WORK-LIFE BALANCE, PSYCHOLOGICAL WELL-BEING AND FACTORS CONTRIBUTING TO ACADEMICS' PRODUCTIVITY AND TURN-OVER INTENTIONS DURING THE COVID-19 PANDEMIC

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DECLARATION

I, Ellen Mzwakhe Shange, declare that this dissertation is a representation of my own work in conception and execution. This work has not been submitted in any form for another degree at any university or institution of higher learning. All information cited from published or unpublished works has been acknowledged.

_ _____ ____6/12/2022_____

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DEDICATION

This dissertation is dedicated to my beloved late father, Collin Shange, a truly exceptional man, and my mother, Boneni Shange, whose love and belief in me has guided my achievements.
I will also always be grateful to the Almighty God for what He has done for me.

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ABSTRACT

Work-life balance is one of the most important criteria for staff satisfaction in any institution. Achieving a good work-life balance is integral to ensuring that your institution is an employer of choice which consequently will ensure that the best employees will be attracted. The same can be said of academia, where having a well-balanced work-life can contribute to attracting, developing, and retaining suitably qualified academics. The aim of this study was to examine the work-life balance and psychological well-being of academics at a selected University of Technology in KwaZulu-Natal, South Africa. The contribution of this study is to establish factors that influence the productivity as well as the turn-over intentions of academics during the COVID-19 pandemic. A quantitative approach was adopted with a structured questionnaire comprising a 5-point Likert Scale was employed to collect the data. The target population consisted of 175 academics of a selected University of Technology in KwaZulu-Natal. A census sampling method was employed for the study because the population size was small, and every member of the population had an equal chance of being selected. Structural Equation Modelling (SEM) techniques were employed in the study to establish the predictive power and reliability of the developed model. The data obtained from the questionnaire was then analysed using AMOS 27 statistical software.

The results from the data revealed that 89% of academics still work long hours and have less time to spend with their families and loved ones. This is not ideal for achieving a healthy work-life balance. The results also confirmed that a poor work-life balance influences the productivity of academics negatively, causing poor psychological well-being for them. The literature also supported the fact that without a well-balanced work-life, the productivity will decrease, and turnover intentions will increase for academics. The results obtained from the data also indicated that 20% of the academics in the researched university are still acquiring their minimum qualification required to be in the academia, this is likely to be mirrored within other similar institutions in South Africa.

Keywords: work-life balance; psychological well-being; turn-over intentions; academics

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LIST OF TERMS/ABBREVIATIONS

ACP	Academics' Productivity
AMOS 27	Analysis of a Moment Structures Version 27
AVE	Average Variance Extracted
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
COVID-19	Coronavirus disease 2019
CR	Composite Reliability
DASS	Depression Anxiety Stress Scale
DUT	Durban University of Technology
FRC	Faculty Research Committee
HESA	Higher Education Statistics Agency
HR	Human Resources
PCLOSE	*p* of Close Fit
RMSEA	Root Mean Square Error of Approximation
SDA	Stress Depression Anxiety (Psychological Well-being)
SEM	Structural Equation Modelling
SETAs	Sector Education Training Authorities
SRMR	Standardised Root Mean Square Residual
TOI	Turnover Intentions
TSI-6	Turnover Intentions Scale
VIF	Variable Inflation Factors
WLB	Work-Life Balance
WHO	World Health Organisation

CHAPTER ONE:

INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 Introduction

In this chapter, the title and background of the study are introduced. Furthermore, the statement of the research problem, aims, objectives and research questions, significance of the study, research methodology, delimitations and limitations are outlined. The ethical considerations and the structure of the study are also discussed. The study was conducted at the selected University of Technology in KwaZulu-Natal, South Africa. The researcher believed that there is a need to examine the work-life balance and psychological well-being of academics at a selected University of Technology. This will contribute towards establishing factors that influenced academic productivity and turn-over intentions during the COVID-19 pandemic.

The outbreak of COVID-19 has resulted in unprecedented challenges that are widely known to have negatively affected the academic sector, globally. The social-distancing policies and lockdown measures in South Africa drastically altered the working arrangements at universities and other organisations (Iwu *et al.* 2022). Consequently, the country witnessed temporary closure of the institutions because of the forced lockdown and its regulations. The majority of academics had to work from home, a situation they were least prepared for and which was an unwelcome arrangement for them (Kniffin *et al.* 2021). This situation resulted in a crisis for universities, resulting in ongoing remote teaching and learning as the only alternative to keep teaching and learning at the university in operation. This shift re-shaped the higher education system from traditional face-to-face, to remote teaching and learning, putting severe pressure on the lifestyle and work-life balance of academics (Jansen 2020).

Work-life balance is the ability of people to stabilise their work and other responsibilities necessary for life, without either of the two predominating (Abioro *et al.* 2018). According to Bulger and Fisher (2012), achieving work-life balance means being able to successfully balance one's personal and professional obligations. Deery and Jago (2009)

explained that work-life balance does not necessarily mean devoting equal amounts of time to paid and non-paid work. In its broadest sense, work-life balance is defined as a satisfactory level of involvement, which enables a good "fit" between the several roles in a person's life. Researchers have shown that achieving a work-life balance plays an important role in increasing job satisfaction, and in limiting stress at work, as well as increasing the productivity of employees (Greenhaus, Collins and Shaw 2003; Parkes and Langford 2008; Horodnic and Zait 2015; Mustapha and Ghee 2013; Kossek, Valcour and Lirio 2020; Kim 2014; de Blume and Candela 2018).

Constantly trying to meet the demands of their work and personal lives is a challenge of working-life for employees today (Bell, Rajendran and Theiler 2012). Academics are similarly, and increasingly, affected (Halpern 2005; Eby *et al.* 2011). It is against this background that the purpose of this study was to undertake an in-depth enquiry into work-life balance, psychological well-being and factors contributing to the productivity and turn-over intentions of academics during COVID-19 within the South African context. According to Mustapha and Ghee (2013), an imbalance between work and life often results in academics becoming vulnerable to stress and a resultant alienation from the university. Mwangi *et al.* (2017) confirmed that academic work can become extremely stressful, with staff often having to allocate all the time available, beyond their normal duties, to publishing their research, participating in conferences and covering additional teaching duties, in order for the university to achieve its objectives.

1.2 Background of the study

The global outbreak of the COVID-19 has spread worldwide, affecting most countries and territories. The pandemic was first identified in Wuhan, Hubei, China, in November 2019. Many early cases were linked to people who had visited the Huanan Seafood Wholesale Market there, but it is possible that human-to-human transmission began earlier (Graham and Baric 2020). The countries around world cautioned the public to take responsive care. The preventing strategies have included handwashing, wearing of face masks, physical distancing and avoiding public gathering and assembles. To flatten the curve and control the transmission of the disease the lockdown and staying home strategies were put in place most countries with high affected people (Sintema 2020). On

the 11th of March 2020 World Health Organisation (WHO) declared COVID-19 as a pandemic because it has affected more than 4.5 million people world-wide. Such arrangements were necessary considering the contaminable nature of the disease. The pandemic also affected the educational institutions as is evident from the change from face-to-face learning to online learning methods, this intention was to reduce the spread of the virus (Cahyadi 2020).

This has resulted in many researchers taking an interest in conducting studies about the work-life balance of employees in different industries. Although the issue of work-life balance and psychological well-being in relation to the productivity and turnover intentions of academics during COVID-19 has received increasing attention from global scholars, it is broadly under-studied, particularly within the South African context. Furthermore, no research has been conducted, specifically evaluating the work-life balance, psychological well-being and factors contributing to productivity and turnover intentions of academics during COVID-19 within Universities of Technology in South Africa. As such, this study fills this gap.

Recently, academics have been facing challenges because of the COVID-19 pandemic regarding the collective use of blended learning and resources separated from the central office (Iwu *et al.* 2022). The online implementation resulted in problems since most institutions were not equipped in the area of online teaching and learning methods (Javier 2020). Institutions and their academics have been allocated excessive workloads which relate to online teaching and learning, which also require more time to practise and more effort to exert in preparations for class and monitoring of students (Park *et al.* 2020). Academics have experienced high levels of stress during COVID-19 because of the transformation of the traditional workplace into online teaching and learning (Shoaib *et al.* 2022). Furthermore, employment insecurity as a result of the economic crisis during the COVID-19 pandemic was also observed as a potential stressor that affected the well-being and productivity of academics adversely (Wilson *et al.* 2020; Pacheco *et al.* 2020; Zhou *et al.* 2020; Giorgi *et al.* 2020).

A study was conducted by Ugwuanyi, Okeke and Shawe (2022) about the perceptions of academics of the effect of working from home on effective teaching and learning. The study involved a sample of 28 academics across universities of South Africa. The results

of the study indicated a negative development, and that academics were mentally drained, which affected teaching and learning negatively, and stalled academics productivity levels. Similarly, it was found in a study by Van Niekerk and Van Gent (2021) that there was an increased risk to mental and well-being among academics in a South African university. Walker *et al.* (2020) found that the online model used during COVID-19 affected teaching and learning negatively, which also imposed an increased workload on academics.

The main objective of the higher education institutions (HEIs) is to develop competent graduates, a success which enables these men and women either to occupy a niche in the provision of university education or to enhance a wide range of economic activities in the country (Bataineh 2019). The focus areas of work for academics encompass teaching, research and engaging in community activities. de Blume and Candela (2018) believed that academics should aim to be highly productive and effective in each of these areas. Middaugh (2011) agreed but noted that these multiple responsibilities frequently interfere with the number of contact hours academics are able to spend with students.

Considered as being the most important asset in higher education institutions, the academics play a key role in achieving university objectives and their performance affects the process of learning and results achieved by students (Gooding 2018). Researchers have identified academics as being the most unstable section of staff as regards work-life balance when compared with other positions in higher education institutions (Beer *et al.* 2015; Park *et al.* 2020; Franco *et al.* 2021). The general quality of higher education can be affected by the academic community's well-being because it can (Franco *et al.* 2021; Fazal *et al.* 2019). Katz (2011) stated that it was incumbent upon academics to clarify their mandate and reflect on their activities in order to maintain high levels of effectiveness in each working area.

Shinn (2014) noted that pressure was being placed on universities to develop additional metrics to evaluate the effectiveness of academics, given the increasing diversity of the activities in which they are engaged, while Hartel *et al.* (2007) recommended that universities design various work-life balance initiatives in order to assist academics to balance their work and family responsibilities in a sustainable way. That the situation has not improved in recent years is indicated by the continuing advice being provided. Recent

studies have shown that numerous initiatives can help academics improve their work-life balance, including flexible schedules, accommodations for commuting to work, employee talent development initiatives, planned vacations, and leave facilities (Priya 2018; Kar *et al.* 2019; Mayya *et al.* 2021).

Pienaar and Bester (2020) noted the need for higher education institutions to assess the quality of their academics in order to ensure that they are committed and well qualified, but they also noted that achieving this might be cumbersome. Webber and Yang (2014) observed that higher education institutions are increasingly employing a more diverse team of academics from a wider socio-economic and political spectrum. Webber and Yang (2014) noted that it is imperative for any nation to appreciate the role and work of academics in order to maintain effective teaching, learning and institutional management. Parkes and Langford (2008) stated that a beneficial work-life balance among their academics indirectly, but positively, impacts on universities through increased individual well-being, reduction in job-related stress and decreased burnout. Webber and Yang (2014) also showed that a beneficial work-life balance with low work-life conflict, improves job satisfaction, organisational commitment, and organisational citizenship behaviour, encouraging increased diversity and equity, productivity, and improving the institution's financial viability while reducing turn-over of staff (Breitenecker and Shah 2018; Parkes and Langford 2008). According to Breitenecker and Shah (2018) academics can live a happy, healthy and successful life when there is work-life balance.

O'Maera, Lounder and Campbell (2014) noted that competent and highly qualified academics help to attract diligent students, increase research outputs and build the reputation of the university as well as to enhance the visibility of the institution. Higher education institutions also need to maintain a competitive edge in research productivity (de Blume and Candela 2018). On the other hand, when a university is experiencing high staff attrition, it incurs costs in terms of advertising new jobs, interviewing prospective academics, and paying for new start-up packages. Therefore, scrutiny of work-life balance, with reference to academic productivity, becomes important as the initial stage in the recruitment and retention of academics (de Blume and Candela 2018).

It is against this background that the aim of the current study was to suggest sustainable options that can foster a better work-life balance and psychological well-being for

academics, in order to improve productivity and limit turn-over intentions resulting from the COVID-19 pandemic.

1.3 Statement of the research problem

Researchers have established that increasing the accountability of academics, increasing pressure to publish research articles, spiralling workloads, frequent restructuring and additional external scrutiny all contribute to increasing stress related to academic work (Bell, Rajendran and Theiler 2012). Academics are often urged to spare time for planning their daily work in advance (at home) and are also forced to take work home to plan for the next day's tasks, or even to complete the previous day's unfinished work. Academics spend lengthy periods of time, beyond normal working hours, occupied in academic research, conferences and preparing publications, all of which are very demanding, thus frequently resulting in neglect of their personal commitments. The findings of previous research indicated that failure to balance their work and personal life, puts academics at risk of experiencing physical illnesses including coronary problems, diabetes and addiction to liquor (Bird 2012).

In addition, changes that have occurred in the working environment as a result of the COVID-19 pandemic include changes in the patterns and demands of work and the increasing pace at which technological innovations have progressed, all of which place extra demands upon academics (Pienaar and Bester 2020). The COVID-19 pandemic outbreak caused a sudden and rapid shift from traditional teaching and learning to online learning, which transformed the situation and added levels of uncertainty (Manzo and Minello 2021). Prior to the epidemic, South African universities primarily employed online platforms for communications rather than teaching and learning (Graham 2021). The COVID-19 pandemic's consequences have affected academics shared usage of technical resources and equipment that have been moved from the main office to homes. Despite the availability of these technological tools, academics face challenges, as the struggle for normalcy remains uncertain. Ugwuanyi, Okeke and Shawe (2021) indicated that negative development and mentally drained academics affect teaching and learning negatively and stall the productivity levels of academics. An increase in the risk to academics' mental health and well-being was observed in South African institutions

during the COVID-19 lockdown, according to a study by Van Niekerk and Van Gent (2021). The remote work approach used for COVID-19 had a detrimental impact on teaching and learning and increased academics' workloads (Walker *et al.* 2021).

The current study was necessitated by the imperativeness of making the academics understand the importance of work-life balance. This understanding leads to an increase in the level of the satisfaction in all the domains of life and reduce turnover intentions. As the literature stated. maintaining a sustainable work-life balance also assists in the improvement of the productivity, limit psychological illness and turnover intentions. Therefore, a study of this nature is germane for to the universities and academics.

1.3.1 Aim of the study

The aim of the study was to examine the work-life balance and psychological well-being of academics in South Africa. This will contribute towards establishing factors that influenced academic productivity and turn-over intentions during the COVID-19 pandemic.

1.3.2 Objectives of the study

To achieve the above aim, the following objectives were set for the study:

- To identify work-life balance challenges facing academics;
- To ascertain the prevalence of stress, anxiety, depression and turn-over intentions amongst academics;
- To determine factors affecting the turn-over intentions of academics in view of the prevalence of work-life and psychological well-being challenges.
- To examine factors affecting the productivity of academics in view of the prevalence of work-life and psychological well-being challenges.

1.3.3 Research questions

To achieve the objectives above, the following research questions were generated:

- What are the work-life balance challenges facing academics?
- Is there a prevalence of stress, anxiety, depression and turn-over intentions amongst academics?
- What are the factors affecting the turnover intentions of academics in view of the prevalence of work-life balance and psychological well-being challenges?
- What are the factors affecting the productivity of academics in view of the prevalence of work-life and psychological well-being challenges?

The research objectives and the research questions of the study are summarised in Table 1.1.

Table 1.1: Research objectives, questions and sources of data

Research Objectives	Research Questions	Sources of Data
To identity work-life balance challenges facing academics.	What are the work-life balance challenges facing academics?	Literature review; Questionnaires
To ascertain the prevalence of stress, anxiety, depression and turn-over intentions amongst academics.	Is there a prevalence of stress, anxiety, depression and turn-over intentions amongst academics?	Literature review; Questionnaires
To determine factors affecting the turnover intentions of academics in view of the prevalence of work-life and psychological well-being challenges.	What are the factors affecting the turn-over intentions of academics in view of the prevalence of work-life balance and psychological well-being challenges?	Literature review; Questionnaires
To examine factors affecting the productivity of academics in view of the prevalence of work-life and psychological well-being challenges.	What are the factors affecting the productivity of academics in view of the prevalence of work-life and psychological well-being challenges?	Literature review; Questionnaires

1.4 Significance of the study

The significance of the current study is to contribute to the knowledge needed to improve the work-life balance and productivity of academics at a time when the stress factors are known to be increasing and particularly since the outbreak of the COVID-19 pandemic. While the study's results cannot be generalised to an entire population, they are likely to be of interest to similar samples within South Africa. The study was also focused on identifying any gaps in the literature about the work-life balance of academics during COVID-19 areas of focus need to change in addressing issues related to work-life balance. Arguably, the results established by studies of this nature are helpful to all higher

education stakeholders to solve challenges as they relate to employee mental health and well-being. The quality of instruction might also be improved with greater harmony existing between the work and personal lives of academics. The study might also assist the sample in this study to become an employer of choice, able to attract, develop and retain suitably qualified academics. Mustapha and Ghee (2013) noted that studies of this nature contribute to raising the quality of teaching, improving the commitment of staff members to their work, and to enhancing the quality and productivity of higher education institutions.

1.5 Research methodology

A quantitative research approach was employed to achieve the objectives of the study. Positivism was adopted as the main philosophical stance for the study. A descriptive survey design was chosen for its appropriateness to gaining insights from many respondents who answered the research questions that were set by the researcher who had no control however over their responses. A descriptive survey also allows for interpretation of the topic being studied and for inferences to be made regarding some characteristics, attitudes or behaviours of the study population selected for the study (Sekaran and Bougie 2016).

A census sampling technique was used for the study. The participants were grouped according to the positions they held because of their duties. For example, junior lecturers were understood to be performing lighter duties than their senior counterparts. A census of all academics was employed. This ensured equal chances of participation in the study. Data were collected from all the faculties of the selected university, using structured questionnaires. Data were then analysed using Structural Equation Modelling (SEM) and AMOS 27. Ethical standards were maintained in accordance with the Durban University of Technology's Research Ethics Policy and Guidelines.

1.6 Delimitations of the study

The study was restricted to all the permanent academics of a University of Technology in KwaZulu Natal. What influenced the choice of the permanent academics was their

accessibility compared with the temporary or contract staff who constantly come and go at various times and are difficult to trace. The study was focused on one university of technology because of the proximity of the institution to the researcher and the time and costs associated with travelling to other universities. The other staff members were not included in the study, as the academics were the only ones able to provide reflections on their own situation as regards academic work-life balance.

1.7 Limitations of the study

Difficulties were experienced in obtaining the full co-operation of academics to participate, especially the senior academics. The study was also conducted within the contest of the "new normal" of life during the global COVID-19 pandemic, so it was very difficult to make contact, or to hand-deliver questionnaires and collect them from the respondents' offices. This study was conducted in one institution, thus the results cannot be generalised.

1.8 Ethical considerations

Ethical concerns apply at all the stages of a research project, i.e., when seeking access, during the data collection process, during the data analysis and when reporting the findings (Saunders, Lewis and Thornhill 2012). Written permission to conduct the study was obtained from the Research Directorate of the selected University of Technology after the research proposal had been approved by the Faculty of Accounting and Informatics Research Ethics Committee (FREC).

1.9 Structure of the study

Chapter One contains an introduction to the study and a description of the context in which work-life balance takes place among the academics in a university. Emphasis in the chapter is placed on the context in which the concept of work-life balance could be studied. The focus is also on the research problem, the aim and objectives of the study and the originality of the study.

Chapter Two contains a review of the literature about work-life balance, psychological well-being and factors contributing to the productivity and turn-over intentions of academics during the COVID-19 pandemic. The literature detailing the concepts related to the relationship between work-life balance and academic productivity are presented in this chapter. Furthermore, Chapter Two constitutes a critical analysis of the literary work done by previous researchers specifically on work-life balance. The gaps existing in the current literature, which this study helps to fill, are also identified.

Chapter Three contains a detailed explanation of the methodology adopted for this study. The various steps taken in the study to achieve the main aim and the various identified objectives are described. As mentioned above, the methodology involves a quantitative research design in order to elicit in-depth information from a wide range of academics about the impact of work-life balance on academic productivity.

Chapter Four is the data analysis section, the aim of which is to provide a detailed analysis of the findings acquired through the interpretation of the data obtained from the questionnaire that was administered to the participants.

Chapter Five concludes the entire study. In this chapter the main findings regarding the work-life balance, psychological well-being, turn-over intentions and the productivity of academics at the selected University are summarised. The chapter ends with recommendations and suggested areas for future studies.

1.10 Summary of the chapter

In this chapter, the title and background of the study were introduced. The statement of the research problem, aims, objectives and research questions, significance of the study, research methodology, delimitations, and limitations were outlined. The ethical considerations and the structure of the study were also discussed. The next chapter is containing a detailed literature review in which the available literature related to the work-life balance, psychological well-being and factors contributing to the productivity and turn-over intentions of academics during the COVID-19 pandemic are presented and discussed.

CHAPTER TWO:

LITERATURE REVIEW

2.1 Introduction

A literature review is a section of academic writing that contextually demonstrates the author's familiarity with and understanding of the academic literature on a given subject (Edinburgh 2021). Hart (2018) stated that the review of the related literature is important in so far as it enables the researcher to acquire an informed understanding of the topic being investigated. This chapter contains an in-depth analysis and evaluation of literature about work-life balance, psychological well-being and factors contributing to the productivity and turn-over intentions of academics during the COVID-19 pandemic. The discussion in the chapter includes the concept of work-life balance, definitions of important terms featured in the study, overview of work-life balance, psychological well-being of academics in a South African context, work-life balance challenges facing academics, importance of work-life balance of academics, the South African employment legal framework related to work-life balance and theoretical framework of the study.

2.2 The concept of work-life balance

Work-life balance within academic circles has been a topic of great interest to researchers for more than two decades. In addition, milestone transformations have occurred in both workplaces and South African homes in recent decades. South Africa has experienced changes in the demographics of the workforce, in family-related roles and within the interactive relationship between the domains of work and those that have nothing to do with work (Van Aarde and Mostert 2008 cited in Dulu 2020). An individual's work-life balance is frequently described as a dynamic phenomenon or as a continuum that oscillates between the two extremes at a given moment (Leslie, King and Clair 2019). According to Kumar and Janakiram (2017) work-life balance is an articulation of the connection between paid work and other life issues, including family obligations, network exercises, well-being, recreation and self-improvement. Dundas (2008) explained that work-life balance is focused on ensuring that there is equal allocation of time between

paid work and all the other important aspects of people's lives such as family responsibilities, community activities, personal development and leisure.

Other important terms featured in the study are defined in the section below.

2.2.1 Psychological well-being

According to Voci, Veneziani and Fuochi (2019), psychological well-being involves more than simply experiencing happiness, but also achieving one's potential and coming into one's true identity. Melchior *et al.* (2017) asserted that exposure to stressors in the work environment leads to adverse psychological consequences, such as anxiety and depression, which lead to ill-being, usually when an individual does not have coping resources or uses ineffective strategies to cope.

2.2.2 Productivity of Academics

The productivity of academics is the return on investment for the institution, which indicates how efficiently an institution converts inputs into outputs (Ojha 2014). Outputs by academics include successful academic achievements of their students, research activities, publishing and community engagement.

2.2.3 Turn-over intentions

Turn-over intention is defined as any career move, whether that move is internal or external, such as when academics leave academia or an institution entirely or move between departments in the institution (Chegini, Jafarabadi and Kakemam 2019).

2.2.4 Work-life balance

Work-life balance is the connection between paid work and other life activities which include family obligations, social networking, recreation and self-improvement (Kumar and Janakiram 2017).

2.3 Overview of work-life balance and psychological well-being of academics in the South African context

Other than the COVID-19 pandemic, other factors have also had an impact on academics, working conditions and economic instability. It is evident that the consequences of the pandemic have caused fear, poor psychological well-being, and more economic instability (Cavallo and Forman 2020). The shift from traditional workplace to working online has created several psychological challenges amongst academics that affect their productivity and work-life balance (Gigauri 2020; Anderson 2020). Sahni (2020) noted that poor psychological well-being of academics during COVID-19 was an occupational issue and its negative effect on productivity has made it necessary to manage psychological well-being for sustainable performance. In addition, Jyoti and Bhau (2017) stated that management of psychological well-being is important for consistent productivity and line managers can assist staff to cope with psychological well-being during uncertain situations. The supportive behaviours of managers assist subordinates to manage their challenges and address ambiguous situations (Abbasi 2018).

Academics in the institutions of higher learning have been found to be experiencing increasing conflicts between personal life and work as they tried to pursue the quality of life they desired to live while, at the same time, fulfilling their work-related obligations (Eby *et al.* 2011). Balancing work and life successfully is one of the major challenges facing academics today and has been during the past two decades (Halpern 2005; Franco *et al.* 2021; Bataineh 2019; Dousen 2019). Academics' ability to balance their professional and personal lives can improve undergraduate and graduate programs' sustainability, which can have both short- and long-term benefits on education quality (Beer *et al.* 2015; Devu and Lalu 2018; Zehira and Rukhsana 2020).

In the South African context, these findings from the literature re-affirm that academics generally operate under immense pressure which destabilises their work-life balance. Furthermore, the struggle caused by the outbreak of COVID-19 and its threats to human life have had serious effects in almost all the universities (Charoensukmongkol and Puyod 2021). Online learning and other flexible methods of learning have been embraced and transformed into new formats of instruction in order to continue providing education

during lockdowns (Toquero 2020). However, because the majority of academics were not fully equipped for this online teaching style, this online deployment caused additional issues for them (Javier 2020). This has had significant, detrimental effects on the academic productivity of universities and their faculty members who have taken on excessive workloads related to online training in order to keep up with technology, necessitating more time to practice and more effort to be put forth in class preparation. (Park *et al.* 2020). The findings of studies indicate that work-life balance influences the success of the institution in as far as it improves the productivity of academics evident partly in the successful graduation of students. The fact that pass-rates in South Africa have remained unsatisfactory throughout recent decades could be considered as an indication of a weakness, partly attributable to the workloads of academics.

The literature search has revealed that studies that have been conducted so far which are focused specifically on the effects of work-life balance, psychological well-being, and turn-over intentions on academics and their productivity in the current South African context, during the COVID-19 pandemic, are limited. The COVID-19 outbreak has posed major challenges in most universities in the country and have led to changes in where and how people work, leasing to work/life conflict to a greater extent than most academics have ever experienced before. Unequivocally, this knowledge gap has to be filled and this is relevant to other universities within South Africa that will gain insights into suggested strategies for improving the nature of instruction by harmonising work and life for academics.

2.4 Work-life balance challenges facing academics

As mentioned already, the COVID-19 outbreak presented major challenges in academia, as more teaching and administration interventions had to adopted while migrating to online learning systems. These were implemented by several institutions in order to proceed with their academic programmes, while also complying with government regulations (Franco *et al.* 2021). Furthermore, the work-life balance of academics has been affected heavily as the number of responsibilities has increased as a result of increasing numbers of retirements and the loss of experienced academics since the COVID-19 pandemic (Bhumika 2020). Owing to the conflict generated between

professional and family environments, some academics, when planning their careers, withdraw from academic life soon after completing their degrees in order to enter other professions (Cabay *et al.* 2018). These sentiments are shared by Selesho and Naile (2014), who emphasise that many higher education institutions are worried about retaining well-qualified staff and that there is a clear link between academics turnover and academic education's quality, consistency, and success.

Ng'ethe, Iravo and Namusonge (2012) maintained that retaining well-qualified academics is central to guaranteeing the accomplishment of visions and missions by universities, and for them to retain their status as centres of academic excellence. Moreover, considered as being a fundamental asset in higher education institutions (HEIs), academics play a key role in the achievement of organisational objectives, and their productivity affects the process of learning and results achieved by students (Sethi *et al.* 2017; Gooding 2018). Horodnic and Zait (2015) undertook a study in which motivation and research productivity in a university were investigated. The findings of the study affirmed that the performance of the academics determined the quality of training that their students experience and influenced the university's image. Based on the study, it was found that, while intrinsic motivation correlated positively with research productivity, extrinsic pressure has the direct, reverse effect. It was also found in the study that the researchers with higher academic rank in terms of research output, are more productive than their junior, faculty counterparts.

As university management focuses more on efficiency, Mitchell (2015) argued that academic power has been shifted away from academics, creating a fundamental clash of values. In academia, work is usually seen as individualised, self-managed, and intrinsically motivated (Houston *et al.* 2016; Langford 2010; Lysons and Ingersoll 2010). Kenny and Fluck (2014) conducted a study on the effectiveness of academic workload models and found that, when academics experience competing tensions that arise from increased workload demands, together with pressure to produce significant research outputs, this might prove to be significantly counter-productive for many and, ultimately, for the institution. Zilli and Trunk-Sirca (2019) state that management of academic workloads focuses on allocating work to faculty members and compensating them accordingly. It has always been difficult to manage the workload of faculty members. Kenny (2018) also argued that there is a degree of managerial hesitancy toward

quantifying what academics do. Kenny (2018) argued further that this finally places in question the extent of goodwill that can be expected from academic workers, as an investigation would provide evidence of many academics carrying well above what might be considered to be fair and reasonable workloads. Wolf (2020) cautioned, however, that staff members who are subject to workload management may encounter a convoluted system of incentives and restrictions that they may find onerous, such as the requirement that they teach a minimum number of courses while spending the remainder of their time for research. Issues involving financial rewards for research achievements can also be viewed as being restrictive by those involved.

Generally, the work-life balance challenges facing academics during the COVID-19 pandemic included the following.

2.4.1 Migration from traditional to entirely online teaching and learning

Accessibility, cost, flexibility, learning methodology, lifelong learning, and educational policy are among the issues Pokhrel and Chhetri (2021) highlighted as the main obstacles to e-learning. It takes time to transition from a traditional or hybrid system to one that is totally online. Academics encounter a number of difficulties, including a lack of home office infrastructure and issues with the overall skill set required to develop online, virtual education (Treve 2021). Crawford *et al.* (2020) stated that most universities have neither the academic capabilities nor the resources to make the transition to an online teaching and learning system and they adopt a short-term approach that might not be viable in the long run.

In similar studies undertaken during COVID-19, techno-stress and isolation were highlighted as being two major challenges that employees confronted while working from home, and depending on communication technologies (such as MS Teams, Zoom, WhatsApp and many more) to be able to work (Bin *et al.* 2021). Academics who had never worked from home, felt unprepared, or did not have the right technological tools had a harder time adjusting to the use of communication technologies and platforms (Carillo *et al.* 2021; Ipsen *et al.* 2021).

2.4.2 Preparedness for the crisis

The COVID-19 pandemic has affected the higher education sector and also raised numerous challenges for the community. More than 1.5 billion students in 190 countries have not been able to physically attend class during the peak of the COVID-19 pandemic, according to (UNICEF 2020). The educational institutions' level of readiness to tackle a catastrophe like the one brought on by the COVID-19 epidemic was the biggest and most challenging problem. It has been questioned how prepared higher education institutions are for the upcoming digital age of transformative learning (Houlden and Veletsianos 2020). Converting contact information into study modules, lecturers were not equipped in the use of electronic teaching methods.

Pressure to perform has been put on organisations and people to enhance productivity as a result of the most recent economic slump, greater competition, and ongoing technological advancements (O'Connell *et al.* 2010). To adapt to digital academic work, academics should learn new skills that increase their productivity (Sheppard 2020). Parry and Battista (2019) also concluded that universities should assist academics to use advanced technologies and to cope with the economic changes so that they can compete with the other universities internationally. Moreover, since new technologies increase flexibility and enable academics to work remotely, it is necessary for universities to develop appropriate policies to ensure that academics meet standards, but also to eliminate the negative effects of new technologies (Parry and Battista 2019).

2.4.3 Increase in workload and stress

Having conducted a study, Malik *et al.* (2021) contended that increased workloads contribute to the escalation of stress among academics that results in a situation that has a negative effect on the physical and psychological well-being of academics. In addition, the flexibility of the workplace has a positive effect on the work-life balance of academics. Park *et al.* (2020) stated that academics have undertaken excessive workloads during online training to adapt to the technology, and then need more time to practise and more effort to be exerted in preparations for class. Moreover, another challenge was the COVID-19 outbreak during which most of the learning moved online to prevent the spread of this virus, which also presented increased workloads for most academics

(Bhumika 2020). However, academics with flexible schedules experience more job satisfaction, higher levels of satisfaction with their home activities, and fewer conflicts between their roles (Javier 2020).

Additionally, using communication technology results in the requirement for greater time spent on work-related communication, which raises the stress of remote teaching and learning. Because of their accessibility via the internet and mobile devices, academics feel constantly connected to their work, which paradoxically makes them more stressed (Monica *et al.* 2020). Despite the fact that communications technology makes working remotely possible, academics find it challenging to draw boundaries between work and personal time when they operate from home (Monica *et al.* 2020; Vaziri *et al.* 2020). Also, communicating with colleagues, heads of department and deans, using communication technologies during the COVID-19 pandemic, resulted in feelings of loneliness and professional isolation (Carillo *et al.* 2021; Ipsen *et al.* 2021) because low quality social interactions caused less closeness between peers (Bin *et al.* 2021). The feelings of isolation, while working remotely, led to stress and lower productivity among academics (Toscano and Zappala 2020).

2.4.4 Poor working conditions

The appropriate electronic equipment, with high-powered technology, is not always provided by a university to the academics (Shoaib *et al.* 2022). For academics who work remotely, the allocation of data is sometimes not provided on time, which resulted in most academics making use of their own means that also impeded the progress of lectures during COVID-19 (Jansen, 2020). Priya (2018) stated that interactions with students were less effective than contact learning and designing online assessments and feedback from students did not give accurate measurements of the ability of the students, while several assessments were duplicated. Most students did not receive or participate in the online teaching because of the unavailability of electronic equipment provided by the university (Giorgi *et al.* 2020).

Academics fall within a group of employees categorised as knowledge workers whose work involves the use of mental faculties, and requires information, creativity and decision-making (Mohanta 2020). Quality in higher education can be achieved through

ensuring the increased productivity of academics by providing a high quality and conducive work environment (Ankeli *et al.* 2017). Unfortunately, most South African universities have poor educational facilities with dilapidated equipment; lecture rooms are over-crowded and poorly designed, with unsuitable furniture, inappropriate lighting, and insufficient safety measures with regard to fire emergencies (Jansen 2020). Similarly, the offices of academics are often ill-equipped (Kasule 2016). Academics working in such an environment are more likely to be less productive (Dabara *et al.* 2020).

2.4.5 Early retirements

The pandemic has resulted in uncertainty for many academics. Many academics had to change to a new way working, with little preparation, for the first time in their entire working experience (Bin *et al.* 2021). Numerous academics were expected to simultaneously facilitate home teaching and learning while also taking on caregiving duties, which further (Vaziri *et al.* 2020). Many academics had to spend time learning new strategies to conduct their duties in a different way from what they were accustomed to do. Some were mainly frustrated and chose to leave academia (Bierema 2020). The uncertainty and unpreparedness associated with the new technologies to conduct their normal duties and to adjust to ongoing changes in work procedures that were difficult to adopt. Gradually adjusting to these changes, academics remained concerned for their health and well-being, as well as for their families (Fogarty *et al.* 2021). South Africa also witnessed increased numbers of deaths related to COVID-19, which also led to increased retirements of highly experienced and senior academics because of fear for their lives and families (Jansen 2020).

As has been argued in many studies, the shifts in work and non-work patterns during the COVID-19 pandemic have affected the work-life balance of academics which, in turn, led to a spate of academic retirements (Carillo *et al.* 2021; Burk, Pechenik and Oakleaf 2021). More inclusive research has been called for in studies to acknowledge the challenges and experiences that potentially affect remote teaching and learning work-life balance, well-being, and work outcomes (Bolino, Kelemen, and Matthews 2021). As Bierema (2020) argued, the disruptions caused by the COVID-19 pandemic offer scholars and practitioners of human resources and development unprecedented opportunities to

review solutions to institutional and developmental leadership and to raise concerns and needs regarding remote teaching and learning.

2.5 Importance of work-life balance of academics

Work-life balance plays an essential role in increasing job satisfaction, in limiting stress at work, and increasing the productivity of academics (de Blume and Candela 2018). O'Maera, Lounder and Campbell (2014) noted that competent and highly qualified academics help to attract good students, increase research outputs, to build the reputation of a university and to enhance the visibility of the institution. Therefore, it is highly important to maintain a healthy work-life balance as it will assist to attract well-qualified academics to the institution. Higher education institutions also need to maintain a competitive edge in research productivity (de Blume and Candela 2018). On the other hand, when a university is experiencing high staff attrition, it incurs costs in terms of advertising new jobs, interviewing prospective academics, and paying for new start-up packages. Therefore, scrutiny of work-life balance, with reference to academic productivity, becomes important as the initial stage of recruiting and retaining of academics (de Blume and Candela 2018).

Similarly, Mwangi *et al.* (2017) purported that a university that is able to achieve well-balanced work-life for its staff will attract innovative and competent academics whose presence will ensure high-quality academic work. In other words, as academics experience a beneficial work-life balance, their role-related engagement is deepened, enabling the upgrading of their institutional performance (Clarkson *et al.* 2018). There has been consensus among researchers on the impact of work-life balance on employees and its influence both on their psychological and overall personal well-being (Mustapha and Ghee 2013). It is against this background that the purpose of this study was to undertake an in-depth enquiry into work-life balance, psychological well-being and the factors contributing to the productivity and turn-over intentions of academics during COVID-19 within the South African context.

2.6 The South African legal framework for employment related to work-life balance

According to Dorasamy and Letooane (2015), institutions of higher education and learning in South Africa faced unprecedented problems as a result of the country's significant political and socioeconomic paradigm shift. These difficulties brought up fresh expectations that forced academics to adapt to the tertiary education sector's quickly expanding needs as well as to quality standards, research outputs, technology transfer, and community participation (Dorasamy and Letooane 2015). The responsibility to guarantee that employees who are completely committed to attaining the institutional objectives also experience a sustainable work-life balance falls to South African institutions as they go through a process of extensive institutional reform (Kortze 2015). The legislative framework underpinning work-life balance in South Africa is discussed in the following sections.

2.6.1 The Basic Conditions of Employment Act, Number 75 of 1997

The Basic Conditions of Employment Act, Number 75 of 1997 regulates labour practices that are related to work-life balance because it stipulates the rights and duties of both employees and employers. The aim of the Act is to ensure that social justice prevails by establishing the basic standards of, and conditions for, employment, stipulating the working hours, leave entitlements, remuneration structures, conditions of dismissal, and dispute resolution mechanisms. Under section 10 of this Act, it is stipulated that the employer is forbidden from allowing employees to work overtime, unless there is consent from the concerned employee. This should reduce the excessive workloads that compel academics to work for many additional hours that results in compromising their work-life balance (Dorasamy and Letooane 2015). The Basic Conditions of Employment Act stipulates that academics are entitled to annual, sick, maternity, paternity and family responsibility leave to balance the interface between home and work responsibilities.

2.6.2 The Employment Equity Act, Number 55 of 1998

The Employment Equity Act, Number 55 of 1998 serves to establish equity in the workplace by ensuring equal opportunity and fair treatment in the employment market through the elimination of discrimination, and implementation of affirmative action measures with the aim of redressing the disadvantages in the employment sector. This Act regulates labour practices that partly address work-life balance and enables the relevant aims of the South African Government to promote the employment of the formerly disadvantaged groups to redress gender and racial imbalances, which are likely to encourage African academics to seek employment in the universities (Dorasamy and Letooane 2015).

2.6.3 The Labour Relations Act, Number 66 of 1995

The Labour Relations Act, Number 66 of 1995 regulates the organisational rights which pertain to trade unions. It also facilitates the promotion of collective bargaining at workplaces and at sectoral level. It regulates issues relating to strikes and lockouts, workplace forums and alternative dispute resolution. As such, Section 203 of the South African Labour Relations Act, Number 66 of 1995 protects academics from sexual harassment amongst other things. Regular training on the legal implications of sexual harassment assists in addressing the challenges. If applied practically, it can boost morale among all academics.

2.6.4 The Skills Development Act, Number 97 of 1998

The Skills Development Act, Number 97 of 1998 serves to improve the skills of the workers by promoting work-related education and on-the-job training. It governs the operations of the National Skills Authority and Fund, the Skills Development Levy-Grant Scheme, the Sector Education Training Authorities (SETAs), Labour Centres and the Skills Development Planning Unit. These bodies create legal frameworks for the forging of partnerships between the public and private sectors of the economy and foster the entrance of new players into the labour market. Researchers have indicated apparent shortages of skilled and qualified academics at South African Universities, and this is becoming an enormous challenge in the public sector. Moreover, the dramatic changes

caused by the consequences of the COVID-19 outbreak, in terms of online assessment of students, posed some challenges to academics since most of them had never been trained to adapt to this new life (Javier 2020). According to Grieves (2020), Knowledge of the country is mainly reflected in technological advancements, arguing further that the application of that knowledge is crucial in the operation of institutions in dynamic environments where service-delivery is the primary objective, and universities are technologically advanced institutions. It is clear that without a well-qualified team of academics, no institution can sustain itself for long. This strongly suggests that academics should be encouraged to participate in, and apply, certain training programmes to assist them in their daily tasks.

2.6.5 The Occupational Health and Safety Act, Number 85 of 1993

The Occupational Health and Safety Act, Number 85 of 1993 is a legal framework which provides: health and safety guidelines for people at work as well as educating them in using plant equipment and machinery; the protection of other people, other than those at work, against hazards to health and safety issues born out of, or in connection with, the activities of people at work; and the establishment of an advisory council for occupational health and safety and associated matters.

Kruger (2012) looked into the opinions and encounters of health and safety staff members in a university setting in a different study. Even though it was noted in the survey that upper management supported them by addressing the stated concerns, the results showed that the participants evaluated their immediate supervisors as being unsupportive with regard to health and safety issues. In order to preserve a healthy work-life balance, businesses and employees should jointly prioritize employee health and safety concerns (Malczyk and Tissiman 2010; Abbas 2018; Sahni 2020). Apparently, the issue of work-balance is supported by the Occupational Health and Safety Act. In the event that academics sustain damage or disease that stems from work-life imbalance related to academic work, the Compensation for Occupational Injuries and Diseases Act, Number 130 of 1993 was promulgated to deal with the aftermath of such eventualities.

2.7 Importance of psychological well-being of academics

Academics have experienced high levels of stress during the pandemic because of the transformation of the traditional workplace into teaching and learning online (Shoaib *et al.* 2022). Furthermore, employment insecurity as a result of the economic crisis during the COVID-19 pandemic has been observed as being a potential stressor which adversely affected the well-being and productivity of academics (Wilson *et al.* 2020; Pacheco *et al.* 2020; Zhou *et al.* 2020; Giorgi *et al.* 2020). Improved psychological well-being of academics will assist a university to attract well-qualified, top academics (Van Niekerk and Van Gent 2021). Additionally, academics' health can affect their productivity in administration, research, and teaching, which, in turn, can affect the overall quality of higher education (Franco *et al.* 2021; Fazal *et al.* 2019; Ugwuanyi, Okeke and Shawe 2022).

According to Rodrguez-Rey *et al.* (2020), the COVID-19 pandemic in Spain caused about 37% of the academics to exhibit psychological distress (symptoms of traumatic stress), with the estimated effects on women and young people who work in academia being consistently greater. The UK population was mainly resilient in the early stages of the COVID-19 pandemic, according to Shevlin *et al.* (2020). However, a number of factors especially related to COVID-19 were linked to psychological distress, economic loss as a result of the pandemic, having a pre-existing medical condition, and caring for children at home. According to Shevlin *et al.* (2020), as the pandemic spreads, more surveys are necessary, and governmental responses should include steps to safeguard mental health, a crucial aspect of physical and mental wellbeing.

The COVID-19 pandemic increased the chance of viral infection-related death as well as the severe psychological strain on the rest of the world (Xiao 2020; Duan 2020). It was anticipated that the ongoing pandemic, stringent isolation policies, and delays in restarting schools, colleges, and universities around the world would have an impact on academic performance and student mental health. According to Mustapha and Ghee (2013), an imbalance between work and life often results in academics becoming vulnerable to stress and a resultant alienation from the university. Mwangi *et al.* (2017) confirmed that academic work has become extremely stressful, with staff often having to allocate all the

time available, beyond their normal duties, to publishing their research, participating in conferences and covering additional teaching duties, in order for the university to achieve its goals. This has increased since academics were expected to be in consultation with their students via online platforms which they had to control.

Positive psychological well-being of academics can assist in increasing a university's output and attaining higher levels in the national and international university rankings, which also attracts top students and academics to a university (Javier 2020). Considered as being the most important asset in higher education institutions, the academics play a key role in achieving university objectives and their performance affects the process of learning and results achieved by the students (Gooding 2018). The main objective of the higher education institutions (HEIs) is to develop competent graduates, the success of which enables these men and women to occupy a niche in the provision of university education (Katz 2011; Bataineh 2019).

2.8 The relationship between work-life balance, employee psychological well-being and productivity

Numerous research from the United States of America (USA) and the United Kingdom (UK) show that depression is one of the most frequent effects of a work-life imbalance, which in turn affects productivity and leads in a high absenteeism rate (Layous et al. 2011; Seligman, 2018). Job-life balance issues frequently cause individuals to feel depressed and have a negative impact on institutions by increasing absenteeism, staff turnover, productivity, and work quality (Hill 2005 and Seligman 2018).

In a study carried out by Chenbhanich *et al*. (2022) about the effects on the well-being of clinical trainees in medical genetics, it was concluded that the COVID-19 pandemic has had a negative effect on most trainees. With most students displaying increased depression and worsening work-life balance. Chenbhanich *et al*. (2022) concluded that further research is needed on the subject matter. In support of this view, based on a study in Italy, Angelone *et al.* (2021) also alluded to the pandemic being correlated to work stress. In their findings, it was concluded that the pandemic has caused many employees to become highly demotivated. Misery *et al.* (2021) conducted an anonymous online

survey on the impact of COVID 19 on all French dermatologists. The results of the study showed an increase in anxiety and a feeling of increased stress were very frequent. Pyhaito *et al.* (2022) conducted an experience survey. A total of 768 PhD candidates were included in this survey. The COVID-19 pandemic, according to the candidates, slowed them down and made studying less enjoyable. Poor work-life balance, poor mental health, and restricted access to institutional resources were all blamed for the unfavorable outcomes. The study's findings can be used to develop well-suited, innovative strategies to help PhD candidates overcome the hurdles brought on by the epidemic. From the above discussion, it can be inferred that the COVID-19 pandemic has caused considerable imbalances within the academic field, which was explored further in the current study.

Work-life balance and issues of job stress are particularly relevant for academics, because completing several different tasks, whether from the same or different roles (such as work and personal life), creates conflict (O'Laughlin and Bischoff 2020). Academics in the UK who experienced more work-life conflict tended to be less satisfied with their jobs, less healthy, and more likely to have considered leaving academia (Kinman and Jones 2018). In the USA, it was found that full-time academics worked in excess of 50 work hours per week, regardless of rank or type of discipline (Jacobs and Winslow 2019; O'Laughlin and Bischoff 2020).

Additionally, a significant majority of New Zealand's academics worked overtime of at least ten hours every week (Houston *et al.* 2019). Over half of academics in the UK who participated in a sample said they felt forced to work long hours and that it had a negative impact on their personal lives (Kinman and Jones 2018). There are several measures in place to assist academics in managing work-related stress, anxiety, depression, and other difficulties. These frequently include flexible work schedules (Reiter 2017) and stress-reduction approaches (Kinman and Jones 2018), just like other organisations. However, academics must be proactive in implementing these efforts. Based on a study conducted in South Africa by Khanyisa *et al.* (2022) concerning employee experience and adjustment of work during the COVID-19 pandemic, it was determined that the substance of work grew, employees were required to work remotely and use online platforms to interact and produce work, and they encountered personal issues of bereavement and emotional distress. It was advised that management and HR be given improved.

2.9 The relationship between work-life balance, employee well-being and turn-over intentions

Academics have experienced high levels of stress during COVID-19 because of the transformation of the traditional workplace into teaching and learning online (Shoaib *et al.* 2022). Employment insecurity because of the economic crisis during the COVID-19 pandemic was also observed as a potential stressor which adversely affected the well-being and productivity of academics (Wilson *et al.* 2020; Pacheco *et al.* 2020; Zhou *et al.* 2020; Giorgi *et al.* 2020). Most academics were forced to work from home, a situation for which they were unprepared (Kniffin *et al.* 2021). This situation resulted in a crisis for universities and placed severe pressure on the lifestyle and work-life balance of academics, while others decided to withdraw from academia (Jansen 2020).

"Work-life balance" is a key term in the current study, and its relationship with employee well-being and turn-over intentions has already been identified in most sections of the study. The multiple roles, demands and challenges emanating from home often lead to conflict of many employees' roles at work. The absence of favouring work-life balance for academics affects their commitment to their work, generates distance from family commitments and causes poor well-being for academics (Franco *et al.* 2021). Academics still face continuous tension regarding quality of classes, excessive workloads, deadlines, and constant programme evaluations (Evens 2019). According to Fazal *et al.* (2019), maintaining a healthy balance between work and life is still difficult due to the amount of influences that cause stress to increase and the professional duties of academics. Most academics choose to leave a university when most of these factors are not addressed for fear of their health status (Cabay *et al.* 2018).

2.10 Theoretical framework of the study

The desire to study work-life balance stems from the perspectives that emphasise the conflicting roles between work and life responsibilities (Potgieter and Barnard 2010; Dousen 2019). The perspectives being explored border on work-life conflict, work-life integration, work-life interaction, work-life balance and psychological well-being (Mostert and Oosthuizen 2010; Wood 2020). Over-work has often been identified as

being primarily responsible for the rise of problems stemming from work-life imbalances (Roberts 2007 cited in Wood 2020). This has contributed to the widely held belief that work-life conflict arises when forces that are incompatible with one another converge on responsibilities in work and family. According to Eby et al. (2011), studies on work-life conflict started with a one-dimensional conceptualisation of the construct and are particularly concerned with married women who are employed, couples who are in dual careers, and single-parent homes (Van Aarde and Mostert 2008; Potgieter and Barnard 2010; Dousen 2019 and Wood 2020).

Theoretically, the "spill-over" concept is perceived to be one involving two contradictory types: positive or negative. "Positive spill-over" refers to a situation where satisfaction and achievement experienced in one domain can lead to satisfaction and achievement in another (Wood 2020). On the other hand, "negative spill-over" refers to a scenario where problems and despair experienced in one domain are transferred to another domain (Xu 2009; Dousen 2019; Adekunle *et al.* 2018; Ali *et al.* 2016; Wood 2020). The earliest perspectives of work-life balance were focused on the negative impact that work had on family life (Greenhaus, Collins and Shaw 2003; Rost and Mostert 2007). Generally, the focus was more on the effects of the spill-over from work to family than on the reverse dichotomy, i.e., from family to work (Frone, Russell and Cooper 1997; Fu and Shaffer 2001). The focus has since shifted towards an acknowledgement of the multi-directional interaction between the domains of work and family (Mostert and Oosthuizen 2018). More complex relationships representative of work-family conflict began to be studied (Mostert and Oosthuizen 2018) and there is a tendency towards using the terms "work-life interaction" rather than "work-life balance", as "balance" is suggestive of an even distribution of recognition between work and life, a scenario which might not always be desirable (Koekemoer and Mostert 2010; Lewis, Rapoport and Gambles 2003).

The consequences of the COVID-19 pandemic raised concerns regarding work-life balance and its consequences as lockdown restrictions forced academics to shift from face-to-face to virtual teaching and learning, working from home. Azevedo *et al.* (2020) added that work-life imbalance leads to poor psychological well-being, low productivity and high turn-over intentions. The adoption of Spill-Over Theory for this study confirms that the experiences of work-life affect the personal experiences of academics, a development that also affects their academic productivity and psychological well-being.

The theory is based on the most popular view of the relationship between work-related activities and family life (Knott, Posen and Wu 2009). In relation to work-life balance, this can be observed through supportive supervisors or colleagues, which could alleviate work-family spill-overs (Garcia Cabrera *et al.* 2018; Wu *et al.* 2012). Additionally, work-to-family spill-over can benefit from flexible, employee-focused scheduling. Therefore, policies that prioritise academic employees, allow for flexibility in the workplace, and support families can improve the active transfer of knowledge from the home to the workplace and contribute to achieving a healthy work-life balance (Dousen 2019; Lott 2018; Ruppanner and Pixley 2012).

2.11 Summary of the chapter

The chapter contained an in-depth discussion of the literature concerning the work-life balance, psychological well-being and factors contributing to the productivity and turn-over intentions of academics during the COVID-19 pandemic. This contributed towards establishing factors that influenced academic productivity and turn-over intentions during the COVID-19 pandemic. The key topics of university-based academics and the consequences of work-life imbalance were discussed. Arguably, from the literature, it appears that, without a balance between work and life responsibilities, institutions of higher learning cannot expect to achieve their goals, they are likely to lose top academics and, eventually, they might not be able to survive. The next chapter contains an explanation of the methodological framework underpinning the study.

CHAPTER THREE:

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the research methodology used to examine the work-life balance and psychological well-being of academics in South Africa is explained. This will contribute towards establishing the factors that influenced the productivity and turn-over intentions of academics during the COVID-19 pandemic. In this chapter, the selected research paradigm, research design, the target population, sampling method, data collection and data analysis are examined. Furthermore, the data coding, pre-testing, limitations, validity, reliability, anonymity, and ethical considerations are discussed and the chapter concludes with a summary.

3.2 Research paradigm

The use of the term "paradigm" has increased over the years (Kuhn 1970; van Der Walt and van Rensburg 2008; Grove *et al.* 2013; Aliyu *et al.* 2014; Gumede 2017). A research paradigm is defined as the body of accepted assumptions and principles among scientists regarding how issues should be recognised and solved (Perera 2018). According to Grove *et al*. (2013), the term "paradigm" describes a certain perspective on things that includes a number of underlying philosophical presuppositions and directs how an investigation is conducted.

Positivism was adopted as the main philosophical stance for this study, being a philosophical approach which is aligned with quantitative research. Cresswell (2017) states that positivism is the term used to describe an approach to the study of society that relies specifically on scientific evidence, such as experiments and statistics, to reveal a true nature of how society operates. A quantitative approach was employed to meet the objectives of the study in order to involve as many respondents as possible. In addition, a descriptive survey research method was used to answer the questions posed in the study. It was an appropriate research design to obtain responses to research questions from a

wide population, over which the researcher had no control. A descriptive survey also ensured that inferences could be made about some characteristics, attitudes or behaviour of the population in the study. A Structural Equation Modelling (SEM) technique was used to quantify relationships amongst multiple factors. According to Fan *et al.* (2016), and Joseph and Olugbara (2018), the SEM technique is one of the best techniques being used progressively in science, social science and social psychology, to dissect multivariate, easy-going relationships among factors.

In studies of work-life balance, mostly qualitative research approaches have been used or univariate and bivariate statistics have been adopted such as analysis of variance (ANOVA) and regression (Crompton and Lyonette 2020; Kalliath and Brough 2008; Jones, Burke and Westman 2016; Sirgy and Lee 2018). SEM has been used in very few studies in South African national literature to research the effects of work-life balance, psychological well-being and factors contributing to the productivity and turn-over intentions of academics during the COVID-19 pandemic. Exploratory reviews have conducted in some studies (Kalliath and Brough 2008; Sirgy and Lee 2018). In other studies, descriptive and inferential statistics have been used (Smith 2020; Delina and Raya 2019).

3.3 Research design

A research design is the general plan for obtaining answers to the investigation being contemplated, and for addressing some of the challenges likely to be experienced during the investigation process (Polit and Beck 2020). The research design is created to meet the specific needs of an investigation. Sileyew (2019) explained that research design is the appropriate framework for a study, which determines how relevant information will be obtained. According to Sekaran and Bougie (2016), choosing a research design ought to be guided by an overall consideration of whether the design involves the most ideal strategy for obtaining reliable responses to the research questions.

3.3.1 Research methodology

Research can be either quantitative or qualitative or a combination of both, known as a mixed-method approach. A quantitative approach uses any kind of data presented in numerical form, for example, statistics or percentages (Given 2018). A qualitative approach involves exploring and understanding the problem being investigated, often through the method of interviewing respondents (Sileyew 2019). A mixed-method approach is the application of both qualitative and quantitative approaches in one study (Creswell 2017). Naoum (2018) explained that deciding on which kind of research design to follow depends upon the purpose behind the investigation, and the type and accessibility of the data required. A quantitative approach was employed for this study because it contains both independent and dependent variables and the effect between them is investigated. A quantitative approach was also employed because it placed a premium on the objectivity and reliability of the findings and encouraged replication (Saunders, Lewis and Thornhill 2016). Creswell and Creswell (2017) defined a quantitative research approach as being helpful for depicting patterns and clarifying the relationship among factors found in the literature.

The quantitative method was used to obtain reliable and accurate data, collected by means of structured questionnaires, consisting of closed questions. The data were collected from junior lectures, lecturers, senior lecturers and professors, across three faculties of a selected university. The quantitative method assisted in obtaining the intended information and made statistical comparisons of different situations possible. Maree (2007), cited in Dulu (2020), stated that quantitative research is a systematic and objective procedure that uses numerical data, frequently from just a small subset of a population, to generalise the findings to the entire population being examined. It was against this background that a quantitative method was employed to investigate systematically the effects of work-life balance on the productivity of academics. However, in this case, the whole populations were targeted rather than using a selected sample. Quantitative research is also useful for describing trends and explaining the relationship among variables found in the literature (Creswell and Creswell 2017). Again, this method was employed to describe trends and explain the relationship of work-life balance to academic productivity and the relationship of stress at work to academic productivity.

3.3.2 Descriptive research

Many research designs have been developed to conduct quantitative research. Thus, choosing a suitable design depends on the needs of a particular study. Canyon (2017) stated that the aim of descriptive design is to determine the current status of a variable or a fact. Normally, this type of study does not start with any hypotheses but, instead, these are developed after the data have been collected. Sekaran and Bougie (2016) described a descriptive study as a study designed to collect data which describe characteristics of situations, people, or events. This data could be either quantitative or qualitative. As stated above, a descriptive survey design was used for this study because it made it possible to consider the topic and guaranteed that conclusions could be derived about important attributes, states of mind or conduct of the population being investigated. Surveys are distinct because their purpose is to enable understanding of the circumstance being researched from a descriptive perspective and by estimating effects and factors.

3.4 Target population

According to Hennink, Hutter and Bailey (2020), it is important to define the target population clearly before deciding on a research strategy. Sekaran and Bougie (2016) defined a population as being the group of people, things of interest, or events which the researcher wants to investigate. Creswell and Creswell (2017) added that a target population comprises the group of individuals who have the same characteristics that a researcher wishes to study. The target population for this quantitative survey consisted of 175 full-time academics of the selected University of Technology in KwaZulu-Natal. The source list of academics was obtained from the university's Department of Human Resources and Development. The information obtained from the target population could thus be deemed to be sufficiently accurate to give insights into the effects of work-life balance, psychological well-being and factors contributing to the productivity and turn-over intentions of academics during the COVID-19 pandemic.

3.5 Sampling method

Denscombe (2018) stated that sampling implies taking a small section or a few units of a population, to be representative of, or having the specific attributes of, the absolute population. Cresswell (2017) agreed that a sample is a sub-group of the target population. As McCombes (2019) explained, when research about a group of individuals is conducted, it is rarely possible to gather data from everyone in that group. Instead, the researcher chooses a sample that is suitable for the study. Thus, to reach legitimate conclusions, the researcher must be careful to select a sample that is illustrative of the group in general.

A census sampling method was employed for the study because the population size was very small and every member of the population had an equal chance of being selected. The method also produced results that are representative of the whole population (McCombes 2019). Wagner, Kawulich and Garner (2015) explained that, in quantitative research, it is important to choose a sample that will best estimate the attributes of the population from which inferences would be drawn. It was on these grounds that census sampling was chosen for this study.

Census sampling was chosen because it provides significant statistical efficiency (Cooper and Schindler 2014). Census sampling was drawn from a total of 175 academics across all the faculties of the selected university. The participants were grouped according to their positions, because academic duties are not the same for different strata. For example, junior lectures perform lighter duties than senior lecturers. Census sampling ensures that each member of the group has an equal opportunity of being selected. It was on these grounds that census sampling was deemed to be the most suitable for the study.

3.5.1 Sample size

A sample design defines the procedure used to choose the sample. In order to determine the sample size, Dorasamy and Letooane (2015) explained that factors such as cost and time must be considered. Maree (2007) cited, in Dulu (2020), added that there are three factors that predominantly determine sample size:

- The type of statistical analysis to be employed;
- The accuracy of the results required;
- The characteristics of the population.

The size of the sample has a direct correlation with the degree of accuracy of the results (Maree 2007). Census sampling is employed when studying a population occurring in a group (Sekaran and Bougue 2016; Hair *et al.* 2016; Saunders *et al.* 2016). The sample size for the current study was drawn from each group, using 100% of the population in each group. Thus, the sample could equally be described as a census. This was deemed to be possible because the population was not more than 200 and was easily accessible. Table 3.1 shows the population and sample size as follows.

Table 3.1: Population and sample size (n = 175)

Designation	Population size	Sample size
Junior Lecturer	41	41
Lecturer	103	103
Senior Lecturer	27	27
Associate Professor	2	2
Assistant Professor	2	2
Total	**175**	**175**

3.6 Data collection

Data can be divided into two groups, according to Dlabay and Scott (2017): primary and secondary data. Secondary data are accessed from external sources such books, reports, journal articles, websites, and newspapers (Srivastava and Rego 2017). Using techniques like in-person or telephone interviews, email surveys, or computerised questionnaires created to address a specific research issue, the researcher gathers primary data directly from study participants. (Velentgas *et al.* 2018). In this study, quantitative data were collected in person, using a structured questionnaire across three faculties of a selected university. The participants were accessed easily, and it took less than three months to complete the process.

3.6.1 Questionnaire

A questionnaire, according to Bless and Higson-Smith (2020), is a tool for gathering data that consists of a set of questions about the subject of the study that must be answered in writing by study participants. Questionnaires were self-administered, which was the most suitable method and relatively cheap to administer. The sampled participants were accessed easily by the researcher. The questionnaires were very efficient and not time-consuming. The questionnaire is recommended for descriptive studies (Sekaran and Bougie 2016) and assisted in obtaining the intended information and enabled the researcher to make statistical comparisons of different situations.

3.6.2 Questionnaire design

The structured questionnaire contained questions which were divided into sections (A-E). Section A contained biographical details such as gender, age and race. This was done for statistical purposes. The other sections were focused on measuring the following model factors:

- Work-life balance;
- Depression, anxiety and stress at work;
- Turn-over intentions;
- Academic productivity.

Section B contained work-life balance statements which were measured using scale items adapted from Daniels and McCarraher (2000), which have also been used by Haar (2015), with slight modifications to suit the current study. In addition, each item corresponding to this factor was measured on a five-point Likert-scale ranging from: “strongly agree” (5) to “strongly disagree” (1).

Section C contained questions concerning depression, anxiety and stress at work. The Depression Anxiety Stress Scale (DASS) was employed to measure negative emotional states at work. DASS is a self-report measure in which participants rate the frequency and severity of experiencing these negative emotions over previous times. Frequency or severity are indicated on a series of four-point scales (0 = “did not apply to me at all” to

3 = “applied to me very much, or most of the time”). DASS has been employed in many academic research studies with successful results (Norton 2007; Mellor *et al.* 2015; Cheung *et al.* 2016; Scholten *et al.* 2017; Ruiz *et al.* 2017).

In Section D of the study, the turn-over intention scale (TSI-6) adapted from Roodt (2004) was used to measure the intentions of academics to stay or to leave the institution. Bothma and Roodt (2013) confirmed the validity of the six-item scale TSI-6. Turn-over intentions were measured using TSI-6, with slight modifications to suit the current study and were measured on a five-point Likert-scale ranging from “strongly agree” (0) to “strongly disagree” (1).

In Section E, academic productivity was measured using statements constructed by the researcher based on the literature and were sent to three academic experts on teaching and learning management for their reviews. Based on their comments and suggestions, some items were re-phrased to improve the validity of the testing instrument. Subsequently, academic productivity was measured on a five-point Likert-scale ranging from “strongly agree” (5) to “strongly disagree” (1).

3.6.3 Administration of the questionnaire

The main benefit of employing a self-administered questionnaire is that it is less expensive than most other approaches and allows the researcher to quickly gather all the completed responses (Sekaran and Bougie 2016). Andres (2019) highlighted that those respondents can complete self-administered surveys without the assistance of an interviewer. This approach also enables the researcher to address any concerns or queries the respondent may have while introducing the questionnaire. Each respondent was given enough time to read the letter of information and consent form and the chance to ask any questions they may have had. The questionnaires were distributed to the participants, and the researcher informed them that their answers would be kept confidential. The participants were informed of the questionnaire's aim, and all completed forms were collected in a box.

3.6.4 The covering letters

Covering letters were attached to each questionnaire. This letter of information contained all necessary details that could be required by the participant to understand the study, including an introduction to the study, an outline of the procedures, and expected benefits. Also, information regarding the costs of the study, confidentiality and contact details of the researcher and university were all contained in the letter for participants should they have any queries. The letter of information was prepared by the researcher, and an institution letter head (DUT) was used. The consent form was included as proof of consent to participate in the study freely and voluntarily, as discussed by Silverman (2018). An Ethical Approval Letter, Level 2, from DUT, and a gatekeeper's letter, confirmed permission to conduct the research.

3.7 Data analysis

The data were analysed using structural equation modelling. The data acquired from questionnaires was coded, entered in a computer programme, and edited. Data coding was done by assigning a number to the respondent's responses so they can be entered into a database, after information is entered and was edited. Data editing deals with detecting and connecting illogical, inconsistent, or illegal data and omissions in the information returned by the participants of the study. Exploratory factor analysis was performed to check the reliability and validity of the tool used to collect the data and ensured that the data were suitable for analysis. Confirmatory factor analysis was used to assess the strength and relationship of the measured variables, and model goodness of fit was presented.

3.7.1 Exploratory factor analysis (EFA)

Exploratory factor analysis (EFA), according to Mabaso (2017), is a technique for assembling variables that share a characteristic. It is a method that allows the researcher to take a large number of variables and distill them down to a manageable number of underlying variables that can explain as many variables as feasible. Using this technique, the researcher can determine where various variables are addressing the same underlying

notion and helps define underlying factors among the variables in the analysis (Naicker 2019).

3.7.2 Structural equation modelling (SEM)

The data were analysed using structural equation modelling. Statistical analysis was carried out within the philosophy of SEM, using Analysis of a Moment Structures (AMOS) 27 Statistical Software. Path Analysis represented regression to derive descriptive statistical analysis of the study variables and the correlation matrix between the variables. The data acquired from questionnaires were coded and entered into a computer programme to prepare for analysis. Data coding was done by assigning a number to the respondents' responses so that they could be entered into a database. The information was then entered and edited. Data editing is finding and connecting missing, illogical, or illegal data in the information provided by study participants.

Structural equation modelling was employed to analyse the data gathered for the study. According to Kline (2017), SEM refers to a statistical procedure that incorporates many statistical techniques into one process at the same time. Hair *et al.* (2016) defined SEM as a family of statistical models the aim of which is to explain relationships among multiple variables. Hair *et al.* (2016) explained further that SEM integrates various statistical methods, such as covariance structure analysis, factor analysis and multiple regression analysis, in order to investigate research. SEM assisted in depicting relationships among work-life balance, turn-over intentions, psychological well-being and academic productivity, with the same goal of providing a quantitative test of the hypotheses of a theoretical model based on the study. The study was able to define latent variables. SEM provides increased recognition of the validity and reliability of factors observed from the measuring instrument (Joseph and Olugbara 2018).

3.7.3 Confirmatory factor analysis (CFA)

Confirmatory factor analysis (CFA) was used in the study, which is described as "a more complex and sophisticated set of techniques to test a model fit and specific hypothesis" (Mabaso 2017). Confirmatory Factor Analysis (CFA) is used to assess the strength and relationship between a set of measured and latent variables (Tabachnick and Fidell, 2013).

CFA is conducted after the exploratory factor analysis (EFA) as a follow-up analysis (Byrne 2018).

3.7.4 Model goodness of fit

Hair *et al.* (2016) emphasise the importance of "model fit and whether structural relationships are consistent with theoretical expectations". According to Mabaso (2017), it is not possible to fully validate a model without looking at each parameter estimate. By depending on degrees of goodness-of-fit for the measurement model and discovering particular proof of construct validity, the study made sure that these parameters were statistically significant and relevant. A statistical model's goodness-of-fit defines how well it matches a set of observations (Maydeu and Garcia 2019) cited in Mabaso (2017).

3.8 Data coding

The researcher understood that data coding was one of the crucial elements of data analysis. According to Creswell and Poth (2016), "coding is the process of reading carefully through transcribed data, line by line, and dividing it into meaningful analytical units". Creswell and Poth (2016) stated that coding can also be defined as "marking a segment of data with symbols, descriptive words or unique identifying names". The data were coded according to their section in the questionnaire. For example (see Appendix D), the answer for statement number 1 of Section A was A1 – 5. This meant that the respondent strongly agreed (5) to statement Number 1 in Section A.

3.9 Pre-testing

According to Grimm (2019), pre-testing is an essential step in survey research to ensure that mistakes associated with the data collection instrument are reduced. Grimm (2019) added that pre-testing helps significantly to improve the quality of data. The research questionnaire was piloted with a limited number of participants who fitted into the inclusion criteria. The researcher used five (n = 5) respondents in the pilot phase. The respondents were selected from the same university where the actual study was conducted. However, those who participated in a pre-test were then excluded from

participating in the main study. The responses from the pilot test proved that the instructions were clear and the questions were easy to understand. The method of pre-testing is useful as it assists in checking whether the questions are clear and easy to understand and allows time to amend any questions where necessary (Dulu 2020).

3.10 Limitations of the study

The study was limited to permanent academics because they were more accessible than temporary or contract staff, who could come and go at any time and were difficult to trace once they left the university. The study was also limited by time and resources. There were academics who were reluctant to fill in the questionnaires. Thus, several questionnaires issued were not completed and returned. This left the researcher with no choice but to comply with the statement which assured respondents that participation was voluntary and free, and the researcher then worked with those who were willing to participate in the study.

3.11 Validity

The degree to which a measure evaluates what it is supposed to measure is what Fink (2019) referred to as validity. According to Saunders, Lewis, and Thornhill (2016), the extent to which a data collection tool measures what it was designed to assess is known as validity.

3.12 Reliability

The reliability of the instrument was also tested with Cronbach's alpha ($\alpha \geq 0.7$), which was interpreted to mean that the instrument provided a relatively effective measurement tool and, hence, was reliable (Chueng 2018). According to Sekaran and Bougie (2016), Cronbach's alpha is an adequate test of internal consistency and reliability. Mugenda and Mugenda (2003), cited in Dulu (2020), emphasised that the degree to which a research instrument produces consistent results after numerous trials is its level of reliability. Therefore, that was the reason why Cronbach's alpha was used in the study. The results of the Cronbach's alpha test are presented in the next chapter.

3.13 Anonymity and confidentiality

According to Njanjobea (2016), anonymity is important because it gives participants the opportunity of giving accurate information without being afraid of any harm or victimisation that might result. Confidentiality is also important as it induces the spirit of accuracy and honesty in participants. Anonymity and confidentiality of information provided by all participants in the study was carefully maintained. This enabled respondents to participate in the study freely and voice their opinions openly. Therefore, the data collection method used did not request the personal information of the participants and the researcher ensured that nobody outside of the study could influence the responses of individual participants.

Any stage of a research endeavour might be affected by ethical issues, including access requests, data collection, data analysis, and reporting results (Saunders, Lewis and Thornhill 2016). All ethical rules were adhered to during the study to ensure that the rights of the participants were protected. Written permission confirming the approval of the study was obtained from the Durban University of Technology Institutional Research Ethics Committee (DUT IREC). The questionnaires took less than 15 minutes of the respondent's time to complete, and participation was voluntary as explained above. The study's respondents were informed that they might voluntarily discontinue participation at any moment without providing a reason. The entire study's participants maintained their anonymity, and any data collected for the study's conclusions was only used for that purpose.

3.14 Summary of the chapter

In this chapter, the research design, research methodology, and target population employed in the study were discussed. The sampling method and data collection method used were also discussed. Sampling resulted in a sample size of 175 participants, which was 100% of the population deemed possible to be approached within the timeframe of the study and the response rate achieved was 58%. Reliability, validity, and anonymity were also discussed in the chapter, together with the confidentiality and ethical considerations taken into account when conducting the study. Furthermore, the statistical

analysis that was employed was discussed. The data analysis, findings, and interpretations of the findings are presented in the following chapter.

CHAPTER FOUR:

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

The research methodology employed in this study was explained in the previous chapter. This chapter contains the detailed analysis and interpretation of the data collected according to the research aims and objectives of the study. The chapter begins with a re-statement of objectives of the study, the exploratory factor analysis, composite reliability, and convergent validity of the data. Thereafter, the demographic profile of the respondents is presented, followed by the analyses of the data in relation to the study's objectives. A structural equation model was used to evaluate the relationship and inter-dependence between the work-life balance, academic productivity and psychological well-being of academics. AMOS 27 was employed for assessment of final measures, confirmatory analysis, scale reliability, convergent and discriminant validity.

4.2 Objectives of the study

The purpose of the study was to address the following objectives, which were presented in Chapter One:

- To identify work-life balance challenges facing academics;
- To ascertain the prevalence of stress, anxiety, depression and turn-over intentions amongst academics;
- To determine factors affecting the turn-over intentions of academics in view of the prevalence of work-life and psychological well-being challenges.
- To examine factors affecting the productivity of academics in view of the prevalence of work-life and psychological well-being challenges.

4.3 Exploratory factor analysis, reliability and validity of the data

Exploratory factor analysis (EFA) was utilised to evaluate the validity and reliability of the accepted constructs. Evaluation of the data's suitability for factor analysis, number determinations for factor extraction, factor retention and rotation, and factor interpretation are all processes in the EFA process. The survey instrument's discriminate and convergent validity, as well as its reliability (Cronbach's alpha and composite), were all evaluated as part of the analysis. Reliability checks for whether the study item is an acceptable measurement of the latent factors. Cronbach's alpha was used to test the measurement reliability. Table 4.1 shows that no item is lower than the acceptable value of the 0.7 indicator of composite reliability (Dulu 2020). As a result, the first requirement of convergent validity for these dimensions was satisfied. Table 4.1 shows that the lowest item value for the Work-Life Balance (WLB) model was 0.717 (B9) and the highest item value was 0.905 (B7). The assessment of the model shows the recommended value of ≥ 0.7 demonstrating that the item indicator is an accurate reflection of the factor, which is an excellent reliability indication.

4.3.1 Composite reliability

Composite reliability was also employed for its higher estimate of true reliability as stated by Naicker (2019). Naicker (2019) went on to say that composite reliability is the best way since it may result in larger estimations of more accurate reliability due to Cronbach's alpha over- or under-estimating scale reliability. When values range from 0 to 1, composite reliability evaluates the indicators' reliability. Composite reliability for all the factors shows no value is below 0.70. Table 4.1 shows that the value for "psychological well-being of academics (SDA)" is 0.918, which is the highest amongst all the factors. The value for Work-Life Balance (WLB) is 0.899; the value for Academic Productivity (ACP) is 0.853 and the lowest value amongst all the factors is Turn-over Intentions (TOI) which is 0.806. Gefen, Straub and Boudreau (2020) concurred that composite reliability values greater than 0.7 indicate adequate consistency.

4.3.2 Convergent validity

Convergent validity is assessed by average variance extracted (AVE). The AVE should be above 0.5, thereby accounting for more than 50% of the variances observed. The values are between 0 and 1 (Fornell and Larker 1981; Bagozzi and Yi 1988 cited in Naicker 2019). Table 4.1 shows that the values varied from 0.600 to 0.853. The Turn-over Intentions (TOI) have the lowest value of 0.600 and psychological well-being of academics (SDA) has the highest value of 0.806, while Work-Life Balance (WLB) has a value of 0.600 and Academic Productivity (ACP) has a value of 0.853. The recorded AVE findings reveal values higher than the advised 0.5 limit. The findings demonstrate that validity converges successfully, demonstrating the measurement model's efficacy, reliability, and validity. As a result, it was determined that all of the measurement model's elements had sufficient reliability and convergent validity.

4.3.3 Cronbach's alpha

In order to quantify components that are positively correlated with one another, internal consistency tests also used Cronbach's alpha. Models' reliability was adequately assessed for bias, with values more than 0.7, which is regarded as an acceptable result (Ramlall 2018). Reliability deals with the degree of, and which scores are free from, random measurement error (Kline 2015; Pallant 2011; Zohrabi and Studies 2013). As a sequel to the exploratory factor analysis, a reliability analysis was conducted for the scales confirmed to be unidimensional. In this study, the internal consistency of the indicators used to create the measuring scale was tested for reliability using Cronbach's alpha, as well as their consistency (Hair *et al.* 2016; Girden and Kabacoff 2010; Joseph and Olugbara 2018). Conventionally, a Cronbach's alpha of 0.70 represents a satisfactory and sustainable level of internal consistency and scale reliability (Bryman and Bell 2011; Field 2013; Kline 2015; Pallant 2011).

Table 4.1: Reliability and validity statistics

	AVE	CR	Alpha
WLB	0.600	0.899	0.775
SDA	0.617	0.918	0.785
TOI	0.806	0.806	0.714
ACP	0.853	0.853	0.771

4.4 Survey response rate

The academics of the chosen university were given a total of 175 self-administered questionnaires, and 102 of these were returned, giving a response rate of 58%. Baruch and Holtom (2018) stated that there is no agreed standard for what a reasonable or acceptable response rate is. However, Nulty (2008), cited in Dulu 2020), noted that a 20% – 30% response rate is typical for a survey, with Richardson (2015) and (Dulu 2020) regarding a response rate of 50% as being acceptable in social research surveys. It was against this background that the response rate of the current study (58%) was accepted. It is also noted that, as this was a census survey, the response rate represents a percentage of the entire targeted population and not a percentage of a sample.

4.5 Demographic profile of the respondents

Data captured for the demographic profiles of the respondents were obtained from Section A of the questionnaire. Table 4.2 shows the frequency and percentage distribution of demographic profiles. The results show that most of the respondents were females, while 68% were African and 22% of the population were Indian; 63.7% of the academics were married, 30.4% were single and 5.9% chose not to specify (other); 77.5% of the academics said they lived with their dependants. The gender, marital status, dependents, and population/ethnic group were understood to be important aspects of the study, as these also impact work-life balance according to the literature – for instance, Rosser (2004), cited in Dorasamy and Letooane (2015), indicated that female academics tend to be less satisfied with certain aspects of their work-life balance than males. This is caused by the fact that a female academic has generally more to do at home to take care of her family than a male academic. Most female academics completed work and domestic duties at home, more especially during COVID-19, which also contributes to conflict between their

duties. During the COVID-19 pandemic, internet teaching and other flexible learning modalities were adapted and modified into new instructional formats to continue to provide education despite the lockdown (Toquero 2020). However, the fact that the majority of academics were spending more time in meetings and consultations with their students during this online deployment caused additional issues for them (Javier 2020).

Table 4.2 shows further that 75% of respondents have either a Master's Degree or a PhD, which confirms that most academics in the institution hold suitable qualifications for working in academia. A further 9.8% have Honours Degrees, 10.8% have BTech Degrees and 3.9% "other". These results show that, while most of the respondents do meet the minimum requirements for lecturing, many must still pursue their studies further to obtain Master's or Doctoral Degrees and this has implications for work-life balance. These results confirm that academics are undertaking work and their personal upliftment and may also experience conflict in work-life balance (Eby *et al*. 2011). Therefore, many academics currently experience heavy workloads while they are also pursuing their studies, as required by the university to meet the qualifications currently required in academia.

Regarding the positions occupied, the largest group of academics (63.7%) were classified as lecturers, followed by senior lecturers (19.6%) and junior lecturers (14.7%), with associate and assistant professors (1.0%) each being the smallest group. In the South African Universities of Technology, a new profession called research is in short supply at the chosen university (Nieuwenhuizen 2019). The academics of the selected university complained that the requirement to "publish or perish" is an additional challenge given the fact that the university only offers undergraduate qualifications and does not have proper infrastructure, nor the funding required to support them in their publishing endeavours. This has important, detrimental effects on the academic productivity of institutions and their academics who took on excessive workloads during online training to adapt to technology, requiring them to spend more time practicing and more effort preparing for class (Park et al. 2020). This finding is consistent with Naidu and Govender (2004), who forecasted a growing shortage of academics in South African higher education institutions due to turnover and increasingly enticing employment opportunities in the commercial sector (Mabaso, 2017). Based on the results obtained in this section, the university is largely dominated by the lecturers. Furthermore, most academics (38,2%)

reported that they have been employed for 11-20 years. The research also revealed that while 24,5% of academics have worked for the institution for more than 20 years, a sizable minority of academics (37.3%) have worked there for between one and ten years.

Table 4.2: Demographic profile of respondents

Variable	Category	Frequency (*F*)	Percentage (%)
Gender	Female	64	62.7
	Male	38	37.3
Ethnic Group	African	68	66.7
	Coloured	3	2.9
	Indian	23	22.5
	White	7	6.9
	Asian	1	1.0
Marital Status	Single	31	30.4
	Married	65	63.7
	Other	6	5.9
Living with Dependants	Yes	79	77.5
	No	23	22.5
Highest Qualification	PhD	13	12.7
	Master's Degree	64	62.7
	Honours Degree	10	9.8
	BTech	11	10.8
	Other	4	3.9
Professional Position	Assistant Professor	1	1.0
	Associate Professor	1	1.0
	Senior Lecturer	20	19.6
	Lecturer	65	63.7
	Junior Lecturer	15	14.7
Years Employed	01 – 10	38	37.3
	11 – 20	39	38.2
	21 – 30	25	24.5
Hours Worked per Week	05 – 25	11	10.8
	26 – 45	57	55.9
	46 – 85	34	33.3

4.6 Analyses of data in relation to research objectives

This section presents an analysis of the results in relation to the research objectives of this study. A quantitative questionnaire was employed for the study, with a five-category Likert-scale which had the following choices and codes: strongly agree (5), agree (4), indifferent (3), disagree (2) and strongly disagree (1). Descriptive statistics were employed to check and analyse the data obtained in this study. An overview of the descriptive statistics used, and their analysis, are presented in this section. This makes it possible for the reader to comprehend the fundamentals of the data being examined. There are numerous definitions of "statistics," and when the number of observations rises, it becomes vital to summarize the data in the right summary tables (Levine, Ramsey and Smidt 2010; Naicker 2019; Dulu 2020). Mabaso (2017) noted that a statistical table is one in which the data captured are presented or arranged in an orderly manner, in one or more classification systems by calculating the number of responses allocated for each question. Hair *et al.* (2016) explained that “the standard deviation describes the average amount by which the scores deviate from the mean”. A higher value in standard deviation means less agreement, while a lower value suggests greater agreement amongst the respondents, while a higher mean suggests greater agreement amongst the respondents and a lower mean suggests lower agreement.

To determine the strength of inter-correlation among the variables and to assess the data’s factor suitability, the Bartlett’s Test of Sphericity and the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy were used (Pallant 2011). Factor analysis is deemed appropriate when the value of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) is higher than the acceptable minimum limit of 0.6 and a limit of 1 (Pallant 2011; Tabachnick and Fidell 2013). The significance and suitability of the factor model are indicated by the Bartlett's Test of Sphericity's cut-off value of 0.05 (Choi *et al.* 2001; Hair *et al.* 2016; Mabaso 2017; Naicker 2019). This signifies potential correlation among the model constructs and, therefore, indicates a potential for a reasonable cluster of factors to be formed from the variables (Hair *et al.* 2016; Field 2013; Joseph and Olugbara 2018). The model constructs were analysed with KMO and Bartlett’s Test and factor loadings and commonalities were all presented. Exploratory factor analysis of work-life balance

of academics, psychological well-being of academics, turn-over intentions, and academic productivity are all analysed in this section.

4.6.1 Objective 1: To identify work-life balance challenges facing academics

Data captured for work-life balance challenges faced by academics were contained in Section B of the questionnaire. The descriptive data for this objective are presented in Table 4.3.

- **Working long hours**

The findings for Item B1 are shown in Table 4.3, and they are 47% and 42% respectively. This indicates that a large majority of respondents agreed or strongly agreed with the statement that faculty members at the chosen university of technology put in long a lot of overtime.. The other results show that 5% disagree and 6% were indifferent, while the recorded mean (4.26) suggests that most of the academics agreed to have been working long hours at the university. The standard deviation for this item was (0.78) suggesting greater agreement amongst respondents. The results obtained for this item can be linked with the argument of Michie and Williams (2003), cited in Letooane (2015), who found that the key work aspect that is associated with poor psychological well-being among academics were long working hours, work overload and working under pressure. The academics who extended their working hours while at home during the COVID-19 epidemic found a number of difficulties, including a lack of home office infrastructure and issues with the overall skill set required to construct online virtual education (Treve 2021). Crawford *et al.* (2020) added that the majority of institutions lack the funding and academic capacity to make the switch to an online teaching and learning system, they instead choose a short-term strategy that may not be sustainable in the long run. The results of the present investigation so support the literature cited in this study.

- **No time to socialise**

The results obtained in Item B2 show that 38% of the academics agreed and 15% strongly agreed that they do not have much time to socialise with their friends and families; 26% and 2%, respectively, disagreed and strongly disagreed, while 20% were indifferent to the statement. The recorded mean was (3.38) and standard deviation (1.08) which suggest

greater agreement with the statement amongst respondents. Long working hours, working at home most evenings and working on weekends suggest that academics had an extra-busy schedule during the COVID-19 pandemic, which limited the time spent with their families and friends. Due to the COVID-19 pandemic's limited social connections, which reduced peer proximity, using communication technology to communicate with coworkers, department heads, and deans resulted in emotions of loneliness and professional isolation (Carillo et al. 2021; Ipsen et al. 2021). (Bin et al. 2021). When academics worked remotely, the isolation they experienced led to stress and decreased productivity (Toscano and Zappala 2020).

- **Taking work home most evenings**

The results for Item B3 depict 35% and 42%, respectively, agreed and strongly agreed that they had to take work home most evenings, which also limited time to spend with family or loved ones; 11% and 3% disagreed and strongly disagreed to have taken some work home most evenings, and 9% of the respondents were indifferent. The recorded mean (4.03) and standard deviation (1.10) suggest most respondents were on the positive side of the statement meaning greater agreement. Taking work home most evenings caused limited family focus and a clash with home responsibilities. Academics whose work schedules are flexible achieve better work-life balance which results in them attaining higher levels of job satisfaction, home/social activity satisfaction and fewer incidences of role-related conflict (Javier 2020). Therefore, this finding supports the literature mentioned in this study.

- **Working late or weekends**

The results obtained for Item B4 show that 45% and 28% of the respondents, respectively, agreed and strongly agreed with working late often at night or during the weekends at home which, in turn, also affects family time and causes an imbalance in work and life; 9% and 3% of the academics denied working late often or during weekends, and 16% were indifferent. The data depict a high recorded mean (3.85), suggesting that most academics were on the positive side of the statement, and the standard deviation (1.02) also showing greater agreement amongst the respondents. Ellen *et al*. (2020) emphasise

that high demand at work and working late or over weekends are very likely to be a cause of stress and "spill over" to family life, thus destroying the equilibrium between work and home.

- **Difficulty in relaxing**

As can be observed from Item B5, the results obtained show 46% and 27% respectively, agreed and strongly agreed that forgetting work issues is difficult for academics; 20% and 3% disagreed and strongly disagreed that it is difficult to forget about work issues, and 15% were indifferent, meaning that they were not sure. While the recorded mean (3.84) and standard deviation (1.00) both suggest greater agreement amongst the respondents. The results suggest that high pressure at work caused academics to think about their work constantly, even when at home, which is likely to cause spill-over to family life (Ellen *et al.* 2020). The uncertainty caused by the consequences of COVI-19 made it very difficult to relax, and the fear of becoming ill and being isolated were the other main factors that affected relaxation time.

- **Worrying about work stress**

Table 4.3's depiction of item B6 reveals that 22% of respondents strongly agreed with item B6's finding that 39% of respondents had expressed concern about the impact of stress on; 20% and 3%, respectively, disagreed and strongly disagreed with having been worried about the effect of stress; while 17% of the respondents were indifferent. The recorded mean (3.56) suggests greater agreement and the lower standard deviation (1.12) also shows greater agreement amongst respondents. The consequences of COVID-19 led to new methods of teaching and learning for most academics, which also presented work stress for them since they were not equipped or prepared for the new way of life (Javier 2020). Institutions and their academics have been allocated excessive workloads related to online teaching and learning, which also requires more time to practise and more effort to be exerted in preparations for class and monitoring of students, which were some of the worrying factors for academics during COVID-19 (Park *et al.* 2020). The literature supports these results of the current study.

- **Effect on the relationship with a partner**

Item B7 shows 20% and 10% of the respondents agreed and strongly agreed that their relationship with their partners also suffered because of the pressure at work; 37% and 7% of the respondents denied suffering this; while 27% of the respondents were indifferent. The mean was (2.88) and standard deviation was (1.11) which also suggested greater agreement with the statements. Everything has its own time and the same applies to professional roles and family roles; when at work people are afforded enough time to focus on duties and, at home, is when people have the opportunity to bond with their families or partners. The results for this item indicated that most academics still hold to this principle since they denied that their relationships suffer from their focus on work.

- **Limited input at home**

The results for Item B8 in Table 4.3 show that 31% and 19% of the respondents agreed and strongly agreed that their family are missing out on their input, while 26% and 6% disagreed and strongly disagreed, and 19% of the respondents were indifferent. The recorded mean was (3.25) showing greater agreement and the standard deviation (1.20) supported that most respondents feel that family are missing out on their input. This suggests that there is an imbalance of work and life amongst academics at the selected university. It is evident that the academics focus more on their work roles than they do on their home roles, which clash between work and life. The university should develop flexible working arrangements to support academics in managing their work-life balance better but academics need to be proactive in applying these initiatives when they are presented to them.

- **Limited time for hobbies**

The results for B9 show that 44% and 18% of the respondents do not have time for hobbies or it is something difficult to do; 20% and 6% indicated that they still manage their work-life balance effectively, while 13% were indifferent, meaning that they were not sure which response applies to them. The recorded mean was (3.48) and standard deviation was (1.17), both of which suggest greater agreement. The results also suggest that

academics have very limited time to socialise and practise their hobbies, which is something needed, especially during the COVID-19 pandemic. Hobbies assist to relax people's minds and refresh so that they gain more energy to face their challenges again.

- **No control over workload**

The last item for this section is B10 which shows 45% and 20% of the respondents agreed and strongly agreed that they do not have control of the current situation at the university, while 14% and 5% disagreed and strongly disagreed, and 17% of the respondents were indifferent to the statement. The mean was (3.61) and standard deviation was (1.10), suggesting greater agreement amongst the respondents. The university management should re-plan the workload management for academics and in the academics so that they can have input on how to overcome this challenge and to make sure that their work-life is well balanced and they are satisfied with their work at the university.

Table 4.3: Descriptive data for work-life balance challenges of academics

	01	02	03	04	05	Mean	Standard Deviation
B1_I_usually_work_long_hours	0%	5%	6%	47 %	42 %	4.26	0.78
B2_I_dont_have_much_time_to_socialise	2%	26 %	20 %	38 %	15 %	3.38	1.08
B3_I_have_to_take_work_home_most_evening	3%	11 %	9%	35 %	42 %	4.03	1.10
B4_Often_work_late_or_at_weekends	3%	9%	16 %	45 %	28 %	3.85	1.02
B5_Forgeting_work_issues_is_hard_to_do	2%	11 %	15 %	46 %	27 %	3.84	1.00
B6_I_worry_about_the_effect_of_work_stress_on_my_health	3%	20 %	17 %	39 %	22 %	3.56	1.12
B7_Relationship_with_partner_is_suffering_because_of_pressure	7%	37 %	27 %	20 %	10 %	2.88	1.11
B8_Family_is_missing_out_on_my_input	6%	26 %	19 %	31 %	17 %	3.25	1.20
B9_Time_for_hobbies_is_difficult	6%	20 %	13 %	44 %	18 %	3.48	1.17

B10_I_have_no_control_on_current_situation	5%	14 %	17 %	45 %	20 %	3.61	1.10

4.6.1.1 Conclusion of Objective 1 analysis

Based on the findings obtained for this objective, it can be concluded that there are challenges facing academics at the selected university, which contribute to work-life imbalances. Most academics agreed that they usually work long hours which also results in burnout. They worry about the impact of work stress on their health since they do not get enough sleep because they work late at night or on most weekends. The selected university's academics is subjected to excessive demands, which raises stress levels and creates a work-life imbalance. The meetings and class activities minimise their family time or personal time. Working from home added more pressure on academics during the COVID-19 pandemic, as drawing boundaries between work and personal activities was very difficult to maintain. Lack of control during COVID-19 contributed to academics being under pressure, as it was very difficult for them to control workload and aspects such as being ill and having to quarantine.

4.6.1.2 Exploratory factor analysis for work-life balance of academics

Ten items were analysed for work-life balance on the academics' scale. The revised item-total correlation revealed values above 0.3, proving the items' accuracy in measuring the academic work-life balance construct to determine the strength of inter-correlations of the items, the Kaiser-Meyer-Olkin (KMO) was 0.854, and a Bartlett's Test of Sphericity with $p<0.000$ was obtained as shown in Table 4.4. This indicated that the KMO value is above the cut-off value of 0.60. In order to demonstrate appropriate internal dependability, a Cronbach's alpha of 0.915 was attained. So, the outcomes are factor analysis-relevant.

Table 4.4: KMO and Bartlett's Test for work-life balance of academics

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.854
Bartlett's Test of Sphericity	Approx. Chi-Square	423..757
	Df	10
	Sig.	.000

a. Cronbach's alpha =0.915

4.6.2 Objective 2: To ascertain the prevalence of stress, anxiety, depression, and turn-over intentions amongst academics

The descriptive data captured for psychological well-being of academics were obtained from Section C of the questionnaire and the results are presented in Table 4.5. The prevalence of stress, anxiety, depression, and turn-over intentions amongst academics is analysed in this section of the study. This section made use of a separate scale with the following options and codes: did not apply (0.00), applied somewhat (1.00), applied significantly (2.00), applied very much or most of the time (3.00). Also mentioned were the mean and standard deviation.

- **Hard to wind down**

Results for Item C1 indicate that 35% and 10% of respondents agreed that it's difficult for them to unwind, while 35% said this applies to them to some degree, and 20% said the item did not apply to them at all. Academics found it exceedingly challenging to unwind and rest after a long day due to the work pressure brought on by the shared use of technical resources and equipment that were split from the central office to homes the return to normalcy is still uncertain (Graham 2021). Ugwuanyi, Okeke and Shawe (2021) revealed that poor development and emotionally exhausted academics have a detrimental impact on teaching and learning and impede academic production levels. Therefore, the university should improve this to avoid the work-life imbalance for their academics as a result of psychological well-being effects.

- **Aware of dryness of mouth**

The results for Item C2 reflect 63% and 10% of the respondents said the item applies to a considerable degree and applies very much or most times, while another 13% said the item applies to them to some degree. The other 15% of the respondents said this did not apply to them. The mean value was (4.71) and standard deviation was (1.05) which both suggest greater agreement amongst respondents. Lecturing long hours, having

consultations and meetings contributed to this dryness of mouth for academics. The flexibility of hours is again suggested to be the solution for this item. Having healthy academics also assists in limiting absenteeism at work.

- **Difficulty in experiencing a positive feeling**

The results obtained for Item C3 depict that most of the respondents (55%) agreed that they do not have a positive feeling, 7% and 25%, respectively, said this applies to a considerable degree and applies very much, while 14% said this does not apply to them. The mean (3.72) and standard deviation (0.94) suggest greater agreement with the item. The working environment also creates this feeling for academics. The university did not play much role in encouraging their staff to learn to adapt easily to the new normal way of life during the COVID-19 pandemic. The negative attitude of the academics can also affect their productivity.

- **Difficult to work up the initiative to do things**

Item C4 shows 41%, 11% and 32% agreeing that it is difficult to work up the initiative to do things, while 16% said this does not apply to them. The mean (2.96) and standard deviation (1.04) both suggest greater agreement amongst respondents. University support is necessary to provide the required resources during and after COVID-19 for academics. The lack of tools necessary for online teaching proved to be very difficult for academics to adapt to remote teaching and learning, which also made it difficult to work up any initiative to do things.

- **Over-reacting to situations**

The results attained for Item C5 show 31%, 17% and 8% of the respondents agreed with the item, while 44% said this does not apply to them. The mean (0.88) and standard deviation (0.95) suggest greater disagreement amongst respondents. Academics were very likely to over-react to the situation and pressure they experienced during their work. The high numbers of deaths in the country from COVID-19 caused much stress and worry, not only for academics, so this over-reacting was caused by all they experienced

during that period. Academics in South African universities were found to be more at risk for poor mental health and wellbeing during the COVID-19 lockdown, according to Van Niekerk and Van Gent (2021).

- **Experiencing trembling (i.e., in hands)**

The results for Item C6 manifest that 19%, 9% and 3% of the respondents agreed with having experienced trembling, while a huge 70% of the respondents said this does not apply to them. The mean recorded for this item (0.45) was very low showing greater disagreement amongst the respondents and the standard deviation (0.79) also suggests greater disagreement with the item by respondents. It is evident that the psychological well-being of academics was affected by the COVID-19 as academics agree with experiencing some changes in their health during this time. Working late at night or on weekends means lack of adequate sleep and trembling is a result of not having enough rest. This was part of the ill health that affected academics during the pandemic.

- **Using a great deal of nervous energy**

The results for item C7 show that 27%, 14% and 7% of the respondents agreed that they were using a great deal of nervous energy during the COVID-19 pandemic, while high percentage of 52% of the respondents said this does not apply to them. The mean value (0.75) and standard deviation (0.94) both show greater disagreement amongst respondents. Most academics agreed that they were using a great deal of nervous energy and caused by stress related to the COVID-19 pandemic and the uncertainty associated with it. Just as for everyone, it was expected that most people experience this nervous feeling during the pandemic because of the uncertainty.

- **No motivation**

Item C8 shows 24%, 65% and 2% of the respondents agreeing that they had nothing to look forward to, while 10% said this does not apply to them. The mean (4.89) shows greater agreement amongst respondents and the standard deviation (0.75) also shows the same. The motivation to make extra effort for work was not present during the COVID-

19 pandemic. Life was not the same for most academics during the pandemic and it is evident that it was difficult to look forward to work.

- **Getting agitated**

Item C9 shows that this applies to some degree, to a considerable degree, and very much or most times to 30%, 11% and 10% of respondents, respectively, while 49% said this does not apply to them. The mean (0.81) and standard deviation (0.98) both suggest greater disagreement. It is evident that most academics thought they were at risk while lecturing during COVID-19 with the fear that they might become infected and die, leaving their family unexpectedly. There was too much fear caused by the pandemic which also contributed to the ill health of academics whose work continued during this difficult time.

- **Difficult to relax**

The results obtained for Item C10 show that 35%, 35% and 13% of the respondents agree that they find it difficult to relax, while 17% said this did not apply to them during the COVID-19 pandemic. The mean (3.92) and standard deviation (1.02) both suggest greater agreement with the statement. This has been mentioned many times in this study. Considering the work pressure on academics, it was not easy to find time to relax reflect.

- **Downhearted and blue**

Item C11 manifests that 19%, 21% and 2% of the respondents show agreement with the item, while 59% said the statement does not apply to them. The mean (0.65) and standard deviation (0.87) suggest greater disagreement with the statement. The results show that academics did not wish to go out of their home for fear of the pandemic and were feeling depressed. Unusual conditions caused changes in the behaviour of academics because of changes in the environment and work habits during COVID-19. The negative behaviours were caused by environmental influences. Therefore, it is evident that the pandemic caused challenges of much depression and ill health for academics.

- **Intolerance**

The results for Item C12 show 33%, 13% and 8% in agreement, while 46% said the item does not apply to them. The mean (0.82) and standard deviation (0.94) show greater disagreement with the item by the respondents. It is evident that most academics needed significant training to cope with the new way of life and all the work pressure caused by the effects of the pandemic. Training programmes that enhance resilience, relaxation, and mindfulness are crucial for resolving workplace intolerance by enhancing positive behaviour and performance (Botwe *et al.* 2017).

- **Panicky**

The results for Item C13 show 18%, 15% and 6% of the respondents agree that they felt close to panic during the COVID-19 pandemic, while 62% said the item does not apply to them. The mean (0.64) and standard deviation (0.94) both suggest greater disagreement with the statement. Panicking was understandable since no one knew what was happening and when it would end. Everyone was experiencing a new way of life. The panic started when many people were dying and the Department of Health in South Africa produced reports of infections and deaths daily.

- **Unable to become enthusiastic**

The results for Item C14 present 31%, 53% and 7% of the respondents agreeing with the statement that they were unable to become enthusiastic about anything, while 9% said the item does not apply to them. The mean (3.59) and standard deviation (0.90) suggest greater agreement with the statement. It is evident that the academics were emotionally exhausted during the pandemic, in fear of being infected or losing their family members. These were major contributions to the drop in enthusiasm about anything among many academics. According to Bartsch *et al.* (2020), academics were more likely to experience stress and emotional exhaustion at work and in their personal lives during pandemics because felt insecurity could influence behaviour and performance. The findings indicate that it is highly improbable that academics will be able to manage their career and personal lives during the COVID-19 epidemic.

- **Feel little worth as a person**

The results obtained for Item C15 show that 12%, 7% and 3% of the respondents agreed to a feeling that they were not worth much at work, while most of the respondents (78%) said the item does not apply to them. The mean value for this item (0.34) and standard deviation (0.74) both show that there is great disagreement with the statement.

- **Touchy**

The results for Item C16 show 17%, 11% and 6% of the respondents felt they were touchy, while 67% said the item does not apply to them. The mean for this item (0.55) and standard deviation (0.91) both suggest greater disagreement with the statement.

- **Scared without any good reason**

The results obtained for Item C17 show that 21% of the respondents said the item applies to some degree, 5% said the item applies to a considerable degree and 7% said the item applies very much or most times, while a high percentage of 68% said the item does not apply to them. The mean (0.51) and standard deviation (0.88) both suggest greater disagreement with the statement.

- **Life was meaningless**

The results for Item C18 show 12%, 7% and 2% all agreed with the statement of this item, while a huge percentage of 79% shows disagreement. The mean (0.31) and standard deviation (0.69) both suggest greater disagreement.

- **Worrying about situations**

The results for Item C19 show that 22%, 11% and 6% of the respondents all agreed that they were worried about panicking and making a fool of themselves during the COVID-19 pandemic, while 62% said this does not apply to them. The mean (0.61) and standard deviation of (0.90) both suggest greater disagreement with this statement.

- **Breathing difficulty**

The results for Item C20 show that 6%, 9% and 5% of the respondents agreed that they experienced breathing difficulties, while 80% said the statement does not apply to them. The mean (0.38) and standard deviation (0.84) both suggest greater disagreement. Breathing difficulty was also caused by the necessity to wear a mask in public spaces to prevent the spread of the virus. Wearing a mask for the whole day was not easy and breathing difficulty was likely to be experienced.

- **Heart-rate increase, heart missing a beat**

The results for Item C21 show that 4%, 40% and 8% of the respondents said their heart-rate increased during the COVID-19 pandemic, while 32% said the statement does not apply to them. The mean (2.54) and standard deviation (0.96) suggest an agreement amongst respondents. It is evident that most of the academics at the selected university were senior citizens and an increase in their heart-rate was likely to happen, especially when they were worried about the virus infections. The university did not provide many ways for them to avoid coming onto campus to conduct their lecturing duties, especially for practical modules.

Table 4.5: Descriptive data for psychological well-being of academics

	0.00	**1.00**	**2.00**	**3.00**	**Mean**	**Standard Deviation**
C1_I_found_it_hard_to_wind_down	20%	35%	35%	10%	3.92	0.97
C2_Dryness_of_my_mouth	15%	13%	63%	10%	4.71	1.05
C3_No_possitive_feeling_at_all	14%	25%	55%	7%	3.72	0.94
C4_Difficult_to_work_up_the_initiative_to_do_things	16%	32%	41%	11%	2.96	1.04
C5_Tended_to_over-react_to_situations	44%	31%	17%	8%	0.88	0.95

C6_I_experience_trembling	70 %	19 %	9%	3%	0.45	0.79
C7_I_was_using_a great deal of nervous energy	52 %	27 %	14 %	7%	0.75	0.94
C8_Had_nothing_to_look_forward to	10 %	24 %	65 %	2%	4.89	0.75
C9_Found_myself_getting_agitated	49 %	30 %	11 %	10 %	0.81	0.98
C10_Found_it_difficult_to_relax	17 %	35 %	35 %	13 %	3.92	1.02
C11_Felt_downhearted_and_blue	59 %	19 %	21 %	2%	0.65	0.87
C12_Intolerant_of_anything	46 %	33 %	13 %	8%	0.82	0.94
C13_Felt_I_was_so_close_to_panic	62 %	18 %	15 %	6%	0.64	0.94
C14_I_was_unable_to_become_enthusiastic_about_anything	9%	31 %	53 %	7%	3.59	0.90
C15_Felt_I wasn't worth much	78 %	12 %	7%	3%	0.34	0.74
C16_Felt_that_I_was_rather_touchy	67 %	17 %	11 %	6%	0.55	0.91
C17_Felt_scared_without_any_good_reason	68 %	21 %	5%	7%	0.51	0.88
C18_Life_was_meaningless	79 %	12 %	7%	2%	0.31	0.69
C19_Worried_to_panic_and_make a_fool_of_myself	62 %	22 %	11 %	6%	0.61	0.90
C20_Experienced_breathing_difficulty	80 %	6%	9%	5%	0.38	0.84
C21_Heart-rate_increased	32 %	21 %	40 %	8%	2.54	0.96

4.6.2.1 Conclusion of Objective 2 analysis

Based on the findings obtained for this objective, it can be concluded that there was a high prevalence of stress, depression, and anxiety amongst academics during the COVID-19 pandemic. It is noted that most academics agreed that they had nothing to do to look forward to. They also found it difficult to relax during the pandemic. This is supported by the results in Table 4.5 showing that 65% agreed that they had nothing to look forward to

and 35% agreed to finding it difficult to relax. The excessive amount of stress had led to academics being ill, paying decrease attention to work, making increased mistakes and developing turn-over intentions. The overall prevalence of stress, depression and anxiety amongst academics was high and the explanation for this is that the academics were required to be productive and pressured to excel in the new way of life which increased their workloads, generated dissatisfaction, and led to ill health. This was also supported by the results shown in Table 4.5 where 40% of the academics admitted that their heart-rate increased during the COVID-19 pandemic.

4.6.2.2 Exploratory factor analysis for psychological well-being of academics

The KMO for the items relating to the psychological well-being of academics was 0.862, and the Bartlett's Test of Sphericity was $p<0.000$, as shown in Table 4.6. All 21 of the items' factor loadings were higher than the threshold of 0.30. The corrected item-total correlation values were over 0.3, showing that the items were a reliable indicator of the construct of academics' psychological wellbeing. The outcomes demonstrated that the data satisfied the requirements for factor analysis. For the scale, a Cronbach's alpha of 0.900 was found, showing sufficient internal reliability.

Table 4.6: KMO and Bartlett's Test for psychological well-being of academics

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.862
Bartlett's Test of Sphericity	Approx. Chi-Square	853..757
	Df	15
	Sig.	.000

a. Cronbach's alpha = 0.900

4.6.3 Objective 3: To determine factors affecting turn-over intentions of academics in view of the prevalence of work-life and psychological well-being challenges

The descriptive data captured for turn-over intentions of academics were obtained from Section D of the questionnaire. The data presented in Table 4.7 show the results obtained from the questionnaire.

- **Often consider leaving my job**

The item D1 shows 18% and 8% of the respondents agreed and strongly agreed that they consider leaving their jobs. 33% and 26% disagreed and strongly disagreed that they consider leaving their jobs, while 15% were indifferent, meaning they are not sure. The recorded mean is (2.47) and standard deviation (1.47), both suggesting lesser agreement amongst the respondents. The indication that some academics considered leaving academia shows that there was something the university was overlooking. Protecting the academics during COVID-19 was not done effectively. Some academics had to be on campus to supervise students' practical assignments which were not possible to conduct remotely. The phased grouping applied to students did not help much because everyone was in contact with each other placing them at risk of being infected with the virus.

- **Satisfied with my job**

Item D2 shows 45% and 17% of the respondents agreed and strongly agreed that they are satisfied with the jobs; 15% and 6% were not satisfied with their jobs, while 18% were indifferent. The mean (3.52) and standard deviation (1.11) both show greater agreement amongst respondents. Most academics were satisfied with their jobs showing that not the whole group wanted to leave; some were still in support of the university making the transition to the new way of life during COVID-19.

- **Frustrated when not given opportunity**

Item D3 shows that most of the respondents often feel frustrated at work, with 45% and 17% agreeing and strongly agreeing, respectively; 22% and 5% denied feeling frustrated at work, while 21% of the respondents were indifferent. The recorded mean for this item is (3.37), suggesting greater agreement amongst respondents, and the standard deviation is (1.13), suggesting greater agreement with the statement. It is evident that the academics should be given an opportunity to discuss their daily duties at the university rather than to be given approved plans that were not presented to them before. The university should also encourage the academics to apply for study grants that can assist them to reach their targets.

- **Dreaming about getting another job**

Item D4 depicts that most of the respondents disagreed and strongly disagreed (34% and 18%, respectively) that they often dream about getting another job; 15% and 14% agreed and strongly agreed to dreaming of getting another job, while 20% were indifferent, meaning that they are not sure. The recorded mean (2.73) and standard deviation (1.30) for this item both suggest agreement amongst respondents. The working environment at the university was not satisfactory for some academics during the pandemic, who agreed with dreaming about getting another job. While others were allowed to work remotely, this was not the case for most engineering academics running practical modules. These academics were required to be at the university in contact with the students. The university could have protected engineering academics as it did the others.

- **I can accept another job at the same compensation level**

The results for Item D5 show that 20% and 13%, respectively, agreed and strongly agreed that they can accept another job with the same compensation should it be offered to them; 28% and 17% of the respondents denied the possibility of accepting another job offer with the same compensation should it be offered to them somewhere, while 23% were indifferent. The recorded mean (2.83) and standard deviation (1.28) for this item suggest less agreement amongst the respondents. The results show that some academics were not satisfied with certain things at the university and agreed that they can accept another job offer. This has significant impact on work performance, as satisfied academics are highly motivated to offer more and be loyal to the university. This is supported in the literature where it is shown that experience and satisfaction have a positive relationship with the productivity of academics (Wahyudi 2018).

- **Looking forward to another day at work**

According to the answers for Item D6, 42% and 7% of respondents agreed and strongly agreed that they frequently look forward to another day at work; 13% and 6% disagreed, and 32% were neutral. The mean (3.31) and standard deviation (0.98) for this item both suggest greater agreement amongst the respondents. The COVID-19 pandemic has

recently presented issues for academics using blended learning and teaching, which has also hampered their productivity, made them dread going to work every day, and their intents to quit their jobs (Iwu *et al.* 2022). The lockdown measures and social-distancing policies brought about drastic changes in working arrangements in universities and other organisations in South Africa and resulted in senior staff members deciding to take early retirement because of the measures taken during the COVID-19 pandemic. Sheraz *et al.* (2014) stated that the resignation of experienced academics has a negative impact on the success of the university and leads to the cost of hiring and training replacements.

Table 4.7: Descriptive data for Turn-over intentions of academics

	01	02	03	04	05	Mean	Standard Deviation
D1_Often_consider_leaving_my_job	26%	33%	15%	18%	8%	2.47	1.27
D2_Satisfied_with_my_job	6%	15%	18%	45%	17%	3.52	1.11
D3_Often_feel_frastrated	5%	22%	21%	37%	16%	3.37	1.13
D4_Often_dream_about_getting_another_job	18%	34%	20%	15%	14%	2.73	1.30
D5_I_can_accept_another_job_with_same_compensation_level	17%	28%	23%	20%	13%	2.83	1.28
D6_Often_look_forward_to_another_day_at_work	6%	13%	32%	42%	7%	3.31	0.98

4.6.3.1 Conclusion of the Objective 3 analysis

Given the ubiquity of difficulties to work-life balance and psychological well-being, the study of this objective reveals that a number of factors are having an impact on academics intentions to quit their jobs. Job satisfaction is the most significant factor influencing the turn-over intentions of academics. High levels of satisfaction with their roles at work often limit the willingness to leave. It has been shown in Table 4.7 that 45% of the academics were satisfied with their jobs at the university, while 15% and 6% were not satisfied with their roles. The working environment or reputation of the organisation also act as contributing factors to many academics opting to accept other job offers, with the same compensation, somewhere else. The lecture group being too big can also contribute to academics opting to consider leaving the university. Qualification improvement and promotion guidelines can also affect the term of academics at a university. Working long

hours and having no time to socialise are also amongst the factors that affect the turn-over intentions of academics in view of the prevalence of work-life challenges. Working late at night or working on weekends were amongst the factors affecting the turn-over intentions of academics in view of the prevalence of challenges to psychological well-being.

4.6.3.2 Exploratory factor analysis for turn-over intentions

The KMO for turn-over intentions was 0.862, and the Bartlett's Test of Sphericity was $p<0.000$, as shown in Table 4.8. For the scale, a Cronbach's alpha of 0.852 was found, showing sufficient internal reliability. All six items had factor loadings that were higher than the threshold of 0.30. The items were a good measure of the construct, as evidenced by the adjusted item-total correlation values exceeding the suggested cut-off value of 0.30. The findings demonstrate that the data satisfy the requirements for factor analysis.

Table 4.8: KMO and Bartlett's Test for turn-over intentions

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.862
Bartlett's Test of Sphericity	Approx. Chi-Square	757..859
	Df	25
	Sig.	.000

a. Cronbach's alpha =0.852

4.6.4 Objective 4: To examine factors affecting the productivity of academics in view of the prevalence of challenges to work-life and psychological well-being

Descriptive data captured for productivity of academics during the COVID-19 pandemic were obtained in Section E of the questionnaire in order to examine the factors affecting the productivity of academics in view of the prevalence of challenges to work-life balance and psychological well-being. Table 4.9 shows the descriptive data obtained for the productivity of academics during the COVID-19 pandemic.

- **Achieving high publication output is possible**

The results obtained for Item E1 show that 41% and 29%, respectively, disagreed and strongly disagreed that achieving high publication output is possible, while 16% and 5% agreed and strongly agreed with the statement. The remaining 9% of the respondents were indifferent and the mean (2.25) and standard deviation (1.18) suggest higher disagreement with the statement. It is evident that most academics do achieve their target in terms of publication of research. The university research directorate is supporting the academics in producing more publication and output, which also assists the university to gain more points for rankings.

- **Attending two nation/international conferences per year is achievable**

Item E2 shows that 40% and 11% of the respondents agreed that attending two conferences per year is achievable, while 25% and 11% disagreed and strongly disagreed with the statement, and 14% were indifferent. The mean (3.16) and standard deviation (1.22) for this item both suggest greater agreement with the statement. It is evident that the after teaching responsibilities, academics are required to present their papers at certain conferences and they agreed that this work is manageable.

- **Regular involvement in community engagements is manageable**

The results obtained for Item E3 show that 34% and 9% of the respondents agreed and strongly agreed that regular community engagement activities can be manageable, while 34% and 6% disagreed and strongly disagreed with this statement. The remaining 17% of the respondents were indifferent and the mean (3.06) and standard deviation (1.13) both suggest greater agreement with the statement. It is evident that academics feel that involvement in community engagement was not manageable given that the university calendar, especially for semester modules, was tight and required their attention rather than going away from the university for community engagement.

- **Attracting funding for research is possible for post-graduate students**

Item E4 shows that 26% and 16% agreed that attracting funding for research is possible, while 18% and 11% disagreed and strongly disagreed with this statement. The remaining 29% of the respondents were indifferent to the statement, and the mean (3.19) and standard deviation (1.22) both suggest greater agreement with the statement. The university is still offering several under-graduate programmes and academics are not very pressured to attract funds for students' research. A favourable sign is that the university is gaining momentum in terms of research output and attracting more academics with PhDs, which also assists in attracting this type of funding.

- **Producing two or more articles in peer-review, accredited journals is achievable**

E5 shows that 35% and 6% of the respondents agreed and strongly agreed that producing two articles per year in peer-review journals is achievable, while 25% and 13% disagreed and strongly disagreed. The remaining 21% of the respondents were indifferent, and the mean (2.96) and standard deviation (1.17) both suggest greater agreement with the statement. It is evident that the academics were still managing to produce more articles per year which is something the university needs to be credited. However, a high number of academics disagreed with the item, making the achievability of producing articles in peer-review journals debatable.

- **Combining teaching, research and community engagement is possible**

The results obtained for E6 show that 41% and 11% of the respondents agreed and strongly agreed that combining the duties of academic activities is possible, while 16% and 18% disagreed and strongly disagreed with this statement. The remaining 15% of the respondents were indifferent to the statement, and the mean (3.12) and standard deviation (1.31) both show greater agreement with the statement by the respondents. While most academics complained that their workload has increased because they must publish more research papers and present at certain conferences. The results obtained show that most academics agreed that combining research and community engagement work is possible.

- **Promotion guidelines are very demanding for academics**

The results obtained for item E7 show that 49% and 35% agreed and strongly agreed that promotion guidelines at the university are very demanding for academics, while 3% and 2% disagreed and strongly disagreed. The remaining 11% of the respondents were indifferent to the statement. The mean (4.13) and standard deviation (0.86) both suggest greater agreement of the respondents with the statement. The results show that most academics feel that the promotion guidelines are very demanding for them. The university should workshop these promotion guidelines for academics so that they can understand them better or the guidelines or should be reviewed to determine whether they still achieve what was intended other than to make the life of academics as difficult as they perceive.

- **Qualification improvement can hamper the academics duties**

The results obtained for Item E8 depict that 47% and 24% of the respondents agreed and strongly agreed that qualification improvements can hamper the duties of academics, while 8% and 4% disagreed and strongly disagreed with the statement. The remaining 18% of the respondents were indifferent to the statement. The mean (3.78) and standard deviation (1.02) both suggest greater agreement with the statement by the respondents. Table 4.2 shows further that 75% of respondents have either a Master's Degree or a PhD, which confirms that most academics in the institution hold suitable qualifications for working in academia. A further 9.8% have Honours Degrees, 10.8% have BTech Degrees, and 3.9% hold "other" qualifications. These results show that, while most of the respondents do meet the minimum requirements for lecturing, many still need to pursue their studies further to obtain Master's or Doctoral Degrees and this has implications for work-life balance and their productivity at the university.

- **My lecture groups are too big**

The results obtained for Item E9 show 31% and 36% of the respondents agreed and strongly agreed that their lecture groups are too big, while 18% and 5% disagreed and strongly disagreed with the statement. The remaining 10% of the respondents were indifferent to the statement. The mean (3.76) and standard deviation (1.25) obtained for

this item both show greater agreement of the respondents with the statement. These results show that the university should develop strategies to divide their students in manageable groups to reduce the workload on academics. The student selection policies should be reviewed so that the academics are not exposed to huge lecture groups.

- **I lecture the courses I prefer**

The results obtained for Item E10 show 49% and 26% of the respondents agreed and strongly agreed that they lecture courses they prefer, while 11% and 1% disagreed and strongly disagreed with the statement. The remaining 13% of the respondents were indifferent to the statement. The mean (3.89) and standard deviation (0.98) both show greater agreement with statement by the respondents. It is evident that academics are given the opportunity to lecture the courses they prefer and this assists in increasing academic productivity because everyone is doing what he/she enjoys lecturing.

- **I perform my work without any delay**

The results obtained for Item E11 show 55% and 27% agreed and strongly agreed, while 5% and 1% disagreed and strongly disagreed. The remaining 12% of the respondents were indifferent to the statement. The mean (4.03) and standard deviation (0.83) both suggest greater agreement with the statement. It is evident that the academics are given freedom to perform their duties within the university without interruptions.

- **I feel I have more to do than I can handle**

The results obtained for Item E12 show that 36% and 21% agreed and strongly agreed that they feel they have more to do than they can handle, while 18% and 2% disagreed and strongly disagreed with the statement. The remaining 24% of the respondents were indifferent to the statement. The mean (3.56) and standard deviation (1.07) both suggest greater agreement with the statement. These results are supported by the literature in which it is stated that the workload and over-load of academics is ever-increasing or and the COVID-19 outbreak led to further increased workloads for academics. During this

time, they spent many more hours conducting online classes than they do for face-to-face classes (Bhumika 2020).

Table 4.9: Descriptive data for productivity of academics during COVID-19

	01	02	03	04	05	Mean	Standard Deviation
E1_Achieving_high_publication_output_is_possible	29%	41%	9%	16%	5%	2.25	1.18
E2_Attending_two_conferences_per_year_is_achievable	11%	25%	14%	40%	11%	3.16	1.22
E3_Community_engagement_activities_regulary_can_be_manageable	6%	34%	17%	34%	9%	3.06	1.13
E4_Attracting_funding_for_research_is_possible	11%	18%	29%	26%	16%	3.19	1.22
E5_Producing_in_peer_review_journals_is_achievable_per_year	13%	25%	21%	35%	6%	2.96	1.17
E6_Combining_the_academic_duties_is_possible	18%	16%	15%	41%	11%	3.12	1.31
E7_Promotion_guidlines_are_very_demanding_for_academics	2%	3%	11%	49%	35%	4.13	0.86
E8_Qualification_improvements_can_ hamper_academic_duties	4%	8%	18%	47%	24%	3.78	1.02
E9_My_lecture_groups_are_too_big	5%	18%	10%	31%	36%	3.76	1.25
E10_I_lecture_courses_I_would_prefer	1%	11%	13%	49%	26%	3.89	0.95
E11_I_perform_my_work_without_any_delay	1%	5%	12%	55%	27%	4.03	0.83
E12_I_feel_I_have_more_to_do_than_I_can_handle	2%	18%	24%	36%	21%	3.56	1.07

4.6.4.1 Conclusion of Objective 4 analysis

Based on the data analysis offered for Objective 4, a number of factors, including the prevalence of issues with work-life balance and psychological well-being at the chosen university, have an impact on the productivity of academics. It emerged that academics promotion guidelines are very demanding; many academics feel they already deserved to be promoted but the guidelines prevent this. The university should review its promotion guidelines to determine whether they are still relevant with the current staff. This will assist in avoiding the loss of the best academics seeking better positions at other

universities. The results for the demographic profiles of the respondents in Table 4.2, show 20% of the academics are still in the process of acquiring their minimum required qualification to be in academia. Therefore, qualification improvement is also another factor that affects the productivity of academics at the selected university, which requires effective planning to avoid a negative impact on academic productivity. Most academics also agreed that their lecture groups are too big, which also hampers productivity, and they feel that they have more to do than they can handle. There is a need for adequate lecture halls and better lecturing infrastructure at the university.

4.6.4.2 Exploratory factor analysis for academic productivity during COVID-19

The results presented in Table 4.10 show a Cronbach's alpha of 0.804 for the access to opportunity structures scale, indicating adequate internal reliability. The KMO for academic productivity was 0.886, and the Bartlett's Test of Sphericity was $p<0.000$. The sub-scales' adjusted item-total correlation values were higher than the suggested cut-off value of 0.3, demonstrating that the items were a reliable reflection of the construct. The findings demonstrate that the data satisfy the requirements for factor analysis.

Table 4.10: KMO and Bartlett's Test for academic productivity during COVID-19

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.886
Bartlett's Test of Sphericity	Approx. Chi-Square	2873.521
	Df	6
	Sig.	.000

a. Cronbach's alpha =0.804

4.7 Confirmatory factory analysis (CFA)

A structural equation modeling (SEM) approach was employed to conduct the confirmatory factory study. AMOS 27 was the program used to conduct the SEM analysis. The major goals were to evaluate the scale's structure and the applicability of the measurements. Figure 4.1 displays the scale's outcomes.

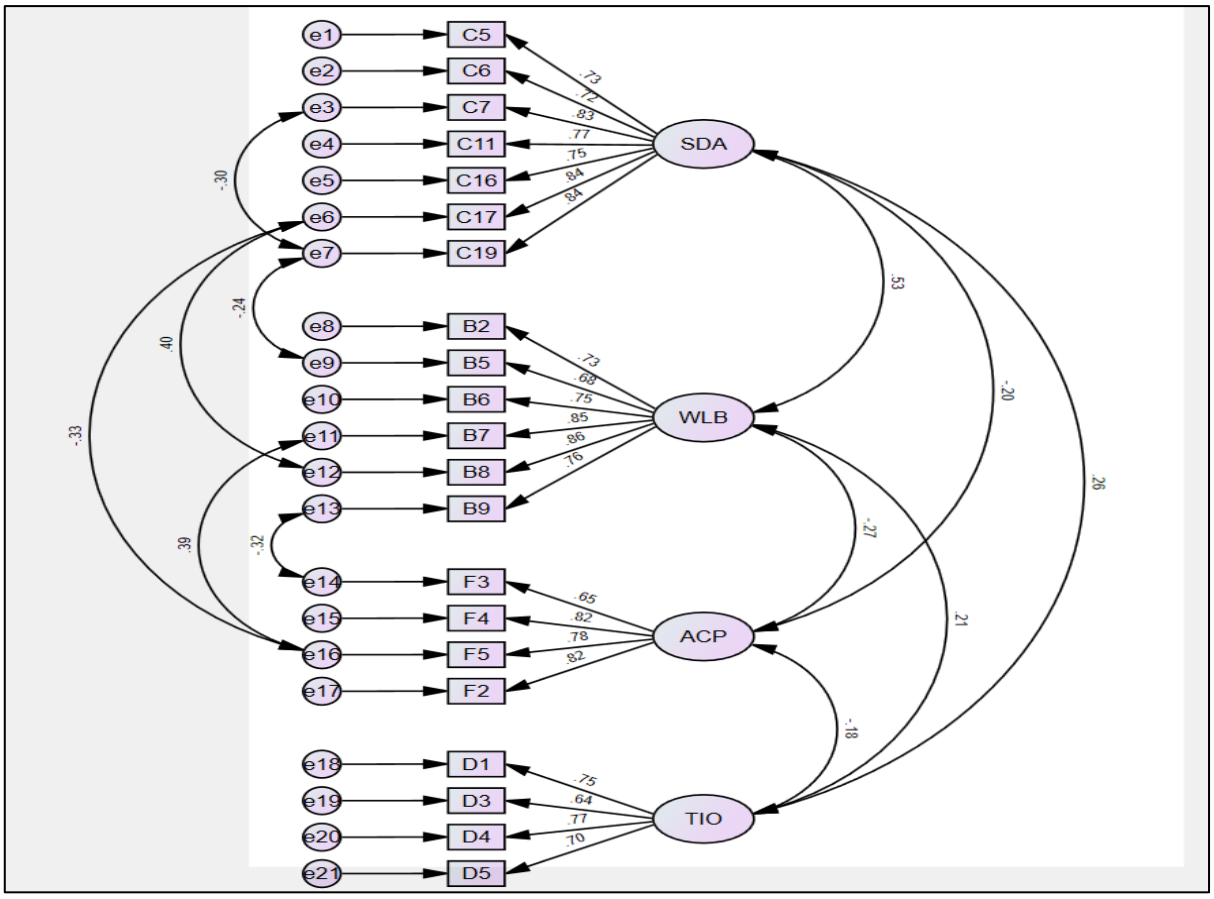

Figure 4.1: Measurement model (CFA) of the proposed model

4.8 Model specification

The structural model consists of four constructs, namely:

- Psychological Well-Being of Academics (SDA)
- Work-Life Balance (WLB)
- Academic Productivity (ACP)
- Turn-over Intentions (TOI)

Each of these constructs is evaluated using a different number of reliable items. For example, the Work-Life Balance category originally had 10 items but now only contains six. (B2, B5, B6, B7, B8 and B9) were found to be valid in the context of the University of Technology. In the context of the University of Technology, the remaining four criteria did not converge toward the construct of work-life balance. The factor loading of each build item reveals the measurement contribution of that item. Any factor greater than 0.5

is considered acceptable, whereas any factor lower than 0.5 denotes low factor loading. According to the measuring model presented above (Figure 4.1), the item (B2) measures Work-Life Balance at 73%, (B5) measures Work-Life Balance at 68%, (B6) measures Work-Life Balance at 75%, (B7) measures Work-Life Balance at 85%, (B8) measures Work-Life Balance at 86% and (B9) measures Work-Life Balance at 76%. Mabaso (2017) stated that, since there is always a chance of inaccuracy when estimating abstract structures, items are always accompanied by an error word, e8 is the error term of the item (B2) about work-life balance, e9 is the error term of the item (B5), e10 is the error term of the item (B6), e11 is the error term of the item (B7), e12 is the error term of the item (B8), and e13 is the error term of the item (B8) (B9). The bivariate correlation coefficients between the constructs are shown by the coefficient of double-headed arrows. For instance, stress, depression, anxiety, and academic productivity have a correlation value of -.20, which means that when one of these two variables' standard deviations rises, the standard deviation of the other variable falls by 20%.

4.9 Model estimation

The estimation of the model made use of AMOS 27. There are 21 regression weights in Table 4.11, all of which are estimates. According to Hair *et al.* (2016), estimations that are greater than 1.0 are mathematically improbable and likely point to an issue with the data. It is clear that the model has no estimates with a negative error variance or estimations greater than 1.00. Table 4.11 demonstrates that all of the items have a satisfactory loading because the estimates are more than 0.5 for each construct. This means that the tools employed are practical ones.

Table 4.11: Regression weights

			Estimate	**P-value**
C5	<---	SDA	0.731	
C6	<---	SDA	0.716	***
C7	<---	SDA	0.833	***
C11	<---	SDA	0.769	***
C16	<---	SDA	0.754	***
C17	<---	SDA	0.841	***

C19	<---	SDA	0.842	***
B2	<---	WLB	0.726	
B5	<---	WLB	0.682	***
B6	<---	WLB	0.746	***
B7	<---	WLB	0.852	***
B8	<---	WLB	0.862	***
B9	<---	WLB	0.764	***
F3	<---	ACP	0.652	
F4	<---	ACP	0.817	***
F5	<---	ACP	0.781	***
F2	<---	ACP	0.821	***
D1	<---	TIO	0.745	
D3	<---	TIO	0.637	***
D4	<---	TIO	0.767	***
D5	<---	TIO	0.7	***

*** *indicates significant relationship*

4.10 Assessment of model fit indices

The goodness of structural model fit was assessed for the study. Based on good practice, more than one fit statistic should be used. The capacity of a model to replicate the data, for example, typically in a variance-covariance matrix, is referred to as fit, according to Kenny (2015). A relatively consistent model with the data is one that fits the data well. It is evident from Table 4.12 that, after the results of the goodness of fit model were assessed, they had the following results: Chi-square/DF = 1.22, Comparative Fit Index (CFI) = 0.965, Root Mean Square Error of Approximation (RMSEA) = 0.047, *p* of Close Fit (PCLOSE) = 0.571, Standardised Root Mean Square Residual (SRMR) = 0.071). Table 4.12 also shows the threshold of the measures which implies acceptable results for each. Since a respectable CFA measurement model fit was attained, the measurement model used was reliable and valid.

Table 4.12: Model fit indices

Measure	Observed	Threshold	References
Chi-square	216.795		
DF	177		
DCIM/DF	1.22	2≤x≤5	Ullman (2001), Schumacker and Lomax (2010)
CFI	0.965	>0.95	Byrne (2001)
RMSEA	0.047	<0.05	Stieger (1990) Arbuckle (1999)
PCLOSE	0.571	>0.5	
SRMR	0.0710	<0.08	Byrne (2001)

4.11 Structural model

In this section, the testing of hypotheses, which was performed using AMOS 27, is presented. The structural model is used to evaluate the relationship between the hypothesised factors. According to Schumacker and Lomax (2010), the structural model also examines for collinearity—the internal correlation between two or more independent elements. Joseph and Olugbara (2018) concurred that this is the best technique that is being used progressively in science, social science and psychology to evaluate multivariate, easy-going relationships among factors. In order to determine whether the VIF values between factors were below the cut-off of 10, coefficients of variable inflation factors (VIF) were calculated for each model in the current study.

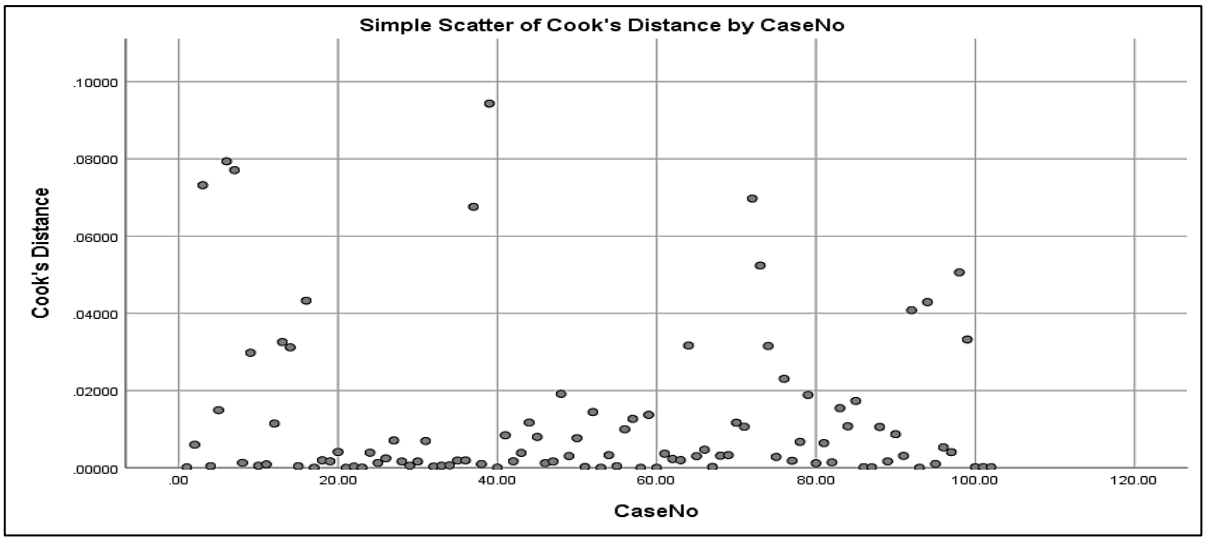

Figure 4.2: Cook's Distance Graph

Figure 4.2's Cook's Distance Graph was utilised to find spots that have a negative impact on the regression model. Cook's Distance is used in regression analysis to discover significant outliers in a set of predictor variables, according to Zuur, Leno, and Elphick (2010). To find out if there are any (multivariate) influential outliers, Cook's Distance analysis is utilised. Cook's Distance was seldom greater than 1 and was typically much less than 0.100.

4.12 Multi-collinearity

Table 4.13 demonstrates that variable inflation factors (VIFs), which are considerably below the criterion of 10, were explored in the study for all predictors of the dependent variables, but no VIFs bigger than 2 were found. The work-life balance's VIF is 1.469, which is much lower than the required value of 10. The highest coefficient in the model is for Stress, Depression and Anxiety with a value of 1.514, which is also far less than the threshold of 10. The lowest coefficient is for Turn-Over Intentions with a value of 1.107. The results shown in Table 4.13 indicate that, when all the variables are at zero, Academic Productivity will increase by units -4.928E-16. Based on these results, the statistics show that stress, depression and anxiety at work strengthens the negative relationship between work-life balance and academic productivity.

Table 4.13: Variable inflation factors (VIF)

Coefficients[a]

Model		Unstandardised Coefficients		Standardised Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-4.982E-16	.065		.000	1.000		
	WLB	-.231	.105	-.255	-2.210	.029	.681	1.469
	SDA	-.028	.118	-.028	-.236	.814	.660	1.514
	TIO	-.108	.080	-.135	-1.352	.180	.903	1.107

a. Dependent Variable: Academic Productivity (ACP)

4.13 Developed structural model

Each one of the constructs is measured by various numbers of valid items. For instance, initially, Work-Life Balance had 10 items but only six items (B2, B5, B6, B7, B8 and B9) were found to be valid in the context of the University of Technology. In the context of the University of Technology, the remaining four components were not convergent toward the Work-Life Balance construct. The factor loading of each build item reveals the measurement contribution of that item. Any factor greater than 0.5 is considered acceptable, whereas any factor lower than 0.5 denotes low factor loading.

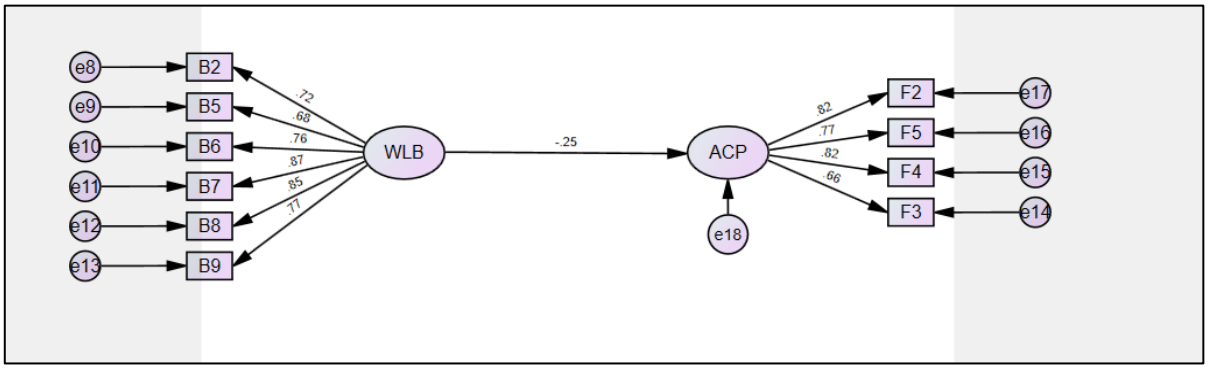

Figure 4.3: Developed measurement model

The developed structural model, as depicted in Figure 4.3, consists of two constructs, namely:

- Work-Life Balance (WLB)
- Academic Productivity (ACP)

As can be seen in the measurement model (Figure 4.3), the item (B2) measures Work-Life Balance at 72%, (B5) measures Work-Life Balance at 68%, (B6) measures Work-Life Balance at 76%, (B7) measures Work-Life Balance at 87%, (B8) measures Work-Life Balance at 85% and (B9) measures Work-Life Balance at 77%. Since there is always a margin of error when evaluating abstract concepts, things are always accompanied with the error word (e) (Mabaso 2017). Therefore, in the case of Work-Life Balance, e8 is the error term of the item (B2), e9 is the error term of the item (B5), e10 is the error term of the item (B6), e11 is the error term of the item (B7), e12 is the error term of the item (B8), e13 is the error term of the item (B9). The correlation coefficients between the constructs are shown by the coefficient of single arrowheads. For instance, the relationship between academic productivity and work-life balance has a correlation value of -.25, which indicates that as one of these two variables' standard deviations rises, the other one will as well, the standard deviation of the other variable decreases by 25%. The results obtained from the developed model show that Work-Life Balance has an influence on Academic Productivity. Stress, anxiety and depression at work and turn-over intentions strengthen the negative effects of work-life imbalance on academic productivity.

Work-life imbalance influences academic productivity with Evidence: Beta = -0.238* (P-value <0.05). Work-life has an influence on academic productivity with results indicating that work-life balance influences academic productivity. Working long hours and increased workload were among the effects that contribute to the academic being stressed and having other illnesses related to their work. This is consistent with theory that work-life balance reduces academic productivity. According to Noor (2011), juggling work demands and personal commitments poses difficulties for academics. Researchers have shown that striking a balance between work and personal life is critical among academics for optimum performance (Tourangeau *et al.* 2014).

Lindfelt *et al.* (2018) found that, although the academics who participated in his study generally reported satisfaction with the positions they held within their institution, they were simultaneously dissatisfied with their work-life balance because of work-weeks they perceived to be excessively long and lack of adequate sleep. This is supported by Agha, Azmi and Irfan (2017) who claimed that irregular work schedules have an adverse effect on work-life balance and that academic employees who work 46 or more hours per week

frequently experience burnout, which results in subpar output. Beauregad and Henry (2009) indicated that there can be beneficial work-life balance practices which will assist in balancing the work-life activities of academics which, in turn, leads to enhanced productivity and significant institutional improvement.

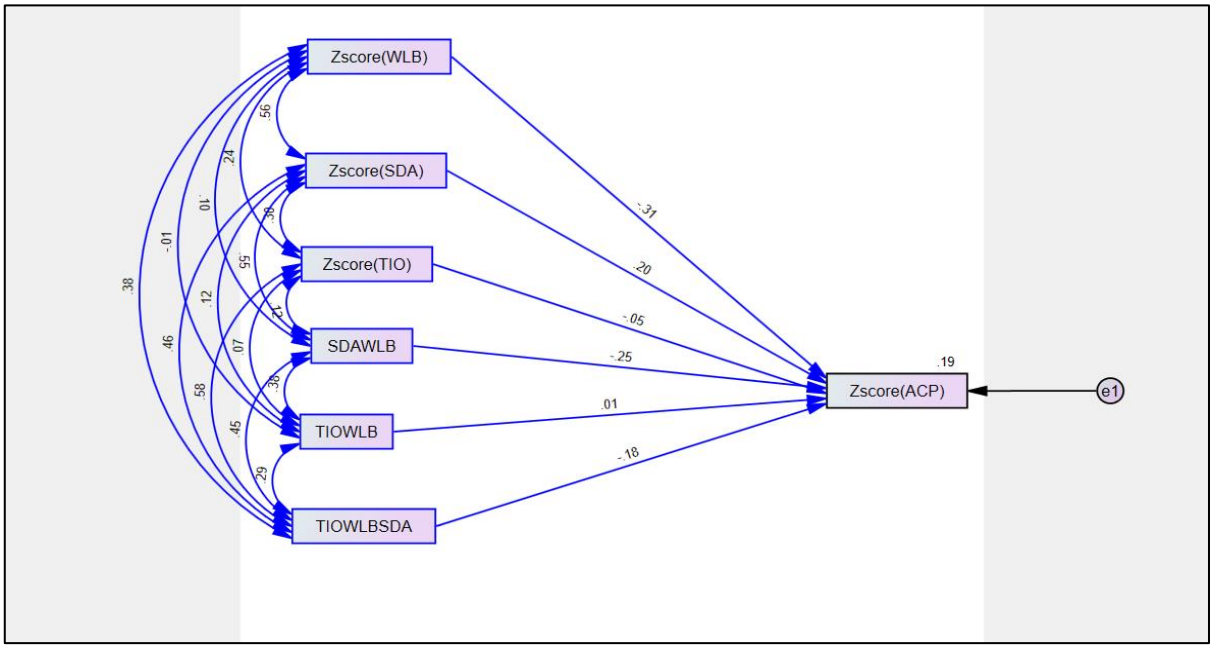

Figure 4.4: Moderating effects

Figure 4.4 above consists of seven constructs, namely:

- Work-Life Balance (WLB)
- Psychological Well-Being of Academics (SDA)
- Turn-Over Intentions (TIO)
- Stress, Depression and Anxiety; Work-Life Balance (SDAWLB)
- Turn-Over Intentions; Work-Life Balance (TIOWLB)
- Turn-Over Intentions; Work-Life Balance; Psychological Well-Being of Academics (TIOWLBSDA)
- Academic Productivity (ACP)

The moderating effects' Z-scores are displayed in Figure 4.4. The Z-score statistic is highly helpful since it allows for the comparison of two scores from several normal distributions and the measurement of the likelihood that a score will fall within one

(Joseph and Olugbara 2018). To do this, points from a normal distribution are transformed into Z-scores in a typical normal distribution (Joseph and Olugbara 2018). The Z-scores that produce negative values indicate that raw data were less than mean. Positive values indicate that the score is bigger than the average.

Psychological well-being of academics and turn-over intentions strengthen the negative effects on work-life balance and, thus, on the productivity of academics. There is no evidence to support that either turn-over intentions or both psychological well-being of academics and turn-over intentions strengthen the effects of work-life balance on the productivity of academics, as the relationships were not significant. However, there is evidence to show that poor psychological well-being of academics strengthen/moderate the effects of work-life balance on the productivity of academics with beta = -0.232† ($p < 0.100$). Furthermore, the findings revealed that academics felt they do not have control over the reduction of their stress levels that are caused by the heavy workloads placed on them. They find it difficult to relax, and they do not have much time with their families. The academics also revealed that the research requirement does not complement what they do daily at work. This was supported by their responses and the results of the study. Occupational stress is regarded as stress at work in an institutional context. It negatively affects the attitude and behaviour of academics if they cannot control stress at work.

4.14 Summary of the chapter

The purpose of this chapter was to provide a detailed data analysis in relation to the objectives of the study, findings and interpretations of the data collected from the academics working at the selected university of technology during the COVID-19 pandemic in KwaZulu Natal, South Africa. In the chapter, evidence of the reliability and validity of the instrument used to collect the required data was provided. The findings of the study showed that work-life balance negatively influences academic productivity and that stress at work, depression, and anxiety (poor psychological well-being) during COVID-19 increased the effects of such negativity.

In Chapter Five, a summary of the findings, the conclusion of the study and recommendations for further study are presented.

CHAPTER FIVE:

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In the preceding chapter, the results of the data and a thorough analysis were presented. An overview of the study, a list of the study's goals that were met, and a summary of the results are all included in this chapter. On the basis of the study's findings, recommendations and conclusions are also provided. Finally, the limitations of the study are addressed and recommendations for further research on work-life balance, psychological well-being and academic productivity are made.

5.2 Overview of the study

This section provides a summary of the analysis's finding in respect to the study's objectives. The study's objective was to evaluate academics work-life balance and psychological well-being during COVID-19 in South Africa. This contributed towards establishing factors that influenced the productivity and turn-over intentions of academics during the COVID-19 pandemic.

The objectives of the study were:

- To identify work-life balance challenges facing academics;
- To ascertain the prevalence of stress, anxiety, depression and turn-over intentions amongst academics;
- To determine factors affecting the turn-over intentions of academics in view of the prevalence of work-life and psychological well-being challenges.
- To examine factors affecting the productivity of academics in view of the prevalence of work-life and psychological well-being challenges.

The literature about work-life balance, psychological well-being and factors contributing to the productivity and turn-over intentions of academics during the COVID-19 pandemic was reviewed in Chapter Two. The literature detailing the concepts relating to the relationship between work-life balance and academic productivity was presented. Furthermore, Chapter Two constituted a critical analysis of the literary work done by previous researchers, specifically on work-life balance, psychological well-being, and turn-over intentions of academics mostly during the COVID-19 pandemic. Significant gaps existing in the current literature were identified, which the aim of this study was to fill. Moreover, very few studies were focused on the work-life balance, psychological wellbeing, turnover intentions, and productivity of academics at the University of Technology in South Africa. The findings from the literature in the South African context re-affirmed that academics generally operate under immense pressure, which destabilises their work-life balance, psychological well-being, and their productivity. Additionally, nearly all universities have suffered significantly as a result of the outbreak brought on by COVID-19's outbreak and the threats it poses to human existence (Charoensukmongkol and Puyod 2021).

5.3 Achievement of the objectives of the study

In this section, how the aim and objectives of the study were achieved based on the supporting literature and the empirical findings of the research is discussed.

5.3.1 Objective 1: To identify challenges of work-life balance facing academics

The first objective was formulated to identify the challenges of work-life balance facing academics at the selected university. In achieving this objective, 10 items were used in the study.

- **Working long hours**

It is evident that many academics still work long hours at the selected university of technology, which also results in an imbalance of their work-life. The results obtained for this item can be linked with the argument of Michie and Williams (2003), cited in

Letooane (2015), who found that the key work aspects that are associated with poor psychological well-being among academics were long working hours, work overload and working under pressure. Academics that worked longer hours from home during the COVID-19 epidemic had difficulties with the broad skill set required to develop online, virtual education and with the lack of home office infrastructure, to name just a few (Treve 2021).

- **No time to socialise**

The findings showed that many academics still have very limited time to socialise with their friends, family and loved ones. Communication tools used to connect with coworkers, department heads, and deans during the COVID-19 epidemic resulted in feelings of professional isolation and loneliness because social connections were restricted, which reduced peer proximity (Carillo *et al.* 2021; Ipsen *et al.* 2021; Bin *et al.* 2021). Academics' isolation led to stress and decreased productivity, which had an impact on their ability to combine work and life when working remotely (Toscano and Zappala 2020).

- **Taking work home most evenings**

Taking work home most evenings resulted in limited focus on family and a clash with home responsibilities. Academics whose work schedules are flexible achieve better work-life balance, which results in their attaining higher levels of job satisfaction, satisfaction from home/social activity and fewer incidences of role-related conflict (Javier 2020). Therefore, this finding supports the literature reviewed in this study.

- **Working late or weekends**

Working late at night or during weekends was identified in the literature as another factor that affects work-life balance for academics. The shift of the workplace from traditional office space to home also presented more work-life imbalance at the selected university. Ellen *et al*. (2020) emphasised that high demand at work and working late at night or over

weekends are very likely to be a cause of stress and "spill over" to family life, thus destroying the equilibrium between work and home.

- **Difficulty in relaxing**

The results suggested that high pressure at work caused academics to think about their work constantly even when they were at home, which was likely to cause spill-over to family life (Ellen *et al.* 2020). The uncertainty caused by COVID-19 made it very difficult to relax. The fear of becoming ill and being isolated were the other main factors that limited relaxation time.

- **Worrying about work stress**

The findings of the current study showed that most academics were experiencing excessive loads of stress related to work, as most academics participants indicated worrying about work stress. The consequences of COVID-19 led to new methods of teaching and learning for most academics, which also caused work stress for them since they were not equipped or prepared for the new way of life during COVID-19 (Javier 2020). Institutions and their academics have been allocated excessive workloads related to online teaching and learning, which also require more time to practise and more effort to be exerted in preparations for class and monitoring of students, which were some worrying factors for academics during COVID-19 (Park *et al.* 2020). The findings from the literature review supported these findings of the current study.

- **Effect on the relationship with a partner**

Relationships of academics with their partners were suffering because of the pressure at work according to the results obtained in which academics agreed that they were affected by this item. Everything has its own time and the same applies to professional roles and family roles. When people are at work, they are afforded enough time to focus on their duties and, at home, they have the opportunity to bond with their families or partners. However, the results for this item proved that most academics still hold to this principle since they denied that their relationships suffer from their focus on work.

- **Limited input at home**

The findings of this study for this item specifically suggested that there was an imbalance of work and life amongst academics at the selected university. It is evident that the academics focused more on their work roles than they did on their home roles which resulted in a clash between work and life. The university should develop flexible working arrangements to support academics in managing their work-life balance better, but academics must be proactive in applying these initiatives when they are presented to them.

- **Limited time for hobbies**

The findings also suggested that academics had very limited time to socialise and practise their hobbies, which is something needed, especially during the COVID-19 pandemic. Hobbies assist to relax people's minds and refresh to gain more energy to face their challenges again. According to Javier (2020), academics whose work schedules are flexible achieve better work-life balance, positive psychological well-being and increased productivity, which results in their achieving higher levels of job satisfaction, satisfaction with home/social activity and fewer incidences of role-related conflict.

- **No control over workload**

The findings from the study revealed that 89% of the academics experienced long work hours and a heavy workload which, consequently, created an imbalance between their work and other life commitments and the academics felt they had no control over workload. Mustapha and Ghee (2013) stated that an imbalance between work and life often results in the majority of academics becoming vulnerable to stress and a resultant alienation from the university. Furthermore, Mwangi *et al.* (2017) confirmed that academic work has become extremely stressful, with academics often having to allocate all their available time to "publish or perish", attend conferences and complete their assigned teaching duties, for the university to achieve its goals.

In conclusion for the first objective, based on the study, it was possible to identify work-life challenges that are currently facing academics at the selected university of technology.

It was evident that working long hours, excessive workloads, limited time to socialise, working late at night or weekends and work stress, noted in the literature, are major challenges affecting the work-life balance of academics at the selected university. In order to improve work-life balance, management should, according to Dhanya and Kinslin (2016), implement flexible schedules, facilities for commuting to work, initiatives to cultivate academics whose work schedules are flexible achieve better work-life balance, which results in their attaining higher levels of job satisfaction, satisfaction with home activity and limited incidences of role-related conflict (Priya 2018; Kar *et al.* 2019; Mayya *et al.* 2021).

5.3.2 Objective 2: To ascertain the prevalence of stress, anxiety, depression, and turn-over intentions amongst academics

The second objective was to ascertain the prevalence of stress, anxiety, depression, and turn-over intentions amongst academics. To meet this objective, 21 items were used to obtain findings.

- **Hard to wind down**

The findings obtained, and supported by the literature, showed that most academics agreed that it was difficult to wind down. Academics found it exceedingly challenging to unwind and rest after a long day because of the work pressure caused by the shared use of technical resources and equipment that were dispersed from the central office to homes. Normalcy was also unpredictable (Graham 2021). Ugwuanyi, Okeke and Shawe (2021) indicated that negative developments and mentally drained academics affect teaching and learning negatively and stall levels of academic productivity. It is based on these findings that it is suggested that the university should improve on the aspects that cause stress to avoid work-life imbalance, turn-over intentions and decreased productivity by their academics as a result of the effects of negative psychological well-being.

- **Dryness of mouth**

The results obtained for this item showed that lecturing long hours, and having consultations and meetings contributed to dryness of mouth for academics. Flexible work hours are still suggested to be the solution for this item. It has been confirmed in the literature that healthy academics also assist in limiting absenteeism, improving productivity and achieving better work-life balance. According to a study by Malik *et al.* (2021), it was argued that rising workloads contribute to the worsening of academics' health and that excessive workloads lead to higher levels of stress, which have a detrimental effect on academics' physical and mental well-being.

- **Lack of experience of any positive feeling**

The working environment also created this feeling for academics. The university did not play much of a role in encouraging its staff to learn to adapt easily to the new normal life caused by the effects of the COVID-19 pandemic. The findings obtained showed that academics agreed that they could not experience any positive feeling during the pandemic period. The attitude of the academics can also affect their productivity in both ways. Moreover, since new technologies increase flexibility and enable academics to work remotely, the universities should develop appropriate policies to ensure that academics meet required standards but, at the same time, to eliminate the negative effects of new technologies (Parry and Battista 2019)

- **Difficult to work up the initiative to do things**

The results obtained showed that approximately 87% of the academics indicated that it was difficult to work up the initiative to do things at the university. The results proved that the energy levels of the academics were very low, causing a work-life imbalance, poor psychological well-being, more turn-over intentions and a decrease in productivity. The support of the university was necessary to provide the resources required for academics during and after COVID-19. The lack of the necessary support and tools for online teaching made it very difficult for academics to adapt to remote teaching and learning, which also made it difficult to work up any initiative to do things.

- **Tended to over-react to situations**

The results obtained for this item showed that 56% of the academics agreed that they tended to over-react to situations. It was noted in the study that this was expected because of the situation and pressure they experienced at work. The high number of deaths in the country from COVID-19 caused great stress and worry, not only for academics, so over-reacting was caused by what they experienced during that period. Van Niekerk and Van Gent (2021), who discovered that there was a higher danger to the mental health and wellbeing of academics at a South African university during the COVID-19 lockdown, corroborated this finding.

- **Experience trembling (e.g. in hands)**

The results obtained for this item showed that the psychological well-being of academics was affected by COVID-19, as participants indicated that they experienced some changes in their health. Working late at night or over weekends means lack of adequate sleep, and trembling is a result of when people do not have enough rest. This was part of the ill health that affected academics during the pandemic, and was supported by the findings of the literature review.

- **Using a great deal of nervous energy**

Most academics indicated that they were using a great deal of nervous energy as a result of being stressed about the COVID-19 pandemic and the uncertainty associated with it. Just as for everyone, it was expected that most people would experience this nervous feeling during the pandemic because of the uncertainty. The high number of deaths in South Africa from COVID-19 reported daily by the Department of Health made people more nervous.

- **No motivation**

The results obtained for this item showed that 71% of the academics indicated that they had nothing to look forward to. The desire to go extra mile at work was absent during the COVID-19 pandemic as life was not the same that made it difficult for them to be motivated.

- **Becoming agitated**

The results showed that most academics thought they were at risk when carrying out their lecturing duties during COVID-19 and feared that they might become infected and die, leaving their family unexpectedly. There was so much fear associated the pandemic, which also contributed to ill health among academics whose work continued during this difficult period.

- **Difficulty in relaxing**

The results obtained showed that approximately83% of the academics indicated that they found it difficult to relax because of the work pressure they experienced. According to Park *et al.* (2020), in order to adapt to the technology, academics adopted excessive duties associated to online training, necessitating extra practice time and effort in getting ready for class.

- **Downhearted and blue**

The results showed that academics did not wish to leave their home for fear of the pandemic and were feeling depressed. Unusual conditions caused changes in behaviour for academics because of changes in the environment and work habits during COVID-19. The negative behaviours were caused by environmental influences. Thus, it was evident that the pandemic caused considerable challenges of depression and ill health for academics.

- **Intolerant**

The results obtained showed that most academics needed considerable training during the new way of life to cope with all the work pressure caused by the pandemic. Training programmes that emphasise relaxation, mindfulness, and improved resilience are crucial for enhancing positive behavior and performance and minimising conflict at work (Botwe *et al.* 2017).

- **Panicky**

The results obtained showed that 39% of the academics indicated that they felt that they were close to panic during the COVID-19 pandemic. Panicking was understandable since no one knew what was happening and when it would end. Everyone was experiencing a new way of life. The panic started when many people were dying and the Department of Health in South Africa was reporting infections and deaths daily to inform people about the danger of the pandemic.

- **Was unable to become enthusiastic**

The results obtained showed that 91% of the academics indicated that they were unable to become enthusiastic about anything. This showed that the academics were emotionally exhausted during the pandemic from fear of being infected or losing their family members. This was a major reason for many academics to lose enthusiasm for anything. According to research by Bartsch *et al.* (2020), academics were more likely to experience stress and emotional exhaustion from work and life during the pandemic, and this instability could lead to behavioural changes in performance. The literature analysed for this study provided support for the findings.

- **Experiencing difficulty breathing**

The findings showed that some academics experienced difficulty breathing during the COVID-19 pandemic. Difficulty breathing was also caused by the necessity of wearing a

mask in public spaces to prevent the spread of the virus. Wearing a mask for the whole day was not easy and experiencing difficulty breathing was likely to happen.

- **Heart-rate increase, heart missing a beat**

The results obtained showed that most academics indicated that their heart-rates increased and their hearts missed a beat. It was evident that most of the academics at the selected university were senior citizens and an increase in heart-rate was likely to happen, especially when they were worried about virus infection. The university did not provide many ways for them to avoid being on campus when conducting their lecturing duties, especially those who conducted practical modules.

In conclusion for the second objective, it was possible to ascertain the prevalence of stress, anxiety, depression, and turn-over intentions amongst academics. Based on the current study, it was found that stress at work, anxiety, depression, and turn-over intentions increased the negative effects of work-life balance on the productivity of academics. This finding was supported by numerous studies in which it was found that poor psychological well-being was one of the most common consequences of work-life imbalance which, ultimately, resulted in compromised academic productivity and higher frequency of absenteeism and turn-over intentions (Layous *et al.* 2011; Seligman 2018). In addition, employees' experience of a particular occupational stressor resulted in high levels of physical and psychological ill health (Viljoen and Rothman 2009).

5.3.3 Objective 3: To determine factors affecting turn-over intention among academics in view of the prevalence of challenges to work-life and psychological well-being

The third objective of the study was to determine factors affecting the turn-over intentions among academics in view of the prevalence of challenges to work-life and psychological well-being. To achieve this objective, six items were measured.

- **Often consider leaving my job**

The finding that some academics considered leaving academia showed that there was something that the university was overlooking. Protecting academics during COVID-19 was not done effectively. Some academics had to be on campus to supervise students' practical assignments, which was not possible to do remotely.

- **Satisfied with my job in fulfilling personal needs**

The results obtained for this item showed that most academics were satisfied with their jobs in fulfilling their personal needs, showing that not all academics wanted to leave and that some were still in support of the university making the transition to the new way of life during COVID-19. In addition, Fazal *et al.* (2019) found that there are many factors that generate unsatisfactory job responsibilities for academics. Most academics choose to leave a university when most factors regarding their fear for the status of their health are not addressed (Cabay *et al.* 2018).

- **Frustrated when not given opportunity**

The results obtained showed that the academics should be given opportunity to discuss their daily duties at the university rather than be given approved plans which were not presented to them before. The university should encourage the academics to apply for study grants that can assist them to reach their personal goals.

- **Dreaming about getting another job**

The results obtained for this item showed that the working environment at the university during the pandemic was not supportive of some academics who indicated that they dreamed about getting another job. While some were allowed to work remotely, this was not the case for most engineering academics who had to supervise students' practical assignments in the university laboratories. These academics were required to be at the university, in contact with the students. The university possibly could have arranged something better to protect them the same as the others.

- **I can accept another job at the same compensation level**

The results for this item showed that some academics were not satisfied with certain things at the university and indicated that they could accept another job offer. This has significant impact on work performance, as satisfied academics are highly motivated to offer more and be loyal to the university. This was supported by the literature in which it is stated that experience and satisfaction have a positive relationship with the turn-over intentions, productivity, and work-life balance of the academics (Wahyudi 2018).

- **Looking forward to another day at work**

The results for this item showed that often some academics were not looking forward to another day at work during COVID-19 and wished to leave academia. The lockdown measures and social-distancing policies brought about drastic changes in working arrangements in universities and other organisations in South Africa and resulted in senior staff members deciding to take early retirement because of the measures taken during the COVID-19 pandemic. Sheraz *et al.* (2014) stated that the resignation of experienced academics has a negative impact on the success of a university and leads to the cost of hiring and training a replacement.

In conclusion for the third objective, several factors affect the turnover intentions of academics in view of the prevalence of challenges to work-life and psychological well-being. Job satisfaction was the most significant factor influencing turn-over intentions among academics. High levels of satisfaction with their roles at work often limit the willingness to leave. It was shown in Table 4.7 that 45% of the academics were satisfied with their jobs at the university, while 15% and 6% were not satisfied with their roles. The working environment or organisation's reputation are also factors contributing to many academics opting to accept another job offer with the same compensation somewhere else. The lecture group being too big can also contribute to academics opting to consider leaving the university. The pressing call for qualification improvement and strict promotion guidelines can also affect the term of the academics at the university.

5.3.4 Objective 4: To examine factors affecting the productivity of academics in view of the prevalence of challenges to work-life and psychological well-being

This objective was formulated to examine factors affecting the productivity of academics in view of the prevalence of challenges to work-life balance and psychological well-being. To achieve this objective, 12 items used to examine factors.

- **Achieving high publication output is possible**

The results for this item showed that most academics do achieve their target in terms of publishing research. The university research directorate does support the academics in achieving more publication and output, which also assists the university to gain more points for rankings.

- **Attending two national/international conferences per year is achievable**

The results for this item showed that 51% of the academics indicated that attending two national or international conferences per year was achievable. While there were some academics who denied this, the university should arrange more research workshops to encourage and motivate more academics to attend conferences. It was evident that, after teaching responsibilities, the academics were also required to present their papers at certain conferences.

- **Regularly involvement in community engagements is manageable**

The results of this item showed that most academics were regularly involved in community engagements while there were still some who said this task was not manageable for them. It was evident that academics felt that involvement in community engagements was not manageable given that the university calendar was tight, especially for semester modules, and was set for their lecturing responsibilities that required their attention other than going away from the university for community engagements.

- **Attracting funding for research is possible for post-graduate students**

The results for this item showed that the academics indicated that it was possible for students to attract funding for research. It was evident that the university was still offering several under-graduate programmes, so academics were not pressured much to attract funds for student research. A favourable sign was that the university was gaining momentum in terms of research output and attracting more academics with PhDs, which also assisted in obtaining these types of funds.

- **Producing two or more articles in peer-review, accredited journals is achievable**

Based on the results for this item, it was evident that the academics were still managing to produce the required articles per year, which the university needed to be credited. However, a high number of academics disagreed with the item, making the producing of articles in peer-review journals debatable. Based on the study, it could be concluded that the university should encourage academics to be more involved in research to increase the research output of the university.

- **Combining teaching, research and community engagement is possible**

The results showed that combining teaching, research and community engagement was possible for most academics within the university. However, most academics also complained that their workload had increased because they had to publish more research papers and present at certain conferences. Nevertheless, the results showed that most academics agreed that combining research and community engagement work is possible.

- **Promotion guidelines are very demanding for academics**

The results for this item showed that most academics felt that the promotion guidelines were very demanding for them. The university should workshop these promotion guidelines for academics so that they can understand the guidelines better or they should be a reviewed to determine whether they still achieve what was intended, other than making the life of academics as difficult as they perceived. If this aspect is not addressed,

it might have negative effects on work-life balance, productivity, and psychological well-being for academics at the selected university.

- **Qualification improvement can hamper the duties of academics**

The results showed that, even though most academics held the minimum qualification to be in academia, there were some academics who were still pursuing their studies to meet the required qualification. The evidence presented in Table 4.2 showed further that 75% of respondents had either a Master's Degree or a PhD, which confirmed that most academics in the institution held suitable qualifications for working in academia. A further 9.8% had Honours Degrees, 10.8% had BTech Degrees and 3.9% had "other" qualifications. These results showed that, while most of the respondents did meet the minimum requirements for lecturing, many still had to pursue their studies further to obtain Master's or Doctoral Degrees and this had implications for work-life balance and their productivity at the university.

- **My lecture groups are too big**

The results for this item showed that most academics indicated that their lecture groups at the selected university were too big. This finding showed that the university should develop strategies to divide their students into manageable groups to reduce high workloads for academics. The student selection policies should be reviewed so that the academics are not exposed to huge lecture groups. In addition, Evens (2019) stated that academics still face continuous tension regarding the quality of classes, excessive workloads, deadlines, and constant programme evaluations.

- **I lecture the courses I prefer**

From the results for this item it was evident that the academics were given the opportunity to lecture the courses they prefer and this assisted in increasing productivity because everyone was doing what he/she enjoyed. This also showed that the level of satisfaction with their courses was high.

- **I feel I have more to do than I can handle**

The results for this item showed that the academics felt they had more to do than they could handle. These results were supported by the literature in which it was stated that the workload or overload of academics was ever-increasing and the COVID-19 outbreak led to further increased workloads for academics. During this time, they spent many hours conducting more classes online than they did for face-to-face classes (Bhumika 2020).

5.4 Contribution to the body of knowledge

The results of this study add to the sparse body of research on work-life balance, psychological health, turnover intentions, and academic output with particular reference to a University of Technology in the contemporary South African environment. The structural model suggested that work-life balance influences academic productivity, and that stress at work, anxiety, depression, and turnover intentions strengthen the negative effects of work-life balance on academic productivity. The structural model developed (Figure 4.3) provides a useful tool for predicting the effects of work-life balance, psychological well-being, and turn-over intentions on the productivity of academics at the selected University of Technology in KZN during the COVID-19 pandemic, in the South African context. This study contributes methodologically by using SEM, which is a comprehensive and appropriate approach to determining the causality and strength of relationships between the constructs in the proposed model. The questionnaire survey, developed from existing literature, demonstrated reasonable reliability and, therefore, can be adopted in future studies to validate the results of the current study or be applied in another context.

5.5 Limitations of the study

Difficulties were experienced during the study in obtaining the full co-operation of academics to participate, especially the senior academics. The process of data collection was difficult and time-consuming since several academics were unavailable to participate. The researcher administered the questionnaire while also undertaking full-time work at the same university. The study was also conducted during the “new normal” life during

the global COVID-19 pandemic, so it was very difficult to make contact, or to hand-deliver questionnaires and collect them from the respondents' offices. The study was conducted in one institution, so the results cannot be generalised, but similar contextual factors in other UoTs in South Africa suggest that the findings will also be of interest to these institutions. While the response rate that was eventually achieved was thus necessarily lower than the researcher would have considered to be ideal, it was of an acceptable level, particularly since a census approach was adopted in the selection of respondents.

5.6 Recommendations of the study

The following recommendations are based solely on the findings of the study and aimed to assist in implementing successful work-life initiatives.

5.6.1 Working hours

It is recommended that special attention should be given to improving the working hours of academics with the aim of giving academics more manageable working hours. This is in line with the finding of the study that revealed that most academics work long hours and have no time to relax. Academics should be proactive when dealing with interruptions, such as limiting the number of consultations per day. Academics should compile a to-do-list every day to assist in prioritising tasks per day. They should be encouraged to take all the leave to which they are entitled.

5.6.2 Academic workload

The workload placed on academics should be re-evaluated, as more academics complain about being overloaded with work. Where the workload placed on the academics is more than they can handle, this must be re-designed in accordance with their specific competencies. The academics who are currently acquiring higher qualifications should be encouraged/enabled to take sabbatical leave. In addition, employing well-trained tutors and lecturing assistants on a contract basis to assist lecturers in their workloads should be encouraged. These recommendations are supported by the literature in which it is stated

that, once the university appreciates reality, it can also attract the best academics successfully from its competitors and thus produce the best quality in terms of student pass-rates (Mustapha and Ghee 2013; Cabay *et al.* 2018; Fazal *et al.* 2019; Jansen 2020).

5.6.3 Flexible working arrangements

Flexible working arrangements are essential in balancing work and life. Flexible arrangements assist in enabling academics to fulfil their personal engagements when necessary. There should be a framework according to which academics can exercise flexible working arrangements, depending on the nature of their work.

5.6.4 Employee awareness programmes

Academic institutions should consider hosting functions where academics and other university employees can enjoy some fun-filled activities to de-stress and forget about their work. Counselling services should be encouraged to have a greater focus on academics, enabling those experiencing stress-related symptoms to be assessed, with strict confidentiality at all times.

5.6.5 Academics awards

The institution should establish a culture in which academics are acknowledged and rewarded for their efforts. Rewarding can be provided through monetary incentives and career progression opportunities. Educational workshops should be conducted to assist in addressing the work- related and personal stress factors of the academics. A wellness day event should be held, focused solely on academics to promote awareness of personal well-being and encourage them to complete health assessment tests for early detection and treatment of any health conditions.

Although these recommendations will have an impact on the university's budget, it is also advisable for senior management to consider a cost-benefit analysis of the costs of not introducing the recommendations which have been shown to have a positive impact on the work-life balance of academics so that they can focus more productively on the main function of the university, which is teaching and learning.

5.6.6 Clear communication channels

The university should ensure clear communication and consultation between executive management and academics. Especially when there are institutional or systemic changes, the users must be invited to participate in that formation process. Academics should manage their working schedules to enable them to manage their duties and personal commitments.

5.6.7 Working conditions

Most of the participants also indicated that their level of stress increased because of the unfavourable working conditions that they faced. The review of common work stress factors should be reported and made known so that they can be investigated by the university authorities. Wellness programmes should be hosted within the university to promote awareness of personal well-being and employees should be encouraged to conduct assessment tests, as recommended by expert counsellors. It is also recommended that the university conduct risk assessments to identify these stressors and evaluate and implement control measures to minimise them. Heads of Departments could also be trained to identify these kinds of stressors amongst their staff in order to be in a position to intervene timeously and effectively.

5.7 Recommendations for future research

Further research could extend the findings of the current study by including more universities in South Africa. In most of the extant literature on career choice, a quantitative approach has been adopted. It is advisable that a mixed-method study be conducted, as it would be worthwhile to assess the opinions and experiences of senior academics and the executive management of the academics who are involved in decision-making within the Universities of Technology in South Africa. Additional variables, such as remuneration and promotion factors, should be considered for inclusion in the model and tested.

5.8 Conclusion

Based on the research, it can be said that all academics will not function at their highest potential without a work-life balance and psychological well-being. A well-balanced work-life and positive psychological well-being have a positive impact on the productivity of academics. Having the best academics will attract the highest quality students to the university and, subsequently, help to source the best academics to join the university. In turn, this favourable reputation will influence public perceptions and assist in sourcing more funding from sponsors. The findings of the study confirmed that poor work-life balance and psychological well-being during COVID-19 influenced academic productivity negatively. Poor psychological well-being at work strengthens the negative relationship between work-life balance and academic productivity. Furthermore, the results of earlier studies that supported the current study's conclusions were used to confirm them. Last but not least, although the results of the current study cannot be generalised to other colleges of technology because it was only carried out at one chosen university of technology in KwaZulu-Natal, they will be relevant to other institutions whose COVID-19 epidemic conditions are equivalent.

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APPENDIX: A – Letter of information

LETTER OF

INFORMATION

Title of the Research Study: Investigating the effects of work-life balance on academic productivity

Principal Investigator/s/researcher: Mr Ellen Mzwakhe Shange, Master of Management Sciences in Administration and Information Management

Co-Investigator/s/supervisor/s: Dr S.P. Moyane (Supervisor) and Prof O.O. Oludayo (Co-supervisor)

Brief Introduction and Purpose of the Study: Work-life balance is an individual's ability to meet the work and family commitments, as well as other non-work responsibility and activities. Mustapha and Ghee (2013) believe that work-life balance among academics is very important because it contributes to quality of teaching, high job commitment and pave a right direction in producing high quality students. The aim of the study is to investigate the effects of work-life balance on academic productivity.

Outline of the Procedures: The questionnaire and interview will take roughly 10 – 15 minutes to complete. The participants will be requested to fully complete the questionnaire as this will allow the researcher to analyses and interpret the responses and the participants will be requested to be interviewed as this will allow the researcher to gain in depth information. Participation is voluntary, participants are free to withdraw from the study at any time without giving reasons and without prejudice or any adverse consequences. All the information gathered will only be for the study purposes.

Risks or Discomforts to the Participant: There are no risks to the participants.

Benefits: There will be no financial benefit to the participants.

Reason/s why the Participant May Be Withdrawn from the Study: Participation is voluntary, participants may withdraw at any time without giving reasons.

Remuneration: No Remuneration will be received by the participants in this study.

Costs of the Study: There are no cost related to participating in the study.

Confidentiality: All data gathered will be kept confidential and their names will not be mentioned in the research report.

Research-related Injury: No injuries or adverse reaction can be expected in this study.

Persons to Contact in the Event of Any Problems or Queries: Dr. S.P. Moyane (supervisor) at 031 373 5660 or Mr. E.M. Shange (researcher) on 073 807 8345 or the Institutional Research Ethics Administrator on 031 373 2375. Complaints can be reported to the Director: Research and Postgraduate Support, Prof S Moyo on 031 373 2577

APPENDIX: B – Consent form

CONSENT FORM

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, **Ellen Mzwakhe Shange**, about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: **ME 10/18/21**,
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

Full Name of Participant	**Date**	**Time**	**Signature**

I, Mzwakhe Shange (Name of researcher) herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

MZWAKHE SHANGE 27/01/2020

_____	_____	_____
Full Name of Researcher	**Date**	**Signature**
_____	_____	_____
Full Name of Witness (If applicable)	**Date**	**Signature**
_____	_____	_____
Full Name of Legal Guardian (If applicable)	**Date**	**Signature**

APPENDIX: C – Research Instrument

WORK-LIFE BALANCE, PSYCHOLOGICAL WELLBEING AND FACTORS CONTRIBUTING TO ACADEMICS PRODUCTIVITY AND TURNOVER INTENTIONS DURING THE COVID-19 PANDEMIC

Instructions for filling in the questionnaire

a) **Please cross the applicable answer(s). ☒**
b) **Please use spaces provided to write your answer/s to the questions.**
c) **Please answer fully as possible.**
d) **If you would like to expand on any of your answers, please use the space provided at the end of the questionnaire.**

SECTION A: BACKGROUND INFORMATION

1. Gender		2. Population Group		3. Post Level		4. Highest Qualification	
Male	01	African	01	Professor	01	PhD	01
Female	02	Coloured	02	Assistant Professor	02	Master's Degree	02
		Indian	03	Associate Professor	03	Honour's Degree	03
		White	04	Senior Lecturer	04	BTech	04
		Other (please specify).....	05	Lecturer	05	Other (please specify)……	05
				Junior Lecturer	06		

5. Marital Status		6. Do you have dependents living with you?	
Single	01	Yes	01
Married	02	No	02
Other	03		

7. Please indicate your department

……..

8. How many hours do you work per week?

…….....

9. How many years you have been employed in your department?

…….

SECTION B: WORK-LIFE BALANCE ON ACADEMICS

Statements	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree
B.1 I usually work long hours	05	04	03	02	01
B.2 I don't have much time to socialise/relax with my partner/see family in the week	05	04	03	02	01
B.3 I have to take work home most evenings	05	04	03	02	01
B.4 I often work late or at weekends to deal with students or paperwork without interruptions	05	04	03	02	01
B.5 Relaxing and forgetting about work issues is hard to do	05	04	03	02	01
B.6 I worry about the effect of work stress on my health	05	04	03	02	01
B.7 My relationship with my partner is suffering because of the pressure or long hours of my work	05	04	03	02	01
B.8 My family is missing out on my input, either because I don't see enough of them/am too tired	05	04	03	02	01

B.9 Finding time for hobbies, leisure activities, or to maintain friendships and extended family relationships is difficult	05	04	03	02	01
B.10 I would like to reduce my working hours and stress level, nut I feel like I have no control over the current situation	05	04	03	02	01

SECTION C: DEPRESSION, ANXIETY AND STRESS

Please read each statement and cross your answer 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Please do not spend too much time on any statement.

0= Did not apply to me at all
1= Applied to me to some degree, or some of the time
2= Applied to me to a considerable degree, or a good part of time
3= Applied to very much, or most of the time.

Statements	**Did not apply to me at all**	**Applied to me to some degree**	**Applied to me to a considerable degree**	**Applied to me very much or most time**	
C.1 I found it hard to wind down.	0	1	2	3	
C.2 I was aware of dryness of my mouth.	0	1	2	3	
C.3 I couldn't seem to experience any positive feeling at all.	0	1	2	3	
C.4 I found it difficult to work up the initiative to do things.	0	1	2	3	
C.5 I tended to over-react to situations.	0	1	2	3	
C.6 I experience trembling (e.g. in hands).	0	1	2	3	
C.7 I felt that I was using a lot of nervous energy.	0	1	2	3	
C.8 I felt that I had nothing to do to look forward.	0	1	2	3	
C.9 I found myself getting agitated.	0	1	2	3	
C.10 I found it difficult to relax.	0	1	2	3	
C.11 I felt down-hearted and blue.	0	1	2	3	
C.12 I was intolerant of anything that kept me from getting on with what I was doing.	0	1	2	3	
C.13 I felt I was close to panic.	0	1	2	3	
C.14 I was unable to become enthusiastic about anything.	0	1	2	3	
C.15 I felt I wasn't worth much as a person.	0	1	2	3	
C.16 I felt that I was rather touchy.	0	1	2	3	
C.17 I felt scared without any good reason.	0	1	2	3	
C.18 I felt that life was meaningless.	0	1	2	3	
C.19 I was worried about situations in which I might panic and make a fool of myself.	0	1	2	3	
C.20 I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion).	0	1	2	3	
C.21 I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat).	0	1	2	3	

SECTION D: TURNOVER INTENTION

Statements	**Strongly Agree**	**Agree**	**Indifferent**	**Disagree**	**Strongly Disagree**
D.1 I often consider leaving my job.	05	04	03	02	01
D.2 I am satisfied with my job in fulfilling my personal needs.	05	04	03	02	01
D.3 I often feel frustrated when not given the opportunity at work to achieve my personal related goals.	05	04	03	02	01
D.4 I often dream about getting another job that will better suit my personal needs.	05	04	03	02	01
D.5 I can accept another job at the same compensation level should it be offered to me.	05	04	03	02	01
D.6 I often look forward to another day at work.	05	04	03	02	01

SECTION E: ACADEMIC'S PRODUCTIVITY

Statements	**Strongly Agree**	**Agree**	**Indifferent**	**Disagree**	**Strongly Disagree**

E.1 Achieving high publication output is possible giving high teaching loads that are subjected to	05	04	03	02	01
E.2 Attending two national/international conferences is achievable per year	05	04	03	02	01
E.3 Being involved in community engagement activities regularly can be manageable	05	04	03	02	01
E.4 Attracting funding for research is possible for post graduate students programme	05	04	03	02	01
E.5 Producing two/more articles on peer review accredited journals is achievable per year	05	04	03	02	01
E.6 It is possible to combine teaching, research and community engagement for academics	05	04	03	02	01
E.7 Promotion guidelines are very demanding for academics in terms of teaching, research and community engagement	05	04	03	02	01
E.8 Qualification improvement can hamper the teaching, research and community engagement	05	04	03	02	01
E.9 My lecture groups are too big	05	04	03	02	01
E.10 I lecture the courses I would prefer	05	04	03	02	01
E.11 I plan my work and perform orderly without any delay	05	04	03	02	01
E.12 I feel I have more to do than I can handle comfortably	05	04	03	02	01

THANK YOU FOR YOUR PARTICIPATION!!

APPENDIX: D – Ethical clearance

Faculty Research Office
Durban University of Technology
30 August 2018

Mr E.M Shange
Student Number: **21101604**
Degree: Master of Management Science in Administration and Information Management
Email: shangeem@mut.ac.za

Dear Mr Shange
ETHICAL APPROVAL: LEVEL 2

Your email correspondence in respect of the above refers.
I am pleased to inform you that the Faculty Research Committee (FRC) at its meeting on 14 August 2018, has granted preliminary permission for you to conduct your research "***Investigating the effects of work-life balance on academic productivity***".

You are required to present this letter to the institution where you intend gathering data, to obtain permission to collect the data. Please also note that each of your questionnaires must be accompanied by a letter of information and a letter of consent for each participant, as per your research proposal.

A summary of your key research findings may be submitted to the FRC on completion of your studies.

Kindest regards.
Yours sincerely

Dr Delene Heukelman
Faculty Research Coordinator (Acting)

APPENDIX: E – Gatekeeper's letter

Mangosuthu
University of Technology

UMLAZI - KWAZULU NATAL

P.O. Box 12363 Jacobs 4026 Durban Tel: 031 907 7111 Fax: 031 907 2892

06 December 2019

Ref: ME10/18/21

Dear Mr E.M. Shange

Extension of ethical clearance – 'Investigating the effects f work-life balance on academic's productivity

The MUT Research Ethics Committee considered your request for extension of ethical clearance for the project above on 02 December 2019. Extension for this project was granted for an additional two years ending on 31 December 2021.

Any changes to the project must immediately be brought to the attention of the Research Directorate.

Good luck with your research.

Yours sincerely,

Dr Anette Mienie

Director: Research

APPENDIX: F – Letter from the language editor

35a First Avenue
Harfield Village
7880

4 December 2022

To whom it may concern

Confirmation of Language Editing and Proofreading

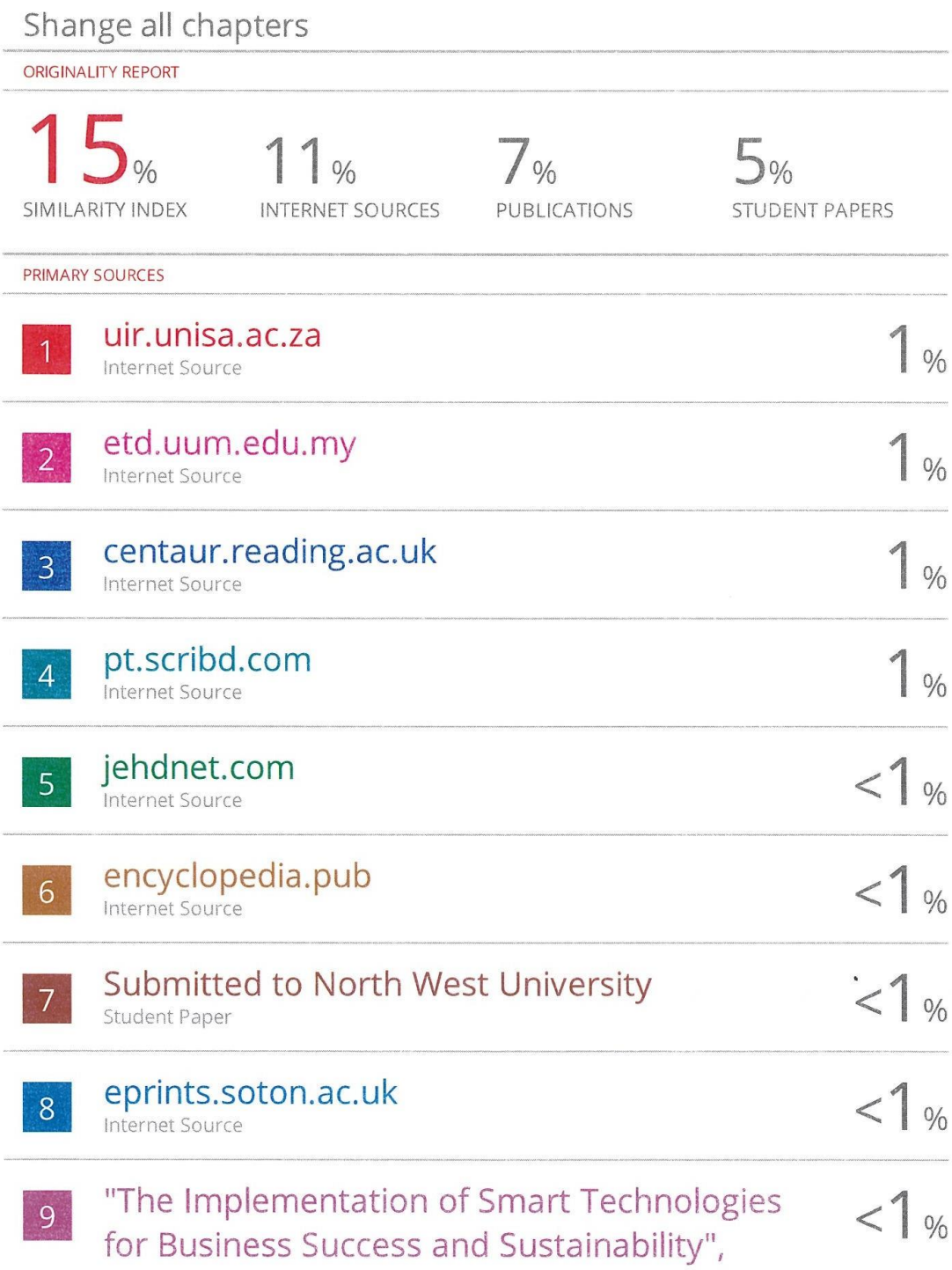
This serves to confirm that I have language edited and proofread the accompanying dissertation, titled: **Work-Life Balance, Psychological Well-Being and Factors Contributing to Academics' Productivity and Turn-Over Intentions during the Covid-19 Pandemic**.

I have 14 years' experience in teaching and lecturing in English in both public and private institutions from Grade 8 to post Matric. I am currently self-employed as a freelance writer with over 15 years' experience in copywriting, editing and proofreading.

Yours faithfully
D.M. Collier

Cell: +27 76 189 4231
Email: des.collier7@gmail.com
Web: http://collierscorporatecommunications.webs.com/

APPENDIX: G – Turnitin report



Shange all chapters

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