

A qualitative study on the work-life balance experience of Regulatory Affairs pharmacists working remotely post Covid-19 restrictions in Gauteng, South Africa.

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A research report in the publication submissible format submitted to the Faculty of Health Science, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Science.

Johannesburg, 2025

DECLARATION

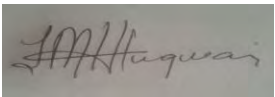
I, Kgabo Sekgalakane, student number [799063], declare that this Research Report is my own work and that I contributed adequately towards research findings published in the article stated below which are included in my research report. This research report is being submitted in fulfilment for the degree of Master of Science in Pharmaceutical Affairs at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other University.

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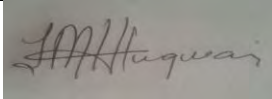
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Table of Contents

DECLARATION	1
ACKNOWLEDGEMENT	5
ABSTRACT	1
PUBLICATION.....	3
<i>Background</i>	<i>4</i>
<i>Research Methods and Design:.....</i>	<i>7</i>
<i>Results.....</i>	<i>11</i>
<i>Discussion:</i>	<i>25</i>
<i>Conclusion.....</i>	<i>28</i>
SUPPLEMENTARY DATA	34
APPENDIX A: STUDY INFORMATION SHEET	39
APPENDIX B: INTERVIEW CONSENT FORM	42
APPENDIX C: AUDIO RECORDING CONSENT FORM.....	44
APPENDIX D: INTERVIEW GUIDE	45
APPENDIX.....	46
ETHICS APPROVAL	46
CODEBOOK	47
STUDY INFORMATION SHEET	59
INTERVIEW GUIDE	60
PROTOCOL	61
TURTNITIN	92

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Mokwena Moilalehlaka, Moroka Wa Meetsi a Pula.

It is done.

Abstract

Background:

Regulatory Affairs (RA) pharmacists worked remotely during the pandemic and post-easing of the COVID-19 restrictions. However, there is a knowledge gap regarding the work-life-balance experience of remote working RA pharmacist in South Africa. This subsequently limits the understanding and development of policies that facilitate work-life balance for these professionals. Understanding their experiences could give insight into factors such as Work Impacting Family (WIF) and Family Impacting Work (FIW) conflict and how these potentially impact the well-being and productivity of the workforce. Subsequently, this can guide management's implementation of sustainable remote work practices that facilitate business continuity whilst supporting employee well-being.

Aim:

This research aimed to explore the work-life balance experience of RA pharmacists post-easing of Covid-19 restrictions.

Setting:

The study was conducted in the Gauteng Province of South Africa.

Methods:

The explorative qualitative research design followed a semi-structured interview guide based on Bronfenbrenner's conceptual framework and the theoretical Work-Life Harmony model. Data from 17 participants were analysed using inductive and deductive thematic analysis.

Results: Participants highlighted the importance of time management, boundary setting, and supportive relationships with family and managers in maintaining WLB. Challenges included micromanagement, inconsistent policies, and increased expectations. Remote work facilitated family bonding but required structured routines to manage productivity and distractions.

Conclusion: Remote work provides opportunities for enhanced WLB but necessitates policies that address workload management and mental health support. Findings

emphasise the need for tailored interventions to foster productivity and well-being in hybrid work models.

Contribution: The study offers insights into the unique WLB challenges and facilitators experienced by RA pharmacists, providing evidence for management strategies and psychological support programs to optimise remote work outcomes.

Keywords: Regulatory Affairs Pharmacist, Work-Life Balance, Remote Work, Productivity, Mental Health.

PUBLICATION

At the time of submission, the article was awaiting submission to the journal, Health SA Gesondheid, and is presented in its submissible format.

A qualitative study on the work-life balance experience of Regulatory Affairs pharmacists working remotely post Covid-19 restrictions in Gauteng, South Africa

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Background

Global studies on remote work have demonstrated both positive and negative outcomes on work-life balance (WLB) and well-being (Felstead & Henseke, 2017; Stasiuk-Piekarska, 2021). Work-life balance is described as the state of equilibrium between work role demands, intrinsic factors such as emotional regulation, and other everyday life roles (Hasan et al., 2020). This does not imply an equal distribution between roles but rather an absence of unmanageable interference between them (McMillan, Morris & Atchley, 2011). Well-being can be characterised as the positive psychological experiences of individuals, closely related to their overall quality of life. It encompasses the emotional, mental, and physical factors that contribute to subjective happiness (Stasiuk-Piekarska, 2021).

Remote work, defined as working from home or outside the conventional office environment using internet connectivity, has been explored since the early 1970s (Allen, Golden & Shockley, 2015). During the Covid-19 pandemic, remote and hybrid working models were heightened globally due to mobility restrictions aimed at reducing virus transmission and facilitating economic continuity (Rajagopaul et al., 2020; Telukdarie, Munsamy & Mohlala, 2020; Naidu & Hoque, 2022). Similarly, in South Africa, COVID-19 restrictions were implemented on 15th March 2020 following the State of National Disaster Declaration (Department of Co-operative Governance and Traditional Affairs (South Africa), 2020).

The COVID-19 pandemic presented unique obstacles, as people experienced feelings of loneliness and isolation, particularly those who lived alone and were removed from their families. Post-easing of the Covid-19 restrictions, the influence of isolation on the mental health of individuals is still evident, as hybrid and remote work practices continue to be commonplace. Consequently, workers in these work set-ups still experience heightened feelings of loneliness, reduced mental stimulation and disconnection from their communities (Kangas, Pensar & Rousi, 2023). Isolation was reported to be a risk to organisational collaborative culture, potentially heightening employee stress and negatively impacting retention (Henneman, Thornby & Bookstaver, 2022; Prescott et al., 2022).

Resolving isolation by focusing on employees' well-being and WLB can contribute to a nuanced understanding of the remote working model and facilitate business continuity and productivity in this sector.

In the health sector, literature on the experience of academic pharmacists teaching remotely during the pandemic is well-documented (Gallegos et al., 2022; Henneman, Thornby & Bookstaver, 2022; Prescott et al., 2022). In America, a study showed that 85% of academic pharmacists reported no change in productivity, while 80% reported no change in effectiveness and an improved WLB. Remote work created limitations related to accurate screening, diagnosing, increased likelihood of diagnostic errors, and digital data overload (Oleksa-Marewska & Tokar, 2022). In the Community Pharmacy Sector data overload can be reduced through using streamlined and integrated procedures and systems, whilst in the Industrial Pharmacy sector, through the implementation of Regulatory Harmonisation and Reliance.

Harmonisation refers to the standardisation of regulatory review procedures and standards, guidelines, and implementation of ICH (International Council on Harmonisation of Technical Requirements for Pharmaceuticals for Human Use) standards (ICH M2 Expert Working Group, 2008; WHO, 2021). Reliance is "*The act whereby the regulatory authority in one jurisdiction takes into account and gives significant weight to assessments performed by another regulatory authority or trusted institution, or to any other authoritative information in reaching its own decision*" (WHO, 2021). The lack of the aforementioned potentiates an added workload pressure for RA Pharmacists due to duplicated efforts when submitting multiple dossiers across different territories in Africa where medicine registration timelines, technical requirements, digitalisation and medicine access enablement strategies are different.

The impact of delayed harmonisation and effective implementation of reliance across Africa are evident at the National Regulatory Authority (NRA) level. These factors contribute to delays in the review of new medicine registration dossiers and variation applications, resulting in backlogs and delayed provision of essential medicines to the public, as was evident at the South African Health Products Regulatory Authority (SAHPRA), where 16 000 backlog applications were inherited from the Medicines Control Council (MCC) in 2018 (Danks et al., 2023). Contrastingly, in the developed Global North, the European Union-initiated harmonisation strategies have been in

place since the 1980's. They are further supported through the adoption of eCTD in line with the ICH, and Mutual Recognition Agreements (MRA) with different NRA's. Therefore, concepts such as reliance and regulatory harmonisation are well-documented in these regions.

The role of the RA Pharmacist is dynamic, such that they could be permanently employed by a pharmaceutical company in South Africa yet still work remotely across different territories in Africa where the company is registered and approved for the sale of medicines. Flexible hybrid working structures existed for RA Pharmacists before Covid-19 and continue post-easing of the Covid-19 restrictions. This benefits the continent as it adds to the efforts to actualise Sustainable Development Goal 3 related to health by increasing access for patients to safe, efficacious and quality medicines on the African continent, where the triple burden of disease is still evident and prominent (United Nations, 2015). However, challenges with working across multiple territories include time zone considerations, which could lead to working outside core working hours for the SA-based RA Pharmacist. Additionally, delayed harmonisation and effective implementation of reliance across the African continent can contribute to extended working hours. In South Africa, factors such as load-shedding delay digitisation in Africa and further add to the work pressures due to the sometimes-unpredictable load-shedding schedules. The available literature addresses aspects such as load shedding, delayed harmonisation, and digitisation and their varying impact on the Pharmaceutical sector (Department of Health, 2022; Danks et al., 2023). However, the influence of all these combined factors on the overall WLB experience and productivity of RA Pharmacists, a core stakeholder in the Pharmaceutical sector, remains overlooked and undocumented.

Despite there being global data on remote work in the Academic and Community Pharmacy sector there is a dearth of literature on the WLB experience of remote-working RA Pharmacists in South Africa. Thus, this prompted the necessity for this comprehensive study which explores the interplay of WLB inhibitors and facilitators on the intricate relationships between family responsibilities, professional commitments and the personal lives of RA Pharmacists. The working experience of RA pharmacists is unique as it can be influenced by the set-up of the home environment and support structures therein, policy and socio-economic issues such as delayed intercontinental harmonisation, reliance and implementation of digitalisation on the African continent,

and in the context of South Africa, navigating and effectively implementing remote working under the confinements of load-shedding. As long as this remains unknown, there is a potential consequence of remote work practices in the field not being enhanced or improved in favour of the WLB of these Pharmacists. The study aimed to gather insights about the inhibitors and facilitators of the WLB experience of remote-working RA-Pharmacists in Gauteng, which could then guide Management when implementing remote work policies and support structures for this workforce.

Theoretical and Conceptual Framework

The Work-Life Harmony theoretical model used in this study describes themes of Work-Life Balance (WLB), Work-Life Conflict (WLC), and Work-Life enrichment, which can have cross-domain effects (Hasan et al., 2020). The cross-domain effect describes how themes can influence others positively or negatively if there is a heightened imbalance in one area (Hasan et al., 2020). This aligns with Bronfenbrenner's 1979 multi-factored Socio-ecological conceptual framework, which describes how human development and behaviours are determined by interactions between individuals and their environments (Bronfenbrenner, 1979). These frameworks complement each other as they demonstrate the influence and association between the interactions of the individual and the environment (Supplementary Table S1 and Figure S1). Bronfenbrenner's model looks at external, systemic factors such as organisational policies and family dynamics, while the Work-Life Harmony model focuses on internal, psychological outcomes (e.g., work-life conflict and enrichment). The Work-Life Harmony model can be located within Bronfenbrenner's framework and was used to describe the remote working experience of RA Pharmacists in Gauteng by focusing on factors such as cognition, behaviour, well-being, and environmental interactions.

Research Methods and Design:

Study design:

An explorative qualitative and descriptive research design method was used guided by Bronfenbrenner's conceptual framework and the Work-Life Harmony theoretical framework. The explorative qualitative research design was chosen as it is appropriate for understanding complex social phenomena like WLB. Qualitative research is suited to provide a broader understanding when uncovering the depths of personal

experiences, nuances in perceptions and the complexities of the impacts of remote work that might be missed in quantitative research.

Semi-structured interviews were used to explore the WLB of remote-working RA Pharmacists in Gauteng, South Africa. These were chosen over focus groups and surveys as the method allows for greater flexibility, giving participants the chance to express personal views on sensitive topics such as WLB and well-being while still allowing the researcher to focus on key themes. Furthermore, in comparison to surveys, semi-structured interviews provide the added benefit of immediate follow-ups during the interview and further probing by the interviewer. Thus, enabling the receipt of detailed responses and thick descriptions from study participants.

Setting

The study was conducted in the Gauteng Province of South Africa. To ensure data variability in the sample Gauteng Province was chosen since there are a high number of pharmaceutical applicants where RA pharmacists are employed. The study site was informed by the database of inspected, registered, and approved Applicants by SAHPRA. The database is updated and maintained by the Health Authority and can be accessed on the following website <https://www.sahpra.org.za/approved-licences/> (SAHPRA, 2024).

Study population and sampling strategy

The study population consisted of RA Pharmacists based in Johannesburg working remotely or with experience working in a hybrid system post-easing of the Covid-19 restrictions. Sample size in Qualitative research is often guided by saturation. Saturation or “data adequacy” describes the point at which repeated detailed description is achieved, and no additional codes and themes are gathered from additional participants (Morse, 1995; Rahimi and Khatooni, 2024). Bernard suggests a sample size of 10 - 20 is sufficient to identify critical issues and provide rich data in qualitative studies on human experience. Purposive sampling and the concept of saturation were used to determine an intended sample of 20 participants because it ensured data variability and reliability by identifying a quality sample pertinent to the study objectives without biases. The researcher sent a participation open call on LinkedIn, and 3 participants volunteered to participate, while the remaining 17 volunteered through snowball sampling. One participant dropped out of the study

before their scheduled interview without stating the reasons. Saturation was reached after interviewing 17 participants; thus, the final study sample size was 17. The social media-snowball sampling method combination sampling technique was selected because it helped identify participants in a niche group, ensuring a broader pool of respondents who may not have been reachable through other recruitment strategies.

Characteristics of study participants

Remote working RA Pharmacists in Gauteng, South Africa.

Data collection

The researcher piloted the interview guide in December 2023 to ensure the validity of the study methodology and tools, assess its understandability among participants and alignment with study objectives. The outcomes of the pilot aided the researcher in familiarising himself with the interview guide. Moreover, it guided the researcher in structuring follow-up questions to ensure descriptive and rich data was collected. Participant responses successfully guided inductive coding, whilst the two frameworks guided deductive coding, as confirmed by the intercoder reliability checks between the researcher and co-authors on emerging codes and themes. The interview guide was found to be a valid tool aligned with the study objectives and no adjustments were made to the research design and data collection tools.

The researcher, alongside one co-author, conducted and recorded semi-structured interviews independently via Microsoft Teams (Version 24180.210.3001.6635) for thirty minutes. Microsoft Teams proved to be a convenient tool for virtual data collection, offering participants the flexibility to join from any location. Additionally, the platform facilitated the downloading and storage of interview recordings, along with auto-generated transcriptions to the cloud. Technical issues occasionally emerged due to poor bandwidth from load shedding, briefly disconnecting participants mid-interview. The researcher addressed these disruptions by repeating questions and prompting participants to rephrase their answers. When participants were unavailable owing to load shedding, the researcher adapted to their schedules. Member checking took place during the interviews, with the researcher relaying participants' responses to confirm their understanding and ensure accurate reflection of their perspectives. The researcher manually edited and reviewed transcription errors to guarantee accuracy and anonymity.

Data Analysis

The researcher used a multi-stage approach for thematic analysis as described by (Gale et al., 2013). The Work-Life Harmony and Socioecological frameworks guided deductive coding by demonstrating the influence and associations between the interactions of individuals and their environments. The analysis comprised transcription, familiarisation with the interviews, coding, developing a working analytic framework, applying a working analytical framework, charting the data into a framework matrix and interpretation. The transcription feature on Microsoft Teams was used to transcribe the interviews verbatim. The researcher familiarised himself with the data by repeatedly listening to the interview recordings and reviewing interview notes. Transcripts were manually reviewed, formatted, edited for correctness and assigned unique numerical identifiers for anonymity purposes. These were imported into MAXQDA (2020) for manual and computer-aided coding. MAXQDA is a validated tool for qualitative research data collection, coding, systematic review and thematic analysis (Hart & Achterman, 2017). The dataset was labelled with codes by two coders, and recurring codes were grouped into subthemes and refined into themes that corresponded to each layer of the socio-ecological framework. The interviews guided inductive coding, and the overarching themes were categorised according to the social-ecological framework. These were reviewed iteratively by the team to establish agreement and ensure reliability.

Ethical Considerations

Participation in the study was voluntary; participants did not receive compensation or incentives. Anonymity was maintained by assigning unique numerical identifiers to participants. The questionnaire and codes were reviewed by co-authors to ensure there was no researcher bias. Ethics Approval was granted by the Wits University Human Research Ethics Committee (Medical), protocol number M230741.

Trustworthiness

Measures of Trustworthiness are credibility, transferability, dependability, and confirmability (Shenton, 2004). Credibility was ensured through member checking throughout the research process. The researcher reflected on their positionality as an RA Pharmacist and utilised their expertise to develop a broad understanding of the research setting. The researcher noted that participants felt a sense of relatability

towards them, and were confident that the questions posed would be appropriate and relevant, likely due to the researcher's role as an RA Pharmacist with a hybrid work background. Confirmability was achieved by minimising researcher bias in the data through an inter-coding agreement between co-authors and a qualitative research expert, ensuring alignment of the codes with the study objectives and the conceptual and theoretical framework. Dependability was established by ensuring stability in the data over time, and the COREQ (Consolidated Criteria for Reporting Qualitative Research) Checklist was followed. The researcher maintained an audit trail by saving raw data, corrected transcripts and the participants' consent forms on the cloud drive. Transferability was ensured using thick and comprehensive descriptions (Ahmed, 2024) of the study site's socio-economical and geographical context, participants' unique work context, data collection considerations and the robust methodology applied.

Results

Participant Demographics

The study included 17 participants, predominantly women (94%), with men comprising only 6% of the sample. Participants included both parents and non-parents. Parents had one to three children across various developmental stages, ranging from infancy to adolescence. Most participants worked under a hybrid working model, although policies on flexibility varied and changed over time. An overview of Participant Demographics is highlighted in Table 1.

Table 1: Participant Demographics and Work Arrangement

<i>Household Arrangement</i>	
Living with family	13
Living Alone	4
Parents	11
Non-parents	6
Work Arrangement	
Fully Remote	1

Hybrid	16
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Some participants were in managerial roles with varying levels of experience, while others were new to the RA field or mid-career professionals. Their experiences ranged from a few months to 20 years in the field.

A newly appointed manager shared:

"Transitioning into a managerial role felt like I needed to be online more, especially due to the international nature of our business and being appointed under dual roles. With time, I realised that constantly being online is psychologically limiting and does not equate to being productive"(P15)

This reflection indicated how years of experience are a factor in achieving WLB. Further, it highlights how gaps in robust onboarding and training, including psychological support, can delay the transition into managerial roles and hinder a thorough understanding of responsibilities.

Participant Definitions of Remote Work

Remote work was defined as the ability to work at any space outside the established work address with flexibility in choosing work environments like home or coffee shops. It was generally viewed as a double-edged sword; while participants appreciated the flexibility, they noted challenges in establishing and maintaining boundaries between work and personal life. These experiences shaped their perceptions of WLB.

Participant perspectives of Work-Life balance

Maintaining a WLB was viewed by participants as the ability to separate work from personal life. This includes balancing family responsibilities with work, with the benefit of being present for family needs, but also the challenge of juggling household duties and work tasks. Remote work complicates this balance by making it harder to "shut down" and completely disconnect from work.

Thematic analysis identified overarching themes of work-life conflict and work-life enrichment. These themes were organised within Bronfenbrenner's Socio-Ecological Model:

1. Individual Level (Microsystem)

Participants frequently grappled with managing their behaviours, particularly tendencies toward workaholism and perfectionism, which often led to longer working hours. Additionally, those with limited or no prior experience working remotely initially struggled with being easily distracted while working from home which was attributed to the loss of routine and the blurred boundary between the working and home environment:

"I think for me that was the only issue initially was finding how to actually structure my day while working from home...So how do I structure being at home and being productive throughout the day?...I guess I think it took some time for me to fully work and understand to fully have a good system of working at home efficiently as opposed to being in the office and vice versa..I think what sometimes prohibits me from having a good work life balance is I think finding ways to fully focus, especially looking at working from home" (P9)

These findings were consistent with several qualitative studies that point to WLC as an outcome of remote work due to the removed physical boundary between work and home (Adisa et al., 2022; Taksı Deveciyan and Alay, 2023). WLC comprises WIF conflict and FIW conflict (Gajendran & Harrison, 2007; Allen et al., 2013). To mitigate these behaviours, participants emphasised the importance of boundary setting by creating physical and temporal separations between work and home life. Effective communication within the household helps manage this separation. Reduced commute times and a dedicated well-equipped home office can increase productivity, but managing home distractions is crucial. Establishing structured routines, such as fixed work hours, taking regular breaks and improved planning when working in teams across different time zones further enhanced productivity and well-being:

"I start my day as if I'm going to the office, with breaks and a set end time to shut down work."(P14)

"I had to consciously dedicate myself fully to a task within a specific timeframe. When that time is up, I redirect my energy and give my all to the next task. At the same time, I prioritise my time, making space for quiet reflection, personal activities, and passions. This might include tending to your garden, reading,

taking walks, or engaging in community activities. I believe these practices are essential for building psychological and emotional well-being” (P15)

Participants reflected that since working from home, there was an increased perception of “more time” to execute work functions as there is no need to account for time spent in traffic.

“I think what happens is that when it's time for you to shut down and you've worked in your hours, it doesn't happen because you're at home where you don't need to shut down to catch your transport or leave the office to get home” (P4)

Participants' reflections reveal that the ability to work from home offers the benefit of saving time by eliminating commute hours, which is aligned with literature from (Rüger et al., 2024). However, participants commonly expressed dedicating the saved time to further work-related tasks, instead of utilising the extra time for personal tasks, like organising household responsibilities or engaging in self-care. This trend can foster a culture of overwork, leading employers to perceive that employees are always available, which can result in burnout. Workers may feel pressured to take on more tasks in the name of productivity, ultimately undermining the work-life balance that remote work could provide. This underscores the necessity of establishing a culture and policies that encourage disconnecting from work after hours.

2. Family Dynamics and Support (Microsystem)

Family support emerged as a critical enabler of WLB. Participants described how their children, parents, siblings, helpers, and spouses helped them establish boundaries and reminded them to prioritise family time. Clear and timely communication was highlighted as one of the tools that enabled boundary setting and mutual understanding between participants and families:

“I wouldn't have been able to cope in my new role without my husband. My siblings and parents have also played a role as we can share tasks such as picking up kids and doing homework” (P14)

The role of the helper as a core member of the family and primary caregiver of children was a recurring theme. Participants reflected on delegating household and childcare duties with helpers to ease pressure from household responsibilities. Parents also

discussed how the pandemic has made children more adaptable to remote work, as previously children associated the work environment as separate and different to the home environment. Effective communication with children minimised disruptions and was essential to manage work-from-home responsibilities.

“So it's important to communicate even with your 5 year old and it's amazing how kids have adapted also in this time... So specifically, she knows that if Mommy's in the meeting, I also need to respect that.” (P1)

3. Isolation (Microsystem)

Living alone had a negligible impact on some participants' work-life balance (WLB), particularly those with strong interpersonal relationships, as they managed to maintain connections with colleagues and family while balancing work expectations. Conversely, some participants reflected on how living alone and having limited human interactions adversely affected their mental health, exacerbating their struggles and their ability to build and maintain relationships. Concerns were raised regarding a lack of stimulation, and to address this, participants took on additional work responsibilities, often resulting in longer hours and weekend work. Additionally, this led to feelings of disconnect from friends and family, making it further challenging to reach out to them. The comparison between the two groups underscores the significance of having strong and stable interpersonal relationships within the microsystem, as these can enhance the WLB experience in terms of isolation, loneliness, and mental health.

“...Living alone and working from home have negatively impacted my depression...I have never been in a situation where I find myself being in now whereby I am kind of learning new ways of surviving and without having that human interaction that is constantly there...What conversations do you have outside of your workplace, do they build you? I feel like I'm diminishing, actually, like my language is also getting minimal because what I talk about mostly is work” (P2)

4. Workplace Interactions (Microsystem and Mesosystem)

Participants valued peer support for sharing best practices, navigating workplace challenges, and career growth. Emotional support from colleagues was especially beneficial in addressing work-related stress. Human interaction was valued and seen as a positive influence.

"We help each other survive the workplace through knowledge sharing and mutual encouragement." (P 1)

"My passion is operation, so what I do is once I get more comfortable in a position, I will develop new processes that make things more efficient for me. I developed systems that made it easier or less administrative for my colleagues so they didn't have to spend as much time doing some work or certain types of work. Doing this improved our work-life balance" (P10)

Participants had mixed experiences with management. Understanding managers were perceived as facilitators of WLB, while micromanagement hindered it.

"My supervisor respects our autonomy, but upper management's micromanaging undermines flexibility." (P6)

"We work on a hybrid system, two days in the office and three days at home. You have the autonomy to split the days how you want, meaning you can work mornings in the office and the afternoon from home. It works for everyone, mostly parents who need to pick up their children from school. Our manager gives us an extra half day of leave every month, off the books. It works out to 6 extra leave days a year. We just have to communicate with her when we want to take time off" (P10)

Some participants reflected that despite their productivity not being hindered while working remotely during the pandemic and post-easing of the COVID-19 restrictions, management implemented policies such as reduced frequency of working from home compared to other departments in the same company, selecting specific days for employees to work from home, and constantly checking when employees were online. Participant reflections revealed how micromanagement was closely related to management's perceptions of remote work and trust issues. Thus, highlighting a need for further open dialogue with managers on performance and productivity, clarifying expectations, building trust and explaining how their attitudes and perceptions could potentially influence WLB negatively.

"So we are supposed to give one specific time and then stick to that particular time the whole year. You don't have the flexibility of today starting at this time..." (P6)

Furthermore, WLB was altered by the increased workload and managers' expectations that participants attend meetings outside of core working hours.

"It's not that somebody is forcing you, but because of the pressures that we are facing with work, I think it feels like there has been this exponential growth, just the amount of work that needs to be done. You feel like let me compensate by at least working an extra hour in extra hour, which becomes extra four hours working and not spending time with the family." (P8)

"I also felt like there were too many expectations that have arisen because of working from home whereby you know you could be in a meeting even at an inconvenient time." (P2)

One participant with experience in dual roles (Regulatory Affairs and Quality Assurance) reflected: raised concerns about senior management's inability to address workload challenges and complexities associated with the dual appointments. Challenges around limited headcount and requests for additional headcount not being considered led to managers double-hatting in both strategic and operational roles, leading to burnout and strain on productivity and mental health.

"The expectation is that you'll be able to deliver no matter what, and you can't even talk to them about it....It affects everybody, your family, it affects your team, your colleagues and to a certain extent it becomes so visible that it affects you psychologically as well. You may even have a breakdown. I nearly got to that state, and eventually, I was like, no, this is not life"(P15)

A culture celebrating overtime productivity further exacerbated WLB challenges. To mitigate this, one manager advocated for regular check-ins with colleagues who worked overtime to caution against working overtime and establish reasons why they were unable to complete tasks within core hours. Managers further highlighted how there would be occurrences where time-sensitive projects were being completed in line with stringent health authority timelines that often warrant overtime. Their reflections show their understanding of the dynamic nature of the roles and the fluctuating working hours which would sometimes warrant employees getting additional support and assistance in delegating tasks.

"There's this notion that working overtime equates to productivity, but that's not true...I've been in this industry for a while and I have had a bad view of South African companies especially. They really have a bad view of how remote work is and how being a manager or what being a manager is and even being employees, you're expected to work 24/7. We celebrate those employees that work 100 hours a week or 200 hours a week" (P15)

5. Organisational Policies (Exosystem)

Participants noted that organisational policies played a significant role in shaping their WLB. Policies allowing remote work were generally viewed positively but required clear guidelines and consistency, as some of these were only applicable at the discretion of direct line managers.

Participants reflected on company readiness for remote work, stating that although remote work was implemented, there were instances where tools required for this practice such as systems and ergonomics were not fully in place.

"I find that we're not capacitated to work from home in this particular space or this particular company, even though we are allowed to. So it's simple things like for example, the servers are too slow if you were to work from home or they will not give you an additional screen. With the type of work we do in RA you need a second screen, so that's a cost you need to incur yourself if you want to work from home...I joined the company as an RA Pharmacist with no prior experience and my manager resigned one month into my joining the company. There was no replacement for them until after three months, and I had to take on that responsibility. This was a challenging transition for me and it impacted my work-life balance negatively as I was the only person in the company working in Regulatory Affairs. I suffered a seizure for the first time as a result of the stress" (P10)

Effective onboarding and availability of resources required for work and training are areas of improvement in ensuring business continuity and adequate support for newer employees.

One manager further reflected on the importance of hiring multiple personnel to better support WLB and the distribution of workload, but cited management's inflexibility to change flat structures as an inhibitor of WLB.

"The expectation is that you'll be able to deliver no matter what, and you can't even talk to them about it. I told management that we needed to appoint more personnel, but I ended up taking the weight. Although I had a team, the team was not sufficient enough to carry the load. So I ended up being operational as well, and that resulted in long hours of working to such an extent that I was not becoming functional at all anymore because I was forever tired. When you are tired, you end up making mistakes; you may also even make grave mistakes that will cost the company even more, and that may even affect people's lives in a way." (P15)

Limited labour forces and unequal distribution of work negatively impact WLB and well-being, as employees are expected to take on additional roles to compensate for flat company structures.

Cross-Domain Interactions

The cross-domain effect described by Hasan et al. (2020), as highlighted in Supplementary Table S1 and Figure S1, was further used to discuss and closely examine the interactions between the various layers of the Socioecological Framework in the context of the study participants:

Mesosystem: Work and Family Responsibilities

Participants described both conflicts and synergies between their professional and familial roles. Family responsibilities occasionally interfered with work demands, but supportive family structures helped mitigate these conflicts.

Work-Life Conflict:

Flexibility in remote work was undermined by micromanagement or overtime culture. Setting boundaries and stopping work at the end of the day was a major challenge since caregiving responsibilities sometimes clashed with work expectations, leading to potential overwork and burnout.

Work-Life Enrichment:

The flexibility of remote work helped balance family responsibilities and work, allowing for better integration of family care tasks into the workday:

“...as I mentioned a lot of the responsibility, family responsibility and household responsibility still falls on me. So, I think being afforded this opportunity to be able to work remotely I'm still able to fulfil a lot of those household responsibilities as well” (P13)

Supportive families and managers facilitated better integration of work and personal life. Having helpers for childcare and household chores further enabled WLB. Additionally, collaborative colleagues and shared learning promoted career growth.

Exosystem:

Participants emphasised the need for organisational policies that balance productivity with employee well-being. This included clear remote work guidelines, mental health support, and a shift away from celebrating overtime work:

Work-Life Conflict:

Extended work hours and intrusions into personal time due to the home environment and managerial expectations led to difficulties in maintaining work-life boundaries. Although working outside core hours can inhibit WLB, it is often seen as a reasonable trade-off for the flexibility of working from home.

Work-Life Enrichment:

Good relationships with managers were essential. Effective and open communication with managers on enhancing workplace policies was crucial for managing WLB. Flexibility for employees to work from the office during load-shedding facilitated WLB and reduced stress from sometimes unpredictable and inconsistent load-shedding schedules. Employee autonomy to manage working hours and incentives, such as additional leave days promoted WLB.

Macrosystem

Work-Life Conflict:

Management perceptions of remote work, its implementation and employee productivity varied. Reflections from participants show an evolution in how remote

work used to be perceived. However, management perceptions still vary, highlighting a disconnect between the employee and the employer/supervisor.

"I remember this used to just be a struggle to get to be allowed to work from home. The main reason was that people do not work when they say they're going to work from home. There was that mistrust between the employer and employee. However, COVID should prove that suspicion otherwise, because people really did pull up those socks and worked very hard, extremely hard"
(P2)

Managers not fully in support of remote work micromanaged teams, while others created trusting relationships with employees and communicated clear expectations. Although participants noted an increase in their productivity during COVID and post-easing of restrictions, they observed that managers regressed in acknowledging the value and effectiveness of remote work.

Participants reflected:

"When I started, we had two days in the office, but that got taken away eventually. Now it's entirely at the discretion of the line manager." (P6)

"I feel like maybe COVID kind of showed a lot of people that, okay, it's actually possible to work from home. But a year after that, somehow, like the employers, have convinced us that actually, no it's not possible... We had a discussion with the CEO and we could kind of get that sense that there's more and more excuses being built up in the case to kind of backtrack and move away from working from home." (P6)

Reflections from the participant further highlight how management's perceptions of remote work can influence the implementation of remote work policies. This indicates a need for open and inclusive dialogues with direct reports to ensure that the effectiveness of remote work is adequately substantiated and represented by their experiences and work output.

The nature of work was described as demanding, often spilling over into family and personal time. As a result, participants frequently worked over weekends and public holidays. The workload increased due to the demand for essential medicines, the need

for accelerated registration approvals and adherence to stringent regulatory authority and internal company timelines:

"We work with a Health Authority, so there were instances where I would work long hours just to make sure I'm able to keep up to deadlines" (P11)

"There are instances where there will be a spike in terms of the time that you need to be online because health agencies or projects that are short-term have limited time for us to meet those targets." (P15)

Despite their awareness of challenges, some participants accepted the demands as they understood their responsibility in promoting public health. Thus, indicating role prioritisation over their well-being:

"At that particular point in time, it was COVID, and the work we do is in the interest of public health, so I tend to prioritise it, but it wasn't that there was a lot of external pressure from anyone to work those long hours." (P10)

Reflections on industry culture, hiring practices and internal pressures experienced were similar:

"So there is that, but I swear to you, it is so busy...It's all about putting down the fires. So, umm, you know when you're putting down the fires you get tired, you get tired because it. (P2)

The industry that we're working in is very output driven, so I believe that when they conduct interviews, they're looking for people who are results driven as well." (P4)

The pattern in participants' responses reveals that within the industry, there is a "high quantity" and "high output" culture. This signals the need for a revision of workplace practices and expectations, balancing business continuity with sustainable WLB practices for employees.

Working across different time zones, working outside core working hours and submitting multiple dossiers to African Health Authorities with different Regulatory requirements exacerbated work-life imbalance:

"So you end up working overtime, for example, just to be able to update systems and other activities that are related to the submissions for the number of countries that I was responsible for" (P14)

These observations further highlight the impact of delayed intercontinental harmonisation at the individual level.

Work-Life Enrichment:

Participants addressed challenges with maintaining WLB by devising mitigating factors to address these, whilst continuously improving how they incorporate remote work with their home environment. Clear communication and improving communication were highlighted as enablers of WLB. Remote work created an opportunity for families to bond together, nurture relationships, and harness energy towards healthy activities:

“In terms of the Family part I regard it as a huge benefit and a privilege actually to be able to work remotely, simply because I don't have any other support system beside myself and my spouse. So the responsibility for my two children would rely fully on my husband and myself, so the remote working has hugely assisted being able to be there for my children at times when I wouldn't normally be able to be there if I was working fully in the office, and that has actually helped even engagement with my children and I think it's built a far more almost very trusting and appreciative relationship with my children. So it's not just about the relationship that it's enabled with them, but they also can see the benefit of me being available to them where I wasn't previously.” (P13)

“I mean I breastfed my daughter for like 16 months, so I think you know working at home for me, I mean like that was a serious advantage. I have such a healthy child and who never really got sick. So you know, I really appreciate that. I was able to be home to also see the different stages because you know if they're like oh she's walking, I'm like not too far. I can actually see it” (P3)

Remote working has allowed participants to spend more quality time together. For parents in particular, it has enabled them to become more involved in childcare responsibilities and to monitor their children's development and milestones. For working mothers, there was a noted appreciation for the increased involvement from spouses in childcare and household duties, combined with the previously mentioned active role of the helper.

Chronosystem

Post-easing of the COVID-19 restrictions, remote work policies evolved and adapted significantly. Initially, remote work was limited but became more widespread and structured. Remote work policies also shifted significantly from occasional to more permanent arrangements, with hybrid systems becoming common. The COVID-19 pandemic has accelerated the acceptance and implementation of remote work practices, demonstrating that many roles can be effectively performed from home.

Work-Life Conflict:

Participants reflected on their evolution in adjusting to remote work during COVID, stating an initial difficulty in adjusting to complete remote work. Some exhibited an improvement post-easing of the COVID-19 restrictions with the introduction of permanent hybrid work systems, which granted more flexibility. Remote work disrupted personal time due to the dual demands of work and family responsibilities.

Work-Life Enrichment:

Remote work enhanced productivity and reduced commute times, allowing RA Pharmacists to start work earlier and dedicate the remaining time to family and self-care, cost savings on fuel and increased safety:

“I remember there was an incident on the M1 during load-shedding and there was bumper-to-bumper traffic. People were being mugged, and it was women who were targeted. Remote work adds a safety element as you don’t have to worry about being stuck in traffic after 18:00 and constantly thinking about being followed” (P1)

The understanding that remote work is the new norm together with mitigating challenges experienced with remote work facilitated the gradual adjustment to hybrid working systems by RA Pharmacists post-easing of the COVID-19 restrictions.

Discussion:

The study aimed to gather insights about the inhibitors and promoters of the WLB experience of remote-working RA-Pharmacists in Gauteng.

Study findings such as increased employee autonomy and flexibility align with pre-existing literature from pre-Covid-19 studies (Gajendran & Harrison, 2007; Allen, Golden & Shockley, 2015). Contrastingly, the findings from the three studies differed as they did not associate remote work with lowered work stress and exhaustion (Gajendran & Harrison, 2007; Allen, Golden & Shockley, 2015). Rather, remote work was associated with increased work pressure and psychological strain. Viewing this using the Chronosystem layer of the Socioecological framework reveals how there has been an evolution in the WLB experience for RA Pharmacists pre-covid, during Covid and post-easing of COVID-19 restrictions. This is attributed to factors such as evolving perceptions around remote work and workplace policies which were sometimes inconsistent and unclear. COVID-19 accelerated the implementation of remote work practices, and post-easing of restrictions hybrid working systems were more prominent. Adaptable workplace policies that do not celebrate overtime work but rather encourage wellbeing whilst balancing productivity are thus required to enable WLB.

The dynamic nature of the RA Pharmacists role in South Africa could further evolve once Policy issues such as delayed digitalisation on the African continent are addressed. Load-shedding, a long-standing issue in South Africa, continues to pose a threat to business continuity and is a hindrance to digitisation, challenging the effective move towards full remote work for and the implementation of eCTD (electronic Common Technical Document) in Africa which could lead to a more streamlined application submission and review processes for both the RA Pharmacists and NRA's. Continued efforts advocating for harmonisation and digitalisation should therefore be strengthened as these could help reduce workload pressures, and duplicated efforts by RA Pharmacists.

The pandemic demonstrated that many roles can be effectively performed from home as evident from the positive reflections on the noted increase in productivity from participants during Covid and post-easing of restrictions. Interestingly, this finding could correlate to the increased expectations from companies and managers as they have noted that the labour force can work long hours under pressure and deliver

effectively whilst working remotely. The uniqueness of the study highlights that although this productivity was noted it should be thoroughly reviewed and cautioned against for its lack of sustainability as productivity was sometimes achieved at the expense of the RA Pharmacists mental health, wellbeing and WLB.

The cross-domain effect was highlighted by participants between the microsystem, mesosystem and macrosystem. Work-life harmony was observed when participants managed personal behaviours, where there were positive relationships and interactions with supervisors, supportive workplaces which included adequate staffing and resources, and supportive home environments enforced by clear and effective communication. These findings were consistent with Global studies on remote work, which demonstrated positive outcomes, including increased time with family, thus strengthening relationships, and reducing strain on primary caregivers of children through the sharing of responsibilities (Harry Williamson - Labour Market and Skills Unit, 2022). Supportive work environments were characterised by adequate staffing and resources, and encouragement from colleagues. Work-life conflict was exacerbated where there were increased household and childcare responsibilities, limited labour forces, coupled with increased expectations and micromanagement by managers. These findings on WLC were consistent with qualitative studies that point to WLC as an outcome of remote work due to the removed physical boundary between work and home (Adisa et al., 2022; Taksi Deveciyan and Alay, 2023). A shift towards Industry and workplace cultures that support employee well-being, mental health, effective resource allocation and distribution are necessary to facilitate WLB. Management and HR should therefore derive programmes that enable this integration. The overarching themes addressing WLB and well-being highlight the need for tailored psychological support programmes for the labour force. Management, HR, and RA Pharmacists can initiate this joint responsibility collectively.

Recommendations

Policy Recommendations for Policymakers

Establish National Remote Work Guidelines by developing and standardising frameworks for remote and hybrid work arrangements across sectors. This can be achieved by including provisions for work hours, mandatory breaks, and communication norms to ensure employee well-being. In addition, mandating

organizations to have clear, written remote work policies approved by employees and managers.

Promote Flexible Work Arrangements by encouraging policies that give employees the autonomy to choose their remote and in-office days, within operational requirements.

Support Mental Health and Well-Being by mandating employee assistance programs (EAPs) that provide psychological support, stress management resources, and counselling services, and promote workplace wellness programs that address burnout and mental health challenges associated with remote work.

Invest in Digital Infrastructure by ensuring equitable access to high-speed internet and technology for all employees, including subsidies for home office setups. Furthermore, through supporting national campaigns to enhance digital literacy, such as increasing the uptake and use of AI (Artificial Intelligence) for effective remote work through staff training and education.

Encourage Training for Managers by developing government and private-sector-supported training programs for managers on effective remote team management, focusing on outcomes rather than micromanagement and including modules on mental health awareness, flexible leadership, and inclusive management practices.

Reforms to South African Labour Law

Legislating the Right to Disconnect by introducing legal frameworks that ensure employees are not obligated to respond to work-related communications outside regular working hours unless in emergencies and include penalties for employers who violate this boundary.

Enforcing Work-Hour Monitoring by mandating companies track and report overtime and ensure employees are compensated for extra hours worked. Additionally, ensure the number of hours employees work weekly comply with Chapter Two, “Regulations of working time” sections two – eighteen of the Basic Conditions of Employment Act (BCEA).

Strengthening protections for remote workers by updating the (BCEA) to tackle challenges specific to remote work, such as workplace safety and ergonomic considerations in home offices. Furthermore, mandating regular reviews of work

arrangements by mandating periodic evaluations of remote work policies to ensure alignment with employee needs and legal standards and through enforcing consultation with employees when amending remote work practices.

Expanding Parental and Caregiver Support by extending parental leave provisions, including shared parental leave for mothers and fathers and including flexible caregiving allowances or policies for employees with dependent care responsibilities.

Limitations

The study's geographic focus was narrow, which may limit the generalisability of its results. Gauteng is a densely populated urban area, and some findings might be specific to this locality. Future studies could benefit from multi-provincial sampling and segmentation across various sectors of RA, such as Medical Devices, Veterinary, and Complementary Medicine, to generalise findings or explore diverse experiences. Additionally, the underrepresentation of male perspectives could warrant a follow-up focus group study with more male participants.

Conclusion

The study's methodology, rigour and its application highlight how Qualitative studies help identify critical issues from diverse participants with different lived experiences. Although diverse in nature, reference and commonalities can be drawn from the findings as they provide rich and detailed insights into the experiences and perspectives of RA Pharmacists both at the managerial and non-managerial levels. Furthermore, the findings related to the impact of remote work on the mental health of RA Pharmacists can guide the Pharmaceutical Industry Management and HR (Human Resources) in creating comprehensive programmes that further delve into this phenomenon through updating policies and incorporating tailored psychological support programmes and structures in the workplace for remote workers.

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Author contributions:

Ané Orchard, Tintswalo Hlungwani conceptualized the idea and supervised Kgabo Sekgalakane. Kgabo Sekgalakane and Ané Orchard undertook the data collection, data analysis was undertaken by Ané Orchard, Kgabo Sekgalakane and Tintswalo Hlungwani, Kgabo Sekgalakane drafted the original article. Ané Orchard and Tintswalo Hlungwani reviewed the article.

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Data availability:

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Disclaimer:

The authors declare that the views expressed in the submitted article are our own and not the official position of the institution or funder.

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Supplementary Data

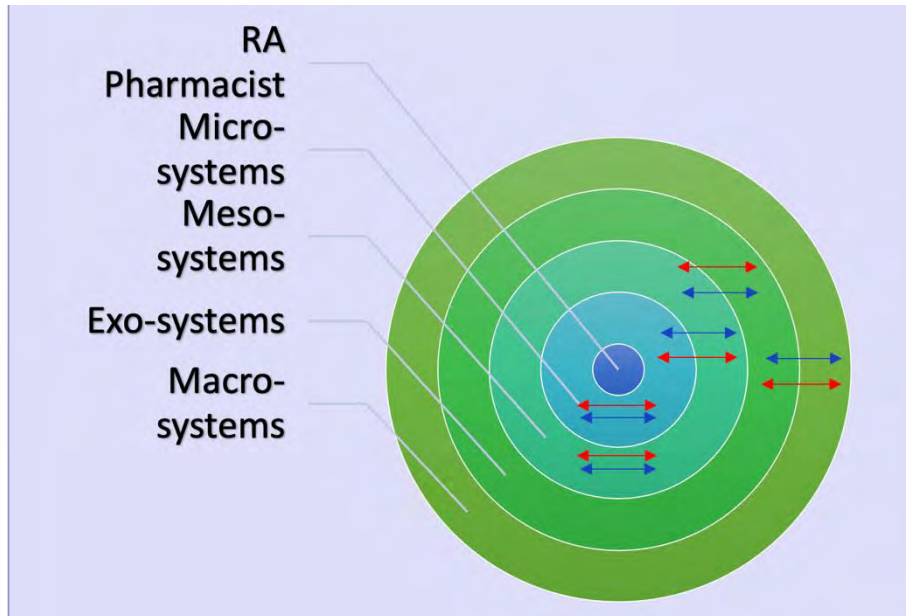


Figure S1: Integration of Bronfenbrenner's Socio-Ecological Model and the Work-Life Harmony Model (Hlungwani, 2015)

Central Circle (RA Pharmacist):

At the core of the diagram is the individual **RA Pharmacist**, representing the focal point of WLB experiences.

First Layer (Microsystem):

Represents the **immediate environment** of the pharmacist, such as family members, direct supervisors, and colleagues. Interactions here directly affect day-to-day WLB.

Second Layer (Mesosystem):

This layer illustrates the **interaction between the pharmacist's home life and work environment**, highlighting how conflicts or support systems arise from managing these dual roles.

Third Layer (Exosystem):

Representing the **organizational level**, this layer includes **remote work policies, managerial expectations**, and work culture, all of which can either hinder or enhance the WLB.

Fourth Layer (Macrosystem):

This broader layer represents **societal norms, professional expectations, and regulatory requirements**. These cultural and professional standards influence how WLB is perceived and managed.

Outer Layer (Chronosystem):

Enveloping the entire structure, this layer represents **time-based changes** such as pre-Covid, during Covid, and post-easing of Covid restrictions. It shows how evolving work policies and social expectations over time have impacted WLB.

Arrows for Work-Life Harmony and Conflict:

Blue Arrows (Work-Life Enrichment):

Positive dynamics between the pharmacist's roles (e.g., support from family, flexible work policies) that contribute to a balanced, harmonious relationship between work and home life.

Red Arrows (Work-Life Conflict):

These arrows indicate **tension points** between work and home responsibilities (e.g., family demands interfering with work expectations, long working hours). These

conflicts arise in the interactions between layers such as the Microsystem and Mesosystem.

Table S1: Integration of Bronfenbrenner's Socio-Ecological Model and the Work-Life Harmony Model in the Context of Remote Work for RA Pharmacists

Bronfenbrenner's Ecological System	Contextual Application to RA Pharmacists' Remote Work	Work-Life Harmony Themes
Chronosystem (Time)	The evolution of remote work policies over time: Pre-Covid-19, during Covid-19 restrictions, and post-Covid-19. Examine how changing timelines and the easing of restrictions have influenced RA pharmacists' work environment and personal responsibilities.	Work-Life Conflict: Changes over time may increase demands (extended hours) or facilitate balance (flexible schedules). Work-Life Enrichment: The time saved on commuting may allow more time for family or self-care.
Macrosystem (Cultural/Social Norms)	Broad cultural attitudes towards remote work and professional roles in South Africa, including the pharmaceutical sector's regulatory requirements. How does South African work culture influence expectations around productivity, flexibility, and well-being for RA pharmacists?	Work-Life Conflict: Social norms may pressure pharmacists to remain highly productive, even remotely. Work-Life Harmony: Positive cultural shifts towards valuing work-life balance may support remote work.

Bronfenbrenner's Ecological System	Contextual Application to RA Pharmacists' Remote Work	Work-Life Themes Harmony
Exosystem (Organizational/Managerial Policies)	Influence of workplace policies (e.g., remote work policies, management expectations) on work-life balance. Organizational attitudes toward productivity, autonomy, and support for mental health and well-being for remote workers.	Work-Life Conflict: Policies that require extended availability may exacerbate work-life imbalance. Work-Life Enrichment: Supportive policies like flexible work hours or mental health days can foster a more balanced work-life experience.
Mesosystem (Interactions between Work and Family)	Interactions between home (family obligations) and work (colleague relationships, management expectations). How do RA pharmacists manage family responsibilities alongside professional roles?	Work-Life Conflict: Family responsibilities (e.g., caregiving) conflicting with work demands. Work-Life Enrichment: Positive interactions between home and work (e.g., supportive family, understanding managers) that facilitate better work-life balance.
Microsystem (Immediate Relationships)	Day-to-day interactions between RA pharmacists and their immediate environments: family members, supervisors, colleagues, direct reports,	Work-Life Conflict: Immediate relationships may cause friction if expectations (from family or managers) are too high. Work-Life Harmony:

Bronfenbrenner's Ecological System	Contextual Application to RA Pharmacists' Remote Work	Work-Life Harmony Themes
	and children. Focus on how these direct relationships influence their ability to achieve balance.	Strong family support or understanding from managers can enable pharmacists to achieve better balance and well-being.

Appendix A: Study Information Sheet



Department of Pharmacy and Pharmacology

Faculty of Health Sciences | 7 York Road Parktown, 2193 | Johannesburg | South Africa | Tel: +27 11 717 2552

Study Title: A qualitative study on the work-life balance experience of Regulatory Affairs pharmacists working remotely post Covid-19 restrictions in Gauteng, South Africa.

Introduction:

Goodday, I am Kgabo Sekgalakane a Master of Science Medicine – Regulatory Affairs student at the University of the Witwatersrand. I am undertaking research on the work-life balance experience of Remote working Regulatory Affairs Pharmacist post-easing of the Covid-19 restrictions in Gauteng, South Africa.

Invitation to participate:

This document serves as an invitation to participate in the study.

Explanation of what study participation entails:

Semi-structured interviews will be conducted and recorded on Microsoft teams. Participants will be required to answer questions related to work-life balance in relation to their remote work ways of working. The data collected will be used for the writing up which will provide insight into the challenges and stimulators associated with remote work and how they

relate to RA Pharmacist's work-life balance.

Risks associated with participation in the study:

There are no risks associated with participating in the study.

Benefits of participation in the study:

There are no direct benefits for the participants in the study. Results from the study will aim to contribute towards broader research about work-life balance and perceptions associated with remote work.

Voluntary participation:

Participation in the study is voluntary. Participants will not be penalised or impacted negatively if they withdraw from the study at any point as the study progresses. The Rights of participants will be respected throughout conducting the study. Participants will not be reimbursed for participating in the study.

Confidentiality and Privacy:

The researcher will conduct and record the interviews with each participant on Microsoft Teams. Study Participants will be assigned unique numerical identifiers, and as such will not be identifiable in the results by personal information. The password-protected results will be saved on the University's password-protected Google Drive, and accessible only to the two supervisors and the researcher.

Researcher Contact Details:

Principal investigator:

Mr Kgabo Sekgalakane: telephone no.: 0795618907 or email: 799063@students.wits.ac.za

Supervisors:

Dr Ané Orchard: telephone no.: 0117172317 or email: ane.orchard@wits.ac.za

Dr. Tinswalo Hlungwani telephone no.: 0117172734email:
Tintswalo.Hlungwani@wits.ac.za

All queries related to Ethics concerns or clarifications, can be directed to the Wits HREC.

Chairperson Dr Clement Penny. Telephone number 011 717 2301, or by e-mail on
Clement.Penny@wits.ac.za.

Committee Secretariat Telephone- 011 717 2700/1234, or by e-mail
Zanele.Ndlovu@wits.ac.za and Rhulani.Mukansi@wits.ac.za

Date:

Appendix B: INTERVIEW CONSENT FORM



Department of Pharmacy and Pharmacology

Faculty of Health Sciences | 7 York Road Parktown, 2193 | Johannesburg | South Africa | Tel: +27 11 717 2552

I _____ confirm the following:

- I have received the study information sheet. It was read to me by the researcher and in a language I understand.
- I understand that my participation is voluntary, and that I will not be reimbursed for participating in the study.
- I consent to having my voice recorded for the study's purposes, and understand that anonymity will be maintained when the study results are published.
- I understand that I can withdraw from the study at any time without any negative implications for me.
- I can report any ethics-related concerns to the Wits HREC, and the contact details have been made available to me

By signing this document, I consent to partake in the study.

Signed

Witness

Date

Date:

Appendix C: Audio recording consent form



Department of Pharmacy and Pharmacology

Faculty of Health Sciences | 7 York Road Parktown, 2193 | Johannesburg | South Africa | Tel: +27 11 717 2552

I _____ hereby confirm the following:

- I consent to have my voice recorded for the study's purposes and understand that anonymity will be maintained when the study results are published.
- I understand that audio recordings from the study will be used for the purposes of this study only, and the data will be securely saved by the principal researcher.
- I understand that I can withdraw from the study at any time without any negative implications for me.
- I can report any ethics-related concerns to the Wits HREC, and the contact details have been made available to me.

Signed

Witness:

Date

Date:

Appendix D: Interview Guide



Department of Pharmacy and Pharmacology

Faculty of Health Sciences | 7 York Road Parktown, 2193 | Johannesburg | South Africa | Tel: +27 11 717 2552

1. How did it come about that you work remotely?
2. What is your understanding and experience of remote work, or working remotely?
3. What is your understanding of work-life balance? How would you describe work-life balance since working remotely?

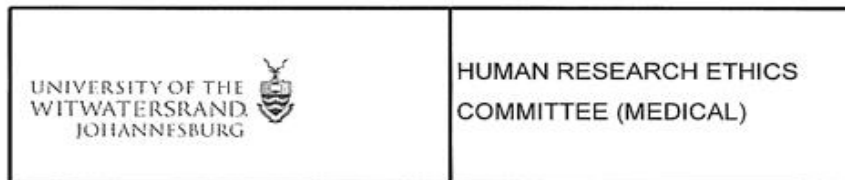
Interviewers Comment:

This part of the interview will focus on you as an individual and then on different factors in the environment around you, from direct relationships and the broader community

4. What has your work-life experience been since working remotely?
 - 4.1 Please provide any information on personal qualities, preferences, ideas, and behaviours that have promoted or inhibited you from having a work-life balance?
 - 4.2 Please comment on the role of your direct community such as close family, friends, peers, and colleagues in the workplace and how interacting with them has promoted or inhibited work-life balance.

APPENDIX

Ethics Approval



Office of the Deputy Vice-Chancellor (Research and Innovation)

TO: Mr K Sekgalakane
School of Therapeutic Sciences
Department of Pharmacy and Pharmacology
Medical School
University

E-mail: 799063@students.wits.ac.za

CC: Supervisor: Drs A Orchard and T Hlungwani
Ane.Orchard@wits.ac.za
and <HREC-Medical Research Office@wits.ac.za>

FROM: Mr Iain Burns
Human Research Ethics Committee (Medical)
Tel: 011 717 1252

E-mail: Iain.Burns@wits.ac.za

DATE: 14 November 2023

REF: R14/49

PROTOCOL NO: **M230741** (This is your ethics application reference number. Please quote it in all enquiries, oral or written, relating to this study.)

PROJECT TITLE: *A qualitative study on the work-life balance experience of Regulatory Affairs pharmacists working remotely post Covid-19 restrictions in Gauteng, South Africa*

Please find attached the Clearance Certificate for the above project. I hope it goes well and that an article in a recognized publication comes out of it. This will reflect well on your professional standing and contribute to Government funding of the University.



MSWorks2000/Iain0007/Clearscan.wps

Codebook

Code System

Code System	Memo	Frequency
Code System		948
Work-Life balance - Staff retention		4
Institutional Culture		3
Productivity and Work Environment		37
Minimal distractions when alone		7
Increased productivity working from home		7
Output is more because of reduced travel time		3
Avoid distractions in the office		7
Dedicated home office setup		13
office set up in bedroom		2
sharing work spaces with family		5

Challenges of Remote Work	78
Company Policy and Infrastructure	1
Adjusting to remote work experience	4
Increased meetings	4
Loadshedding	8
Isolation	16
Boundary between work , home and family blurred	17
Shut off is a problem	13
End up working extra hours	10
Sometimes when you meant to shut off, and you don't do it	5
Communication and Relationship Management	32
Communication plays a very big role	19
Relationship with supervisor and helper	3

Clear communication about work and personal responsibilities	10
Management Expectations and Flexibility	19
Increased Expectations	11
Management expects work or meetings outside working hours	4
Allowed to work from home in exchange for flexibility with meet	4
Challenges with Remote Work	52
Lack of resources and tools for work	7
Focus	2
Time off	5
no clear cut off	7
End up working longer	31
Job Security	9

Loss of routine and structure	7
Impact of COVID-19 on Work Practices	4
Impact of Covid on Social environments	2
COVID pushed companies in the right direction	2
Benefits of Remote Work	55
Don't worry about what to wear	1
Flexible schedule	15
Remote working has its cons but pros outweigh tremendously	4
Avoiding travel time increases productivity	2
Safety benefits, especially for women	2
Helps with concerns with traffic	31

Extra time available due to no commuting	2
Work-Life Balance	102
Prioritize health	9
Gym and Exercise	5
Part-time studies	2
Nature of work requires long hours and adhere to timelines	17
Remote work helps avoid unnecessary office distractions	3
Separate work from personal life	18
Socializing at the office affects work focus	4
Impact on Mental Health	13
Work from home helps balance work and personal life	1

Shut down the computer, don't go back to work	10
Work-life balance altered with remote working	5
Weekends to socialize and be with family	6
Be at home with your family or do your personal things	11
Work hard and play hard	3
Company Policies and Infrastructure	4
Hotspot seats	1
Companies can downsize office space	3
Communication with Family	16
COVID changed the mindset of our kids	6
kKds understand parents are in the meeting	6

Communciate with my kids	4
Home Setup and Work Environment	36
Space constraints	3
Communication with nanny to manage kids during work hours	1
Family understands role and remote work	3
Separation from noisy areas	8
Double screens, ergonomic chair	9
Separate office setup at home	12
Definition and Understanding of Remote Work	30
Prefer working at the office	2
Work in an environment with an internet connection	4
Work at a coffee shop	4

Most people prefer working from home	10
Work in any facility away from the office	10
RED	3
Family and Home Life Impact	32
Lack of Support structure	2
heartwarming to spend time with kids	7
Kids	6
Disrupted due to childrens needs	10
doing household chores during work breaks	7
Cooking and cleaning	1
YELLOW	1
Remote work experience evolution	21
Company evolution - resource allocation	1

BLUE	9
Impact of Interpersonal Relationships on Work-Life Balance	105
Interacting with family and peers altered with remote work	11
Experience children's milestones and build relationships	10
Doesn't affect work-life balance negatively	6
Allows you to grow	7
Interaction with family, peers and colleagues promotes WLB	46
important to have that human interaction	19
Interacting with my family peers hasn't changed much with work-	6
Communication using Virtual Tools	10
Years of experience	16

GREEN	2
Benefits of working in the office	26
Recommendations	6
Adjusting to new management and working environments	103
Insitutional Management style and flexibility	7
Adjusting to new ways of working and new spaces	13
Managing others	8
Evolution in Management Role and Understanding of duties	1
Managing yourself	49
Working in different time zones	10
Family Responsibilities and Work-Life Balance	56
Sharing Responsibilities	5

promotes work-life balance	
Assisting with Homework	3
Primary caregiver	2
Being present for spouse while managing work	8
Able to pick up kids during lunch breaks	5
Being present for kids while managing work	22
Nanny as primary caregiver	10
Disrupted work-life balance	1
doesn't happen because you're at home"	1
Loadshedding	1
Remote Work Policy Evolution	76
During Covid Restrictions	13

Employee perceptions around working from home pre-Covid	8
Hybrid System	22
current company didn't have policies pre- COVID but started post	1
post-easing of COVID restrictions became more prominent	10
pre-COVID	8
policy or guidelines within the company	13

Study Information Sheet

APPENDIX A: STUDY INFORMATION SHEET



Department of Pharmacy and Pharmacology

Faculty of Health Sciences | 7 York Road Parktown, 2193 | Johannesburg | South Africa | Tel: +27 11 717 2552

Study Title: A qualitative study on the work-life balance experience of Regulatory Affairs pharmacists working remotely post Covid-19 restrictions in Gauteng, South Africa.

Introduction:

Goodday, I am Kgabo Sekgalakane a Master of Science Medicine – Regulatory Affairs student at the University of the Witwatersrand. I am undertaking research on the work-life balance experience of Remote working Regulatory Affairs Pharmacist post-easing of the Covid-19 restrictions in Gauteng, South Africa.

Invitation to participate:

This document serves as an invitation to participate in the study.

Explanation of what study participation entails:

Semi-structured interviews will be conducted and recorded on Microsoft Teams subject to the participants' consent. The interview duration will be approximately 30 minutes. Participants will be required to answer questions related to work-life balance in relation to their remote work ways of working. The data collected will be used for the writing up which will provide insight into the challenges and stimulators associated with remote work and how they relate to RA Pharmacist's work-life balance.

Risks associated with participation in the study:

There are no risks associated with participating in the study.

Benefits of participation in the study:

Interview guide

APPENDIX D: INTERVIEW GUIDE



Department of Pharmacy and Pharmacology

Faculty of Health Sciences | 7 York Road Parktown, 2193 | Johannesburg | South Africa | Tel: +27 11 717 2552

1. How did it come about that you work remotely?
2. What is your understanding and experience of remote work, or working remotely?
3. What is your understanding of work-life balance? How would you describe work-life balance since working remotely?

Interviewers Comment:

This part of the interview will focus on you as an individual and then on different factors in the environment around you, from direct relationships and the broader community

4. What has your work-life experience been since working remotely?
 - 4.1 Please provide any information on personal qualities, preferences, ideas, and behaviours that have promoted or inhibited you from having a work-life balance?
 - 4.2 Please comment on the role of your direct community such as close family, friends, peers, and colleagues in the workplace and how interacting with them has promoted or inhibited work-life balance.

Protocol



CANDIDATE'S SURNAME:	Sekgalakane	FIRST NAME/S:	Kgabo Mathews	STUDENT NUMBER:	799063
CURRENT QUALIFICATIONS: BPharm (University of the Witwatersrand)					
TEL: N/A	CELL: 0795618907	E-MAIL: 799063@students.wits.ac.za		FAX: N/A	
DEGREE FOR WHICH PROTOCOL IS BEING SUBMITTED: MSC Med - Regulatory Affairs					
PART-TIME OR FULL-TIME: Part-time				Sex:	☐ F ☐ M ☒ X
FIRST REGISTERED FOR THIS DEGREE: 2022		TERM: 2		YEAR: 2023	
DEPARTMENT: Department of Pharmacy and Pharmacology					
TITLE OF PROPOSED RESEARCH: A qualitative study on the work-life balance experience of Regulatory Affairs pharmacists working remotely post Covid-19 restrictions in Gauteng, South Africa.					
CANDIDATE'S SIGNATURE: 				DATE: August 2023	
SUPERVISOR 1 (NAME & SURNAME): Dr. Ané orchard				% Supervision: 50%	
SUPERVISOR'S QUALIFICATIONS: BPharm, PhD (University of Witwatersrand), PGdip HSE, Senior Lecturer, Clinical Pharmacy					
SUPERVISOR'S DEPARTMENT: Department of Pharmacy and Pharmacology					
SUPERVISOR'S ADDRESS / TEL / E-MAIL: Add: 7 York Road, Parktown; Tel: 0117172317; Email: ane.orchard@wits.ac.za					
SUPERVISOR 2 (NAME & SURNAME): Dr. Tintswalo Hlungwani				% Supervision: 50%	



SYNOPSIS OF RESEARCH

Introduction and justification for study: Organisations have historically implemented working environments which required employees to be office based. This working model was challenged during the Covid-19 Pandemic, with shutdowns and travel restriction introducing remote work to aid business continuity. Regulatory Affairs pharmacist remote worked during the pandemic and post easing of the Covid-19 restrictions. To guide managements implementation of remote work, it is important understand the experience or RA pharmacist and the facilitators and inhibitors of work-life balance whilst working remotely.

Aim: To explore the work-life balance experience of remote working RA pharmacists post-easing of the Covid-19 restrictions in Gauteng, South Africa.

Proposed methodology: This explorative qualitative research design will follow a semi-structured interview guide based on Bronfenbrenner's conceptual framework and the theoretical Work-Life Harmony model to explore the work-life balance of remote working RA Pharmacists in Gauteng, South Africa.

Expected outcomes: Management in pharmaceutical industry can use the study to inform the decision to implement remote working for RA Pharmacists.

WITS ETHICS NOT REQUIRED:
WITS ETHICS PENDING:
WITS ETHICS APPROVED:
(circle appropriate symbol)*

Yes ☐ No ☒
Yes ☒ No ☐
Yes ☐ No ☒

IF U SUPPLY ETHICS
CLEARANCE CERTIFICATE AS
ATTACHMENT AND INCLUDE
ETHICS NUMBER HERE:

***Please note the final human ethics clearance certificate or animal ethics certificate must be available prior to starting research**

As supervisor/s, I/we confirm that I have read the protocol which has been submitted for assessment.

SIGNATURE OF
SUPERVISOR/S:


.....
.....



SUPERVISOR'S QUALIFICATIONS:

BCur, PDM, MSc, PhD (University of The Witwatersrand)

SUPERVISOR'S ADDRESS / TEL / E-MAIL:

Add: 7 York Road, Parktown; Tel: 0117172734; Email: Tintswalo.Hlungwani@wits.ac.za

SUPERVISOR'S DEPARTMENT: School of Public Health

SYNOPSIS OF RESEARCH

Introduction and justification for study: Organisations have historically implemented working environments which required employees to be office based. This working model was challenged during the Covid-19 Pandemic, with shutdowns and travel restriction introducing remote work to aid business continuity. Regulatory Affairs pharmacist remote worked during the pandemic and post easing of the Covid-19 restrictions. To guide managements implementation of remote work, it is important understand the experience of Regulatory Affairs (RA) pharmacist and the facilitators and inhibitors of work-life balance whilst working remotely.

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Expected outcomes: Management in pharmaceutical industry can use the study to inform the decision to implement remote working for RA Pharmacists.

1. Introduction

Work-life balance (WLB) can be described as the state of equilibrium between the work role demands, intrinsic factors and other everyday activities an individual is involved in (Hasan et al., 2020). The concept of WLB does not imply a hundred percent equal distribution between defined roles (McMillan, Morris & Atchley, 2011), but rather an absence of unmanageable and skewed interference between roles. Remote work describes the practice of working from home or outside the conventional office environment using connectivity to the internet. This working model and hybrid working models have been explored since the early 1970s (Allen, Golden & Shockley, 2015). During the Covid-19 pandemic, these working models were heightened globally due to restrictions on mobility to reduce the transmission of the COVID-19 virus. Additionally, they were applied across different industries globally as a measure to aid in business and economic continuity (Rajagopaul et al., 2020; Telukdarie, Munsamy & Mohlala, 2020; Naidu & Hoque, 2022). Similarly, in South Africa, the hybrid working models emerged during the pandemic and were maintained post-easing of the Covid-19 restrictions.

Global studies on remote work have demonstrated positive outcomes including increased time with family, thus strengthening relationships, and reducing strain on primary caregivers of the disabled, the elderly and children through sharing of responsibilities (Harry Williamson 2022: 18). Additionally, remote work has been associated with decreasing commute time, increased employee autonomy, and lowered work stress and exhaustion (Gajendran & Harrison, 2007; Allen, Golden & Shockley, 2015). Conversely, remote working has also resulted in removed physical boundaries between work and family, which can lead to imbalances in gender role distribution between parents, extended working hours and increased incidences of fatigue (Allen et al., 2013; Duxbury & Halinski, 2014). Allen et al (2013) further argue that work-family conflict can exist because of remote work while Gajendran and Harrison (2007) add that a positive and beneficial relationship was identified between work-family conflict where there was a greater frequency of remote work and the impact less significant where the frequency of remote work was lowered. The literature from the reviews by Allen et al (2013) and Gajendran and Harrison (2007) were based on collected data across different disciplines and not isolated to the experience of healthcare workers. In the health sector, remote work for professionals involved in patient management created limitations related to accurate screening, diagnosing, increased

likelihood of diagnostic errors, and sudden overload from digital data analysis (Oleksa-Marewska & Tokar, 2022).

Pharmacists are healthcare professionals who specialize in the safe use, administration, storage and distribution of medicines, and the profession comprises of the academia, community, hospital, industrial, and research sectors. Pharmacists in the research and academia sectors are involved in novel medicinal drug discovery, development, and delivery systems for improved disease management and adherence. They are also involved in the training, and development of future pharmacists (Draugalis et al., 2006). Hospital sector pharmacists monitor drug prescribing of doctors, antimicrobial stewardship, medicine procurement, compounding, dispensing and counselling on the safe use thereof (Wickens et al., 2013; Chevalier et al., 2016). Community pharmacists, also referred to as retail pharmacists, provide compounding, counselling and medicine dispensing services at a prescribed fee and are authorized to sell prescription and non-prescription medicines (World World Health organization, 2019: 25). Industrial pharmacists are involved in the manufacture, and release of medicinal products onto the market, the maintenance and monitoring of medicinal products post-release and throughout their lifecycle (Narang et al., 2022). Pharmacists in the industrial, research and academic sectors have the flexibility for remote working, and within the industrial sector, there has been a noted continuation of remote work by regulatory affairs pharmacists in South Africa post-easing of the Covid-19 restrictions. Regulatory Affairs pharmacists are the liaison between pharmaceutical companies and health regulatory bodies. Their work involves pharmaceutical product registration, and ensuring product safety, efficacy, and quality before, during and after registration (Narang et al., 2022).

Studies on well-being and Quality of Working Life (QoWL) in healthcare workers during the pandemic point to a higher prevalence of mental health deterioration in female healthcare workers (AlAteeq et al., 2020; Lange et al., 2020; Dhindayal, Letsoalo & Gengiah, 2022). A study in France revealed post-traumatic stress in 17% of participants and burnout symptoms in 70.9% of participants (Lange et al., 2020) whilst a heightened negative mental health impact, low QoWL result was found in 51.3% of community pharmacists in a South African study (Dhindayal, Letsoalo & Gengiah, 2022). All three studies highlighted the need for more interventions targeted at improving the mental health outcomes of community pharmacists. There is data available on

the experience of patient-facing healthcare workers during the pandemic, however, there is limited data on the remote working experience of healthcare workers and in particular industrial pharmacists during and after the post-easing of the Covid-19 pandemic restrictions. Although there is limited data available on remote working industrial pharmacists, literature on the experience of academic pharmacists teaching remotely during the pandemic is well documented (Gallegos et al., 2022; Henneman, Thornby & Bookstaver, 2022; Prescott, Kennedy & Deluca, 2022). In America, a study showed that 85% of academic pharmacists reported no change in productivity whilst 80% reported no change in effectiveness and an improved work-life balance was reported in more than half of the study participants (Prescott, Kennedy & Deluca, 2022). Although no changes to effectiveness and productivity were found, Henneman et al (2012) reported isolation as a risk to organizational collaborative culture and suggested that informal meetings be increased to encourage active engagement in organizations. There is no data in South Africa for the remote work experience of healthcare workers before and during the pandemic. Despite there being a continuation of remote work for RA pharmacists post-easing of the Covid-19 restrictions, there is no literature on their experience.

2. Problem statement

There has been a noted continuation of remote work by regulatory affairs pharmacists in South Africa post-easing of the Covid-19 restrictions by the National Department of Health (NDoH) from 28 February 2021 (Department of Co-operative Governance (South Africa), 2021). The Covid-19 restrictions were initially implemented in South Africa on 15 March 2020 following the State of National Disaster Declaration (Department of Co-operative Governance and Traditional Affairs (South Africa), 2020) which consequently accelerated industries' transition from the conventional office-based working model to remote work. Literature on remote work collected pre-covid from the (information technology) IT, management, education, and engineering revealed positive outcomes related to autonomy, increased family time, reduced family-work conflict and strengthened quality relationships with co-workers (Gajendran & Harrison, 2007). In the health sector, studies on patient-facing healthcare workers (HCWs) in South Africa, France and Saudi Arabia revealed that women experienced higher psychological disruptions in comparison to men (AlAteeq et al., 2020; Lange et al., 2020; Dhindayal et al., 2022). Lange et al (2020) cited the following symptoms of anxiety (66.1%), depression (62.9%) and a low Quality of Life (51.3 %) in South African pharmacists during the Covid-19

Pandemic (Dhindayal, Letsoalo & Gengiah, 2022). There is data available globally on the experience of working remotely before and during the pandemic and how it impacted the work-life balance in the context of Work Impacting Family (WIF), Family Impacting Work FIW and the well-being of employees in different industries. In pharmacy, there is data available for the remote work experience of academic pharmacists, however no data on the experience of industry pharmacists. Despite the continuation of remote work by RA pharmacists post Covid-19 restrictions, there is no data available on their experience. The gap can be explored by conducting a qualitative study exploring the experience of working remotely on the work-life balance of RA pharmacists post-easing of the Covid-19 restrictions. This would contribute to and guide remote working implementation practices and policies in the pharmaceutical industry.

3. Research question

What is the work-life balance experience of remote working Regulatory Affairs pharmacists post the Covid-19 pandemic restrictions in Gauteng, South Africa?

4. Aim

To explore the work-life balance experience of remote working RA pharmacists post-easing of the Covid-19 restrictions in Gauteng, South Africa.

5. Objectives

- 5.1 To explore themes around challenges and stimulators of remote working (i.e., positives and negatives)
- 5.2 To explore facilitators of work-life balance in RA pharmacists working remotely.
- 5.3 To explore inhibitors of work-life balance in RA pharmacists working remotely.

6. Methodology

6.1 Study design

Explorative qualitative research design. The researcher will use the work-life harmony model and Bronfenbrenner's socioecological model to explore themes around work-life balance.

Theoretical Framework

Work-life balance (WLB), Work-Life Conflict (WLC) comprising of Work impacting family (WIF) and Family Impacting work (FIW) conflict, and Work-Life enrichment are themes described in the Work-Life Harmony theoretical framework (Figures 1 and 2). These themes can have a cross-domain effect, meaning when there is a heightened imbalance in one area, they can influence others positively or negatively (Hasan et al., 2020).

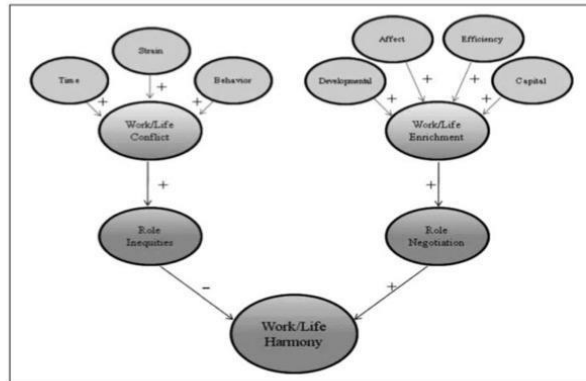


Figure 1: Illustration of the Work-Life Harmony Model (McMillan, Morris & Atchley, 2011)

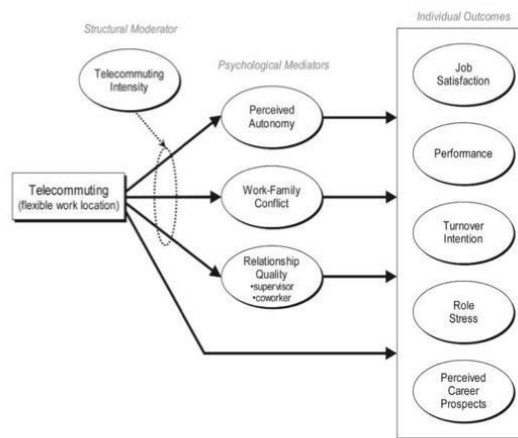


Figure 2: Theoretical Framework – Impacts of remote working by Gajendran R and Harrison D (2007) adopted from Allen et al. (2003), Feldman and Gainey (1997) and Shamir and Salomon (1985)

Conceptual framework

The cross-domain effect concept aligns with Bronfenbrenner's 1979 multi-factored Socio-ecological conceptual framework (Figure 3). Bronfenbrenner's framework describes how human development and behaviours are determined by the interaction between humans and their environment(s). Simply, it describes how individual factors, and the way the individual interacts with their environment can have an impact on them (Bronfenbrenner, 1979). The Work-life harmony model can be located within Bronfenbrenner's framework and will be used to describe the remote working experience of RA pharmacists by focusing on factors such as the individual's cognition, behaviour, well-being, and interactions with the environment.

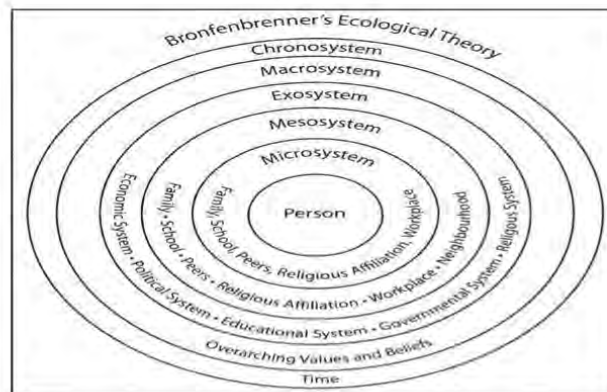


Figure 3: Illustration depicting Bronfenbrenner's multifactorial Socioecological model (Bronfenbrenner, 1979)

6.2 Study site – Gauteng

To ensure data variability in the sample Gauteng Province was chosen since there are a high number of pharmaceutical Applicants where RA pharmacists are employed. The study site choice was informed by the database of inspected, registered, and approved Applicants by the South African Health Products Regulatory Authority (SAHPRA). The database is updated and maintained by the Health Authority and can be accessed on the following website <https://www.sahpra.org.za/approved-licences/>.

6.3 *Study population*

RA pharmacists employed in Gauteng who have remote and hybrid working experience post-easing of the Covid-19 restrictions. The study will be conducted in Gauteng, South Africa.

6.4 *Sampling*

Purposive selection sample method to select 20 RA pharmacists, as it will allow for data variability. The sampling number will be determined by data saturation, if data saturation occurs, the researcher will revisit the questionnaire and restructure the questions. If the same responses are received from participants, the researcher will stop the study before reaching 20 participants.

6.5 *Data collection pre-testing procedure*

As a measure to ensure the alignment of the interview guide with the objectives and validity of the study methodology, the researcher will conduct a pilot study. The researcher will conduct individual interviews on Microsoft Teams with two participants over a 30-minute period. The two participants in the pilot study will not form part of the main study. The interviews will be used to determine if the interview guide questions are understandable to participants and if there is a need to refine the tool and determine if logistical issues should be considered during data collection.

6.6 *Data collection*

Trustworthiness in qualitative data is determined through four main criteria: credibility, transferability, dependability, and confirmability (Shenton, 2004). These will be adhered to through conducting in-depth interviews with a wide range of RA pharmacists from different pharmaceuticals to ensure a richness of perspectives and experiences. Participation in the study is voluntary, and participants are allowed to withdraw at any stage without any consequence. This strategy seeks to ensure participants will offer honest responses and that participation is established on genuine interest (Shenton, 2004). To minimize researcher bias in the data an intercoding agreement will be established between the supervisors and the researcher to ensure alignment of the codes to the conceptual and theoretical framework.

The researcher participation open call will be sent out on Social media platforms and will contact the participants individually via email to request their participation in the study. Snowballing sampling will be used post-interviews where participants will be asked to refer other participants. The social media-snowball sampling method combination was found to be an effective participant recruitment strategy (Leighton et al., 2021). The participants be issued with a study information sheet (Appendix A), and an informed consent form (Appendix B) to sign before participating in the study. Permission to record the meetings will be requested before the interviews commence (Appendix C). In-depth interviews will be conducted with each participant individually by the researcher on Microsoft Teams for 30 minutes (minimum) using a semi-structured interview guide (Appendix D)

7. Data Analysis

Data analysis will follow a multi-stage approach: transcription, familiarization with the interviews, coding, developing a working analytic framework, applying a working analytical framework, charting the data into a framework matrix and interpretation. (Gale et al., 2013)

Transcription

The transcription functionality will be used on Microsoft Teams (version 2022), and the interview recordings will be listened to by the researcher post-interview and compared with the transcriptions by the researcher to ensure accuracy. Where applicable, qualitative interview transcripts will be formatted and edited for correctness by the researcher. Transcripts will be imported into the MAXQDA software (2022) and analysed according to the Themes via framework analysis.

Familiarization with the interviews

The Researcher will listen to recorded interviews to become more familiar with interviews and the participants' responses

Coding and Developing a working Analytical framework

The data will be labelled with codes. The Work-Life Interface and the Socio-ecological theoretical and conceptual frameworks serve as the theory that will guide deductive coding by demonstrating the influence and association between the interactions of the individual and the environment. Data from the interviews will guide inductive coding, these codes will then

develop the overarching themes(Smith et al., 2011). Framework analysis is invaluable in qualitative research as it allows the researcher to interpret the perspectives of the participants to gain insights into complex phenomena and theory(Smith et al., 2011).

Transcripts will be imported into the MAXQDA software (2022) and analysed according to the Themes via framework analysis. Computer-aided coding from MAXQDA and manual coding will be used. An inter-coding agreement will be created between the researcher and the supervisors to ensure study quality and reliability.

Applying a working analytical framework

The researcher will index transcripts using categories and codes. Unique numbers and codes will be assigned for easy identification.

Charting data into the framework matrix

Interpretation of data

The researcher will interpret the data saved from MAXQDA and archive the data on the researcher's Wits issued Google drive for two years. Data will be password protected and the researcher together with two supervisors will have access to the password for the data. These are the only people who will have access.

8. Ethics

The study includes human participants and therefore Ethics will be applied through Human Research Ethics Committee (Medical). All relevant documents and appendices will be included with the application.

8.1 Ethical considerations:

Participation in the study will be voluntary, there will be no compensation or incentives for participation. Participant anonymity will be maintained by assigning unique numerical identifiers to participants, and as such they will not be identifiable in the results by personal information.

Researcher Bias - The researcher is an RA pharmacist who has been working remotely, and therefore the researcher will ensure that the questions asked are guided by the framework and model and not their own experience. The questionnaire and codes will be reviewed by both supervisors to ensure there is no researcher bias.

9. Budget

The study will require R 4579.98 and the budget breakdown has been provided in Table 1

Table 1: Study Budget

Data Costs	R698.00
MAXQDA License	R 3881.98
Total	R 4579.98

10. Funding

An application will be made to the Faculty Research Committee. The study will be funded by the researcher if no funding is sourced/granted.

11. Timeline

The timing for this project to be carried out is shown in Table 2.

Table 2: Timing summary

	2023												2024					
Research timeline	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Literature review																		
Writing protocol and submission																		
Ethics Submission and Approval																		
Pilot Study																		
Data Collection																		
Data Analysis																		
Presentation and write up																		

12. Dissemination of research

The research will be conducted in fulfilment of a research report in the Department of Pharmacy and Pharmacology at the University of the Witwatersrand. The results from the study will be shared with all the study participants and presented at a conference and written up as a publication. The research can be used to guide management's decisions when implementing remote work and hybrid work working models in the workplace.

13. References

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APPENDIX A: STUDY INFORMATION SHEET



Department of Pharmacy and Pharmacology

Faculty of Health Sciences | 7 York Road Parktown, 2193 | Johannesburg | South Africa | Tel: +27 11 717 2552

Study Title: A qualitative study on the work-life balance experience of Regulatory Affairs pharmacists working remotely post Covid-19 restrictions in Gauteng, South Africa.

Introduction:

Goodday, I am Kgabo Sekgalakane a Master of Science Medicine – Regulatory Affairs student at the University of the Witwatersrand. I am undertaking research on the work-life balance experience of Remote working Regulatory Affairs Pharmacist post-easing of the Covid-19 restrictions in Gauteng, South Africa.

Invitation to participate:

This document serves as an invitation to participate in the study.

Explanation of what study participation entails:

Semi-structured interviews will be conducted and recorded on Microsoft teams. Participants will be asked to answer questions related to work-life balance in relation to their remote work ways of working. The data collected will be used for the writing up which will provide insight into the challenges and stimulators associated with remote work and how they relate to RA Pharmacist's work-life balance.

Risks associated with participation in the study:

There are no risks associated with participating in the study and there is no consequence for refusing to participate.

Benefits of participation in the study:

There are no direct benefits for the participants in the study and there are no costs associated with participating in the study. Results from the study will aim to contribute towards broader research about work-life balance and perceptions associated with remote work.

Voluntary participation:

Participation in the study is voluntary. Participants will not be penalised or impacted negatively if they withdraw from the study at any point as the study progresses. The Rights of participants will be respected throughout conducting the study. Participants will not be reimbursed for participating in the study.

Confidentiality and Privacy:

The researcher will conduct and record the interviews with each participant on Microsoft Teams. Study Participants will be assigned unique numerical identifiers, and as such will not be identifiable in the results by personal information. The password-protected results will be saved on the University's password-protected Google Drive, and accessible only to the two supervisors and the researcher.

Result Dissemination:

Results Summary are available for free on request of participants.

Researcher Contact Details:

Principal investigator:

Mr Kgabo Sekgalakane: telephone no.: 0795618907 or email: 799063@students.wits.ac.za

Supervisors:

Dr Ané Orchard: telephone no.: 0117172317 or email: ane.orchard@wits.ac.za

Dr. Tinswalo Hlungwani telephone no.: 0117172734email: Tintswalo.Hlungwani@wits.ac.za

All queries related to Ethics concerns or clarifications, can be directed to Prof Ruff Chairperson of the Human Research Ethics Committee (Medical) at the University of Witwatersrand, who may be contacted via any one member of the secretariat. The telephone numbers for the Committee secretariat are 011 717 2700/1234/2656/1252 and the e-mail addresses are

Zanele.Ndlovu@wits.ac.za, Rhulani.Mukansi@wits.ac.za, Mapula.Ramaila@wits.ac.za and Iain.Burns@wits.ac.za.

Date:

APPENDIX B: INTERVIEW CONSENT FORM



Department of Pharmacy and Pharmacology

Faculty of Health Sciences | 7 York Road Parktown, 2193 | Johannesburg | South Africa | Tel: +27 11 717 2552

I _____ confirm the following:

- I have received the study information sheet. It was read to me by the researcher and in a language I understand.
- I understand that my participation is voluntary, and that 'I will not be reimbursed for participating in the study.
- I consent to having my voice recorded for the study's purposes, and understand that anonymity will be maintained when the study results are published.
- I understand that I can withdraw from the study at any time without any negative implications for me.
- I can report any ethics-related concerns to the Wits HREC, and the contact details have been made available to me

By signing this document, I consent to partake in the study.

Signed

Witness

Date

Date:

APPENDIX C: AUDIO RECORDING CONSENT FORM



I _____ hereby confirm the following:

- I consent to have my voice recorded for the study's purposes and understand that anonymity will be maintained when the study results are published.
- I understand that audio recordings from the study will be used for the purposes of this study only, and the data will be securely saved by the principal researcher.
- I understand that I can withdraw from the study at any time without any negative implications for me.
- I can report any ethics-related concerns to the Wits HREC, and the contact details have been made available to me.

Signed

Witness:

Date

Date:

APPENDIX D: INTERVIEW GUIDE



Department of Pharmacy and Pharmacology

Faculty of Health Sciences | 7 York Road Parktown, 2193 | Johannesburg | South Africa | Tel: +27 11 717 2552

1. How did it come about that you work remotely?
2. What is your understanding and experience of remote work, or working remotely?
3. What is your understanding of work-life balance? How would you describe work-life balance since working remotely?

Interviewers Comment:

This part of the interview will focus on you as an individual and then on different factors in the environment around you, from direct relationships and the broader community

4. What has your work-life experience been since working remotely?
 - 4.1 Please provide any information on personal qualities, preferences, ideas, and behaviours that have promoted or inhibited you from having a work-life balance?
 - 4.2 Please comment on the role of your direct community such as close family, friends, peers, and colleagues in the workplace and how interacting with them has promoted or inhibited work-life balance.

APPENDIX E: STATEMENT OF PRINCIPLES FOR POSTGRADUATE SUPERVISION

THE SUPERVISOR AND THE STUDENT: - Will establish agreed roles and clear processes to be maintained by both parties. In the case of joint supervision, the roles and responsibilities of each supervisor and the student need to be clarified. - Will meet regularly and as frequently as is reasonable to ensure steady progress towards the completion of the proposal, research report, dissertation or thesis. This time varies but the normal minimum requirement for face-to-face contact spread across each year of registration is: 10 contact hours for an Honours project, 15 contact hours for a Masters by coursework and research report and 24 contact hours for a Masters by dissertation and a PhD. - Will keep appointments, be punctual and respond timeously to messages. - Will keep one another informed of any planned vacations or absences as well as changes in his or her personal circumstances that might impact on the work schedule. Unplanned absences or delays should be discussed as soon as possible and arrangements should be made, to catch up lost time. - Will ensure that research on animal or human subjects is conducted with prior approval and according to the procedures and the requirements of the relevant Ethics committee. - Will both complete Progress Reports on the research project as required/requested by the relevant Faculty Graduate Studies Committee.		
THE SUPERVISOR: - Undertakes to provide guidance for the student's research project in relation to the design and scope of the project, the relevant literature and information sources, research methods and techniques and methods of data analysis. - Will provide guidance at the commensurate NQF level requirements for autonomy and accountability that the student is expected to demonstrate. - Has a responsibility to be reasonably accessible to the students. - Will be prepared for meetings with the student. This includes being up-to-date on the latest work in his/her area of expertise. - Will expect written work as jointly agreed, and will return that work with constructive criticism within a timeframe (a suggestion of 2-4 weeks) jointly agreed at the outset of the research. - Will provide advice that can help the student to improve his/her writing. This may include referrals for language training and academic writing. The supervisor will provide guidance on technical aspects of writing such as referencing as well as on discipline specific requirements. Detailed correction of drafts and instruction in aspects of language and style are not the responsibility of the supervisor. - Will guide the student in the production of a research report, dissertation or thesis. Provision should be allowed for adequate, mutually respectful, discussion around recommendations made. - Will assist with the construction of a written time schedule, which outlines the expected completion dates of successive stages of the work. - Will encourage the student to present work at postgraduate/ staff seminars/national/international conferences as appropriate. - Will assist with the publication of research articles as appropriate.	THE STUDENT: - Takes full responsibility for the research and its successful completion; including managing the process under the guidance of supervisor(s). - Will attend such courses and lectures that are compulsory for the degree, and undertakes to catch up fully on any work, lectures and/or assignments, that are missed. - Undertakes to work independently under the guidance of the supervisor(s). This includes reading widely and critically to ensure that the seminal and current literature pertinent to his/her chosen topic has been identified, consulted and critiqued. - Undertakes to work in accordance with the academic standards expected by the University for the commensurate NQF level of qualification. - Is obliged to make appointments to consult the supervisor(s) and arrange meeting times convenient to both parties well in advance. - Should submit written work for discussion with the supervisor(s) well in advance of a scheduled meeting. The kind and frequency of written work should be agreed with the supervisor(s) at the outset of the research. - Written work that is submitted to the supervisor, including final submissions to examiners, should be relatively free from basic spelling mistakes, incorrect punctuation and grammatical errors. Responsibility for the accuracy of language, the overall structure and coherence of the final research report, dissertation or thesis rests with the student. - Cannot expect the supervisor to be proof-reader and editor of his/her work or to approve work with any of the weaknesses spelt out in 7 above. - Undertakes to heed the advice given by the supervisor(s) and to engage in discussion around suggestions made. Ultimately the student has to take responsibility for the quality, integrity and presentation of the work.	We confirm that we have read and understood this statement and agree to be guided by its principles for as long as we continue to work together. Name of student: <u>Kgabo Sckgalakane</u> Student Number: <u>799065</u> Student's signature:  Name of Supervisor: <u>Dr Ané orchard</u> Supervisor's signature:  Name of Co-Supervisor: <u>Dr. Tlatswalo Hlungwani</u> Co-Supervisor's signature:  The broad area of study is: <u>Public Health</u>

		*Note: Consent by supervisor(s) to submit work for examination does NOT guarantee that the work will pass. The appointed examiners assess and determine whether the work is of a passable standard. (2019/09/30)
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Faculty of Health Sciences, Postgraduate Office
Phillip V Tobias Building, 2nd Floor
Cnr York & Princess of Wales Terrace, Parktown 2193
Tel: (011) 717 2745 | Fax: (011) 717 2119
Email: Mathoto.senamela@wits.ac.za



PLAGIARISM DECLARATION TO BE SIGNED BY ALL HIGHER DEGREE STUDENTS

SENATE PLAGIARISM POLICY: APPENDIX

I Kgabo Sekgalakane (Student number: 799063) am a student
registered for the degree of MSC Med- Pharmaceutical Affairs in the academic year 2023

I hereby declare the following:

- I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong.
- I confirm that the work submitted for assessment for the above degree is my own unaided work except where I have explicitly indicated otherwise.
- I have followed the required conventions in referencing the thoughts and ideas of others.
- I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.
- I have included as an appendix a report from "Turnitin" (or other approved plagiarism detection) software indicating the level of plagiarism in my research document.

Signature:  Date: 19 July 2023

RECOMMENDATION FOR APPOINTMENT OF SUPERVISOR(S) OF RESEARCH REPORT, DISSERTATION OR THESIS

Motivation / Reason for Appointment:

Dr. Orchard is a Pharmacist who has an interest in Mental health research

Dr. Hlungwani is an expert in Public Health and qualitative research

Recommendation of Division / Department / School:

The topic falls within the Department of Pharmacy and Pharmacology and the School of Public Health

Student Surname and Full name(s)	Kgabo Mathews Sekgalakane
Student number	799063
Degree	MSC Med – Pharmaceutical Affairs
Div / Dept / School	School of Pharmacy and Pharmacology
Title	A qualitative study on the work-life balance experience of Regulatory Affairs pharmacists working remotely post Covid-19 restrictions in Gauteng, South Africa.

(Supervisor 1): Dr Ané Orchard

(Name & Surname)

Supervision %: 50%

Supervisor Qualifications: BPharm, PhD (University of Witwatersrand), PGdip HSE, Senior Lecturer, Clinical Pharmacy

Supervisor Department: Department of Pharmacy and Pharmacology

Supervisor Telephone: 0117172317 E-mail: ane.orchard@wits.ac.za

Supervisor 2: Dr. Tintswalo Hlungwani

(Name & Surname)

Supervision %: 50 %

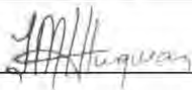
Supervisor Qualifications: BCur, PDM, MSc, PhD (University of The Witwatersrand)

Supervisor Department: School of Public Health

Supervisor Telephone: 0117172734 E-mail: Tintswalo.Hlungwani@wits.ac.za

Student Signature:  _____

Supervisor 1 Signature:  _____

Supervisor 2 Signature:  _____

RECOMMENDATION BY HEAD OF DIVISION / DEPARTMENT / SCHOOL:

Professor Yahya Choonara _____ (Full name(s) and Surname)	 _____ (Sign)	25/08/2023 _____ (Date)
---	--	-------------------------------

APPROVAL BY CHAIR OF ASSESSOR GROUP:
(On behalf of the FGSC)

_____ (Full name(s) and Surname)	_____ (Sign)	_____ (Date)
-------------------------------------	-----------------	-----------------

PLEASE NOTE: RECOMMENDATION FOR APPOINTMENT OF SUPERVISOR(S) FOR CIRCULATION TO THE FGSC FOR APPROVAL

26/05/2015

University of the Witwatersrand Student Ethics Declaration Form

(To be completed during the protocol assessor meeting)

Background

All Research conducted by a University of the Witwatersrand student, with human subjects or animals, requires approval by the Wits Human Research Ethics Committee or Animal Research Ethics Committee, respectively.

If research has been undertaken without the necessary ethics approvals, this is considered an ethics violation. This will be reported to the relevant structures, the data will have to be discarded, and in the case of students, they cannot use the data towards their degree.

To prevent any ethics violations, the ethics requirements for the proposed project will be discussed with you at the protocol assessment.

Declaration

Based on the current protocol assessment (and any proposed changes suggested by the assessor committee), we, the undersigned, understand that the proposed research requires:

- | | | | |
|---|--|---|----|
| 1. Human Research Ethics clearance certificate | <table border="1"><tr><td>Yes</td><td>No</td></tr></table> | Yes | No |
| Yes | No | | |
| a. Covered under existing supervisor ethics | <table border="1"><tr><td>Yes</td><td>No</td></tr></table> | Yes | No |
| Yes | No | | |
| b. Requires a new HREC application | <table border="1"><tr><td>☒ Yes</td><td>No</td></tr></table> | ☒ Yes | No |
| ☒ Yes | No | | |
| 2. Animal Research Ethics clearance certificate | <table border="1"><tr><td>Yes</td><td>No</td></tr></table> | Yes | No |
| Yes | No | | |
| 3. No Human or Animal Ethics Clearance | <table border="1"><tr><td>Yes</td><td>No</td></tr></table> | Yes | No |
| Yes | No | | |
| 4. Unclear, will seek appropriate guidance from the HREC/AREC committees (whichever relevant) | <table border="1"><tr><td>Yes</td><td>No</td></tr></table> | Yes | No |
| Yes | No | | |

Signatures

Supervisor/s: _____

Student: _____

Date: 25/08/2023 _____

11 March 2019/MP



Department of Pharmacy and Pharmacology, Clinical Pharmacy Lecturer

Faculty of Health Sciences | 7 York Road Parktown, 2193 | Johannesburg | South Africa | ane.orchard@wits.ac.za

August 30, 2023

Attention: Postgraduate protocol submission committee
Faculty of Health Sciences

Re: Protocol corrections:

Title of project: A qualitative study on the work-life balance experience of Regulatory Affairs pharmacists working remotely post Covid-19 restrictions in Gauteng, South Africa.

Student name: Kgabo Sekgalakane

Student number: 799063

During the protocol assessors meeting that was held in August, a list of suggestions and modifications were recommended for supervisor's review. All amendments have been attended to and have been checked by both supervisors.

Yours sincerely

Supervisor (Dr. A. Orchard)

Supervisor (Dr. . Hlungwani)

This document certifies the following information about the student's current status at the University of the Witwatersrand, as at 07-Jul-2023.

Student Details:

Date of Birth 07-Sep-1995 ID Number/ Passport Number : 9509075082082

Programme of Study Details:

Year of Study : Year of Study 2

COURSE	COURSE DESCRIPTION	SESSION	STATUS
PACY7025A	Research Report	Full Year	Enrolled

FACULTY REGISTRAR



DECLARATION:

Adherence to HREC (Medical) Ethics Application Terms and Conditions

I, the undersigned, hereby declare that I have not collected data/done secondary data analysis, or any other form of research, prior to obtaining a Clearance Certificate from the HREC (Medical) for study number: **M23/07/41**

I have read and understood the terms and conditions in section 9 of the HREC (Medical) Application Form. I confirm that it is my responsibility to ensure that I have received final HREC (Medical) clearance before commencing any research.

Kgabo Sekgalakane

Name, Surname and Signature

Wits Student/Staff No., if applicable: **799063**

Date: 03/11/2023

To the best of my knowledge and belief, the Declaration above is true, insofar as it relates to the student project which has been allocated the Protocol Number shown above.

Dr. Ané orchard

Name, Surname and Signature of Supervisor, if applicable

Date: 06/11/2023

Dr. Tintswalo Hlungwani

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Date: 05/11/2023

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Abstract Background: Regulatory Affairs (RA) pharmacists worked remotely during the pandemic and post- easing of the COVID-19 restrictions. Understanding their experiences could give insight into factors such as Work Impacting Family (WIF) and Family Impacting Work (FIW) conflict and how these potentially impact the well-being and productivity of the workforce. Subsequently, this can guide management's implementation of sustainable remote work practices that facilitate business continuity whilst supporting employee well-being. Aim: This research aimed to explore the work-life balance experience of RA pharmacists post-easing of Covid-19 restrictions. Setting: The study was conducted in the Gauteng Province of South Africa. Methods: The explorative qualitative research design followed a semi-structured

interview guide based on Bronfenbrenner's conceptual framework and the theoretical Work-Life Harmony model. Data from 17 participants were analysed using inductive and deductive thematic analysis. Results: Participants highlighted the importance of time management, boundary setting, and supportive relationships with family and managers in maintaining WLB. Challenges included micromanagement, inconsistent policies, and increased expectations. Remote work facilitated family bonding but required structured routines to manage productivity and distractions. Conclusion: Remote work provides opportunities for enhanced WLB but necessitates policies that address workload management and mental health support. Findings emphasise the need for tailored interventions to foster productivity and well-being in hybrid work models. Contribution: The study offers insights into the unique WLB challenges and facilitators experienced by RA pharmacists, providing evidence for management strategies and psychological support programs to optimise remote work outcomes. Keywords: Regulatory Affairs Pharmacist, Work-Life Balance, Remote Work, Productivity, Mental Health.

PUBLICATION At the time of submission, the article was awaiting submission to the journal, Health SA Gesondheid, and is presented in its submissible format. [A qualitative study on the work-life balance experience of Regulatory Affairs pharmacists working remotely post Covid-19 restrictions in Gauteng, South Africa](https://orcid.org/0009-0005-0798-4123) Authors: Kgabo Sekgalakane1 <https://orcid.org/0000-0002-2520-4291> Ané Orchard1 <https://orcid.org/0000-0001-6767-7110> Affiliations: 1Division of Clinical Pharmacy, Department of Pharmacy and Pharmacology, School of Therapeutic Sciences, University of Witwatersrand, Johannesburg 2School of Public Health, University of Witwatersrand, Johannesburg Corresponding author, email: Ané.Orchard@wits.ac.za

Background Global studies on remote work have demonstrated both positive and negative outcomes on work-life balance (WLB) and well-being (Felstead & Henseke, 2017; Stasiuk-Piekarska, 2021). Work-life balance is described as the state of equilibrium between work role demands, intrinsic factors such as emotional regulation, and other everyday life roles (Hasan et al., 2020). This does not imply an equal distribution between roles but rather an absence of unmanageable interference between them (McMillan, Morris & Atchley, 2011). Well-being can be characterised as the positive psychological experiences of individuals, closely related to their overall quality of life. It encompasses the emotional, mental, and physical factors that contribute to subjective happiness (Stasiuk-Piekarska, 2021). Remote work, defined as working from home or outside the conventional office environment using internet connectivity, has been explored since the early 1970s (Allen, Golden & Shockley, 2015). During the Covid-19 pandemic, remote and hybrid working models were heightened globally due to mobility restrictions aimed at reducing virus transmission and facilitating economic continuity (Rajagopal et al., 2020; Telukdarie, Munsamy & Mohlala, 2020; Naidu & Hoque, 2022). Similarly, in South Africa, COVID-19 restrictions were implemented on 15th March 2020 following the State of National Disaster Declaration (Department of Co-operative Governance and Traditional Affairs (South Africa), 2020). The COVID-19 pandemic presented unique obstacles, as people experienced feelings of loneliness and isolation, particularly those who lived alone and were removed from their families. Post-easing of the Covid-19 restrictions, the influence of isolation on the mental health of individuals is still evident, as hybrid and remote work practices continue to be commonplace. Consequently, workers in these work set-ups still experience heightened feelings of loneliness, reduced mental stimulation and disconnection from their communities (Kangas, Pensar & Rousi, 2023). Isolation was reported to be a risk to organisational collaborative culture, potentially heightening employee stress and negatively impacting retention (Henneman, Thornby & Bookstaver, 2022; Prescott et al., 2022). Resolving isolation by focusing on employees' well-being and WLB can contribute to a nuanced understanding of the remote working model and facilitate business continuity and productivity in this sector. In the health sector, literature on the experience of academic pharmacists teaching remotely during the pandemic is well-documented (Gallegos et al., 2022; Henneman, Thornby & Bookstaver, 2022; Prescott et al., 2022). In America, a study showed that 85% of academic pharmacists reported no change in productivity, while 80% reported no change in effectiveness and an improved WLB. Remote work created limitations related to accurate screening, diagnosing, increased likelihood of diagnostic errors, and digital data overload (Oleksa-Marewska & Tokar, 2022). In the Community Pharmacy Sector data overload can be reduced through using streamlined and integrated procedures and systems, whilst in the Industrial Pharmacy sector, through the implementation of Regulatory Harmonisation and Reliance. Harmonisation refers to the standardisation of regulatory review procedures and standards, guidelines, and implementation of ICH (International Council on Harmonisation of Technical Requirements for Pharmaceuticals for Human Use) standards (ICH M2 Expert Working Group, 2008; WHO, 2021). Reliance is "The act whereby the regulatory authority in one jurisdiction takes into account and gives significant weight to assessments performed by another regulatory authority or trusted institution, or to any other authoritative information in reaching its own decision" (WHO, 2021). The lack of the aforementioned potentiates an added workload pressure for RA Pharmacists due to duplicated efforts when submitting multiple dossiers across different territories in Africa where medicine registration timelines, technical requirements, digitalisation and medicine access enablement strategies are different. The impact of delayed harmonisation and effective implementation of reliance across Africa are evident at the National Regulatory Authority (NRA) level. These factors contribute to delays in the review of new medicine registration dossiers and variation applications, resulting in backlogs and delayed provision of essential medicines to the public, as was evident at the South African Health Products Regulatory Authority (SAHPRA), where 16 000 backlog applications were inherited from the Medicines Control Council (MCC) in 2018 (Danks et al., 2023). Contrastingly, in the developed Global North, the European Union-initiated harmonisation strategies have been in place since the 1980's. They are further supported through the adoption of eCTD in line with the ICH, and Mutual Recognition Agreements (MRA) with different NRA's. Therefore, concepts such as reliance and regulatory harmonisation are well-documented in these regions. The role of the RA Pharmacist is dynamic, such that they could be permanently employed by a pharmaceutical company in South Africa yet still work remotely across different territories in Africa where the company is registered and approved for the sale of medicines. Flexible hybrid working structures existed for RA Pharmacists before Covid-19 and continue post-easing of the Covid-19 restrictions. This benefits the continent as it adds to the efforts to actualise Sustainable Development Goal 3 related to health by increasing access for patients to safe, efficacious and quality medicines on the African continent, where the triple burden of disease is still evident and prominent (United Nations, 2015). However, challenges with working across multiple territories include time zone considerations, which could lead to working outside core working hours for the SA-based RA Pharmacist. Additionally, delayed harmonisation and effective implementation of reliance across the African continent can contribute to extended working hours. In South Africa, factors such as load-shedding delay digitisation in Africa and further add to the work pressures due to the sometimes unpredictable load-shedding schedules. The available literature addresses aspects such as load shedding, delayed harmonisation, and digitisation and their varying impact on the Pharmaceutical sector (Department of Health, 2022; Danks et al., 2023). However, the influence of all these combined factors on the overall WLB experience and productivity of RA Pharmacists, a core stakeholder in the Pharmaceutical sector, remains overlooked and undocumented. Despite there being global data on remote work in the Academic and Community Pharmacy sector there is a dearth of literature on the WLB experience of remote-working RA Pharmacists in South Africa. Thus, this prompted the necessity for this comprehensive study which explores the interplay of WLB inhibitors and facilitators on the intricate relationships between family responsibilities, professional commitments and the personal lives of RA Pharmacists. The working experience of RA pharmacists is unique as it can be influenced by the set-up of the home environment and support structures therein, policy and socio-economic issues such as delayed intercontinental harmonisation, reliance and implementation of digitalisation on the African continent, and in the context of South Africa, navigating and effectively implementing remote working under the confinements of load-shedding. As long as this remains unknown, there is a potential consequence of remote work practices in the field not being enhanced or improved in favour of the WLB of these Pharmacists. The study aimed to gather insights about the inhibitors and facilitators of the WLB experience of remote-working RA-Pharmacists in Gauteng, which could then guide Management when implementing remote work policies and support structures for this workforce. Theoretical and Conceptual Framework The Work-Life Harmony theoretical model used in this study describes themes of Work-Life Balance (WLB), Work-Life Conflict (WLC), and Work-Life enrichment, which can have cross-domain effects (Hasan et al., 2020). The cross-domain effect describes how themes can influence others positively or negatively if there is a heightened imbalance in one area (Hasan et al., 2020). This aligns with Bronfenbrenner's 1979 multi-factored Socio-ecological conceptual framework, which describes how human development and behaviours are determined by interactions between individuals and their environments (Bronfenbrenner, 1979). These frameworks complement each

other as they demonstrate the influence and association between the interactions of the individual and the environment (Supplementary Table S1 and Figure S1). Bronfenbrenner's model looks at external, systemic factors such as organisational policies and family dynamics, while the Work-Life Harmony model focuses on internal, psychological outcomes (e.g., [work-life conflict and enrichment](#)). The [Work-Life Harmony](#) model can be located within Bronfenbrenner's framework and was used to describe the remote working experience of RA Pharmacists in Gauteng by focusing on factors such as cognition, behaviour, well-being, and environmental interactions. [Research Methods and Design: Study design](#): An explorative [qualitative](#) and descriptive research [design](#) method was used guided by Bronfenbrenner's conceptual framework and the Work-Life Harmony theoretical framework. The explorative qualitative research design was chosen as it is appropriate for understanding complex social phenomena like WLB. Qualitative research is suited to provide a broader understanding when uncovering the depths of personal experiences, nuances in perceptions and the complexities of the impacts of remote work that might be missed in quantitative research. [Semi-structured interviews were used to explore the WLB of remote-working RA Pharmacists in Gauteng, South Africa](#). These were chosen over focus groups and surveys as the method allows for greater flexibility, giving participants the chance to express personal views on sensitive topics such as WLB and well-being while still allowing the researcher to focus on key themes. Furthermore, in comparison to surveys, semi-structured interviews provide the added benefit of immediate follow-ups during the interview and further probing by the interviewer. Thus, enabling the receipt of detailed responses and thick descriptions from study participants. [Setting](#) The study was conducted in the Gauteng Province of South Africa. To ensure data variability in the sample [Gauteng Province was chosen since there are a high number of pharmaceutical applicants where RA pharmacists are employed](#). The study site was informed by the database of inspected, registered, and approved Applicants by SAHPRA. The database is updated and maintained by the Health Authority and can be accessed on the following website <https://www.sahpra.org.za/approved-licences/> (SAHPRA, 2024). [Study population and sampling strategy](#) The study population consisted of RA Pharmacists based in Johannesburg working remotely or with experience working in a hybrid system post-easing of the Covid-19 restrictions. [Sample size in Qualitative research is often guided by saturation](#). Saturation or "data adequacy" describes the point at which repeated detailed description is achieved, and no additional codes and themes are gathered from additional participants (Morse, 1995; Rahimi and Khatooi, 2024). Bernard suggests a sample size of 10 - 20 is sufficient to identify critical issues and provide rich data in qualitative studies on human experience. Purposive sampling and the concept of saturation were used to determine an intended sample of 20 participants because it ensured data variability and reliability by identifying a quality sample pertinent to the study objectives without biases. The researcher sent a participation open call on LinkedIn, and 3 participants volunteered to participate, while the remaining 17 volunteered through snowball sampling. One participant dropped out of the study before their scheduled interview without stating the reasons. Saturation was reached after interviewing 17 participants; thus, the final study sample size was 17. The social media-snowball sampling method combination sampling technique was selected because it helped identify participants in a niche group, ensuring a broader pool of respondents who may not have been reachable through other recruitment strategies. Characteristics of study participants Remote working RA Pharmacists in Gauteng, South Africa. Data collection The researcher piloted the interview guide in December 2023 to ensure the validity of the study methodology and tools, assess its understandability among participants and alignment with study objectives. The outcomes of the pilot aided the researcher in familiarising himself with the interview guide. Moreover, it guided the researcher in structuring follow-up questions to ensure descriptive and rich data was collected. Participant responses successfully guided inductive coding, whilst the two frameworks guided deductive coding, as confirmed by the intercoder reliability checks between the researcher and co-authors on emerging codes and themes. The interview guide was found to be a valid tool aligned with [the study objectives and no adjustments were made to the research design and data collection tools](#). The researcher, alongside one co-author, conducted and recorded semi-structured interviews independently via Microsoft Teams (Version 24180.210.3001.6635) for thirty minutes. Microsoft Teams proved to be a convenient tool for virtual data collection, offering participants the flexibility to join from any location. Additionally, the platform facilitated the downloading and storage of interview recordings, along with auto-generated transcriptions to the cloud. Technical issues occasionally emerged due to poor bandwidth from load shedding, briefly disconnecting participants mid-interview. The researcher addressed these disruptions by repeating questions and prompting participants to rephrase their answers. When participants were unavailable owing to load shedding, the researcher adapted to their schedules. Member checking took place during the interviews, with the researcher relaying participants' responses to confirm their understanding and ensure accurate reflection of their perspectives. The researcher manually edited and reviewed transcription errors to guarantee accuracy and anonymity. Data Analysis The researcher used a multi-stage approach for thematic analysis [as described by \(Gale et al., 2013\)](#). The Work-Life Harmony and Socioecological frameworks guided deductive coding by demonstrating the influence and associations between the interactions of individuals and their environments. The analysis comprised transcription, [familiarisation with the interviews, coding, developing a working analytic framework, applying a working analytical framework, charting the data into a framework matrix and interpretation](#). The transcription feature on [Microsoft Teams was used to transcribe the interviews](#) verbatim. The researcher familiarised himself [with the data by repeatedly listening to the interview recordings and reviewing interview notes](#). Transcripts were manually reviewed, formatted, edited for correctness and assigned unique numerical identifiers for anonymity purposes. These were imported into MAXQDA (2020) for manual and computer-aided coding. MAXQDA is a validated tool for qualitative research data collection, coding, systematic review and thematic analysis (Hart & Achterman, 2017). The dataset was labelled with codes by two coders, and recurring codes were grouped into subthemes and refined into themes that corresponded to each layer of the socio-ecological framework. The interviews guided inductive coding, and the overarching themes were categorised according to the social-ecological framework. These were reviewed iteratively by the team to establish agreement and ensure reliability. Ethical Considerations Participation in the study was [voluntary; participants did not receive compensation or incentives](#). Anonymity was maintained by assigning unique numerical identifiers to participants. [The questionnaire and codes were reviewed by co-authors to ensure there was no researcher bias](#). Ethics Approval [was granted by the Wits University Human Research Ethics Committee](#) (Medical), protocol number M230741. Trustworthiness Measures of Trustworthiness are [credibility, transferability, dependability, and confirmability](#) (Shenton, 2004). [Credibility](#) was ensured through member checking throughout the research process. The researcher reflected on their positionality as an RA Pharmacist and utilised their expertise to develop a broad understanding of the research setting. The researcher noted that [participants felt a sense of](#) relatability towards them, [and were](#) confident that [the](#) questions posed would be appropriate and relevant, likely due to the researcher's role as an RA Pharmacist with a hybrid work background. Confirmability was achieved by minimising researcher bias in the data through an inter-coding agreement between co-authors and a qualitative research expert, ensuring alignment of the codes with the study objectives and the conceptual and theoretical framework. Dependability was established by ensuring stability in the data over time, and [the COREQ \(Consolidated Criteria for Reporting Qualitative Research\) Checklist was followed](#). The researcher maintained an audit trail by saving raw data, corrected transcripts and the participants' consent forms on the cloud drive. Transferability was ensured using thick and comprehensive descriptions (Ahmed, 2024) of the study site's socio-economical and geographical context, participants' unique work context, data collection considerations and the robust methodology applied. Results Participant Demographics The study included 17 participants, predominantly women (94%), with men comprising only 6% of the sample. Participants included both parents and non-parents. Parents had one to three children across various developmental stages, ranging from infancy to adolescence. Most participants worked under a hybrid working model, although policies on flexibility varied and changed over time. [An overview of Participant Demographics is highlighted in Table 1. Table 1](#): Participant Demographics and Work Arrangement Household Arrangement Living with family 13 Living Alone 4 Parents 11 Non-parents 6 Work Arrangement Fully Remote 1 Hybrid 16 Some participants were in managerial roles with varying levels of experience, while others were new to the RA field or mid-career professionals. Their experiences ranged from a few months to 20 years in the field. A newly appointed manager shared: "Transitioning into a managerial role felt like I needed to be online more, especially due to the international nature of our business and being appointed under dual roles. With time, I realised that constantly being online is psychologically limiting and does not equate to being productive"(P15) This reflection indicated how years of experience are a factor in achieving WLB. Further, it highlights how gaps in robust onboarding and training, including psychological support, can delay the transition into

managerial roles and hinder a thorough understanding of responsibilities. Participant Definitions of Remote Work Remote work was defined as the ability to work at any space outside the established work address with flexibility in choosing work environments like home or coffee shops. It was generally viewed [as a double-edged sword; while participants appreciated the flexibility, they noted challenges in establishing and maintaining boundaries between work and personal life](#). These experiences shaped their perceptions of WLB. Participant perspectives of Work-Life balance Maintaining a WLB was viewed by participants as the ability to separate work from personal life. This includes balancing family responsibilities with work, with the benefit of being present for family needs, but also the challenge of juggling household duties and work tasks. Remote work complicates this balance by making it harder to "shut down" and completely disconnect from work. Thematic analysis identified overarching themes of [work-life conflict and work-life enrichment](#). These themes were organised within Bronfenbrenner's Socio-Ecological Model: 1. Individual Level (Microsystem) Participants frequently grappled with managing their behaviours, particularly tendencies toward workaholicism and perfectionism, which often led to longer working hours. Additionally, those with limited or no prior experience working remotely initially struggled with being easily distracted while working from home which was attributed to the loss of routine and the blurred boundary between the working and home environment: "I think for me that was the only issue initially was finding how to actually structure my day while working from home...So how do I structure being at home and being productive throughout the day?...I guess I think it took some time for me to fully work and understand to fully have a good system of working at home efficiently as opposed to being in the office and vice versa..I think what sometimes prohibits me from having a good work life balance is I think finding ways to fully focus, especially looking at working from home" (P9) These findings were consistent with several qualitative studies that point to WLC as an outcome of remote work due to the removed physical boundary [between work and home \(Adisa et al., 2022; Taksi Devciyan and Alay, 2023\)](#). WLC comprises WIF conflict and FIW conflict (Gajendran & Harrison, 2007; Allen et al., 2013). To mitigate these behaviours, participants emphasised the importance of boundary setting by creating physical and temporal separations [between work and home life](#). Effective communication within [the household helps manage this separation](#). Reduced commute times and a dedicated well-equipped home office can increase productivity, but managing home distractions is crucial. Establishing structured routines, such as fixed work hours, taking regular breaks and improved planning when working in teams across different time zones further enhanced productivity and well-being: "I start my day as if I'm going to the office, with breaks and a set end time to shut down work." (P14) "I had to consciously dedicate myself fully to a task within a specific timeframe. When that time is up, I redirect my energy and give my all to the next task. At the same time, I prioritise my time, making space for quiet reflection, personal activities, and passions. This might include tending to your garden, reading, taking walks, or engaging in community activities. I believe these practices are essential for building psychological and emotional well-being" (P15) Participants reflected that since working from home, there was an increased perception of "more time" to execute work functions as there is no need to account for time spent in traffic. "I think what happens is that when it's time for you to shut down and you've worked in your hours, it doesn't happen because you're at home where you don't need to shut down to catch your transport or leave the office to get home" (P4) Participants' reflections reveal [that the ability to work from home offers the benefit of saving time by eliminating commute hours](#), which is aligned with literature from (Rüger et al., 2024). However, participants commonly expressed dedicating the saved time to further work-related tasks, instead of utilising the extra time for personal tasks, like organising household responsibilities or engaging in self-care. This trend can foster a culture of overwork, leading employers to perceive that employees are always available, which can result in burnout. Workers may feel pressured to take on more tasks in the name of productivity, ultimately undermining the work-life balance that remote work could provide. This underscores the necessity of establishing a culture and policies that encourage disconnecting from work after hours. 2. Family Dynamics and Support (Microsystem) Family support emerged as a critical enabler of WLB. Participants described how their children, parents, siblings, helpers, and spouses helped them establish boundaries and reminded them to prioritise family time. Clear and timely communication was highlighted as one of the tools that enabled boundary setting and mutual understanding between participants and families: "I wouldn't have been able to cope in my new role without my husband. My siblings and parents have also played a role as we can share tasks such as picking up kids and doing homework" (P14) The role of the helper as a core member of the family and primary caregiver of children was a recurring theme. Participants reflected on delegating household and childcare duties with helpers to ease pressure from household responsibilities. Parents also discussed how the pandemic has made children more adaptable to remote work, as previously children associated the work environment as separate and different to the home environment. Effective communication with children minimised disruptions and was essential to manage work-from-home responsibilities. "So it's important to communicate even with your 5 year old and it's amazing how kids have adapted also in this time... So specifically, she knows that if Mommy's in the meeting, I also need to respect that." (P1) 3. Isolation (Microsystem) Living alone had a negligible impact on some participants' work-life balance (WLB), particularly those with strong interpersonal relationships, as they managed to maintain connections with colleagues and family while balancing work expectations. Conversely, some participants reflected on how living alone and having limited human interactions adversely affected their mental health, exacerbating their struggles and their ability to build and maintain relationships. Concerns were raised regarding a lack of stimulation, and to address this, participants took on additional work responsibilities, often resulting in longer hours and weekend work. Additionally, this led to feelings of disconnect from friends and family, making it further challenging to reach out to them. The comparison between the two groups underscores the significance of having strong and stable interpersonal relationships within the microsystem, as these can enhance the WLB experience in terms of isolation, loneliness, and mental health. "...Living alone and working from home have negatively impacted my depression...I have never been in a situation where I find myself being in now whereby I am kind of learning new ways of surviving and without having that human interaction that is constantly there...What conversations do you have outside of your workplace, do they build you? I feel like I'm diminishing, actually, like my language is also getting minimal because what I talk about mostly is work" (P2) 4. Workplace Interactions (Microsystem and Mesosystem) Participants valued peer support for sharing best practices, navigating workplace challenges, and career growth. Emotional support from colleagues was especially beneficial in addressing work-related stress. Human interaction was valued and seen as a positive influence. "We help each other survive the workplace through knowledge sharing and mutual encouragement." (P1) "My passion is operation, so what I do is once I get more comfortable in a position, I will develop new processes that make things more efficient for me. I developed systems that made it easier or less administrative for my colleagues so they didn't have to spend as much time doing some work or certain types of work. Doing this improved our work-life balance" (P10) Participants had mixed experiences with management. Understanding managers were perceived as facilitators of WLB, while micromanagement hindered it. "My supervisor respects our autonomy, but upper management's micromanaging undermines flexibility." (P6) "We work on a hybrid system, two days in the office and three days at home. You have the autonomy to split the days how you want, meaning you can work mornings in the office and the afternoon from home. It works for everyone, mostly parents who need to pick up their children from school. Our manager gives us an extra half day of leave every month, off the books. It works out to 6 extra leave days a year. We just have to communicate with her when we want to take time off" (P10) Some participants reflected that despite their productivity not being hindered while working remotely during the pandemic and post-easing of the COVID-19 restrictions, management implemented policies such as reduced frequency of working from home compared to other departments in the same company, selecting specific days for employees to work from home, and constantly checking when employees were online. Participant reflections revealed how micromanagement was closely related to management's perceptions of remote work and trust issues. Thus, highlighting a need for further open dialogue with managers on performance and productivity, clarifying expectations, building trust and explaining how their attitudes and perceptions could potentially influence WLB negatively. "So we are supposed to give one specific time and then stick to that particular time the whole year. You don't have the flexibility of today starting at this time..." (P6) Furthermore, WLB was altered by the increased workload and managers' expectations that participants attend meetings outside of core working hours. "It's not that somebody is forcing you, but because of the pressures that we are facing with work, I think it feels like there has been this exponential growth, just the amount of work that needs to be done. You feel like let me compensate by at least working an extra hour in extra hour, which becomes extra four hours working and not spending time with the family." (P8) "I also felt like there were too many expectations that have arisen because

of working from home whereby you know you could be in a meeting even at an inconvenient time." (P2) One participant with experience in dual roles (Regulatory Affairs and Quality Assurance) reflected: raised concerns about senior management's inability to address workload challenges and complexities associated with the dual appointments. Challenges around limited headcount and requests for additional headcount not being considered led to managers double-hatting in both strategic and operational roles, leading to burnout and strain on productivity and mental health. "The expectation is that you'll be able to deliver no matter what, and you can't even talk to them about it...It affects everybody, your family, it affects your team, your colleagues and to a certain extent it becomes so visible that it affects you psychologically as well. You may even have a breakdown. I nearly got to that state, and eventually, I was like, no, this is not life"(P15) A culture celebrating overtime productivity further exacerbated WLB challenges. To mitigate this, one manager advocated for regular check-ins with colleagues who worked overtime to caution against working overtime and establish reasons why they were unable to complete tasks within core hours. Managers further highlighted how there would be occurrences where time-sensitive projects were being completed in line with stringent health authority timelines that often warrant overtime. Their reflections show their understanding of the dynamic nature of the roles and the fluctuating working hours which would sometimes warrant employees getting additional support and assistance in delegating tasks. "There's this notion that working overtime equates to productivity, but that's not true...I've been in this industry for a while and I have had a bad view of South African companies especially. They really have a bad view of how remote work is and how being a manager or what being a manager is and even being employees, you're expected to work 24/7. We celebrate those employees that work 100 hours a week or 200 hours a week" (P15) 5. Organizational Policies (Exosystem) Participants noted that organizational policies played a significant role in shaping their WLB. Policies allowing remote work were generally viewed positively but required clear guidelines and consistency, as some of these were only applicable at the discretion of direct line managers. Participants reflected on company readiness for remote work stating that although remote work was implemented, there were instances where tools required for this practice such as systems and ergonomics were not fully in place. "I find that we're not capacitated to work from home in this particular space or this particular company, even though we are allowed to. So it's simple things like for example, the servers are too slow if you were to work from home or they will not give you an additional screen. With the type of work we do in RA you need a second screen, so that's a cost you need to incur yourself if you want to work from home...I joined the company as an RA Pharmacist with no prior experience and my manager resigned one month into my joining the company. There was no replacement for them until after three months, and I had to take on that responsibility. This was a challenging transition for me and it impacted my work-life balance negatively as I was the only person in the company working in Regulatory Affairs. I suffered a seizure for the first time as a result of the stress" (P10) Effective onboarding, and availability of resources required for work and training are areas of improvement in ensuring business continuity and adequate support for newer employees. One manager further reflected on the importance of hiring multiple personnel to better support WLB and the distribution of workload but cited management's inflexibility to change flat structures as an inhibitor of WLB. "The expectation is that you'll be able to deliver no matter what, and you can't even talk to them about it. I told management that we needed to appoint more personnel, but I ended up taking the weight. Although I had a team, the team was not sufficient enough to carry the load. So I ended up being operational as well, and that resulted in long hours of working to such an extent that I was not becoming functional at all anymore because I was forever tired. When you are tired, you end up making mistakes; you may also even make grave mistakes that will cost the company even more, and that may even affect people's lives in a way." (P15) Limited labour forces and unequal distribution of work negatively impact WLB and well-being as employees are expected to take on additional roles to compensate for flat company structures. Cross-Domain Interactions The cross-domain effect described by Hasan et al. (2020), as highlighted in Supplementary Table S1 and Figure S1, was further used to discuss and closely examine the interactions between the various layers of the Socioecological Framework in the context of the study participants: Mesosystem: Work and Family Responsibilities Participants described both conflicts and synergies between their professional and familial roles. Family responsibilities occasionally interfered with work demands, but supportive family structures helped mitigate these conflicts. Work-Life Conflict: Flexibility in remote work was undermined by micromanagement or overtime culture. Setting boundaries and stopping work at the end of the day was a major challenge since caregiving responsibilities sometimes clashed with work expectations leading to potential overwork and burnout. Work-Life Enrichment: The flexibility of remote work helped balance family responsibilities and work, allowing for better integration of family care tasks into the workday: "...as I mentioned a lot of the responsibility, family responsibility and household responsibility still falls on me. So, I think being afforded this opportunity to be able to work remotely I'm still able to fulfil a lot of those household responsibilities as well" (P13) Supportive families and managers facilitated better integration of work and personal life. Having helpers for childcare and household chores further enabled WLB. Additionally, collaborative colleagues and shared learning promoted career growth. Exosystem: Participants emphasised the need for organizational policies that balance productivity with employee well-being. This included clear remote work guidelines, mental health support, and a shift away from celebrating overtime work: Work-Life Conflict: Extended work hours and intrusions into personal time due to the home environment and managerial expectations led to difficulties in maintaining work-life boundaries. Although working outside core hours can inhibit WLB, it is often seen as a reasonable trade-off for the flexibility of working from home. Work-Life Enrichment: Good relationships with managers were essential. Effective and open communication with managers on enhancing workplace policies was crucial for managing WLB. Flexibility for employees to work from the office during load-shedding facilitated WLB and reduced stress from sometimes unpredictable and inconsistent load-shedding schedules. Employee autonomy to manage working hours and incentives such as additional leave days promoted WLB. Macrosystem Work-Life Conflict: Management perceptions of remote work, its implementation and employee productivity varied. Reflections from participants show an evolution in how remote work used to be perceived. However, management perceptions still vary, highlighting a disconnect between employee and employer/supervisor. "I remember this used to just be a struggle to get to be allowed to work from home. The main reason was that people do not work when they say they're going to work from home. There was that mistrust between the employer and employee. However, COVID should prove that suspicion otherwise, because people really did pull up those socks and worked very hard, extremely hard" (P2) Managers not fully in support of remote work micromanaged teams, while others created trusting relationships with employees and communicated clear expectations. Although participants noted an increase in their productivity during COVID and post- easing of restrictions, they observed that managers regressed in acknowledging the value and effectiveness of remote work. Participant reflected: "When I started, we had two days in the office, but that got taken away eventually. Now it's entirely at the discretion of the line manager." (P6) "I feel like maybe COVID kind of showed a lot of people that, okay, it's actually possible to work from home. But a year after that, somehow, like the employers, have convinced us that actually, no it's not possible..We had a discussion with the CEO and we could kind of get that sense that there's more and more excuses being built up in the case to kind of backtrack and move away from working from home." (P6) Reflections from the participant further highlight how management's perceptions of remote work can influence the implementation of remote work policies. This indicates a need for open and inclusive dialogues with direct reports to ensure that the effectiveness of remote work is adequately substantiated and represented by their experiences and work output. The nature of work was described as demanding, often spilling over into family and personal time. As a result, participants frequently worked over weekends and public holidays. The workload increased due to the demand for essential medicines, the need for accelerated registration approvals and adherence to stringent regulatory authority and internal company timelines: "We work with a Health Authority, so there were instances where I would work long hours just to make sure I'm able to keep up to deadlines" (P11) "There are instances where there will be a spike in terms of the time that you need to be online because health agencies or projects that are short-term have limited time for us to meet those targets." (P15) Despite their awareness of challenges, some participants accepted the demands as they understood their responsibility in promoting public health. Thus, indicating role prioritisation over their well-being: "At that particular point in time, it was COVID, and the work we do is in the interest of public health, so I tend to prioritise it, but it wasn't that there was a lot of external pressure from anyone to work those long hours." (P10) Reflections on industry culture, hiring practices and internal pressures experienced were similar: "So there is that, but I swear to you, it is so busy...It's all about putting down the fires. So, umm, you know when you're putting down the fires you get tired, you get tired because it. (P2) The industry

that we're working in is very output driven, so I believe that when they conduct interviews, they're looking for people who are results driven as well." (P4) The pattern in participants' responses reveals that within the industry, there is a "high quantity" and "high output" culture. This signals the need for a revision of workplace practices and expectations, balancing business continuity with sustainable WLB practices for employees. Working across different time zones, working outside core working hours and submitting multiple dossiers to African Health Authorities with different Regulatory requirements exacerbated work-life imbalance: "So you end up working overtime, for example, just to be able to update systems and other activities that are related to the submissions for the number of countries that I was responsible for" (P14) These observations further highlight the impact of delayed intercontinental harmonisation at the individual level. Work-Life Enrichment: Participants addressed challenges with maintaining WLB by devising mitigating factors to address these whilst continuously improving how they incorporate remote work with their home environment. Clear communication and improving communication were highlighted as enablers of WLB. Remote work created an opportunity for families to bond together, nurture relationships, and harness energy towards healthy activities: "In terms of the Family part I regard it as a huge benefit and a privilege actually to be able to work remotely, simply because I don't have any other support system beside myself and my spouse. So the responsibility for my two children would rely fully on my husband and myself, so the remote working has hugely assisted being able to be there for my children at times when I wouldn't normally be able to be there if I was working fully in the office, and that has actually helped even engagement with my children and I think it's built a far more almost very trusting and appreciative relationship with my children. So it's not just about the relationship that it's enabled with them, but they also can see the benefit of me being available to them where I wasn't previously." (P13) "I mean I breastfed my daughter for like 16 months, so I think you know working at home for me, I mean like that was a serious advantage. I have such a healthy child and who never really got sick. So you know, I really appreciate that. I was able to be home to also see the different stages because you know if they're like oh she's walking, I'm like not too far. I can actually see it" (P3) Remote working has allowed participants to spend more quality time together. For parents, in particular, it has enabled them to become more involved in childcare responsibilities and to monitor their children's development and milestones. For working mothers, there was a noted appreciation for the increased involvement from spouses in childcare and household duties, combined with the previously mentioned active role of the helper. Chronosystem Post-easing of the COVID-19 restrictions, remote work policies evolved and adapted significantly. Initially, remote work was limited but became more widespread and structured. Remote work policies also shifted significantly from occasional to more permanent arrangements, with hybrid systems becoming common. [The COVID-19 pandemic has accelerated the acceptance and implementation of remote work](#) practices, demonstrating that many roles can be effectively performed from home. Work-Life Conflict: Participants reflected on their evolution in adjusting to remote work during COVID, stating an initial difficulty in adjusting to complete remote work. Some exhibited an improvement post-easing of [the COVID-19](#) restrictions with [the introduction of](#) permanent hybrid [work](#) systems, [which](#) granted more flexibility. Remote work disrupted personal time due to the dual [demands of work and family](#) responsibilities. Work-Life Enrichment: Remote [work](#) enhanced productivity [and](#) reduced commute times, allowing RA Pharmacists to start work earlier and dedicate the remaining time to family and self-care, cost savings on fuel and increased safety: "I remember there was an incident on the M1 during load-shedding and there was bumper-to-bumper traffic. People were being mugged, and it was women who were targeted. Remote work adds a safety element as you don't have to worry about being stuck in traffic after 18:00 and constantly thinking about being followed" (P1) The understanding that remote work is the new norm together with mitigating challenges experienced with remote work facilitated the gradual adjustment to hybrid working systems by RA Pharmacists post-easing of the COVID-19 restrictions. Discussion: The study aimed to gather insights about the inhibitors and promoters of the WLB experience of remote-working RA-Pharmacists in Gauteng. Study findings such as increased employee autonomy and flexibility align with pre-existing literature from pre-Covid-19 studies (Gajendran & Harrison, 2007; Allen, Golden & Shockley, 2015). Contrastingly, the findings from the three studies differed as they did not associate remote work with lowered work stress and exhaustion (Gajendran & Harrison, 2007; Allen, Golden & Shockley, 2015). Rather, remote work was associated with increased work pressure and psychological strain. Viewing this using the Chronosystem layer of the Socioecological framework reveals how there has been an evolution in the WLB experience for RA Pharmacists pre-covid, during Covid and post-easing of COVID-19 restrictions. This is attributed to factors such as evolving perceptions around remote work and workplace policies which were sometimes inconsistent and unclear. COVID-19 accelerated the implementation of remote work practices, and post-easing of restrictions hybrid working systems were more prominent. Adaptable workplace policies that do not celebrate overtime work but rather encourage wellbeing whilst balancing productivity are thus required to enable WLB. The dynamic nature of the RA Pharmacists role in South Africa could further evolve once Policy issues such as delayed digitalisation on the African continent are addressed. Load-shedding, a long-standing issue in South Africa, continues to pose a threat to business continuity and is a hindrance to digitisation, challenging the effective move towards full remote work for and the implementation of eCTD (electronic Common Technical Document) in Africa which could lead to a more streamlined application submission and review processes for both the RA Pharmacists and NRA's. Continued efforts advocating for harmonisation and digitalisation should therefore be strengthened as these could help reduce workload pressures, and duplicated efforts by RA Pharmacists. The pandemic demonstrated that many roles can be effectively performed from home as evident from the positive reflections on the noted increase in productivity from participants during Covid and post-easing of restrictions. Interestingly, this finding could correlate to the increased expectations from companies and managers as they have noted that the labour force can work long hours under pressure and deliver effectively whilst working remotely. The uniqueness of the study highlights that although this productivity was noted it should be thoroughly reviewed and cautioned against for its lack of sustainability as productivity was sometimes achieved at the expense of the RA Pharmacists mental health, wellbeing and WLB. The cross-domain effect was highlighted by participants between the microsystem, mesosystem and macrosystem. Work-life harmony was observed when participants managed personal behaviours, where there were positive relationships and interactions with supervisors, supportive workplaces which included adequate staffing and resources and supportive home environments enforced by clear and effective communication. These findings were consistent with Global studies on remote work, which demonstrated positive outcomes including increased time with family, thus strengthening relationships, and reducing strain on primary caregivers of children through the sharing of responsibilities (Harry Williamson - Labour Market and Skills Unit, 2022). Supportive work environments were characterised by adequate staffing and resources, and encouragement from colleagues. Work-life conflict was exacerbated where there were increased household and child-care responsibilities, limited labour forces, coupled with increased expectations and micromanagement by managers. These findings on WLC were consistent with qualitative studies that point to WLC as an outcome of remote work due to the removed physical boundary [between work and home](#) (Adisa et al., 2022; Taksı Deveciyan And Alay, 2023). A shift towards Industry and workplace cultures that support employee well-being, mental health, effective resource allocation and distribution are necessary to facilitate WLB. Management and HR should therefore derive programmes that enable this integration. The overarching themes addressing WLB and well-being highlight the need for tailored psychological support programmes for the labour force. Management, HR, and RA Pharmacists can initiate this joint responsibility collectively. Recommendations Policy Recommendations for Policymakers Establish National Remote Work Guidelines by developing and standardising frameworks for remote and hybrid work arrangements across sectors. This can be achieved by including provisions for work hours, mandatory breaks, and communication norms to ensure employee well-being. In addition, mandating organizations to have clear, written remote work policies approved by employees and managers. Promote Flexible Work Arrangements by encouraging policies that give employees the autonomy to choose their remote and in-office days, within operational requirements. Support Mental Health and Well-Being by mandating [employee assistance programs \(EAPs\)](#) that [provide psychological support, stress management](#) resources, and counselling services, and promote workplace wellness programs that address burnout and mental health challenges associated with remote work. Invest in Digital Infrastructure by ensuring equitable access to high-speed internet and technology for all employees, including subsidies for home office setups. Furthermore, through supporting national campaigns to enhance digital literacy, such as increasing the uptake and use of AI (Artificial Intelligence) for effective remote work through staff training and education. Encourage Training for Managers by developing government and private-sector- supported training programs for managers on effective remote team management, focusing on outcomes rather than

micromanagement and including modules on mental health awareness, flexible leadership, and inclusive management practices. Reforms to South African Labour Law Legislating the Right to Disconnect by introducing legal frameworks that ensure employees are not obligated to respond to work-related communications outside regular working hours unless in emergencies and include penalties for employers who violate this boundary. Enforcing Work-Hour Monitoring by mandating companies track and report overtime and ensure employees are compensated for extra hours worked. Additionally, ensure the number of hours employees work weekly comply with Chapter Two, "Regulations of working time" sections two – eighteen of the Basic Conditions of Employment Act (BCEA). Strengthening protections for remote workers by updating the (BCEA) to tackle challenges specific to remote work, such as workplace safety and ergonomic considerations in home offices. Furthermore, mandating regular reviews of work arrangements by mandating periodic evaluations of remote work policies to ensure alignment with employee needs and legal standards and through enforcing consultation with employees when amending remote work practices. Expanding Parental and Caregiver Support by extending parental leave provisions, including shared parental leave for mothers and fathers and including flexible caregiving allowances or policies for employees with dependent care responsibilities. Limitations The study's geographic focus was narrow, which may limit the generalisability of its results. Gauteng is a densely populated urban area, and some findings might be specific to this locality. Future studies could benefit from multi-provincial sampling and segmentation across various sectors of RA, such as Medical Devices, Veterinary, and Complementary Medicine, to generalise findings or explore diverse experiences. Additionally, the underrepresentation of male perspectives could warrant a follow-up focus group study with more male participants. Conclusion The study's methodology, rigour and its application highlight how Qualitative studies help identify critical issues from diverse participants with different lived experiences. Although diverse in nature, reference and commonalities can be drawn from the findings as they provide rich and detailed insights into the experiences and perspectives of RA Pharmacists both at the managerial and non-managerial levels. Furthermore, the findings related to the impact of remote work on the mental health of RA Pharmacists can guide the Pharmaceutical Industry Management and HR (Human Resources) in creating comprehensive programmes that further delve into this phenomenon through updating policies and incorporating tailored psychological support programmes and structures in the workplace for remote workers. Acknowledgements: None. Competing interests: The authors declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in writing this article. Author contributions: Ané Orchard, Tintswalo Hlungwani conceptualized the idea and supervised Kgabo Sekgalakane. Kgabo Sekgalakane and Ané Orchard undertook the data collection, data analysis was undertaken by Ané Orchard, Kgabo Sekgalakane and Tintswalo Hlungwani, Kgabo Sekgalakane drafted the original article. Ané Orchard and Tintswalo Hlungwani reviewed the article. Funding information: This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors. Data availability: The data supporting the findings of this study are not openly available due to their confidential nature, emphasising the importance of ethical considerations in research. To protect data privacy and ensure appropriate access, these data are available from the corresponding author, K.S., upon reasonable request. Disclaimer: The authors declare that the views expressed in the submitted article are our own and not the official position of the institution or funder. References Adisa, T.A., Antonacopoulou, E., Beauregard, T.A., Dickmann, M. & Adekoya, O.D. 2022. Exploring the impact of COVID-19 on employees' boundary management and work-life balance. *British Journal of Management*. 33(4):1694–1709. DOI: 10.1111/1467-8551.12643. Ahmed, S.K. 2024. The pillars of trustworthiness in qualitative research. *Journal of Medicine, Surgery, and Public Health*. 2:100051. DOI: 10.1016/j.gjmed.2024.100051. Allen, T.D., Johnson, R.C., Kiburz, K.M. & Shockley, K.M. 2013. Work-family conflict and flexible work arrangements: Deconstructing flexibility. *Personnel Psychology*. 66(2):345–376. DOI: 10.1111/peps.12012. Allen, T.D., Golden, T.D. & Shockley, K.M. 2015. 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