

Knowledge management practice conceptualisation and enactment in retail pharmacies in Namibia: Insights from a multiple case study

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Abstract

This paper assessed the Knowledge Management (KM) methods used in Namibian retail pharmacies. Shortcomings in KM techniques breed inefficiencies, unsafe practices, poor standards, and high morbidity. Namibian retail pharmacies significantly lack knowledge mobilisation, consequently leading to undesirable quality of practice standards. The KM practices were qualitatively explored, with document scrutiny and semi-structured interviews providing the research data. The 10 retail pharmacies took part in the study, providing nine pharmacists and seven assistants as participants. The recorded interviews were converted into transcripts, and together with the collected documents, thematically analysed. The participants demonstrated little understanding of the KM phenomenon and participated passively. Despite engaging in KM activities, the participants did not conceptualise this as KM but rather as routine work. This study revealed the absence of KM systems in retail pharmacies to extract tacit knowledge and institutionalise it. The findings demonstrate the need to introduce robust KM systems in retail pharmacies, which can externalise tacit knowledge into organisational intellectual material. This research expands the current KM and pharmacy practice scholarship by focusing on the neglected retail pharmacy settings. The outcomes refine the present KM models and provide context-specific insights into KM practices in retail pharmacies.

Keywords: Knowledge management, tacit knowledge, explicit knowledge, knowledge sharing, retail pharmacy, pharmacy practice.

Introduction

Knowledge Management (KM) has gradually been accepted as a practice that positively positions organisations in performance and competitiveness. Hujala and Laihonon (2021) described KM as a collection of techniques to leverage organisational intellectual resources. Performing the required tasks to maximise the use of these knowledge resources concisely captures the concept of KM (Almansoori et al., 2021; Popa & Ștefan, 2019). Wang (2024), who studied KM techniques adopted during the COVID-19 outbreak, asserted that KM is a function of how an institution is governed, involving the way knowledge is created, shared, and utilised. This implies that without structured KM approaches, pharmacies face knowledge loss on the introduction of new guidelines,

procedures, or products. Consequently, any shortcomings in KM practices by retail pharmacies threaten patient safety due to the reduced level of pharmaceutical care.

Retail pharmacies occupy a distinctive position among knowledge-driven organisations characterised by therapeutic advancements, changing regulatory environments, and an expanding scope of pharmaceutical care (Guhl et al., 2018). Hu et al. (2022) demonstrated that KM capacities notably influenced pharmaceutical organisations' competitiveness. Because of the dynamic nature of the pharmaceutical sector, Priyavarsha and Sudha (2024) argued that KM is central to shaping organisational performance by determining knowledge acquisition and sharing mechanisms. The study of Chu (2024) provided empirical evidence that sound KM adoption significantly reduced healthcare employees' intention to leave their occupations. In this study, the influence of KM on staff retention is particularly important as the work experience of the participants widely varies from 4 to 25 years, representing a significant accumulation of tacit knowledge, vulnerable to loss in the absence of dissemination structures.

Namibian retail pharmacies are bedevilled by inadequate attention towards knowledge mobilisation, leading to lower than prescribed quality of pharmaceutical care. According to Mazorodze and Buckley (2019), most Namibian institutions, including healthcare facilities, either lack a conceptual grasp of KM or intuitively engage in it. Lack of focus on KM leads to inadequate tracking of medicines utilisation in retail pharmacies, inefficiency, shortcomings in decision-making, and undesirable health outcomes. Therefore, this study sought to unveil the KM methods that are utilised in Namibian retail pharmacies during routine work. To achieve this, three research questions were formulated to guide the inquiry:

1. How do pharmacy professionals conceptualise KM?
2. How is tacit knowledge captured and harnessed in Namibian retail pharmacies?
3. What knowledge-sharing methods are employed in Namibian retail pharmacies?

While the challenges of KM in healthcare have been broadly studied, current research efforts have been directed towards hospitals in developed nations, with retail pharmacies in resource-limited environments largely underexplored. This study contributes to existing scholarship in 4 distinct ways. First, it provides empirical evidence of how KM is practised in Namibian retail pharmacies, a context absent from the existing KM literature. Second, it brings to the fore the paradox between formal prescription of KM procedures and the behavioural enactment in practice. Third, it reveals how intra-professional power dynamics shape knowledge boundaries in retail pharmacy teams. Fourth, this study demonstrates the analytical usefulness of the dual framework to understand both structural and behavioural elements of KM in small healthcare institutions under resource constraints.

Theoretical Framework

This paper is anchored principally on the Socialisation, Externalisation, Combination, Internalisation (SECI) model, regarded by Farnese et al. (2019) as a major scholarly achievement in KM. This model was originally designed for business and institutional advancement, but has now been extended to healthcare KM. Obeidat (2019) elucidated the classification of knowledge as either tacit or explicit. The explicit type is recognised by its ability to be codified and

documented, whereas the tacit form resides in individuals from their previous encounters (Attard et al., 2022). This framework is based on the premise that knowledge can be transformed between these two forms, which explains the formalisation of tacit knowledge (Adesina & Ocholla, 2019).

The ongoing interaction between these two knowledge types culminates in a new understanding that can be used by the organisational workforce (Farnese et al., 2019). The SECI model, which highlights that knowledge resides in individuals, recognises the existence of a common platform, dubbed “Ba”, for exchanges, leading to novel insights (Attard et al., 2022). For instance, Almuayqil et al. (2017) asserted that the SECI model is useful to combine KM and patient empowerment, which assists both patients and healthcare practitioners in the treatment of chronic ailments. This interaction improves the available knowledge, which can then be conveyed and advanced in institutions for posterity (Karamitri et al., 2017). In this research, the four SECI steps functioned as the deductive analytical lens, informing the design of the interview guide. The SECI also provided the foundation for thematic analysis by providing a pre-determined coding structure against which emerging codes were mapped. This enabled both deductive categorisation and inductive reasoning in cases where participants’ responses did not fit into the model’s boundaries.

To capture the behavioural factors associated with KM, this study also adopted the Theory of Planned Behaviour (TPB) to complement the SECI model. This theory explains that the intent to share knowledge is determined by attitude, societal expectations, and confidence, defined by Perceived Behavioural Control (PBC) (Ajzen, 2020; Jalili & Ghaleh, 2020). The PBC captures the individuals’ beliefs in their ability to perform KM functions (Sniehotta et al., 2014). Razak et al. (2016) explained that PBC considers what motivates individuals to behave in a certain way regarding being ready to perform a KM task. In the field of pharmacy, this theory helps to explain how pharmacists and pharmacist assistants choose to record, exchange, or apply patient information or knowledge within their purview.

The application of TPB in this study was at the interpretive level, as it provided a lens through which pharmacy practitioners’ willingness or reluctance to engage in KM activities was examined in relation to their attitudes towards it, perceived subjective norms, and their sense of behavioural control over these activities. The combination of the SECI and the TPB presented an integrated analytical framework, with the former providing coding and categorisation of KM practices and the latter explaining the behavioural motivations underlying those practices. This integrated framework enabled the study to shift from the descriptive accounts of KM methods to explaining why participants exhibit the knowledge behaviour.

Literature Review

Pharmacy and Knowledge Management

The importance of pharmacists in guaranteeing safe treatment and data quality has seen pharmacy practice expanding the use of technology and integration into service provision (Silva et al., 2022; Waterfield, 2010). Informatics is part of KM in pharmacy practice, which facilitates the discovery and dissemination of knowledge (Cortes et al., 2019). Three studies (Buhl et al., 2023; Siddique et al., 2022; Zekan et al., 2020) emphasised that the readiness of retail pharmacists to provide healthcare can be supported by KM to enhance clinical knowledge and deal with medicine-linked

incidents. Martin et al. (2019) underscored the benefits of social platforms that enable the sharing of important knowledge.

Figuerola et al. (2019) highlighted that in challenging environments, KM forms part of the strategy to improve quality and safety. Buhl et al. (2023) viewed KM as an opportunity for retail pharmacists to promote the responsible use of medicines and formulate common pharmaceutical care protocols. This allows pharmacists to extract archived clinical knowledge, evaluate medicine-related risks, and make decisions that are beneficial to patients (Shahmoradi et al., 2017; Tariq & Scherbak, 2023). However, Oladejo and Olajide (2020) noted that the lack of understanding of KM benefits may impede its successful implementation due to employee resistance. As such, educating the involved personnel before putting in place systematic KM initiatives and analysing the advantages will capacitate retail pharmacies to handle knowledge evolution.

To implement patient-tailored treatments, the pharmacists must be knowledgeable enough to handle tough clinical encounters (Rendrayani et al., 2022). According to Sipora et al. (2016), pharmacists experienced in various clinical environments are better equipped to detect prescription errors. These researchers further note that prescribing errors can be reduced 5-fold if pharmacists adopt medication-evaluation techniques. This is supported by the work of Dongo and Kantaris (2023), who found that pharmacists' strategies, including medication management, reduce medicine-related complications in the elderly patient population. This stresses that the wealth of knowledge and experience that pharmacists possess can be better harnessed through systematised KM.

Pharmacy technicians, supervised by pharmacists in retail pharmacies, are an important component of the pharmacy workforce. Pharmacy technicians are instrumental in handling over-the-counter inquiries and treating non-serious diseases. The involvement of pharmacy technicians in this manner is viewed by Jetha et al. (2020) as beneficial, as they manage trivial ailments and lower the cost of offering pharmacist-initiated care plans.

The confidence and capability of pharmacy technicians to handle both trivial and complex conditions were demonstrated by the work of Mizranita et al. (2021). However, the success of bringing on board pharmacy technicians in this arrangement can be marred by inadequate skills at the individual level (Jetha et al., 2020). The aforementioned authors further observe the gap in system integration between the retail and hospital-based technicians, with the latter group being incorporated more systematically. This implies that KM structures should take into account the skills and capabilities of individual professionals.

Retail pharmacies also utilise the integration of pharmacist assistants to assist with dispensing, over-the-counter consultations, and inventory control. The guidance and direction pharmacists provide to pharmacist assistants enable them to educate and advise patients and prepare tailored therapies for them (Jetha et al., 2020). Sustainable KM solutions would then streamline these activities and allow pharmacists to direct efforts towards other clinical tasks.

At the institutional level, knowledge generation entails the formulation, transformation, and dissemination of information that supports further learning, making retail pharmacies focal points of knowledge (Anggraeni et al., 2017; Timsina et al., 2017). Since retail pharmacies are also businesses, they can learn from Zia et al. (2024), who argue that customer relations are stronger if

tied to KM, allowing organisations to gauge clients' allegiance and their satisfaction, as well as monitor business growth. Wang et al. (2023) observed the importance of streamlining retail pharmacy operations, since they complement public health facilities, which are hamstrung by funding issues. The thinking capacity of an institutional workforce influences the way it absorbs knowledge and links with knowledge creation within the organisation (Anggraeni et al., 2017). Thus, the socio-economic gains from KM are firmly rooted in the production of fresh insights, which lead to the expansion of an organisation's knowledge base. However, for KM systems to work in retail pharmacies, they should be anchored by initiatives that support continuous training and education. Ong et al. (2018) note that this presents pharmacy professionals with opportunities to gain more knowledge and improve their expertise, and be informed about industry developments. This ensures the professionals are able to provide current therapy knowledge to other healthcare personnel and patients (Shahmoradi et al., 2017). Even though Ong et al. (2018) urged pharmacy professionals to take advantage of the internet for knowledge sources, they note several hindrances that include limited investigations, failure to extract the appropriate information, and inexperience in finding credible references. Furthermore, Shahmoradi et al. (2017) stressed that the information technology that can support KM is hampered by difficult management methods, how such technologies should be designed, and the existence of several digital KM tools.

Despite these challenges, some retail pharmacies have successfully adopted KM into their strategy and processes. Balderas et al. (2018) highlighted the case of CVS Health in the USA, which has incorporated KM into its strategy to improve decision-making. This organisation's KM system spans marketing information, customers' choices, and the sector's required standards (Mulinari & Ozieranski, 2022). In Southern Africa, adopting KM initiatives into strategic planning can be exemplified by Dis-Chem, a multiple retail pharmacy owning group. Adat et al. (2014) explained that the group's data analysis and utilisation enable them to predict demand and enhance operations.

Explicit and Tacit Knowledge

Zeng et al. (2022) described explicit knowledge as formalised documents that can be archived and retrieved for healthcare teams to share. This includes evidence, teaching material, and research outcomes that are of paramount importance in healthcare settings (Almansoori et al., 2021). This type of knowledge is particularly important to healthcare practitioners as it equips and readies them to tackle challenging situations, provide appropriate care plans, and make reasoned judgments (Zeng et al., 2022). Explicit knowledge is considered by Shahmoradi et al. (2017) as the foundation on which standard structures can be formulated to maintain consistency. Kadio et al. (2023) further highlighted that apart from experiential knowledge, explicit knowledge also finds use in a judicious approach to organisational priorities.

This implies that expertise extracted from experienced practitioners can go a long way in shaping that of new professionals (Shahmoradi et al., 2017). For tacit knowledge to be harnessed effectively into explicit knowledge, the communication between the professionals and researchers must be regular and sustainable (Waterfield, 2010). However, economics and ethics could influence this communication and, consequently, policy formulation (Kadio et al., 2023). For example, Shahmoradi et al. (2017) observed that healthcare decisions can be made intuitively,

affecting this communication. How frequently professionals interact is a determinant of the dissemination of explicit knowledge (Zeng et al., 2022).

Learning from others within teams is instrumental in error reduction as the information captured is clarified (Zeng et al., 2022). However, explicit KM has consistently focused on technology, while concepts on how explicit knowledge resources are governed, reviewed, and incorporated into daily routines remain understudied. For instance, a bibliometric analysis by Stoumpos et al. (2024) explored KM technologies while paying little or no attention to knowledge quality and governance. Furthermore, the authors further state that although these analytical techniques assist in understanding more, they lack the qualitative elements of technologies and their influence on service provision. Further research is also worthwhile to study the influence of explicit knowledge on innovative behaviours and policy formulation.

The practice of healthcare professions requires more than explicit knowledge, as much is exchanged during social interactions, yielding tacit knowledge (Jamshidi et al., 2018). Sánchez-Polo et al. (2019) emphasised that explicit knowledge alone falls short of promoting lifelong learning acclimatisation to address challenges of combining healthcare and digital systems. Zeng et al. (2022) articulate that regular exchange and use of technical expertise further promote tacit knowledge development through collaborative interactions. However, Jamshidi et al. (2018) point out that comprehensive insights into the importance of tacit knowledge in organisational knowledge governance require more research.

Ong et al. (2018) emphasised that ignoring the role of tacit knowledge is tantamount to overlooking an important element of operation, the evolution of knowledge, and consequently a key healthcare asset. If tacit knowledge is employed effectively, it expedites innovation and strengthens competitiveness in service provision (Jamshidi et al., 2018). Various methods exist to harness tacit knowledge, including digital extraction, team discussions, altering work schedules, coaching, and promoting social interactions (Jamshidi et al., 2018). Continuous exposure to the job sites assists healthcare practitioners to go beyond their responsibilities, leading to full recognition of their functions in an organisation (Sanford et al., 2020). Harnessing tacit knowledge is particularly important as Jamshidi et al. (2018) pointed out that a large portion of organisational knowledge is tacit and remains undocumented.

Sanford et al. (2020) view the harnessing techniques as instrumental in promoting the creation of accessible relationships that can be used to map out solutions to named problems and enhance teamwork. The function of tacit knowledge is further emphasised by Jamshidi et al. (2018) as it facilitates learning in the absence of formally documented knowledge. However, the effectiveness of the suggested methods in converting tacit knowledge into organisational resources must be tested through further research. This is particularly important as Sanford et al. (2020) stressed that the knowledge level of healthcare professionals is often exhibited when they directly apply it in practice.

Poorly harnessing implicit knowledge raises the potential of losing knowledge when a seasoned staff member leaves the organisation for whatever reason. Further studies can explore how tacit knowledge can be employed in emergencies such as disease outbreaks (Sanford et al., 2020). Furthermore, these authors recommend more research to be conducted to ascertain the function of tacit knowledge in specified events, for instance, when coaching an inexperienced employee.

Knowledge Sharing

Tabrizi and Morgan (2014) identified three key pillars that foster Knowledge Sharing (KS), and these include workflows, capacity, and stewardship systems. Competition and challenges that occur in rapidly changing environments demand organisations to communicate effectively to share critical knowledge (Wu et al., 2021). The concept of KS is regarded by Hujala and Laihonon (2021) as a systematic set of activities that culminate in team members exchanging notes on various subjects common to them. However, Kothari et al. (2011) emphasised the importance of relationships more than organisational digital advancements in KS. The ceiling to KS in organisations is defined by the governance systems they design and follow (Tabrizi & Morgan, 2014).

Exchanging information directly influences the standard of care provided in retail pharmacies (Ayenew et al., 2022; Burghle et al., 2021). In such environments, a wide gamut of tools is at their disposal to facilitate KS, including training sessions, manuals, and local repositories (Morral et al., 2015). The work of Ayenew et al. (2022) revealed that despite pharmacists' involvement in promoting wellness and chronic disease management, they faced challenges such as inadequate training and a lack of confidence. Meeting regularly in retail pharmacies is another method touted by Jowkar et al. (2020) to facilitate the exchange of important knowledge. However, its effectiveness in the pharmacy environment needs to be demonstrated through further research.

Masuda et al. (2022) encouraged partnership between institutions of pharmacy training and retail pharmacies to promote KS. Consequently, retail pharmacies can benefit from this partnership by accessing research, conference publications, and seminars organised by these institutions (Beckett et al., 2020). Further research, however, is required that explores the interplay between different organisational structures, regulatory requirements, and the complexity of the employed methods. Examining this interplay enables the ambiguous relationship between a practitioner's confidence to share knowledge and the institutional incentives to be uncovered (Tabrizi & Morgan, 2014).

Utilising Communities of Practice (CoPs) is an approach that can improve KS and boost individual confidence through various interactions (Kothari et al., 2011). Venkatraman and Venkatraman (2018) describe CoPs as a network of professionals who team up to explore common interests. These networks require a leading figure who formulates the objectives, ensures their achievement, and oversees the engagements therein (Kothari et al., 2011). However, the use of CoPs as a KM system is still underdeveloped, requiring creativity (Venkatraman & Venkatraman, 2018). More research can benefit from evaluating the mediating factors of the relationship between CoPs and KS, such as their composition.

While the particular intentions of disseminating or hiding knowledge have been explored, Wu et al. (2021) articulated the challenges of evaluating the incentive quality. Nguyen et al. (2018) stressed the need for institutions to evaluate the origins and consequences of hiding knowledge and proactively avert it. For KS to be effective, both institutional and individual capacities to relay information are important (Kothari et al., 2016).

Soysal et al. (2022) highlighted that communication methods, coupled with the correct information, are the foundation that anchors workflow adoption and trust in engagements. Tabrizi and Morgan (2014) cemented this concept by stating that each step in KS is of paramount

importance and inadequacies in any step affect the entire KS chain. The relationship between individuals and their organisations is strengthened when they communicate effectively in teams through information exchange and innovation promotion (Soysal et al., 2022).

Conceptual Framework

This study is anchored on the conceptual framework depicted in Figure 1. KM practices comprising capturing, sharing, and application constitute the independent variable. Two interrelated outcomes (pharmaceutical care quality and knowledge continuity) form the dependent variable. Knowledge continuity is the extent to which knowledge is preserved at the organisational rather than individual level (Hu et al., 2022). Pharmaceutical care quality represents the degree to which KM effectively translates into improved health outcomes and practice standards (Shahmoradi et al., 2017). The relationship between these two variables is mediated by the SECI knowledge conversion phases. Critically, this conversion is moderated by the three TPB's behavioural constructs (attitudes, social norms, and PBC).

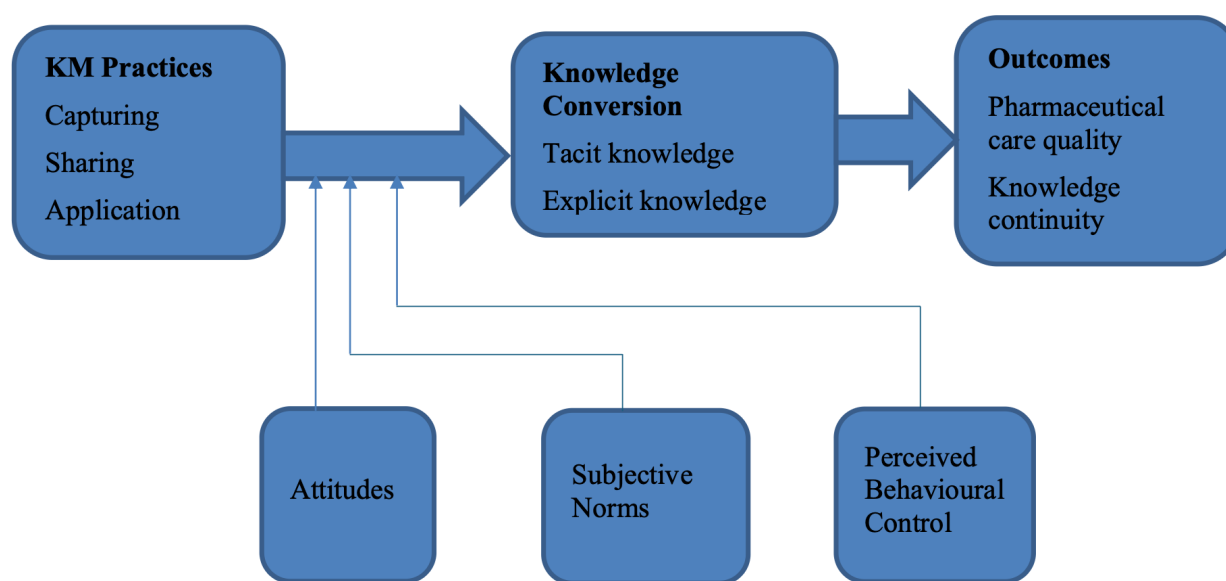


Figure 1. The Conceptual Framework of KM

Methodology

Exploring KM techniques encountered in retail pharmacies in Namibia required a qualitative methodology, in which data were extracted through semi-structured interviews and document scrutiny. A qualitative approach was suitable to gain a deep understanding of how pharmacy professionals navigate KM concepts in routine practice. This research was supported by the interpretivism philosophy, as this is directed towards understanding the encounters of the pharmacists and pharmacist assistants.

Population

The population was drawn from the retail pharmacies registered in Namibia, which were granted permission to train pharmacist interns by the Health Professions Council. This population was strongly linked with the study's aim of examining the KM practices in use by retail pharmacy practitioners. The target population was extracted from Namibia's four regions of Khomas, Oshikoto, Otjozondjupa, and Oshana. The appropriateness of the target population is based on its inclusion of practitioners directly associated with KM practices. Table 1 summarises these populations, including the sample size.

Table 1. The Population and Sample

	Number of Retail Pharmacies	Estimated Practitioners
Population	119	238
Target Population	72	144
Estimated Sample	14	28
Saturation Sample	10	16

Source: Authors' description of the population and sample size

Sampling

This research employed purposive sampling, where the subjects were chosen on account of suitability and familiarity with the study phenomenon and attributes. Purposive sampling is typically associated with small samples (Saunders et al., 2019), which was important in this study as the aim was not to quantify the KM phenomenon but to understand it more deeply. Thus, a purposive sample was appropriate for this qualitative inquiry as subjects met the criteria of involvement and knowledgeability in the topic under study.

Sample Size

In qualitative research, sample sizes are commonly determined by saturation, where the researcher ceases data collection once a ceiling effect in new information from the interviews is reached (Vasileiou et al., 2018). This study pursued code saturation, and, from the 12th interview, no new codes emerged from the conversations. Nine pharmacists and seven pharmacist assistants were interviewed from 10 retail pharmacies. The emergence of fresh codes was followed after each interview to demonstrate saturation.

Interview Guide

The semi-structured interview guide employed in this research was designed as part of a wider instrument addressing six research questions. The core interview questions relevant to this paper, presented under thematic blocks, are listed thus:

Background Information

- I. May you please briefly describe your position, role, and the number of years you have worked in this pharmacy?

KM Conceptualisation

- II. What is your understanding of KM in your routine pharmacy work?

Knowledge Management Practices and Tacit Knowledge

- III. Describe any formal practices your pharmacy uses to manage knowledge.
- IV. How is essential knowledge captured and preserved from routine operations?
- V. How do you capture tacit knowledge?

Knowledge sharing techniques

- VI. How is knowledge shared among pharmacy employees?
- VII. How is new information or knowledge in pharmacy practice or procedures communicated?

Closing

- VIII. Do you have any other information on KM that you would like to share?

These interview questions were grounded in the dual theoretical framework designed to extract participants' attitudinal orientation towards KM, subjective norms, and perceived capacity to share knowledge as outlined in the TPB and generate data that reflects the four phases of the SECI model. The thematic framework of the study results directly mirrors the arrangement of the interview questions.

Recruitment

For the selected pharmacies, their managers, who are pharmacists, were approached initially via telephone and provided with information about the research. Permission to access documents and other participants was also sought from the managers. A gatekeeper's letter, containing details of the research and the approximate time required for each interview, was then sent to the managers via email or WhatsApp, depending on their preferences. They were also asked to identify pharmacist assistants as other potential participants. Those who agreed to participate were asked to sign informed consent forms, after which the interviews were scheduled according to their availability. Fifteen of the 16 interviews were conducted via Zoom, while one was carried out face-to-face.

Data Collection and Analysis

Before data collection could begin, ethical approval was applied for and granted by the University Research Ethics Committee and the National Commission on Research Science and Technology of Namibia. The developed interview guide was first piloted on two professionals: one pharmacist and one pharmacist assistant, who were not part of the main sample. The pilot tested the adequacy

of the theoretical mapping, which confirmed the ability of the questions to generate data relevant to the SECI phases and the TPB constructs. Before each interview session, consent was sought from the interviewees to audio-record the conversations. Each interview question was derived from research questions that sought to understand the participants' perception of KM, the practices used for KM, KS, and tacit knowledge handling. The interviews were conducted over six weeks from 30 April 2025 to 14 June 2025. The interview length ranged from 22 minutes to 46 minutes.

Each audio recording was transcribed word-for-word. The transcribed versions were checked for correctness by simultaneously listening to the audio and making amendments as necessary. The amended version of each transcript, together with the documents collected for analysis, was then fed into the Qualcoder software for organised coding. All identifiable information was removed from the audio recordings, the transcripts, and the documents and replaced by codes.

This research followed the thematic analysis methods recommended by Saunders et al. (2019) and Creswell and Creswell (2018), in which coding and subsequent theme identification were both deductive and inductive. Different but related codes were combined to form sub-themes, which in turn were aggregated to form themes. Further engagement with the data allowed for theme modification or the addition of fresh ones so that they correctly depict the picture of KM in retail pharmacies. Deductive coding was guided by the 4 SECI phases and the 3 TPB constructs (attitudes, social norms, and PBC). Inductive coding then allowed themes that were not anticipated by the frameworks to emerge from the participant data, thus being sensitive to participants' interpretations.

Findings

Participant Demographics

Table 2 exhibits the demographic attributes of the participants. A total of 10 retail pharmacies participated in the study, with nine males and seven female participants. Of the 16 participants, nine were pharmacists while seven were pharmacist assistants. Of the 10 participating pharmacies, four were from the Khomas region and five from the Oshana region, with the Oshikoto region providing one. The work experience of the participants varied from four years to 25 years.

Participants' Perceptions on KM

Understanding the participants' conceptualisation of KM is significant as the SECI model assumes that knowledge conversion is a conscious institutional activity, as outlined by Farnese et al. (2019). From the TPB standpoint, participants' conceptual grasp of KM shapes their participation in knowledge activities. The following findings shed light on the participants' understanding of KM and the attitudinal orientation underlying their engagement in KM activities. The participating pharmacists and pharmacist assistants were familiar with the concept of KM to different degrees. Two interviewees admitted that the phenomenon of KM was a completely new concept to them. Participant A2 contributed:

When you tell me knowledge management, knowledge management. I'll be honest with you. I've never heard this concept before, except from the time you... I've never heard it. That's why I was intrigued to find out exactly. What is it all about?

Table 2. Participant Demographics

Participant Code	Pharmacy	Region	Job Title	Gender	Experience (years)
A1	RP1	Oshana	Pharmacist Assistant	Female	5
A2	RP2	Oshana	Pharmacist Assistant	Female	10
A5	RP5	Oshana	Pharmacist Assistant	Female	7
A6	RP6	Khomas	Pharmacist Assistant	Male	8
A7	RP7	Oshana	Pharmacist Assistant	Female	10
A8	RP8	Oshana	Pharmacist Assistant	Female	10
A9	RP9	Khomas	Pharmacist Assistant	Female	4
P1	RP1	Oshana	Pharmacist	Male	15
P2	RP2	Oshana	Pharmacist	Male	7
P3	RP3	Khomas	Pharmacist	Male	15
P4	RP4	Khomas	Pharmacist	Male	24
P5	RP5	Oshana	Pharmacist	Male	8
P7	RP7	Oshana	Pharmacist	Male	10
P8	RP8	Oshana	Pharmacist	Male	23
P9	RP9	Khomas	Pharmacist	Male	22
P10	RP10	Oshikoto	Pharmacist	Female	4

Participant P2 also indicated a very low level of familiarity and said, “*I might say the word is a bit new to me.*” Even then, this participant was able to deduce the meaning of KM from the phrase and had this to say:

But from gathering it, I would say it is the process that we handle what we know. We collect useful information and also how we share it. And also, how do we keep it safe for future use? Not just drug information, probably, but also information concerning how we deal with the clients, and also how we make important decisions. So, it's almost an all-rounder, everything rolled into one.

Despite an initial lack of understanding, this participant was able to articulate the two elements of KM: KS and storage. Most participants were able to highlight these two components of KM and knowledge acquisition.

Interaction with Tacit Knowledge

Capturing and institutionalising tacit knowledge reflects the socialisation and externalisation phase of the SECI model, where sharing through social engagements progressively culminates in documented knowledge. The participants’ perceived capacity to capture tacit knowledge

determines the occurrence of externalisation. The interviewees were requested to comment on the methods they use to harness tacit knowledge from individuals for use by the pharmacies. This demonstrates the capacity and willingness of the pharmacies to tap into individuals' experiential knowledge for the benefit of the organisation. This ensures continuity of care and organisational processes when a staff member leaves the pharmacy for any reason. Most of the interviewees indicated that they did not capture informal knowledge from individuals for use by the organisation. Participant A2, a pharmacist assistant, said, *"I'll be honest with you, most of the time we just talk about. In terms of recording, we don't record."*

The pharmacist P2, who works in the same pharmacy and supervises the assistant, weighed in to support these claims:

We don't really have a system for capturing it. It is still very difficult for us to do it. We don't really have a prescribed method that we use to capture and harness that information and knowledge. Yes, but we are trying to roll out some systems and ways of gathering that important information. Thus, at this moment in time, we don't have really any way of capturing it.

From pharmacy RP3, the pharmacist commented, *"We don't really have something written down. We don't need to preserve these insights formally."* This, however, contradicts their Standard Operating Procedures (SOPs), which mention that *"Staff members must keep a special notebook to record helpful tips, methods for interacting with patients, and unrecorded workarounds."*

Only one organisation, pharmacy RP1, indicated that they extract tacit knowledge from individuals by amending their SOPs. Their pharmacist mentioned:

I think all those are captured through the SOPs. Because imagine a person works there tomorrow, but is on leave, and no one knows what to do. So, what we try to do is to capture all the daily activities in an SOP, or maybe a standard for someone to follow. It means, even if you, if you go on leave, a person knows in the morning what to do on Wednesday.

Knowledge Sharing Techniques

Knowledge sharing occurs predominantly through SECI's combination and internalisation steps, as explicit knowledge is incorporated into systems and then the practice of individuals (Attard et al., 2022). The TPB weighs in by revealing how professional expectations shape the participants' eagerness to share knowledge. In this domain, the study aimed to uncover the practices that pharmacists and pharmacist assistants in retail pharmacies use to share important knowledge. This is of particular interest in view of the fact that KS is a key element of KM, and pharmacies are heavily knowledge-driven. Therefore, a successful KM strategy hinges on sound KS mechanisms, otherwise the organisational knowledge remains stagnant.

Most of the pharmacies indicated that they use formal records for KS, such as statutory and non-statutory records and SOPs. Non-statutory records include documented meeting proceedings, invoices, inventory records, and manual record books. Statutory records entail SOPs, temperature records, prescriptions, patient data, and the controlled drugs register.

The most popular KS channel was through meetings and education sessions for pharmacy staff. Knowledge sharing also occurs through Continuous Professional Development (CPD). For

instance, P5 mentioned that, *“Normally, some other way that we share knowledge is through personal development. CPD, I mean continuous personal development, where people attend some CPD meetings.”*

Reference books also come in handy as sources of knowledge. On that note, A6 commented:

We also have a few books regarding medicine. These are the likes of BNF (British National Formulary), SAMF (South Africa Medicine Formulary) or something like that. It's in for the Namibia standard guideline, or something like that.

Another important technique for sharing knowledge that emerged from the conversations was learning from the seasoned staff members. Experienced personnel can impart knowledge to others through coaching and discussions. Participant A1 said, *“We encourage internal training sessions where more experienced staff mentor new team members and provide guidance as needed.”*

The internet was also mentioned as a knowledge source, particularly for online CPD events. Other interviewees mentioned email as a method frequently used to convey important information. The conversations also indicated that social media platforms such as Facebook, Zoom, and, more commonly, WhatsApp, were important channels for KS. Interviewee A9 commented that, *“We can even use WhatsApp, like if someone is off duty but they need to know something that is very urgent. We just updated on our WhatsApp group, and they got to know the information.”* These conversations underlined the emergence of social media as an important technology that advances quick KS in real time.

However, there were important conversations in some interviews, where the participants indicated the need to restrict clinical knowledge dissemination to professional staff. A striking comment came from a pharmacist, participant P8, who said:

The only strict thing that we keep is that we do not expose a lot of information to people who don't need it. Dunning-Kruger effect. If you tell somebody who, if, once a sweeper, discovers that an antibiotic works through receptors. They become the expert on pharmacology and receptors because they know it, but they really don't know that they don't know much, so we just avoid giving them unnecessary information, unless they really need it.

Discussion

This study sought to understand the KM methods used by pharmacy professionals in Namibian retail pharmacies, guided by three research questions addressing practitioners' conceptualisation of KM, tacit knowledge capture, and knowledge sharing techniques. The findings are discussed below through the integrated analytical lens of the SECI model and the TPB, demonstrating how each framework illuminates distinct dimensions of KM practice in this resource-limited setting.

Conceptualisation of Knowledge Management

The findings of this qualitative study indicate mixed perceptions and interpretations of the KM concept, ranging from absolute unfamiliarity to partial articulation of its key elements. The variation in conceptual grasp is analytically relevant as Ajzen (2020) established that the intention to participate in KM is determined by attitude, which itself assumes awareness and cognitive

engagement with it. Lack of understanding of KM implies the absence of the attitude required for intentional knowledge behaviour. Through the TPB, the findings confirm wide unfamiliarity with KM and the lack of attitudinal foundation to adopt systematic KM in Namibian retail pharmacies.

These findings align with the research of Mazorodze and Buckley (2019), who highlighted that most institutions, including healthcare facilities, lack an understanding of KM and practice it only intuitively. This implies that KM occurs instinctively due to individual initiatives rather than being systematised within the pharmacies. This study confirms the findings of Omotayo (2015), who demonstrated the existence of active knowledge-driven tasks even where understanding of the concept was limited. Critically, the TPB illuminates an important dynamic, that of a participant deducing the meaning of KM despite initial unfamiliarity. This indicates latent attitudinal capacity among professionals, which can be activated by targeted training on KM, since according to Jalili and Ghaleh (2020), PBC strongly predicts KS intention.

Tacit Knowledge Externalisation

The outcomes of this research reveal that the socialisation step of the SECI model is active while externalisation is comparatively weak in Namibian retail pharmacies. Socialisation occurs through verbal engagements, mentoring sessions, and incidental coaching between seasoned and new staff, in both directions, as articulated by Attard et al. (2022). This implies that newly qualified staff may bring a wealth of tacit knowledge, for instance, health-seeking behaviours or, in a multilingual environment, patient cultural preferences that experienced employees can benefit from. Farnese et al. (2019) explained that socialisation forms the foundation for knowledge conversion as direct human engagement extends knowledge beyond the individual who holds it. However, the informal and unstructured nature that characterises these exchanges implies that socialisation is episodic rather than organisational. This renders the shared knowledge vulnerable to loss when staff turnover occurs.

Analytically important is the almost complete failure of externalisation across the majority of the pharmacies. Converting tacit knowledge into documented, explicit form through externalisation culminates in the generation and preservation of institutional knowledge assets (Adesina & Ocholla, 2019). A striking paradox is evident in this study, where SOPs specify the recording of tacit insights, while being systematically ignored in practice. This gap between formally prescribed KM practices and behavioural manifestation reflects what Wolf et al. (2024) identified as one of the most deep-seated challenges in KM literature. From the TPB interpretive lens, this failure of externalisation reveals weak PBC among the participants. This indicates insufficient belief in their pharmacies' mandate or individual capacity to document knowledge tasks (Jalili & Ghaleh, 2020). Thus, this finding extends beyond the well-documented absence of sound KM systems to shed light on the particular behaviours that underlie the ineffectiveness of the current KM governance.

Knowledge Sharing Platforms and Individual Learning

The SECI's combination step, in which individual pieces of explicit knowledge are incorporated into new knowledge structures, evidently occurs through formal platforms such as statutory and non-statutory documents, CPD, meetings, and reference books. Utilising CPDs as a fundamental knowledge-sharing method is consistent with the combination phase, as external knowledge is introduced to add to the existing pharmacy knowledge. This dovetails the work of Ong et al.

(2018), who emphasise the significance of ongoing professional development as an avenue for knowledge renewal in pharmacy practice.

In the internalisation step, explicit knowledge, incorporated into the pharmacy professionals' tacit collection through iterative practice, is evident in learning relationships between pharmacists and pharmacist assistants. Mentorship, guided dispensing, and supervised patient engagement demonstrate the practical existence of this step, where professional knowledge and SOPs slowly become integrated expertise. The concept of "Ba", defined by Attard et al. (2022) as a shared mental or physical space that facilitates KS, is manifest in pharmacy routines, as regular interactions provide conditions for continuous internalisation.

However, this study identified knowledge gatekeeping behaviour, which limits the effectiveness of both combination and internalisation. The deliberate restriction of clinical knowledge dissemination indicates that intra-professional power dynamics shape knowledge sharing in retail pharmacies. This finding is in tandem with critical KM scholarship, which recognises the political construction of knowledge boundaries where institutional hierarchies determine who shares knowledge and the type that can be shared (Kothari et al., 2011; Hujala & Laihonon, 2021). A socially enforced expectation governing KS (Razak et al., 2016) indicates this gatekeeping as an organisational subjective norm. This dimension of KM in retail pharmacies has not received much attention in published research and represents a significant empirical contribution of this study.

Conclusions and Future Directions

This study sought to assess the pharmacy practitioners' perceptions of KM, evaluate their methods of capturing tacit knowledge, and examine their KS techniques to determine their readiness to adopt KM systems. The outcomes of this research indicate practitioners' varied views of what KM entails, from no idea at all to articulation of some KM elements. This limited understanding of the KM phenomenon implies that official structures for KM have not been designed and implemented in Namibian retail pharmacies. Despite pharmacists and pharmacist assistants intuitively taking part in KM, the results of this study indicate that the absence of KM systems hinders the establishment of sustainable initiatives.

This study also revealed that tacit insights from seasoned practitioners are hardly harnessed into institutional assets. While the importance of experiential knowledge has been recognised in pharmacy operations, this is blighted by the absence of techniques to record it. Even though in some instances the SOPs directed the practitioners to record tacit insights, this was largely overlooked, affecting externalisation in the SECI framework. With the pharmacist as the main actor in knowledge tasks, several methods of disseminating knowledge were evident, including formal records, CPDs, references, meetings, and social media. Learning through CPDs demonstrates the combination step of the SECI cycle when knowledge from outside the retail pharmacies is used to reshape the existing knowledge.

This study advances KM discourse that moves beyond previous studies. Unlike previous works that have examined KM predominantly in hospital or technologically advanced environments (Karamitri et al., 2017; Shahmoradi et al., 2017; Zeng et al., 2022), this paper provides empirically grounded evidence of KM practices in retail pharmacies, a setting largely overlooked by existing

KM and pharmacy practice literature. Given that resource-limited retail pharmacy environments present unique knowledge governance challenges, this contextual contribution is significant. The findings also shed light on the governance paradox that has received minimal attention, as the existence of KM guidelines is disregarded in practice. This gap between prescribed procedures and practice indicates behavioural inertia among pharmacy practitioners (Wolf et al., 2024), rendering KM ineffective. This study reveals intra-professional power dynamics in retail pharmacy teams as evidenced by knowledge gatekeeping. Combining the SECI model and the TPB offers a comprehensive framework. The SECI model guided coding and categorisation, while the TPB elucidates the knowledge behaviour that can facilitate or hinder effective KM.

While this research provided some important insights by extending the SECI model to the realm of retail pharmacies in resource-limited settings, the results could be blighted by social desirability bias among the participants. Furthermore, the sample was small, which constrains generalising the outcomes to other retail pharmacy environments. Therefore, comparative research across various pharmacy environments is worthwhile. Government and retail pharmacies can be comparatively studied to gauge the variability in motivation for recording tacit insights. Because this study found a lack of uniformity in the SECI application, it adopts the stance of Attard et al. (2022), who call for more research on how each of the four phases is implemented. While the possibility of the national culture shaping knowledge behaviour in Namibian retail pharmacies exists, this study lacks sufficient empirical evidence to support this position. This presents an opportunity for future studies that could employ culture-sensitive models to explore this dimension.

Conflicts of Interest and Informed Consent Declarations

All authors declare that they have no conflicts of interest. All participants were provided with and signed informed consent forms prior to data collection.

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Author Biographies

Abraham Dongo is a pharmacist and a doctoral candidate in Business Administration. He focuses his research on improving knowledge management practices in pharmacy practice. His work has included assessing pharmacists' interventions to reduce drug-related issues in older populations to investigating the complexities of knowledge management in hospital pharmacy settings. He has a strong background in both clinical practice and academic research. His current research highlights the importance of structured knowledge systems in improving patient safety and organisational performance, which informs his work. Along with his research endeavours, he is committed to interdisciplinary collaboration and postgraduate student mentoring.



Eric E. Mang'unyi, who holds a Ph.D. in Management Studies from the University of KwaZulu-Natal, South Africa, has an extensive academic and professional background. Eric has held numerous positions at university including the position of the Head of the Graduate Business School Department and Lecturer in Business Administration at the Catholic University of Eastern Africa in Kenya. He has supervised numerous master's and doctoral candidates across various universities and has served as an examiner for master's and doctoral theses at institutions in Eastern and Southern Africa. Dr. Mang'unyi has authored over 30 articles in the fields of management and marketing. His research interests include sustainable business management and development research, focusing on economic and social development.

