Tshabalala, 2010). Regarding validity, the CRI was found to have some scale inter-correlations, as well as predictive, convergent, divergent, discriminant and concurrent validity (Hammer, 1988; Jacobs, 2006). The CRI has been utilised in several South African studies (Jacobs, 2006; Pretorius, Basson & Ogunbanjo, 2010; Tshabalala, 2011), proven that the instrument can be successfully used in a South African context.

The Adult Career Concerns Inventory (ACCI)(1990)

The ACCI is an inventory appropriate to access career concerns of adults of any age and occupation (Halpin, Ralph & Halpin, 1990). The ACCI measures five career stages (growth stage, exploration stage, establishment stage, maintenance stage and disengagement stage); however, for the purpose of this study, the growth stage is not applicable as it concerns themes relevant to the non-working population.

The Cronbach alpha coefficients reported for the ACCI, ranges between .92 and .93, proving that the ACCI is a reliable instrument (Halphin et al., 1990; Super, 1990). All validity criteria were satisfied with the analysis of the ACCI (Halpin, et al., 1990; Slocum & Cron, 1985; Stout, Slocum & Cron, 1987; Super, 1957; Zelkowitz, 1974). This instrument has been used with the South African population as seen in studies by Lew and De Bruin (2006) and Watson and Van Aarde (1986).

Research procedure

Prior to the research conducted in this study, permission and ethical clearance were obtained from the Gauteng Department of Education and 25 high schools in the Gauteng area. During the administration process, teachers were briefed regarding voluntary participation, informed consent, confidentiality and the purpose and aim of the study, including the focus of each of the questionnaires. This was followed by a complete explanation of each of the instruments. Teachers were given permission to clarify concerns regarding the research, which were addressed be the researcher.

A total of 193 teachers responded to the SWSI (De Bruin & Taylor, 2006), the CRI (Hammer, 1988) and the ACCI (Super, 1990) out of 250 questionnaires administered. Two schools rejected the proposed research and therefore 50 questionnaires were not administered. As a result, the response rate was 77%. The questionnaires were administered and completed over a period of two weeks.

The scores obtained by the participants in the SWSI were presented to the researchers at Jopie van Rooyen and Partners for scoring, whereas the CRI and ACCI were manually scored by the researcher.

Statistical analysis

The statistical analysis was conducted using the SPSS Statistics, Version 21.0 (SPSS, 2013). Descriptive, correlational and inferential statistics were used to analyse the data. An independent samples t-test was used to assess whether teachers in different career stages differed significantly regarding the sources of work stress and coping resources.

ANOVA was used to investigate whether career stages significantly explained the variance of work stress and coping resources, and descriptive statistics (mean and standard deviations) were used to provide descriptive data of the total sample, as well as the different groups. ANOVA allows for the testing of differences between more than two groups of subjects and the influence of more than one independent variable (Durrheim, 2007).

To confirm where the differences occurred between groups, a Sheffé post-hoc test was calculated. Lastly, to assess the direction and strength of the relationship between the variables, Pearson product-moment correlations were calculated. In order to counter the probability of type I errors, it was decided to set the significance value at 95% confidence interval level (p≤.05).

RESULTS

The main objective of this study was to investigate the sources of work stress experienced and the coping resources deployed by high school teachers in Gauteng, and whether the career stage of the teacher will significantly predict the sources of work stress experienced and the coping resources deployed by high school teachers in Gauteng.

Descriptive statistics

Table 2 summarises the descriptive statistics and Cronbach alpha coefficients for the subscales for the measuring instruments. Cronbach alpha coefficients were used to assess the internal consistency reliability of the measuring instruments. For exploratory research

purposes, a Cronbach alpha coefficient of .6 or greater is seen as satisfactory (Brand, 2007).

As seen in Table 2, each of the subscales on the SWSI reflected adequately high Cronbach alpha values and had high internal reliability (.80 - .92). Likewise, all the subscales on the CRI reflected high Cronbach alpha values and high internal reliability (.73 – .84), with the exception of the physical scale (.62). Of the ACCI all the Cronbach alpha values were high (.96 - .97).

Table 2

Descriptive statistics: means, standard deviation and reliability summary statistics

Scale dimension	Career stages M (SD)				α
	Exploration stage	Establishment stage	Maintenance stage	Disengagement stage	
SWSI					
Role ambiguity	14.79 (4.20)	13.57 (4.33)	14.14 (4.94)	12.55 (3.50)	.83
Relationships	14.47 (6.60)	13.93 (6.01)	14.77 (6.80)	12.23 (3.77)	.87
Tools and equipment	8.97 (3.82)	10.17 (4.28)	10.09 (5.22)	9.86 (4.06)	.88
Career advancement	9.84 (4.57)	9.15 (3.76)	10.23 (5.03)	9.31 (3.96)	.87
Job security	8.63 (3.40)	8.00 (3.98)	7.36 (2.87)	7.27 (3.00)	.80
Lack of autonomy	14.71 (5.63)	14.54 (5.72)	14.95 (5.70)	14.38 (4.90)	.92
Work/home interface	18.24 (5.24)	18.22 (7.03)	16.14 (6.60)	17.55 (6.97)	.87
Workload	21.42 (6.00)	20.43 (7.10)	19.77 (8.61)	20.78 (7.48)	.90
CRI					
Cognitive	27.23 (5.94)	27.80 (4.10)	28.27 (3.44)	26.22 (4.51)	.80
Social	40.42 (6.43)	40.74 (6.27)	39.18 (5.46)	38.53 (5.65)	.79
Emotional	45.58 (7.60)	46.33 (8.12)	46.91 (7.74)	44.68 (7.05)	.84

Spiritual/philosophical	34.37 (5.49)	34.52 (5.27)	35.37 (3.90)	34.54 (4.56)	.73
Physical	25.68 (4.83)	24.60 (5.11)	23.77 (4.95)	24.20 (4.24)	.62
ACCI					
Exploration stage	-	-	-	-	.97
Establishment stage	-	-	-	-	.96
Maintenance stage	-	-	-	-	.96
Disengagement stage	-	-	-	-	.96

Sources of Work Stress Inventory (SWSI)

According to Table 2, the mean scores ranged from 7.27 to 46.91. The sample of participants in the exploration stage obtained the highest score on the SWSI workload scale (M = 21.42; SD = 6.00). Similar finding were obtained for the sample of participants in the establishment stage (M = 20.43; SD = 7.10), maintenance stage (M = 19.77; SD = 8.61) and disengagement stage (M = 20.78; SD = 7.48).

The lowest score for the SWSI for the sample of participants in the establishment stage were reported for the job security scale (M = 8.64; SD = 3.40) and similar findings were reported for the establishment stage (M = 8.00; SD = 3.98), maintenance stage (M= 7.36; SD= 2.87) and disengagement stage (M = 7.27; SD = 3.00).

Coping Resources Inventory (CRI)

Table 2 furthermore depicted that the sample of participants in the exploration stage reported the highest score for the CRI emotional scale (M = 45.38; SD = 7.60) and similar results were obtained by the sample participants in the establishment stage (M = 46.33; SD = 8.12), maintenance stage (M = 46.91; SD = 7.74) and disengagement stage (M = 44.68; SD = 7.05).

The lowest score obtained for the CRI for the sample of participants in the exploration stage was reported for the physical scale (M = 25.68; SD = 4.83). Once more, a similar result was reported for the sample of participants in the establishment stage (M = 24.60; SD = 5.11); maintenance stage (M = 23.77; SD = 4.24) and the disengagement stage (M = 24.20; SD = 4.24).

Correlation statistics

Correlation analysis between career stages, SWSI and CRI

Table 3

Correlations between career stages, sources of work stress and coping resources

	Exploration stage	Establishment stage	Maintenance stage	Disengagement stage
SWSI				
Role ambiguity	.19	.08	.04*	-.04
Relationships	.14	.12	.03	-.03
Tools and equipment	-.08	.01	.10	.10
Career advancement	.12	.13	.20*	.20*
Job security	.24*	.17*	.03	.04
Lack of autonomy	.13	.010	.12	.17*
Work/home interface	-.01	-.03	-.01	.07
Workload	.16*	.17*	.16*	.15*
CRI				
Cognitive	.15*	.06	-.07	-.20*
Social	.21*	.21	.01	-.15
Emotional	.10	.10	.06	-.10
Spiritual/philosophical	.04	.07	.02	-.06
Physical	.15*	-.03	-.14	-.16

*Correlation is significant at the .05 level (2-tailed).

As indicated in Table 3, role ambiguity showed significant correlations with the maintenance stage at the p≤ .05level (large practical effect size). Career advancement showed significant correlations with the disengagement stage at the p≤.05 level, whereas job security showed significant correlations with the establishment stage at the p≤.05 level (large practical effect size).

Workload showed significant correlations with all the career stages at the p≤.05 level (large practical effect size). Cognitive resources showed significant correlations with the exploration- and disengagement stages at the p≤ .05 level (large practical effect size), whereas social resources and physical resources showed significant correlations at thep≤.05 level (large practical effect size) with the exploration stage.

Inferential statistics

Table 4

Mean differences of sources of work stress and coping resources among career stages groups

	Sum of squares	Mean square	F	df	p
SWSI					
Role ambiguity	138.56*	46.19	2.78	3	.04
Relationships	200.67*	66.89	2.22	3	.03
Tools and equipment	35.37	11.79	.66	3	.57
Career advancement	25.33	8.44	.47	3	.69
Job security	53.18	17.73	1.56	3	.20
Lack of autonomy	6.76	2.25	.08	3	.97
Work/home interface	80.99	26.99	.61	3	.60
Workload	43.24	14.41	.28	3	.84
CRI					
Cognitive	114.89	38.30	1.79	3	.15
Social	184.83	61.61	1.73	3	.16
Emotional	129.98	43.33	.76	3	.52
	15.48	5.16	.22	3	.89
Spiritual/philosophical					
Physical	71.16	23.72	1.07	3	.36

*Correlation is significant at the .05 level (2-tailed).

The differences in mean scores on the measurement scales between teachers in different career stages were tested by means of ANOVA. The results in Table 4 indicate the

significant difference between groups regarding to role ambiguity ($p \leq 0.5$) (large practical effect size), relationships ($p \leq 0.5$) (large practical effect size). Teachers scored significantly higher in role ambiguity (M = 46.19) and relationships (M = 66.89).

The ability of career stages to predict sources of work stress and coping resources was investigated by means of multiple regression analysis. The statistically significant models that were found are presented in Table 5 and Table 6.

Table 5

Model summary: variance explained for role ambiguity

Model	R	R²	R² adj	SE	R²Δ	FΔ	df1	df2	Sig.FΔ
1	.441(a)	.362	.360	5.674	.124	89.321	1	419	.000

*Predictors: (constant) swsi_role ambiguity

Table 6

Model summary: variance explained for relationships

Model	R	R²	R² adj	SE	R²Δ	FΔ	df1	df2	Sig.FΔ
1	.571(b)	.183	.181	5.569	.145	44.634	2	424	.000

*Predictors (constant) swsi_relationships

Multiple regression analysis was conducted to assess whether career stages and their components predicted sources of work stress or coping resources. Career stages did not emerge as significant predictors of coping resources. Career stages were then assessed as possible predictors of sources of work stress, which resulted in two significant models of prediction as seen in Table 5 and Table 6.

Table 5 indicates that the maintenance stage significantly ($p < .05$) (large practical effect size) explains approximately 36% of the variance in role ambiguity (R² = .362). Similarly, Table 6 shows that the maintenance stage significantly ($p < .05$) (large practical effect size) predicts approximately 18% of the variance in relationships (R² = .183).

Tests for significant mean differences

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An independent samples t-test was used to assess whether teachers in different career stages differed significantly regarding the sources of work stress and coping resources.

Table 7 shows that teachers in different career stages scored significantly differently in terms of the role ambiguity, relationships and job security ($p < .05$). No significant differences were found in coping resources for teachers in different career stages.

Table 7

T-test for equality of means with equal variances not assumed

	t	df	Mean difference	p
SWSI				
Role ambiguity	2.82*	63.93	2.24	.02
Relationships	1.94*	49.69	2.24	.04
Tools and equipment	-1.14	78.83	-.89	.26
Career advancement	.61	66.02	.53	.55
Job security	2.09*	66.80	1.36	.04
Lack of autonomy	.31	66.30	.33	.76
Work/home interface	.58	94.96	.68	.56
Workload	.49	90.44	.64	.63
CRI				
Cognitive	.93	59.58	1.02	.66
Social	1.54	66.80	1.89	.63
Emotional	.61	70.05	.90	.54
Spiritual/philosophical	-.17	63.86	-.17	.87
Physical	1.60	66.74	1.48	.11

*Correlation is significant at the .05 level (2-tailed).

ANOVA was performed to test for significant mean differences between the various groups in the different career stages regarding the work stress experienced and the coping resources deployed.

Posteriori test: tests to confirm differences between groups

Scheffé post-hoc test: differences between groups

A Scheffé post-hoc test was calculated to confirm where the differences occurred between groups. The post-hoc test attempts to control the experience wise error rate.

Post-hoc comparisons using the Sheffé post-hoc test indicated (see Table 8) that the mean score for the role ambiguity experienced in the exploration stage differed significantly from the role ambiguity experienced in the maintenance stage (M = -.6.5). The post-hoc comparisons further indicated that the mean score for stress experienced regarding relationships in the establishment stage differed significantly from stress experienced regarding relationships in the exploration stage (M = -1.22). Establishment stage (M = -.65), and maintenance stage (M = -2.24).

Table 8

Scheffé post hoc test: differences between groups

Dependent variable			Mean difference (I-J)	Std. error	95% Confidence interval	
					Lower bound	Upper bound
SWSI Role ambiguity	Exploration	Establishment	-1.22	.86	-3.65	1.22
		Maintenance	-.65*	1.09	-3.73	2.43
		Disengagement	-2.2	.81	-4.53	.06
	Establishments	Exploration	1.22	.86	-1.22	3.65
		Maintenance	.56*	1.03	-2.34	3.47
		Disengagement	-1.02	.73	-3.08	1.04
	Maintenance	Exploration	.65	1.09	-2.43	3.73
		Establishment	-.56	1.03	-3.47	2.34
		Disengagement	-1.58	.99	-4.37	1.21
	Disengagement	Exploration	2.24	.81	-.06	4.53
		Establishment	1.02	.72	-1.04	3.08

		Maintenance	1.58	.99	-1.21	4.37
Relationships	Exploration	Establishment	-1.22*	.86	-3.65	1.22
		Maintenance	-.65*	1.09	-3.73	2.43
		Disengagement	-2.24*	.81	-4.53	.06
	Establishments	Exploration	1.22*	.86	-1.22	3.65
		Maintenance	.56	1.03	-2.34	3.47
		Disengagement	-1.02	.73	-3.08	1.04
	Maintenance	Exploration	.65*	1.09	-2.43	3.73
		Establishment	-.56	1.03	-3.47	2.34
		Disengagement	-1.58	.99	-4.37	1.21
	Disengagement	Exploration	2.24*	.81	-.06	4.53
		Establishment	1.02	.73	-1.04	3.08
		Maintenance	1.58	.99	-1.21	4.37

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

DISCUSSION

The primary aim of this study was to investigate which sources of stress are experienced and which coping resources are deployed by high school teachers in Gauteng during different career stages. The secondary aim was to determine whether there was a significant relationship between career stages and the specific sources of stress and coping resources experienced by these high school teachers.

Most participants in this sample were younger than 30 years and had less than five years' experience, which could indicate that most of the participants were in the exploration or establishment career stage. This implies that most of the participants were faced with core development themes such as developing a self-concept and integration of the self, values and their occupations (Super, 1990). The sample furthermore consisted of mostly African females.

According to the Statistics South Africa Provincial Profile 2012 for Gauteng, the population of high school teachers in Gauteng have similar characteristics (http://statssa.gov.za), which makes this sample representative of the associated population.

Before the principle aims of the study were investigated, the reliability of the measuring instruments was assessed. The Cronbach alpha coefficients that were obtained were satisfactory and ranged from .80 - .92 for the SWSI, .62 - .84 for the CRI and .96 - .97 for the

ACCI. This confirms the findings by Brand (2007), De Bruin and Taylor (2006) for the SWSI, Hammer (1988) for the CRI and Halpin et al., (1990) for the ACCI. It was concluded that the instruments were all reliable and therefore suitable to use in this study.

Participants in this study within the four different career stages (exploration stage, establishment stage, maintenance stage and disengagement stage) reported workload to be the greatest source of work stress. This is caused by the extensive amount of work allocated to teachers, which in effect leads to an inability to cope (De Bruin & Taylor, 2005). Internationally, Blaug, Kenyon and Lekhi (2007), Chan, et al., (2010), Nelson (2003), Singh (2009), and Zurlo, et al., (2009) congruently found workload to be the teachers' greatest source of work stress.

In a South African context, similar results were reported in studies conducted in the North West province by Van der Linde, et al., (1999); in the Free State by Pienaar and Van Wyk (2006); and in KwaZulu-Natal by Putter (2003).

Globally, contrasting findings to this study's results were reported by Aamir et al., (2010) and Okeke and Dlamini (2013) and Mapfumo, et al., (2012), who found unsatisfactory relationships, shortage of tools and equipment and unsatisfactory work hours to be the most prominent sources of work stress for teachers.

In South Africa, inadequate salaries, unmotivated learners, big classes and time demands were reported by Olivier and Venter (2003) for teachers in the Western Cape. Jackson and Rothmann (2006) reported that working unsocial hours, lack of proper equipment, not being appreciated, and constant change were major sources of work stress for teachers in North West province. Nell (2005) found that in the Eastern Cape, poor working conditions, role ambiguity, time pressure, lack of security, discrimination against minority groups, and inadequate salaries were the most prominent sources of stress for teachers.

The results of this study indicate that job security was the least stressful aspect of teaching for participants within all four career stages. This refers to a person's anxiety about his/her future in the workplace (Coetzee & De Villiers, 2010; De Bruin & Taylor, 2005). No other studies were found internationally or locally that focused on the least stressful aspect for teachers. This implies that the uncertainty of what the future as a teacher might hold would not likely cause excessive stress.

The coping resource that was reported by all four stages as the most likely to be utilised when faced with stress was the emotional resource. This implies that teachers are likely to utilise emotional responses to manage stress (Hammer, 1988; De Jonge, et al., 2008). In contrast with this finding, internationally, Hung (2011) found social resources to be the coping resource most likely deployed by teachers; whereas Lewis, et al., (2011) found that teachers were more likely to deploy cognitive resources as a coping resource. Contrasting results were also found in a South African setting. Nell (2005) stated that teachers were most likely to utilise spiritual/philosophical coping resources to cope with adversity.

The results of this study also depicted that the physical coping resource was the resource least preferred when confronted by stress. Hammer (1988) describes physical wellbeing as the extent to which people will utilise health-promoting behaviours to increase physical wellbeing and reduce stress. This implies that teachers in this study were not likely to engage in physical activities to cope with stressful situations. No studies internationally or locally were found that specifically focused on the least preferred coping resource.

The findings yielded mixed results. This study indicates that career stages were significantly correlated with several sources of work stress and coping resources. Even though the correlations were slight, they are still noteworthy. Role ambiguity was significantly and positively correlated with the maintenance stage, which indicates that the more teachers experienced the core development themes associated with the maintenance stage, the more stress they will experience that is related to role ambiguity.

According to Hammer (1988), role ambiguity is a source of stress experienced when job specifications and duties are vague and when constant change takes place. The core development themes associated with the maintenance stage refers to the reflection on continuation or change (Super, 1990). If change is necessary, recycling through the previous stage takes place. Consequently, teachers who are faced with more frequent or greater change in the maintenance stage, experience more stress associated with role ambiguity.

Additionally, career advancement showed significant and positive correlations with the disengagement stage. When referring to the core development themes associated with the disengagement stage, the teacher is likely to be concerned with adjusting to declining energy, while preparing to exit the workplace.

In relation, stress associated with career advancement is a result of the teacher's perceived lack of opportunities to progress within his/her career. Hence, teachers are likely to experience greater stress associated with career advancement as opportunities to progress in the career are limiting and declining during the maintenance stage, which is seen as the last phase before retirement.

The results also revealed that job security positively and significantly correlation with the establishment stage. This portrays that the more predominant the core development themes connected to the establishment stage, i.e. the continuous implementation of the self-concept to bring about integration of the self, values and occupation, the greater the stress experienced by teachers due to uncertainty about the future in the workplace; which is characterised by stress experienced due to a lack of job security.

It can be concluded from this that due to teachers in the establishment stage experiencing the need to align the self with the job, teachers could experience uncertainty regarding the future as a result of an uncertain work-identity.

Cognitive resources correlated positively and significantly with the exploration and disengagement stage. This implies that teachers who experience the core development themes as suggested by Super (1990), which are associated with the exploration-, and disengagement stage, respectively, will be more likely to deploy cognitive resources to a greater extent. Hammer (1988) describes the cognitive resource as the extent to which they assist with attaining a positive sense of self-worth, a positive outlook and optimism about life.

The core development themes associated with the exploration stage refers to developing self-worth, skills and a self-concept. When faced with developing self-worth, skills and self-concept, it is likely that teachers in the exploration stage, which is the first applicable career stage in this study, are likely to experience a sense of freshness and enthusiasm about the possibilities of the future. They are consequently likely to utilise positivism and optimism to cope with stress.

When considering the core development themes linked to the disengagement stage, which is the last career stage applicable to this study, it is likely that teachers will utilise optimism to cope with stress, as activity within the workplace is likely to decline and they are likely to prepare to exit the workplace and engage in new hobbies outside the job context.

Results also indicate that social resources and physical resources positively and significantly correlate with the exploration stage. Social resource can be described as the degree to which people are embedded in social networks and how these social networks are utilised as support structures in times of stress.

As the exploration stage is associated with the development of self-worth, skills and self-concept, it is possible that teachers in this stage, being at the entry-level career stage, would be much more likely to consult and rely on others, as the difficulties and stress levels increase. The social resources in this event could include engaging with peers and mentors in the workplace, but also relying on family and friends for support.

Additionally, physical resources will be utilised to a much greater extent if greater levels of stress are experienced. Physical resources include engaging in health-promoting behaviours that lead to heightened physical wellbeing.

In addition to the correlations found between the different career stages, sources of work stress and coping resources, ANOVA were used to establish differences between the career stages on the constructs. It is noteworthy that only two relationships were found to be significant. The maintenance stage explains about 36% of the variance in role ambiguity and 18% of the variance in relationships. With this, the researcher notes that only two sources of stress could be significantly predicted by career stages.

It can be concluded from these findings that career stages do not significantly predict sources of work stress or coping resources for high school teachers in Gauteng. No studies were found that focused on the predictive qualities of career stages on sources of stress or coping resources for teachers.

These studies hypothesised that teachers within different career stages will experience different sources of work stress and deploy different coping resources specifically pertaining to a particular career stage.

Although no studies were found that explored the sources of stress for teachers particularly related to different career stages, some findings were reported by several studies such as Bayer et al. (2012) and Hung (2011), who explored the severity of the stress in relation to career stages. Both studies by Bayer et al., (2012) and Hung (2011) indicate that the exploration stage is typically characterised by a period of survival and as a result, teachers in this stage are faced with greater stress in comparison with teachers during other career stages.

No studies were found that focused on determining whether teachers within different career stages deployed different coping resources to manage stress effectively. The only congruent result found in literature was that due to the stressful nature of the teaching profession, teachers are likely to deploy coping resources to control the severity of stress experienced (Brown, et al., 2009; Herbst, 2002; Hung, 2011; Lewis et al., 2011; Nell, 2005).

The results from this study indicate that similar sources of work stress and similar coping resources were reported for high school teachers in Gauteng within different career stages. As a result the H0 is rejected.

CONCLUSIONS AND IMPLICATIONS FOR PRACTICE

Firstly, it can be concluded that high school teachers in Gauteng within different career stages experience similar sources of stress and deploy similar coping resources to manage stress. The findings of this study contribute valuable new knowledge on the particular sources of stress experienced as most likely to contribute to excessive stress and the coping resources that Gauteng teachers are likely to deploy to deal with stress.

More specifically, teachers in this study reported excessive workload to be the greatest source of work stress. This indicated that teachers in Gauteng are likely to experience an inability to cope with the amount of work allocated to them.

In addition to this finding, teachers reported a lack of job security to be the least stressful aspect of teaching which implies that teachers did not experience uncertainty regarding their future as teachers as particularly stressful.

This study furthermore allows for comparison of sources of stress and coping resources for teachers, not only in a general or international context, but also between South African provinces. In addition, this study draws attention to the wellbeing of teachers specifically teaching in the Gauteng province of South Africa.

The second conclusion to be made from the findings is that career stages did not significantly predict sources of stress or coping resources for high school teachers in Gauteng. This implies that when teachers are within a specific career stage, i.e. the exploration stage, the establishment stage, the maintenance stage and the disengagement stage, they would not be likely to experience a specific source of stress or deploy a specific career stage to manage stress.

Limitation of the study

The main limitation of this study was the length of the questionnaires. Several participants reported that the questionnaires were too long. It took the participants approximately 40 minutes to complete the questionnaire and participants reported that at times they lost concentration. This could have affected the quality of the answers provided by the participants and ultimately the quality of the data obtained through the SWSI, CRI and ACCI.

Although the researcher attempted to control the research to avoid socially desirable responses, it should be noted that teachers may still have responded in a socially desired way due to the nature of the questions asked. Teachers also reported to be sceptical as to why the assessments were conducted, although it was clearly communicated that the assessments were conducted for research purposes and confidentiality was of utmost important.

The last limitation concerns the nature of the sample. The sample size was small (n = 193). Also, this study was conducted within one province, Gauteng, and therefore it cannot be generalised to the greater South African population. This however, created a need for further research opportunities to conduct similar studies in other provinces.

Recommendations for further research

As this study focuses mainly on identifying the sources of stress and the coping resources for teachers in Gauteng within different career stages, the researcher recommends a qualitative study to gain greater understanding regarding the reasons as to why certain sources of stress or coping resources are predominant for teachers in Gauteng.

It is recommended that similar studies in other provinces should be conducted to create an opportunity for comparison. Furthermore, it is recommended that other studies should be undertaken to explore the predictive capabilities of career stages.

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CHAPTER 4: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The aim of this chapter is to discuss the conclusions, as well as the limitations of the study, and to make recommendations for industrial and organisational psychology.

4.1 CONCLUSIONS

The following section focuses on the formulation of conclusions based on the literature review and the empirical study.

4.1.1 Conclusions regarding the literature review

There were four aims for this study. The four aims were to conceptualise sources of stress, coping resources, career stages and the theoretical relationship between these variables.

4.1.1.1 The first aim: To conceptualise sources of stress from a theoretical perspective

The first aim, to conceptualise sources of stress from a theoretical perspective was achieved in Chapter 2. A literature review was conducted to study the disciplinary and conceptual foundations of sources of stress.

For the purpose of this study, sources of work stress were approached from the perspective of De Bruin and Taylor (2005), who based their study of sources of work stress on Karasek's (1979) job-demand-control model From the literature review, the sources of work stress identified were: role ambiguity, relationships, workload, lack of autonomy, lack of tools and equipment, physical environment, lack of opportunity for career advancement, lack of job security and work/home interface.

It was concluded in the literature review that sources of work stress identified for teachers is a well-researched topic owing to the stressful nature of the teaching profession (Chan, Cheng & Chong, 2010; Harris, 2011; Hung, 2011; Klassen, 2010; Lambert, McCarthy, O'Donnell & Wang, 2009; Mintz, 2007; Platsidou & Agaliotis, 2008; Zurlo, et al., 2007). Studies were conducted both on an international and South African front and although similar results were found in some cases, several conflicting findings were also reported.

4.1.1.2   The second aim: To conceptualise coping resources from a theoretical
*   perspective*

Conceptualisation of coping resources was achieved in Chapter 2. A literature review was
conducted to study the disciplinary and conceptual foundations of sources of stress.
The second aim focused on conceptualising coping resources and for the purpose of this
study, coping resources were approached from the perspective of Hammer (1988), who
based the identification of coping resources on Lazarus' model of stress and coping (1966).
The five coping resources are identified as cognitive resources, social resources, emotional
resources, spiritual/philosophical resources and physical resources.

Research on coping resources deployed by teachers to cope with stress seems fairly limited
in both an international and a South African context. The studies that did focus on the coping
resources for teachers, reported contrasting results.

4.1.1.3   The third aim: To conceptualise career stages from a theoretical perspective

In Chapter 2, career stages were conceptualised from the perspective of Super (1990), who
identified five career stages. These stages are he growth stage, the exploration stage, the
establishment stage, the maintenance stage and the disengagement stage. Although five
stages were identified by Super (1990), the latter four stages are applicable in this study as
the exploration stage is characterised as the entry-phase career stage.

Several studies have been conducted that focused on career stages pertaining to teachers
in an international context. The studies focused on the core development themes as
identified by Super (1990), and results were congruent to those of Super (1990). No studies
were found that focused on career stages relating to teachers in South Africa.

4.1.1.4   The fourth aim: To conceptualise the theoretical relationship between sources of
*   stress, coping resources and different career stages*

In Chapter 2, it was stated that teachers within different career stages (exploration stage,
establishment stage, maintenance stage and the disengagement stage) are likely to
experience different sources of work stress. They are also likely to deploy different coping
resources to manage stress, as different career stages pose different core development
themes. This was congruent with the findings by several international studies such as Geet
and Deshpande (2008), Chattopadhyay and Gupta (2005) and Hung (2011).

Geet and Deshpande (2008) presents that a career can be best analysed and understood on the basis of career stages, whereas Chattopadhyay and Gupta (2005) add that different career stages are likely to pose different sources of stress. Hung (2011) additionally suggests younger or less experienced teachers are more likely to experience stress, whereas older, more experienced teachers, should experience less stress. In this particular study, it is noteworthy that younger, less experienced teachers preferred deploying coping resources which relate to emotion; whereas no significant preferences in coping resources were reported for older, more experienced teachers.

4.1.2 Conclusions regarding the empirical study

The specific empirical aims of this study were as follows:

Research aim 1: To investigate the sources of stress experienced and the coping resources deployed by high school teachers in Gauteng within different career stages.

Research aim 2: To identify whether there is a significant relationship between career stages and sources of work stress and coping resources.

Research aim 1: To investigate the sources of stress experienced and the coping resources deployed by high school teachers in Gauteng within different career stages.

Based on the findings reflected in Table 3.2, the following conclusions were drawn:

The results indicate that similar sources of work stress were reported for high schools in Gauteng within different career stages.

Participants in this study within the four different career stages (exploration stage, establishment stage, maintenance stage and disengagement stage) reported workload to be the greatest source of work stress. Job security was reported to be the least stressful aspect of teaching by participants within all four career stages. The coping resource that was reported by all four stages as the most likely to be utilised when faced with stress was the emotional resource. The results of this study also indicate that the physical coping resource was the resource least preferred when confronted by stress.

Research aim 2: To investigate the relationship between career stages, sources of work stress and coping resources.

Based on the findings as depicted in Table 3.2, the following conclusions were drawn:

The findings yielded mixed results. This study presented that career stages were significantly correlated with several sources of work stress and coping resources.

Role ambiguity was significantly and positively correlated with the maintenance stage, which denoted that the more teachers experienced the core development themes associated with the maintenance stage, the more stress they will experience, which is related with role ambiguity.

Additionally, career advancement showed significant and positive correlations with the disengagement stage. When referring to the core development themes associated with the disengagement stage, the teacher is likely to be concerned with adjusting to diminishing energy levels while preparing to exit the workplace.

The results also revealed that job security positively and significantly correlate with the establishment stage. This indicates that the more predominant the core development themes connected to the establishment stage, i.e. the continuous implementation of the self-concept to bring about integration of the self, values and occupation, the greater the stress experienced by teachers due to uncertainty about the future in the workplace. This is characterised by stress experienced due to a lack of job security.

Cognitive resources correlated positively and significantly with the exploration and disengagement stage. This implies that teachers who experiences the core development themes as suggested by Super (1990), which is associated with the exploration stage and the disengagement stage, respectively, will be more likely to deploy cognitive resources to a greater extent. Hammer (1988) describes the cognitive resource as the extent to which a positive sense of self-worth, a positive outlook and optimism about life assist in coping with stress.

Results also presented that social resources and physical resources positively and significantly correlated with the exploration stage. Social resource can be describes as the degree in which people are embedded in social networks and how these social networks are utilised as support structures in times of stress.

In addition to the correlations found between the different career stages, sources of work stress and coping resources, ANOVA was used to establish differences between the career stages on the constructs. It is noteworthy that only two relationships were found to be significant.

The maintenance stage explains about 36% of the variance in role ambiguity and 18% of the variance in relationships. With this, the researcher notes that only two sources of stress could be significantly predicted by career stages. It can be concluded from this finding that career stages do not significantly predict sources of work stress or coping resources for high school teachers in Gauteng.

No studies were found that focused on the predictive qualities of career stages on sources of stress or coping resources for teachers.

4.1.3 Conclusions regarding the central hypothesis

The following central hypothesis was formulated for this study: Teachers within different career stages will experience different sources of stress and will deploy different coping resources specifically pertaining to their career stage.

The results suggest that the sources of work stress experienced and the coping resources deployed are similar for all teachers irrespective of the career stages. Therefore, as the results of this study indicate that similar sources of work stress and similar coping resources were reported for high school teachers in Gauteng within different career stages, the H0 is rejected.

4.1.4 Conclusions regarding the contributions to the field of Industrial and Organisational Psychology

This study forms part of the Industrial and Organisational Psychology discipline and the sub-discipline of Career Psychology. Industrial and Organisational Psychology is a branch of psychology that applies the principles of psychology to the workplace; with Career Psychology focusing mainly on understanding and improving the wellness of employees within the organisation. As a result, this study aims to provide a platform and awareness for Industrial Psychologists from a wellness perspective to assess, intervene and support employees from different industries (i.e. not only in a corporate or business environment).

4.2   LIMITATIONS

Several limitations in terms of the literature review and empirical study have been identified. The limitations of this study are discussed in the next section.

4.2.1   Limitations of the literature review

Limitations of the literature review include a paucity of research in the South African context and abroad on the relationship between career stages, sources of stress and coping resources. Although the topic of stress and sources of stress pertaining to teachers is a popular research topic both internationally and in South Africa, limited research was available on coping resources deployed by teachers to manage stress. Congruently, research conducted to investigate career stages for teachers are also limited. No studies were found that focused on sources of stress and coping resources for teachers within different career stages.

4.2.2   Limitations of the empirical study

The main limitation of this study was the length of the questionnaires. Several participants reported that the questionnaires were too long. It took the participants approximately 40 minutes to complete the questionnaire and participants reported that at times they lost concentration. This may have affected the quality of the answers provided by the participants and ultimately the quality of the data obtained through the SWSI, CRI and ACCI.

Although the researcher attempted to control the research to avoid socially desirable responses, it should be noted that teachers may still have responded in a socially desired manner owing to the nature of the questions asked. Teachers also reported to be sceptical as to why the assessments were conducted although it was clearly communicated that the assessments were conducted for research purposes and confidentiality was of utmost importance.

Lastly, this study was conducted within one province Gauteng and therefore it cannot be generalised to the greater South African population. This however, identified a need for further research opportunities to carry out similar studies in other provinces. Also, the sample in this study was mostly from urban areas and as a result, the sample was not completely representative of teachers in the Gauteng.

4.3   RECOMMENDATIONS

Based on the findings of the study, recommendations will be made to wellness practitioners, the Gauteng Department of Education and for future research.

4.3.1   Recommendations to the Gauteng Department of Education

The findings suggest that although the sources of stress did not differ significantly regarding career stages, workload seems to be an inevitable source of stress for high school teachers in Gauteng. As a result, it is recommended to the Gauteng Department of Education that interventions should be put into place to address this type of stress. The Gauteng Department of Education could possibly assist teachers with courses on time management, which should allow them to cope with the heavy workload they are confronted with.

Job security was identified through this study as the least stressful aspect for high school teachers in Gauteng. As a result, it is suggested to the Gauteng Department of Education to explore the reasons why this was reported as the least stressful aspect. This could enable the Gauteng Department of Education to deploy similar coping mechanisms that allow teachers to cope effectively with a lack of job security.

With regard to coping resources deployed by teachers to cope effectively with stress, emotional resources were deployed by teachers within different career stages. As emotional resources are associated with the degree to which people can accept and express a range of affect, based on the premise that a range of emotional responses helps to relieve the long-term negative consequences of stress, it can be suggested to the Gauteng Department of Education to utilise the emotional coping resources to a greater extent by providing a platform where teachers can express their emotional needs and manage stress more effectively.

4.3.2   Recommendations for future research

In view of the conclusions and limitations of this study, the recommendations as set out below are made for future research.

It is recommended that similar research projects should be carried out among teachers in South Africa's other provinces to confirm the research results. This study was limited to a small sample of teachers in Gauteng from urban schools. Furthermore, a longitudinal study

to examine whether sources of work stress and coping resources are similar for different periods of the year, should be conducted as this study was conducted during the first quarter of the year.

Finally, because the sample of teachers in this study were generally from high schools situated in urban areas, a similar study should be conducted for teachers in rural areas as different socio-economic status is inevitable in a South African context.

4.4 INTEGRATION OF THE STUDY

The study investigated the sources of work stress experienced and the coping resources deployed by high school teachers in Gauteng during different career stages.

The literature review suggested mixed findings. Mostly, the studies posed conflicting results as different sources of work stress and different coping resources were reported both internationally and in a South African context. It was also implied that teachers in the entry-level career stage would be likely to experience greater stress than teachers in the last career stage, due to the possibility that teachers in the last career stage would have more experience and therefore be able to utilise knowledge and coping resources to manage stress effectively. No studies were reported on sources of work stress and coping resources for teachers specifically pertaining to different career stages

The empirical study presented that teachers in this study reported excessive workload as the greatest source of work stress; whereas, a lack of job security was reported to be the least stressful aspect of the teaching profession.

With regard to coping resources, emotional resources were reported to be the coping resource most likely to be utilised when experiencing stress. Physical resources were reported as the least likely coping resources to deploy when conflicted with a stressful situation. The results furthermore suggest that similar sources of stress are experienced and similar coping resources are deployed by teachers within different career stages. This study also indicates that sources of work stress and coping resources are not specific to the teachers' career stages.

In conclusion, this study reveals that teachers, irrespective of the career stage, experience stress and use coping resources to manage stress effectively. Owing to the current turbulent state of education in South Africa, this provides insight into the sources of stress

experienced and the coping resources utilised, which could guide Industrial Psychologists, among other wellness practitioners, to assess, intervene and support teachers to manage a stressful profession such as teaching and to ultimately increase wellness of teachers as a whole. In return, if wellness is increased for teachers, teachers would be more likely to have the ability to provide quality education.

4.5   CHAPTER SUMMARY

This chapter discussed the conclusions drawn from and the perceived limitations of the study, by focusing on both the literature review and the empirical study. Recommendations were made with references to wellness practitioners, the Gauteng Department of Education and for future research. Finally, an integration of the study was presented by highlighting the findings.

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