ORIGINAL RESEARCH

Building Medication Profiles in the Elderly: a Qualitative Study Based on Medication Information Literacy in a Long-Term Care Facility

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Purpose: Long-term care facilities are increasingly challenged with meeting the diverse healthcare needs of the elderly population, particularly concerning medication management. Understanding medication information literacy and behavior among this demographic is imperative. Therefore, this qualitative study aims to explore medication information literacy and develop distinct medication profiles among elderly long-term care residents.

Material and Methods: In this study, we conducted in-depth semi-structured interviews with 32 participants aged 65 or older residing in a long-term care facility. The interviews were designed to explore participants' understanding of medication information, medication management practices, and experiences with healthcare providers. Thematic analysis was employed to analyze the interview data, allowing for the identification of common patterns and themes related to medication-taking behavior among the elderly residents.

Results: The thematic analysis revealed four distinct medication behavior profiles among the elderly long-term care residents: (1) Proactive Health Self-Managers, (2) Medication Information Adherents, (3) Experience-Based Medication Users, and (4) Nonadherent Medication Users. These findings provide valuable insights into the diverse approaches to medication management within long-term care facilities and underscore the importance of tailored interventions to support the specific needs of each profile.

Conclusion: This study highlights the necessity for tailored medication education and support to optimize medication management for the elderly. With the aging population expansion, addressing the unique medication challenges within long-term care facilities becomes increasingly critical. This research contributes to ongoing endeavors to enhance healthcare services for the elderly, striving for safer and more effective medication-taking behavior.

Keywords: medication information literacy, medication profile, long-term care facility, qualitative study, elderly

Introduction

As the phenomenon of population aging becomes increasingly prominent, society's focus has increasingly turned to the health status and medical requirements of the elderly.[1,2] Within this framework, medication-related issues among the elderly have gained significant traction within the healthcare domain. Elderly individuals, who often grapple with multiple chronic conditions, rely on a diverse array of medications to maintain their well-being. However, the complexity of managing multiple medications, commonly referred to polypharmacy,[3] can lead to complications such as drug interactions, medication errors, and adverse reactions, all of which can impact the health and overall quality of life of the elderly.[4,5]

Of particular concern are the distinctive challenges that elderly individuals encounter in the realm of medication management. These challenges include cognitive decline, the intricacies of managing multiple medications, and the need

for coordination among various healthcare providers.[6–9] These factors collectively increase the risk of medication errors among this demographic. In response to these challenges, medication information literacy has emerged as a critically important concept. Medication information literacy refers to a set of abilities wherein individuals recognize their medication information needs, possess familiarity with potential information sources, and effectively utilize them to obtain pertinent information.[10,11] It involves evaluating the quality of medication information and its applicability to a specific situation, as well as analyzing, understanding, and using medication information to make informed medication decisions.[12] For the elderly population, possessing a solid foundation in medication information literacy assumes paramount significance, as it empowers them to accurately comprehend and manage their medication regimens, mitigate medication-related risks, and optimize treatment outcomes.[13]

In China, elderly care encompasses home-based, community-based, and long-term care facility services, adhering to national standards set by the government.[14] These facilities provide comprehensive care, including medical services, medication management, social activities, and psychological support tailored to individual needs. Among these, long-term care facilities play a crucial role in delivering healthcare services to the elderly.[15,16] Proper medication adminis-tration is essential for maintaining their health and well-being. However, the unique context of medication behavior among elderly residents in these facilities warrants further exploration. Understanding their levels of medication information literacy and associated behaviors is essential for enhancing healthcare services. Moreover, with the ongoing growth of the aging population, improving medication education in long-term care facilities becomes increasingly imperative.[17]

Consequently, our study employs the Knowledge-Attitude-Behavior (KAB) model as a guiding framework to investigate the medication-taking behavior of elderly residents in long-term care facilities through semi-structured interviews. The KAB model posits that an individual's knowledge about a health issue influences their attitudes towards it, subsequently shaping their behaviors in response.[18,19] Within the realm of medication management, an individual's medication information literacy encompasses both their knowledge and attitudes regarding medications. By leveraging the behavioral component of the KAB model, we explore how knowledge and attitudes translate into intentions and actions regarding medication management among elderly long-term care residents. Through thematic analysis of inter-view data, our objective is to identify common patterns and categories related to medication behavior profiles, including adherence patterns, medication management practices, and experiences with healthcare providers. Ultimately, our aim is to provide insights for targeted interventions, enhancing medication management safety and effectiveness for elderly residents in long-term care facilities.

Materials and Methods
Overview and Ethical Approval
This qualitative study was conducted from March 2023 to June 2023 and employed semi-structured interviews as the primary data collection method. Prior to data collection, ethical approval for the study was obtained from the Ethics Committee of Chongqing Medical University under reference number 2018011. Our research protocol aligns with the principles outlined in the Helsinki Declaration. We obtained informed consent from all participants, emphasizing the importance of their privacy and confidentiality throughout the study process. Notably, participants were informed that their anonymized responses may be published as part of the study findings, and they consented to this aspect as well.

Participants and Recruitment
We employed a purposive sampling strategy for participant recruitment, targeting elderly residents aged 65 years and above residing in long-term care facilities. The exclusion criteria included individuals with severe cognitive impairment, as well as those with significant hearing or speech impairments that could hinder effective communication.

During the recruitment process, the study's objectives and procedures were clearly explained to potential participants, and informed consent was obtained from each individual, ensuring their voluntary participation. Additionally, efforts were made to ensure diversity among participants, considering factors such as gender, educational background, and length of stay in the facility, in order to capture a comprehensive range of perspectives.[20]

Data Collection

Semi-Structured Interviews: In-depth semi-structured interviews were conducted as the primary data collection method.[21] These interviews allowed for open-ended questioning and probing to elicit rich qualitative data.

Interview Guide Development: The development of the interview guide was a meticulous process, involving a comprehensive literature review and consultations with experts in geriatric medicine, geriatric nursing, and healthcare. The guide consisted of a series of open-ended questions aimed at assessing participants' levels of medication information literacy, medication perception, and behaviors. It utilized the medication information literacy indicator system previously established in our research, detailed in the Supplementary Material.

Interview Process: Skilled researchers with expertise in qualitative research methodologies conducted the interviews to ensure effective engagement with elderly participants. The interviews were conducted in private and comfortable settings within the long-term care facilities, prioritizing participant comfort and confidentiality throughout the process. To ensure the accuracy and fidelity of data collection, all interviews were meticulously audio-recorded. This approach allowed for precise transcription of participant responses, facilitating thorough analysis and interpretation of the data. These meticulous procedures were implemented to uphold the integrity of our research and ensure the reliability of our findings.

Data Analysis

The interviews' audio recordings were transcribed verbatim by the primary author. Transcriptions included non-verbal cues and pauses to provide a comprehensive data set for analysis. Two researchers, XZ and LP, utilized an inductive thematic analysis approach to code the interviews.[22] To facilitate this process, NVivo 12.0 software was employed to identify, categorize, and organize the codes and the associated data.

A rigorous qualitative thematic analysis methodology was employed to analyze the data. The analysis process involved several steps: (1) Data Familiarization: Researchers familiarized themselves with the data by reading and re-reading transcripts. (2) Coding: Initial codes were generated by identifying key concepts, themes, and patterns in the data. The initial ten interviews underwent independent double-coding by two researchers (XZ and LP), after which the codes were compared and discussed. The subsequent 22 interviews were alternately coded by one researcher and checked by the other.[23] (3) Theme Development: Codes were grouped into themes based on their relevance and significance to the research objectives. (4) Reviewing Themes: Researchers review and refine the identified themes, ensuring they accurately represent the data. (5) Defining and Naming Themes: Researchers define the themes and give them clear and meaningful names. (6) Writing the Report: The final step involves writing a report that presents the themes along with illustrative quotations from the data.

While encoding the interview data, we initiated the coding process with 28 interview transcripts, reserving the remaining 4 for the purpose of validating data saturation.[24] This process persisted until no further information or novel themes emerged, signifying that our interview data had indeed reached saturation. Figure 1 illustrates the workflow of constructing medication profiles.

Results

Overview of Participants

In our study, a total of 32 elderly residents participated in semi-structured interviews. The participants had a mean age of 84 years, with a range between 70–94. They were drawn from Chongqing Zhongyi long-term care facilities. To provide a comprehensive overview of our participant demographics, we have compiled additional information in Table 1. This table outlines key characteristics such as gender distribution, educational level, marital status, and length of stay in the long-term care facilities.

Medication Information Literacy Level Among Long-Term Care Facility

In this study, we conducted interviews with 32 elderly residents of long-term care facilities. To assess their medication information literacy, we utilized a Likert five-level scale, incorporating indicators from the elderly medication
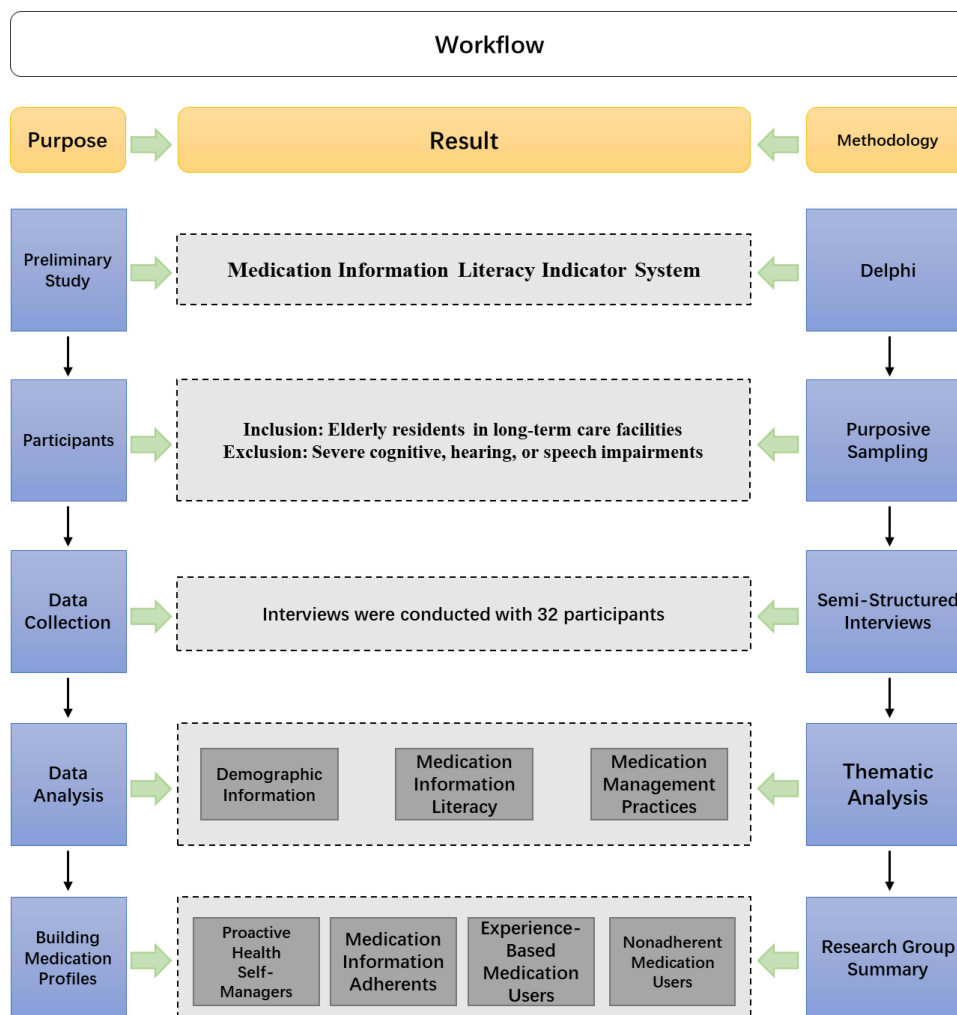
Figure 1 The workflow of building medication profiles.

information literacy system. This scale quantitatively evaluated various aspects of medication information, including cognition, acquisition, understanding, evaluation, and application. The interview content was systematically scored, resulting in individual scores for each participant across these dimensions, as well as an overall composite score, as detailed in Supplementary Material.

Medication Profile Among Long-Term Care Facility

In this study, we identified four distinct medication profiles among long-term care facility residents, each characterized by unique patterns of health management and medication adherence. The four main themes were: 1) Proactive Health Self-Managers, 2) Medication Information Adherents, 3) Experience-Based Medication Users, and 4) Nonadherent Medication Users. Among these categories, the third and fourth themes featuring additional sub-themes (Figure 2).

Theme 1 Proactive Health Self-Managers

Within the elderly population residing in long-term care facilities, a subgroup (n=9) emerges as the "Proactive Health Self-Managers". These individuals exhibit a proactive approach to managing their medication regimen, characterized by their active involvement in discussions with healthcare providers, diligent inquiries about their medications, and proactive pursuit of information regarding their prescriptions. Proactive Health Self-Managers demonstrate meticulous organization of their medications, adhering closely to prescribed schedules. They possess a clear understanding of each

Table 1 Participant Demographics (N=32)

Demographics	Value
Age (years), mean (SD)	84 (5)
Gender, n (%)	
Female	21 (66)
Male	11 (34)
Education level, n (%)	
College and above	7 (22)
High school	12 (37)
Middle school	8 (25)
Elementary school and below	5 (16)
Marital status, n (%)	
Married	5 (16)
Widowed	26 (81)
Single	0
Divorced	1 (3)
Residence years in long-term care facilities	
Less than 1 year	3 (9)
1–3 years	8 (25)
4–7 years	12 (38)
More than 7 years	9 (28)
Need for long-term medication	
No	1 (3)
Yes	31 (97)

medication's purpose and potential side effects. Consequently, this group consistently demonstrates superior medication adherence and encounters fewer issues related to medication management (Figure 3).

Participant S2 exemplifies the proactive behavior characteristic of Proactive Health Self-Managers, emphasizing the importance of adhering to a meticulously organized medication schedule.

He explains,

We prioritize taking morning medications over evening ones, following a specific sequence. As we age, memory can falter, and we fear forgetting or unintentionally overdosing. To combat this, both my spouse and I set alarms on our phones. For instance, when the clock strikes 10, it's time for medication. A quick glance at the alarm, and we are reminded. Sometimes, we may forget, but the alarm serves as a dependable reminder.
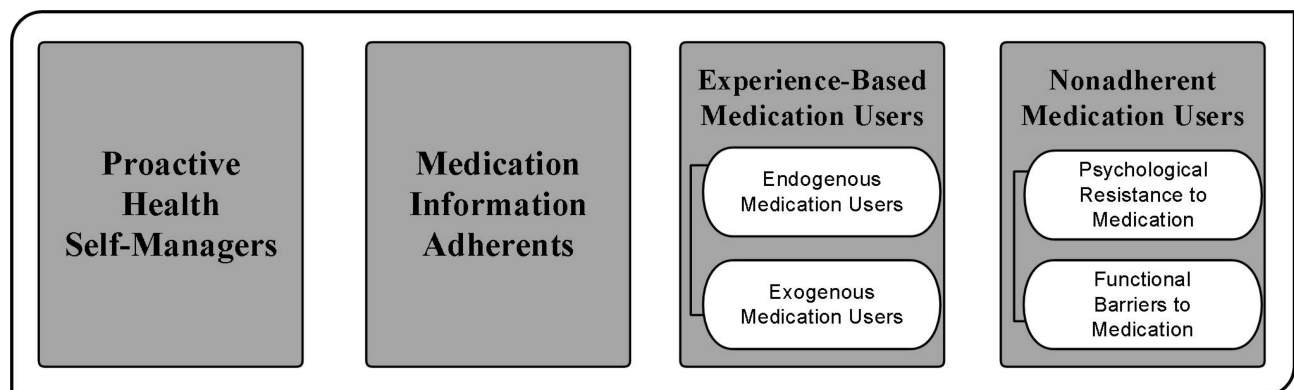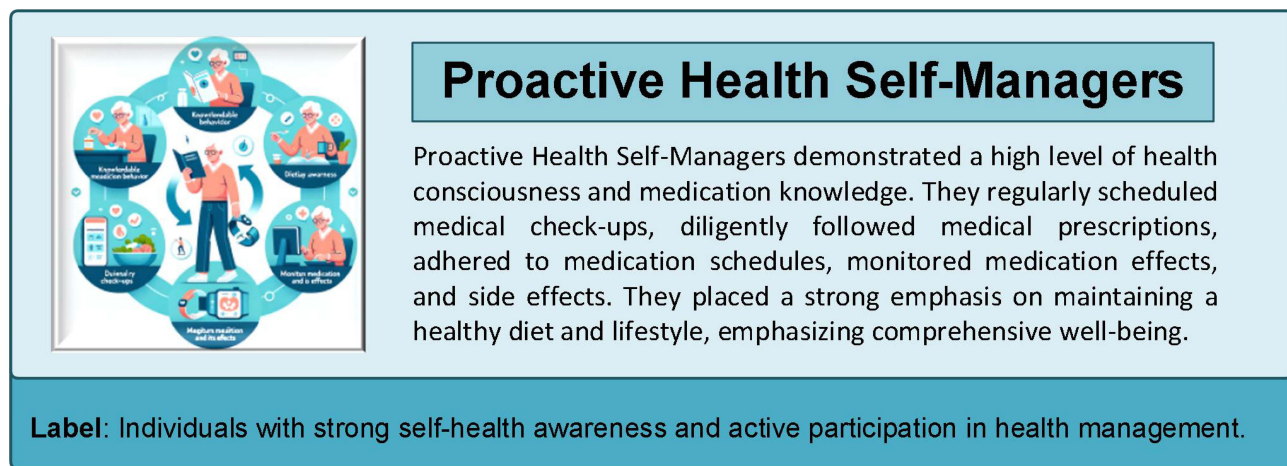

Figure 2 Themes and sub-themes.

Figure 3 The label and medication behavior of proactive health self-managers.

Continuing, he adds,

Communication with our healthcare providers is also crucial. We actively engage in discussions during medical appointments, seeking clarification on any medication-related queries we may have. This open dialogue allows us to gain a deeper understanding of our prescriptions, including their intended effects and possible side effects. Armed with this knowledge, we feel empowered to make informed decisions about our health and medication management.

Proactive health self-managers exemplify a group who extends their proactive approach beyond medication management. They embrace a holistic perspective on health and well-being, placing strong emphasis on maintaining a healthy diet and lifestyle. Recognizing that health encompasses multiple dimensions, they advocate for comprehensive well-being. In addition to their meticulously organized medication schedules, proactive health self-managers actively engage in activities such as regular exercise, balanced nutrition, and preventive health measures. This focus on a balanced lifestyle distinguishes them not only from other groups but also underscores their broader perspective on health.

For instance, participant S30 exemplified this balanced lifestyle, stating,

In my daily life, I maintain a regular exercise regimen, sticking to morning exercises. Additionally, I have a strong interest in attending lectures, whether they revolve around literature or health. I actively engage in the learning process and diligently take notes for later review.

Theme 2 Medication Information Adherents

Another subgroup (n=12) among long-term care facility residents is the "Medication Information Adherents". These individuals show a strong dedication to gathering and following medication-related information. They actively consult medication labels, read pamphlets, and engage with healthcare providers to clarify doubts. Medication information adherents demonstrate a high degree of medication adherence and take the time to research their medications thoroughly. Their actions are driven by a desire to make informed decisions regarding their health. While they may not be as proactive as the "Proactive Health Self-Managers", they place great importance on being well-informed about their medication regimens (Figure 4).

Participant S28's experience exemplifies this approach:

When I require medication, my first step is to visit a doctor. Following the diagnosis, the doctor prescribes the medication, and I prefer to purchase it directly from the hospital pharmacy. I never opt for external sources unless the hospital pharmacy does not stock the specific medication. I firmly believe that medication should only be obtained under a physician's guidance. I diligently adhere to the doctor's prescription and structure my medication schedule accordingly. If, by chance, the hospital does not have the required medication, I consult with the doctor to determine where to purchase it. Once acquired, I cross-verify with the doctor to ensure it is the correct medication before consumption.
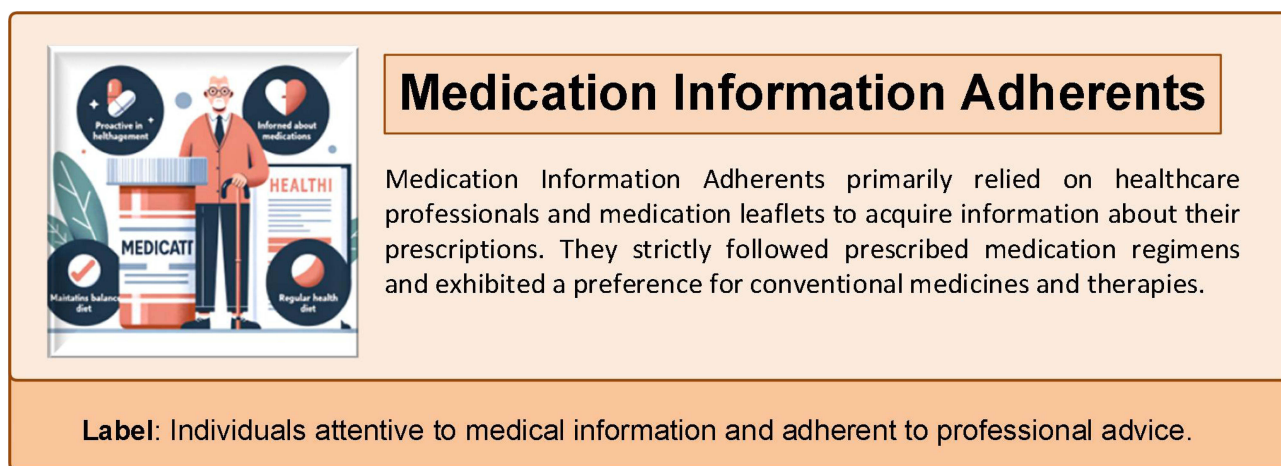
Figure 4 The label and medication behavior of medication information adherents.

Furthermore, Participant S15 emphasized the importance of following medical guidance:

> I take my medications exactly as prescribed by the doctor. I follow the doctor's instructions precisely, including the medication, dosage, and duration. I place complete reliance on the doctor's guidance and do not make any adjustments independently.

Theme 3 Experience-Based Medication Users

Within our specific context, the term "medication users" pertains to the elderly consumer demographic, according to the World Health Organization's (WHO) description of medication users,[25] we can define them as elderly individuals who incorporate medications into their medical treatment regimens.

In contrast, a subset of elderly residents falls under the category of "Experience-Based Medication Users". These individuals primarily rely on personal experiences and individual beliefs as their primary guiding principles for medication consumption. Within this subset, two distinct sub-themes emerge (Figure 5).

Furthermore, in this study, we define medication information as information provided by healthcare professionals or medical associations. While experience-based medication users may occasionally adhere to medication information, the professionalism and authority of the information they follow cannot be validated.

Sub-Theme 3.1 Endogenous Medication Users

Endogenous experience-based medication users (n=4) primarily rely on personal judgment and individual experience rather than professional guidance. This subgroup demonstrates a distinct preference for self-reliance in managing health concerns. Consultations with healthcare professionals are infrequent as these individuals have a strong belief in their capability to independently handle health issues. Their approach often includes purchasing multiple medications online, scrutinizing compositions before buying, and avoiding seeking prescriptions from doctors in favor of self-prescribing.

Participant S22 exemplified this behavior:

> I seldom seek medical advice for issues I believe I can handle myself. I purchase multiple medications online and thoroughly examine their compositions before making a purchase. Seeking prescriptions from doctors is something I prefer to avoid.

Sub-Theme 3.2 Exogenous Medication Users

Exogenous experience-based medication users (n=1) primarily rely on the experiences of others and delve into various folk remedies, alternative therapies, and unconventional treatments. The participant motivation often stems from under-lying anxiety about unresolved health issues. Notably, these individuals tend to bypass consultations with healthcare professionals to confirm the suitability of these treatments, instead placing their trust in the belief that these remedies pose minimal risk to their health. This reliance on non-conventional methods highlights the significant influence of anxiety on shaping their healthcare decisions.

Figure 5 The label and medication behavior of experience-based medication users.

Participant S10's account underscored this behavior:

> Doctors said it was challenging to find a cure, so I tried numerous folk remedies suggested by others, but none were effective. My persistent leg pain led me to acupuncture and herbal remedies. I never consulted professionals to ascertain their suitability. I believed these remedies wouldn't cause harm to my health.

Theme 4 Nonadherent Medication Users

Lastly, a subset of elderly residents falls under the category of "Nonadherent Medication Users". These individuals typically exhibit an indifferent or resistant stance towards their prescribed medication regimens. Their resistance may stem from various factors, such as expressed concerns about potential side effects, skepticism or mistrust towards healthcare providers' recommendations, or simply disregarding the importance of adhering to prescribed treatments. This behavioral pattern may lead them to skip doses, deviate from the recommended schedule, or even decline certain prescribed treatments. This subgroup can be further divided into two distinct sub-themes (Figure 6).

Sub-Theme 4.1 Psychological Resistance to Medication

The subset identified as the "Psychological Resistance to Medication" group (n=2) exhibits various psychological barriers that impede their acceptance of standard medical treatments. This resistance commonly stems from deep-rooted fears or concerns regarding potential side effects, paired with a lack of trust or skepticism towards healthcare providers and their recommended treatments. Individuals in this group often hold the belief that medications might pose risks to their overall health, leading to hesitance or complete avoidance of prescribed treatments. Consequently, this psychological resistance affects their adherence to healthcare advice and the recommended therapeutic regimens.

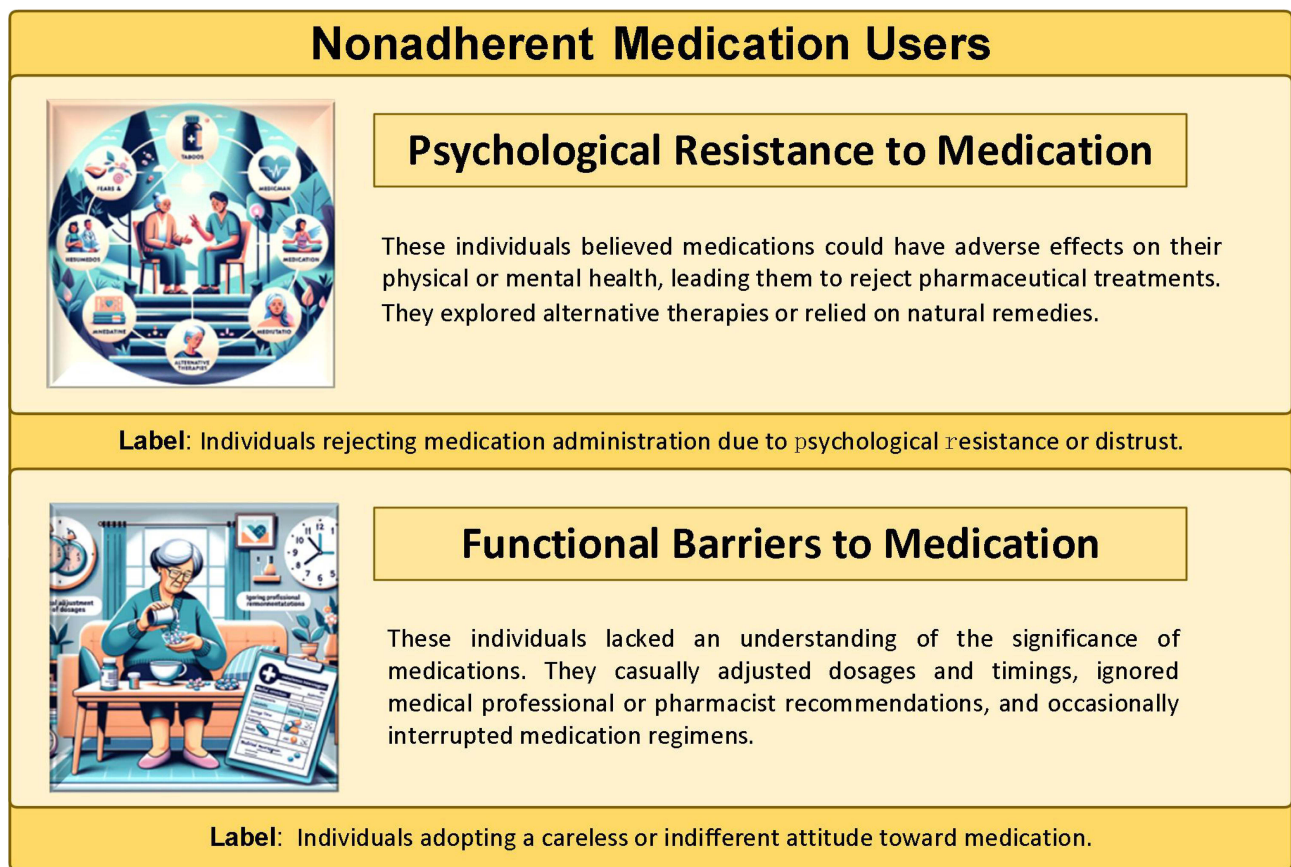Participant S9's view exemplified this attitude:

Nonadherent Medication Users

Psychological Resistance to Medication

These individuals believed medications could have adverse effects on their physical or mental health, leading them to reject pharmaceutical treatments. They explored alternative therapies or relied on natural remedies.

Label: Individuals rejecting medication administration due to psychological resistance or distrust.

Functional Barriers to Medication

These individuals lacked an understanding of the significance of medications. They casually adjusted dosages and timings, ignored medical professional or pharmacist recommendations, and occasionally interrupted medication regimens.

Label: Individuals adopting a careless or indifferent attitude toward medication.

Figure 6 The label and medication behavior of nonadherent medication users.

I seldom take conventional medication, my preference lies in dietary supplements. My children sometimes struggle to comprehend my choices, accusing me of wasting money on supplements. However, I believe that the side effects of medication could be harmful to my body. Conversely, dietary supplements are gentler and have a positive impact on my body. I've been taking them for over 20 years, and they have had a positive effect on my heart, liver, and spleen.

Sub-Theme 4.2 Functional Barriers to Medication

The subgroup identified as "Functional Barriers to Medication Adherence" (n=4) exhibits a pattern of neglecting medication plans, often due to forgetfulness or a general indifference towards the continuity of medication treatment. Additionally, individuals in this group may lack an appreciation for the importance of adhering to prescribed medications for their health. This non-compliance could stem from various reasons, ranging from simply forgetting to take medication to a fundamental lack of acknowledgment about the essential role medication plays in their health management.

 Participant S3's perspective illustrates the impact of functional barriers on non-adherent behavior:

At my age, I've reached a point where I don't worry too much. I've lived long enough; there's no need to fuss over every detail. As long as it doesn't harm my health, I don't fret over it. If it's something safe for the body, I don't avoid it. No need to be overly cautious about things anymore. I've gotten used to taking my medication every day on time, but sometimes I forget. For me, it's not a big issue because I believe I know my body and what I can handle. As long as I feel well, I don't worry too much about missing a dose or two because I know they won't have a significant impact on my health.

Discussion

The principal findings of this study provide critical insights into the medication information literacy and behavior of elderly residents in long-term care facilities. These findings underscore the complex nature of medication administration in this demographic and the need for tailored interventions.

Medication Information Literacy Level

To begin, the composite medication information literacy scores of the participants displayed a considerable range, spanning from 64 to 100.5, with an average score of 81. This broad spectrum of scores underscores the notable disparities in medication information literacy within the elderly cohort under investigation. These variations may be attributed to factors encompassing their educational backgrounds, individual health conditions, and life experiences.[26–28] This emphasizes the need to tailor health information services to suit the literacy levels of diverse groups, even within a geographically concentrated area.

Additionally, age-related factors might exert a considerable influence on the overall level. A majority of our study's participants were aged over 75, implying potential cognitive decline, reduced information processing capabilities, and evolving lifestyle and healthcare needs.[29–31] These aspects are expected to significantly impact their performance across various dimensions of medication information literacy. The findings underscore the urgent requirement for tailored medication education and support for these specific elderly demographic.

In the dimension of medication information cognition, we have identified variations among elderly individuals. Some exhibit a relatively high level of cognitive proficiency, possibly attributable to their greater medical knowledge or extensive healthcare experience.[13] Nevertheless, it is crucial to acknowledge that certain elderly individuals may lack adequate awareness and understanding of medication-related information. This underscores the potential need for enhanced educational initiatives and improved information dissemination channels. Medication information acquisition presents another critical facet, and some elderly individuals encounter challenges due to limitations in information channels and resources. These challenges may be linked to the digital divide,[32] particularly in an era where the internet has become the primary source of information.[33] Diverse strategies should be implemented to ensure that elderly individuals can effortlessly access the necessary medication information, whether through online platforms, traditional print media, or face-to-face consultations.[34] The dimensions of medication information understanding and evaluation reflect the capacity of elderly individuals to understand and assess the quality of medication-related information. These competencies are of paramount importance for the safe and accurate use of medications. Therefore, healthcare providers and educators can play a pivotal role in developing simplified and comprehensible informational resources to assist elderly individuals in enhancing their understanding and evaluation skills.[35] Finally, medication information application encompasses the ability of elderly individuals to effectively apply medication-related information in real-life scenarios, such as medication management and healthcare decision-making.[36] Improving the application skills of elderly individuals may necessitate the provision of practical cases and simulated situations.

Medication Profile of the Elderly Population in a Long-Term Care Facility

Long-term care facilities, the primary setting for this research, play a vital role in addressing the complex and evolving healthcare needs of the elderly population. These specialized institutions have gained increasing significance due to the rapid global growth of the aging population. As a result, they have become crucial in catering to the diverse healthcare requirements of their residents. Within the Chinese context, where this study was conducted, these institutions pre-dominantly house a population characterized by advanced-age seniors individuals, aged 75 and above. This specific demographic presents a microcosm of the broader aging phenomenon that is reshaping societies worldwide.

In this study, we focused on understanding medication profiles among elderly residents within long-term care facilities, shedding light on their medication management practices and preferences.

Proactive Health Self-Managers

The presence of a group of proactive health self-managers among elderly long-term care residents is a noteworthy revelation. These individuals not only recognize the significance of health awareness and medication knowledge but

actively engage in their healthcare. They exhibit a commitment to a holistic approach to health that involves not just medication management but extends to informed dietary choices and the adoption of a healthy lifestyle. Their emphasis on regular check-ups, medication adherence, and health monitoring underscores the importance of comprehensive health interventions that address all these aspects.

To further support these proactive individuals, healthcare providers should not only recognize but also foster their behavior. This could entail providing them with supplementary resources, such as access to specialized health and nutrition counseling, tailored exercise programs, and educational materials on preventive care.[37] Moreover, cultivating a robust doctor-patient relationship is crucial. Healthcare providers should actively engage proactive individuals in decision-making processes regarding their healthcare. Encouraging discussions about treatment options, medication management, and preventive measures can bolster their sense of autonomy and promote sustained proactive health management.[38,39]

Medication Information Adherents

Residents classified as medication information adherents prioritize professional advice and pharmaceutical information in their healthcare decision-making process, showcasing a strong reliance on healthcare providers and evidence-based treatments, as evidenced by their strict adherence to prescribed medication regimens.

However, a notable discrepancy emerges when comparing the healthcare decision-making approaches of medication information adherents with those of proactive health self-managers. While both groups share a common goal of making informed decisions, medication information adherents predominantly rely on provided medical information and professional advice, whereas proactive health self-managers exhibit a propensity for critical thinking and information verification.

To optimize the health management practices of medication information adherents, healthcare professionals should prioritize ensuring clear communication and facilitating easy access to medication information resources. This can be accomplished by streamlining communication channels and promoting transparency in treatment choices.[40] Additionally, guiding medication information adherents toward reliable information sources can enhance their confidence and knowledge in healthcare decision-making, aligning with their preference for evidence-based care and facilitating a collaborative and patient-centered approach.[41,42]

Experience-Based Medication Users

The presence of experience-based medication users highlights a subset of elderly residents in long-term care facilities who base their medication administration on personal and others' experiences. This group comprises distinct subgroups, including individuals who engage in self-prescribing and those characterized by heightened anxiety, each displaying varying degrees of self-reliance and propensity for risk-taking.

While acknowledging the proactive approach taken by both experience-based medication users and proactive health self-managers in managing their health, it is essential to highlight a significant difference between them. Unlike proactive health self-managers, who possess discerning skills in evaluating information, experience-based medication users tend to lack critical appraisal regarding medication information and its sources. They often rely on anecdotal evidence, leading to a trust-oriented approach to medication management, without subjecting available information to objective scrutiny.

To effectively cater to the needs of this demographic, healthcare providers must adopt a nuanced approach. While personal experiences can occasionally provide valuable insights, they should not supplant evidence-based medical guidance. It is imperative for healthcare professionals to emphasize the necessity of consulting healthcare providers before making health-related decisions, especially for individuals engaged in self-prescription practices.[43] Moreover, for those who depend anxiously on anecdotal evidence from others, it is essential to assist them in assessing the reliability of such observations and distinguishing between beneficial and potentially detrimental health practices.[44,45]

Nonadherent Medication Users

The nonadherent medication users within our study represent a unique subset of elderly residents characterized by significant psychological resistance or indifference towards prescribed medications.

Addressing these barriers to medication adherence poses a formidable challenge for healthcare providers. For elderly residents exhibiting psychological resistance, a multifaceted approach is necessary. This may involve considering alternative therapies, such as non-pharmacological interventions like cognitive-behavioral therapy or mindfulness-based stress reduction, complemented by comprehensive education on the potential benefits and safety profile of conventional pharmaceutical treatments.[46,47] By embracing such a comprehensive strategy, healthcare professionals aim to mitigate concerns and foster a more receptive attitude towards medication among this demographic.

Conversely, for individuals displaying a negligent attitude towards medication adherence, proactive monitoring and targeted interventions are essential. Healthcare providers must engage in personalized communication to ensure these individuals grasp the significance of adhering to prescribed medications and comprehend the direct impact on their health outcomes. Emphasizing the potential consequences of non-adherence in a patient-centered and empathetic manner is crucial, highlighting the positive outcomes that can arise from consistent and proper medication management.[48]

To sum up, understanding and catering to the specific needs and attitudes of these diverse groups of elderly long-term care residents is essential for optimizing their health management practices and enhancing their overall well-being. This calls for an individualized and empathetic approach that factors in their specific preferences and challenges.[49–51]

Integration of Findings with the Current Literature

Our findings underscore the significance of medication management within the elderly population, echoing previous studies by Liau et al who emphasize the importance of medication adherence and self-care among older adults.[52] Additionally, the research conducted by Isetts et al underscores the critical role of medication management and the impact on the health and well-being of elderly residents.[53]

While previous research has traditionally concentrated its focus on medication adherence,[54] our investigation delves more profoundly into the distinct medication behavior profiles among elderly residents inhabiting long-term care facilities, a facet that has been relatively under explored within the existing literature. Our expanded perspective on medication behavior profiles serves to enrich the established body of knowledge in this domain. Past studies often fixated on singular aspects of medication management, such as adherence or polypharmacy.[55,56] In contrast, our research unveils distinct groups of elderly individuals, each marked by unique information-seeking behaviors and attitudes towards medication. This nuanced understanding not only adds depth to the field but also raises questions about the underlying factors influencing these profiles, contributing to a more holistic comprehension of medication behavior in elderly long-term care residents.

These findings have tangible implications for healthcare providers, policymakers, and caregivers operating within long-term care settings. The acknowledgment and emergence of distinct Medication Behavior Profiles accentuate the necessity for personalized support and interventions. For example, custom-tailored medication education programs, easily accessible information resources, and precisely targeted interventions become indispensable to cater to the unique requirements of these diverse profiles. Furthermore, the identification and development of medication behavior profiles catalyze the creation of novel theoretical frameworks that can accommodate the multifaceted information needs and behaviors of elderly residents, guiding the direction for future research in this field.

Ultimately, our study enriches the existing literature by constructing medication behavior profiles among elderly residents in long-term care facilities. While we align with prior research that highlights the importance of medication management,[57] our novel perspective underscores the necessity for customized support to accommodate the unique needs of elderly residents. These findings bear both theoretical and practical implications that can guide subsequent research endeavors, facilitate policy development, and promote best practices within the realm of long-term care settings.

Limitations

While our study provides valuable insights into medication-taking behavior among elderly residents in long-term care facilities, it is essential to acknowledge certain limitations. The relatively small sample size, primarily consisting of elderly individuals aged 75 and above, may constrain the generalizability of our findings.

To mitigate these limitations, we employed diverse participant selection criteria, considering factors such as age, gender, and health status. Rigorous data collection methods, including structured interviews conducted by trained researchers, were implemented to minimize recall and reporting biases associated with self-reported data.

Conclusion

In summary, our study sheds light on medication-taking behavior among elderly residents in long-term care facilities. It emphasizes the importance of tailored medication education and support programs to address challenges such as medication adherence issues and misconceptions about medication use. Moving forward, it is imperative to continue advancing research and implementing evidence-based strategies to meet the evolving needs of elderly individuals in long-term care settings. Through collaborative efforts among healthcare providers, policymakers, and caregivers, we can strive towards ensuring safer and more effective medication practices, thereby promoting the overall well-being of elderly residents.

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Disclosure

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