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Dynamics of Health Decisions in Elderly with Multimorbidity: Findings from a Qualitative Approach

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ABSTRACT

Introduction: Understanding health decision-making among elderly individuals with multimorbidity is essential for improving their care, especially in the context of polypharmacy. As the number of older adults with multiple chronic conditions increases, it becomes crucial to explore how they navigate complex healthcare choices that affect their well-being and quality of life. **Objective:** This qualitative study aimed to explore the decision-making processes of elderly individuals with multimorbidity undergoing polypharmacy. **Method:** Nine elderly individuals with multimorbidity from the Citeureup Cimahi Health Center were purposively sampled for in-depth interviews and field notes. Data were analyzed thematically using Colaizzi's method. **Result:** The analysis identified five key themes: (1) decision-making dynamics, (2) navigating health opportunities, (3) adaptation and self-management, (4) support systems and communication, and (5) contextual influences. **Conclusion:** The study highlights the complex factors influencing health decisions among elderly individuals with multimorbidity, including aging, illness, financial barriers, and the need for more comprehensive healthcare. It underscores the importance of respecting autonomy and creating a healthcare system that prioritizes comfort, dignity, and quality of life.

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1. INTRODUCTION

Population aging is an unavoidable global phenomenon, with projections indicating that the number of individuals aged 60 and older will rise by 34%, from 1 billion in 2019 to 1.4 billion. By 2050, this demographic is expected to exceed 2.1 billion (WHO, 2020). In Indonesia, the 2020–2023 Interim Population Projection indicates that the elderly population constitutes 10.75% of the total population (BPS, 2022). This aging population structure contributes to a higher prevalence and morbidity of multiple chronic conditions (Divo et al., 2016), as the physiological functions of older adults decline, making them more vulnerable to diseases. Typically, elderly individuals face multiple chronic conditions, which significantly complicates their treatment regimens and raises the risk of polypharmacy. As a result, elderly individuals often face multimorbidity which significantly complicates their treatment regimens, raises the risk of polypharmacy, and presents unique challenges for health decision-making, as patients must navigate a wide range of treatment options and potential interactions between medications (Smith et al., 2021).

Given these challenges, it is critical to understand how elderly individuals navigate health-related decisions, particularly in the context of polypharmacy. Active participation in treatment decisions is encouraged, as it enables elderly individuals to feel comfortable asking questions and making informed choices (WHO, 2019). However, research suggests that elderly individuals' perceptions of their role in decision-making vary, influenced by healthcare providers and their personal health circumstances (Doekhie et al., 2020). In many cases, patients adopt a more passive role in decision-making, particularly when strong nurse-patient relationships promote satisfaction but may inadvertently limit patient autonomy (Gallo-estrada, 2020).

Patients have varying preferences for their involvement in medical decision-making. Younger and more educated individuals tend to seek greater responsibility in these decisions (E Lindsay et al., 2020). In contrast, elderly patients often face challenges in decision-making due to poor health and cognitive impairment (Pel-Littel et al., 2021). Additionally, patients who feel that they are expected to defer decisions to healthcare providers tend to adopt a more passive role, and the opposite is also true (Doekhie et al., 2020). Despite existing research on decision-making preferences, there remains a gap in understanding the specific challenges and dynamics that elderly patients with multimorbidity and polypharmacy face when making healthcare decisions.

This study aims to fill this gap by employing a qualitative approach to explore the dynamics of health decision-making among elderly individuals with multimorbidity. By focusing on their experiences and perceptions, the research will offer deeper insights into the complexities of health-related decisions in this vulnerable population. These insights are critical for developing tailored interventions and support systems that can improve the quality of care, enhance patient autonomy, and ensure better health outcomes for elderly individuals facing the dual challenges of multimorbidity and polypharmacy.

2. METHODS

Research Design

This research design employed a qualitative phenomenological method. The study aimed to explore the lived experiences of elderly individuals with multimorbidity, focusing on their decision-making processes, particularly in the context of polypharmacy.

Population and Sample

The participants were nine elderly individuals with multimorbidity who were undergoing polypharmacy and did not have hearing loss or dementia. Purposive sampling was used to select individuals who met the inclusion criteria. The research was conducted in one of the working areas of a community health center in West Java.

Instrument

The semi-structured interview guide was developed based on prior quantitative research on decision-making, with a focus on key aspects such as decision-making under pressure, risk assessment, and involvement in medical decisions for elderly individuals. To ensure appropriateness and reliability, the questions were aligned with the research objectives to capture the decision-making process effectively. The semi-structured format allowed for consistent questioning while enabling flexibility to explore responses in depth.

Research Procedure:

Interviews lasted 45 to 60 minutes, and data collection took place over five weeks, from late February to late March 2024. Recorded interviews were transcribed verbatim and translated from Indonesian to English. Data analysis followed Colaizzi's seven-step method for phenomenological data analysis, including reading, extracting significant statements, formulating meanings, and organizing themes. The data were then coded and analyzed using NVivo 12 Plus Software. Specific topics served as the foundation for main categories, which were gradually organized to prevent information overload. A hierarchical tree diagram was used to illustrate the relationships among these categories, leading to descriptive paragraphs that clarified the connections.

Ethical Clearance

To protect the rights of participants, the ethical clearance obtained from Health Research Ethics Committee FITKes UNJANI No: 134/KEPK/FITKes-Unjani/VI/2024. Anonymity, and coding systems are used in the analysis of research data to respect the rights and privacy of respondents. During the study, respondents were not forced to undergo research and did not have any impact on the respondents.

3. RESULT

Table 1 presents a demographic snapshot of the study group, which comprises nine individuals. A breakdown by gender reveals a distribution of three males and six females. The age composition shows a notable concentration within the 60-69 age bracket. An analysis of marital status indicates that a slight majority, totaling five individuals, were married at the time of the study. Additionally, the findings reveal that the majority of participants, specifically seven out of nine, had received education only up to the primary and secondary levels. Documentation of health conditions provides insight into the medical landscape of the participants. Notably, many individuals also presented with hypertension, illustrating the multifaceted health challenges faced by the elderly. The study further explores the medication routines of the participants, highlighting the prevalence of polypharmacy.

Table 1. Participant Demographic Data

ID	Gender	Age	Marital Status	Highest Educational Attainment	Illness	Length of time Undergoing Polypharmacy (Years)
P1	F	61	Married	College	Hypertension, DMT2, Osteoarthritis, Post PCI	4
P2	F	78	Widowed	College	Hypertension, Heart Failure, Post PCI	15
P3	F	60	Married	Secondary	Gout, Osteoarthritis, CHD, Post PCI	5
P4	M	63	Married	Secondary	Stroke, CHF, Post PCI	2
P5	F	60	Married	Primary	Dyslipidemia, Post Stroke	3
P6	F	65	Married	Secondary	Breast Cancer Stage 3	2
P7	M	73	Married	Primary	Hypertension and DMT2	9
P8	F	68	Widowed	Secondary	Hypertension, Gastritis, Post-Op Cholecystectomy	3
P9	M	70	Married	Secondary	Hypertension, Post Stroke	12

Using the hierarchical chart feature in NVivo 12, an analysis was conducted to assess the variation in theme prominence based on the number of coding references at each node. The analysis revealed that the theme of Decision-Making Dynamic was the most significant, followed by themes related to Adaptation and Self-management, Navigating Health Changes, Support System and Communication, and Contextual Influence, listed in that order.

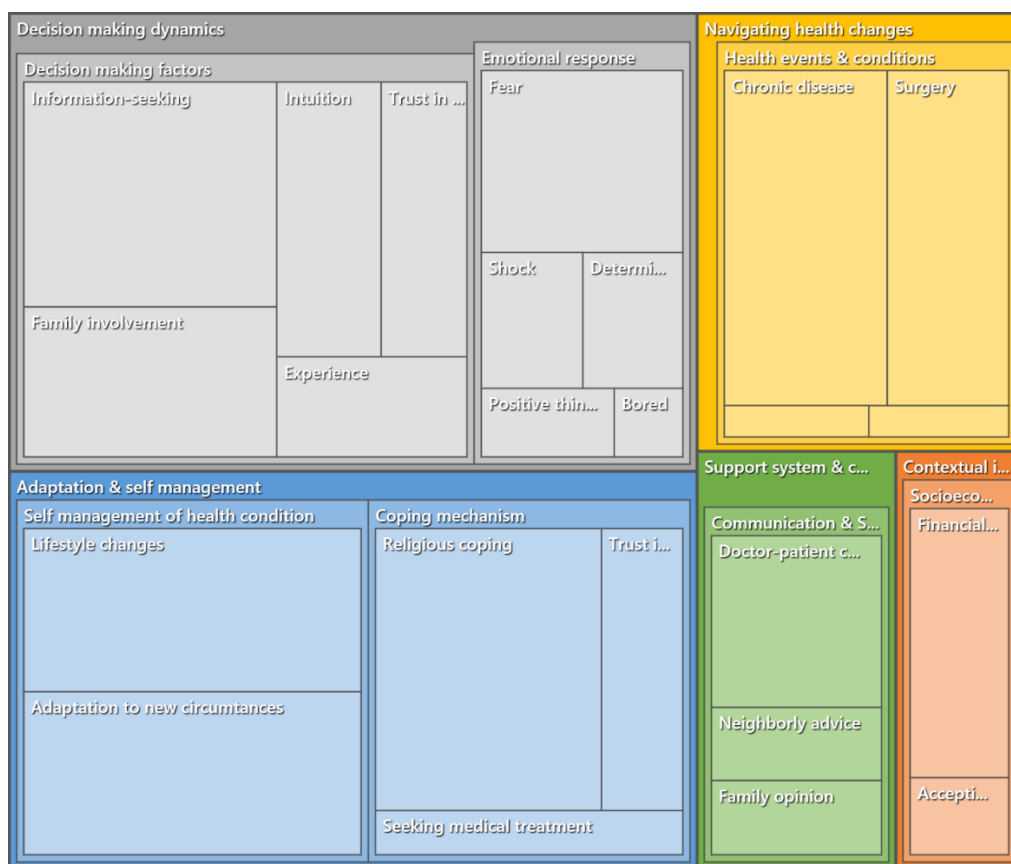


Figure 1. Hierarchical Analysis Diagram of Health Decision-Making Behavior in Elderly with Multimorbidity

Theme 1: Decision making dynamic.

These themes include two sub-themes: the first sub-theme focuses on decision-making factors, which consist of five keywords: information seeking, family involvement, intuition, trust in doctors, and experience. The second sub-theme, which supports dynamic decision-making, is emotional response, identified through six key words: anxiety, boredom, sadness, positive thinking, and determination. This is evidenced by the following quote:

Decision-making factors

"Because I have been taking medicine for dozens of years, I often want to know the benefits of my meds by searching on Google from Alodoc, or ask directly to the doctor, after that I can draw conclusions." (P3)

"But now that I'm getting older and not feeling well, most of the decisions are made, but it seems like all my children make the decisions. Especially decisions about my treatment." (P2)

Emotional response

"I want to be with my family. To be able to do that, I have to be healthy. So, the decision to install this ring is also for the future of my family. I am the head of the family. I must be there and healthy for them."(P4)

"I'm tired, I get bored sometimes, especially the part about taking medicine. Because after years of taking medicine, it didn't get better, instead the disease worsened."(P2)

Theme 2: Adaptation and self-management

The themes include two sub-themes: the first sub-theme focuses on self-management of health conditions. The second sub-theme, is coping mechanism. This is supported by the following quote:

Self-management of health conditions

"Even though it's difficult, I try to consistently schedule check-ups at least every 3 months. However, it all depends on whether my son has time to accompany me to the hospital." (P2)

"Because I couldn't participate in physical therapy at the hospital, the doctor advised me to exercise at home, eat healthy food, including vegetables, but to avoid consuming anything high in oil." (P5)

Coping mechanism

"In the name of God, apart from surrendering myself to Allah's fate, I was also convinced by my children that surgery was the right choice." (P3)

"I can't wait to undergo surgery immediately, because of the infinite pain I feel. Even though I also suffer other illnesses, I believe technological advances can make the heure whole process run smoothly." (P8)

Theme 3: Navigating health changes.

The themes consist of one sub-theme: health events and conditions. This is illustrated by the following quote:

Yes, when that incident happened, Istitha'ah was approaching the departure of the Hajj pilgrimage in 2022. At that time, everything was checked, including weight, blood pressure, blood tests, X-rays, and a walking test. I was then informed that I didn't pass and needed a

follow-up examination because I had to treat my heart disease first.” (P1)

“The doctor said, 'Tonight, I will refer you to Salamun Hospital to undergo cardiac catheterization. (P3)

“When I checked my blood sugar, the nurse informed me that it was over 500. At the time, I didn't fully grasp the significance of this, but the doctor advised me to be hospitalized. As it turns out, I had been in a coma for 5 days. I was experiencing shortness of breath and was provided with oxygen.” (P7)

Theme 4: Support system and communication.

The themes comprise one sub-theme: communication and support, which includes three keywords: doctor-patient communication, family opinions, and neighborly advice. This is illustrated by the following quote:

“The doctor explained slowly until I understood. Even though it was nighttime, he came to my room accompanied by the doctor on duty and the nurse. He even mentioned that Salamun Hospital could take action on Saturday because it needed to be done immediately.” (P3)

“My husband always encouraged me to go to the doctor. My younger sister also deliberately came to stay overnight to help with household chores because I was too sick to move.” (P6)

“I initially refused to get treatment because I was worried about how I would pay. However, my friend, who is also my neighbor and a cadre, informed me that the BPJS would cover all the costs as long as I was registered.” (P5)

Theme 5: Contextual influence.

The themes encompass two sub-themes: financial considerations and acceptance of fate. This is supported by the following quote:

“The doctor said, if I already have BPJS, the cardiac Cath is a fast procedure, it doesn't hurt, and I won't spend a penny.” (P3)

“I am old, my body is also getting weaker, although I am still enthusiastic about doing many things, but the fate of growing old is also to experience many setbacks I now feel tired very easily, perhaps because of the heart disease I suffer from.” (P2)

“But whatever the outcome may be, it is God's destiny. The important thing is that we must try first, be brave first, and take risks first.” (P9)

4. DISCUSSION

Participants in this study gained a deeper understanding of their specific health conditions, treatment options, and medical procedures through information-seeking behaviors. This enhanced knowledge not only helped them better grasp their health issues but also empowered them to take a more active role in their healthcare decisions. The internet, in particular, emerged as a crucial resource, allowing them to obtain relevant information from trusted sources, such as official government healthcare websites, professional health platforms, and community-based health organizations. This finding is consistent with existing literature on health information-seeking behaviors among older adults, which underscores the importance of internet use, trust in information sources, and the influence of cultural and family dynamics in decision-making

(Somera et al., 2016). A recent study further supports this finding, highlighting that older adults who actively seek health information online demonstrate increased knowledge and confidence in managing their health (Ma et al., 2023). Research highlights the complexity of the decision-making process in elderly individuals, emphasizing that these decisions are not made in isolation but are influenced by a web of factors, including knowledge, support systems, cultural values, and emotional responses. These studies further reinforce the critical role of healthcare professionals in guiding elderly individuals toward credible sources of health information, ensuring that they are equipped to make informed and well-rounded decisions.

Elderly health decision-making is influenced by a broad range of factors, such as the availability and accessibility of information, family involvement, intuition, trust in healthcare providers, and emotional responses. The findings from this study suggest that while elderly individuals benefit from access to online health information, the importance of healthcare professionals' guidance in identifying and interpreting credible sources cannot be overstated. Family members were found to play an indispensable role, providing both emotional and practical support, which significantly influenced the decisions of elderly individuals. Additionally, the trust placed in healthcare professionals and personal intuition emerged as key determinants in the decision-making process. Emotions, such as anxiety, determination, and even fear of the unknown, were also significant drivers of how elderly participants approached their health management. These emotional responses highlight the need for healthcare providers to not only provide medical expertise but also address the emotional needs of older patients.

For many participants in this study, who were undergoing polypharmacy, significant lifestyle adjustments were required. They had to adhere to a complex medication schedule, attend regular health check-ups, follow prescribed medical visits, and implement changes in diet and exercise routines. These adjustments underscore the importance of self-management strategies for elderly individuals managing multiple chronic conditions.

This result is consistent with a prior study by (Mächler et al., 2022) which explores how elderly individuals manage multiple chronic diseases. Their research emphasizes the significance of self-management practices, including lifestyle modifications such as dietary adjustments, medication management, and the integration of physical activities into daily routines. Moreover, the role of family support in facilitating these practices was highlighted. A more recent study (Sadeghi et al., 2024) further supports these findings, revealing that family support, effective communication with spouses, friends, and medical personnel, and caregiver involvement are crucial factors that enhance self-management, help elderly individuals adapt to their disease, and improve self-efficacy in managing their health. These insights further underscore the need for a holistic approach to healthcare for elderly patients with multimorbidity, particularly those managing polypharmacy, as this can significantly enhance both their health outcomes and their quality of life.

The study also revealed another key theme, relating to how health events and conditions shape elderly individuals' decision-making. The participants' experiences of major health events often led to a reassessment of their life priorities, resulting in adjustments to their lifestyles and an increased awareness of the necessity for medical intervention. This theme supports findings from previous study (Pel-Littel et al., 2021) who emphasize the importance of involving elderly patients in

decision-making, particularly regarding cardiovascular care, which is prevalent among older populations. Shared decision-making, a process that involves mutual agreement between patients and healthcare providers about treatment options based on the patient's preferences, is essential when managing complex health issues. However, the presence of cognitive impairments, often linked to chronic conditions such as cardiovascular disease, can complicate this process. Therefore, improving communication, patience, and the use of decision aids are crucial strategies for overcoming these barriers and ensuring that elderly patients remain actively engaged in their care.

Moreover, the study highlighted the importance of effective communication between healthcare providers and elderly individuals. Clear and consistent communication, particularly regarding treatment options, risks, benefits, and alternatives, was seen as crucial in empowering elderly individuals to make well-informed decisions. The findings align with previous research, (Kwame & Petrucka, 2021) which stresses the significance of comprehensive, transparent communication in healthcare. Involving family members and close social networks in the decision-making process was also identified as an important support system, as these individuals help elderly patients navigate difficult choices and provide emotional and practical assistance throughout their healthcare journey. Additionally, a recent study showed that effective communication includes not only verbal expressions but also nonverbal signals like body language, gestures, and tone of voice, all of which are particularly crucial when interacting with elderly individuals (Sharkiya, 2023). Involving family members and close social networks in the decision-making process was recognized as a vital support system, as these individuals assist elderly patients in making challenging decisions and offer both emotional and practical support throughout their healthcare journey.

Another significant theme that emerged was the tendency of some participants to accept their illness, particularly in the face of financial constraints and physical limitations. This acceptance often served as a coping mechanism, reducing anxiety and emotional distress. However, the financial barriers to treatment were evident, as many participants faced difficulty affording medications, treatments, or therapies, leading to the postponement or abandonment of necessary medical care. This finding aligns with other work which identifies the mixed effects of acceptance on elderly individuals' health outcomes (Perez et al., 2022). While acceptance may provide emotional relief and reduce the psychological burden of illness, it can also result in decreased participation in proactive health measures, thus increasing health risks and exacerbating chronic conditions. Physical limitations may deter older adults from seeking healthcare or make it difficult for them to adhere to treatment plans, leading to worse health outcomes (McNabney et al., 2022). Additionally, the financial stress observed in this study is also supported by other study (Fulmer et al., 2021) who highlight the ongoing issue of healthcare costs as a major barrier for elderly individuals, particularly those with limited income or insufficient health insurance coverage.

This result highlights the complex healthcare needs and concerns of diverse individuals. Experiences range from unexpected chronic condition discoveries during routine checks to urgent referrals for critical heart interventions, emphasizing the importance of timely medical advice. Financial anxiety is a significant barrier, as participants struggle with treatment costs and navigating health insurance like BPJS. Aging presents a desire to remain active despite physical limitations, reflecting the balance between aspirations and capabilities.

The narratives also reveal the vital role of support systems in guiding individuals toward medical care and providing emotional and physical assistance. Common themes of vulnerability, fear, and hope advocate for more compassionate and accessible healthcare systems that address the intertwined issues of medical, emotional, and financial care.

5. CONCLUSION

These findings contribute to a broader understanding of the multifaceted healthcare needs of the elderly, particularly those with multimorbidity and polypharmacy. The study emphasizes the necessity of compassionate, accessible, and holistic healthcare systems that address not only medical needs but also emotional, financial, and social factors that influence decision-making. The findings advocate for a more integrated approach to elderly care, one that actively involves the elderly in the decision-making process and provides them with the support they need to navigate their healthcare journey effectively. For nursing practice, this underscores the importance of adopting a patient-centered, holistic approach that incorporates not only clinical expertise but also communication, trust-building, and family involvement to improve care outcomes for elderly patients. By addressing the medical, emotional, and social complexities of care, nurses can significantly enhance the quality of life for elderly individuals managing chronic conditions and polypharmacy.

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7. CONFLICT OF INTEREST

The authors have no competing interests to disclose.

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