

## Patient Understanding of Medication Adherence in Hypertension within Medical Surgical Care

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### ABSTRACT

This study explores patients' understanding of medication adherence in managing hypertension within a medical-surgical care setting. Using a phenomenological qualitative approach, semi-structured interviews were conducted with 12 hospitalized hypertension patients in a type B general hospital in Jakarta. Thematic analysis revealed three key themes: limited understanding of the long-term benefits of antihypertensive therapy, perceived barriers related to complex treatment regimens and hospitalization conditions, and the crucial role of healthcare communication in encouraging adherence. The study concludes that cognitive, emotional, and relational factors strongly influence patients' adherence behaviors. Strengthening health education, optimizing nurse-patient communication, and implementing individualized interventions are recommended to improve hypertension management and support patient-centered care in medical-surgical environments.

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## INTRODUCTION

Hypertension remains one of the most prevalent non-communicable diseases globally and is a leading risk factor for cardiovascular morbidity and mortality. The World Health Organization reports that approximately 1.3 billion people live with hypertension, yet only about one in five have their blood pressure under control (World Health Organization, 2023). Despite advancements in pharmacological therapies, medication adherence among hypertensive patients continues to be a persistent clinical and public health challenge. Inadequate adherence contributes not only to uncontrolled blood pressure but also to complications such as stroke, heart failure, and renal disease (Tomasino, 2025). The issue is further complicated in hospital settings where multiple medications, comorbidities, and fluctuating patient conditions coexist. Consequently, understanding patients' comprehension of their medication regimens becomes crucial to improving hypertension management outcomes within medical-surgical care contexts.

In Indonesia, hypertension is one of the top five causes of mortality and is increasingly prevalent across all adult age groups. The 2023 Basic Health Research (RISKESDAS) data indicate that one in three Indonesian adults is diagnosed with hypertension, but only 25% consistently adhere to prescribed treatments. This low adherence rate reflects both systemic and behavioral barriers to effective disease management (Wiarsih et al., 2023). Within medical-surgical care, the problem intensifies as hospitalized patients face physical limitations, emotional distress, and treatment fatigue that can disrupt adherence behaviors. Moreover, many patients possess limited understanding of the long-term importance of antihypertensive medication, leading to inconsistent compliance post-discharge (Ernawati et al., 2022). These findings highlight the urgency of addressing patient understanding as a central determinant of adherence and therapeutic success.

Previous studies on hypertension management have largely focused on outpatient populations, emphasizing lifestyle modification, medication type, or socioeconomic factors (Chansri et al., 2022). However, there remains a significant research gap regarding how hospitalized patients conceptualize and practice medication adherence. Studies such as Brokalaki et al. (2024) demonstrate that even among patients with adequate knowledge, adherence rates remain low, suggesting the presence of deeper cognitive and emotional dimensions influencing behavior. Furthermore, existing research often applies quantitative frameworks, which, while valuable for identifying correlational trends, fail to capture the subjective meanings and lived experiences of patients in hospital contexts. As a result, the understanding of adherence in medical-surgical wards remains fragmented and under-theorized. Addressing this gap requires a qualitative, patient-centered approach that prioritizes perception and meaning-making as the foundation of behavioral analysis.

Theoretically, the phenomenon of medication adherence can be explained through behavioral and psychosocial frameworks such as the Health Belief Model (HBM) and the Theory of Planned Behavior (TPB). Both theories emphasize that adherence behavior is influenced by perceived susceptibility,

perceived benefits, self-efficacy, and social norms (Park & Kim, 2023). In the medical-surgical context, these dimensions interact with unique situational stressors such as hospitalization anxiety and dependency on healthcare staff. Patients' understanding, therefore, extends beyond cognitive awareness to encompass affective and relational elements that shape adherence motivation. By exploring these dimensions qualitatively, researchers can better identify the underlying beliefs and barriers that determine adherence patterns. Such an approach is critical for designing targeted interventions that align with patients' psychological and situational realities.

Empirical evidence suggests that communication between healthcare providers and patients plays a vital role in shaping adherence outcomes. Brokalaki et al. (2024) found that effective nurse-patient communication significantly improved medication compliance, while lack of interpersonal engagement led to confusion and mistrust. Similarly, a study by Suryani et al. (2023) in Indonesian hospitals reported that patients who received continuous counseling were more likely to maintain adherence even after discharge. These findings underline the relational component of adherence, which is often overlooked in pharmacological discussions. Within medical-surgical care, nurses function not only as caregivers but also as educators and mediators of understanding. Thus, strengthening communication and patient education strategies may yield substantial improvements in adherence and overall recovery.

This study explicitly aims to explore patients' understanding of medication adherence within the context of hypertension management in medical-surgical care. It seeks to uncover how patients perceive, internalize, and act upon medical instructions related to their antihypertensive therapy during hospitalization. By focusing on their lived experiences, the research identifies key cognitive, emotional, and social factors that influence adherence behavior. This focus is essential to uncover how understanding – rather than mere knowledge – affects patients' consistency in taking medication. Furthermore, the study aims to reveal how hospital environments and healthcare interactions mediate these processes. Through qualitative exploration, this research provides a nuanced comprehension of adherence as a multidimensional construct embedded in patient experience.

Theoretically, this study contributes to the development of nursing and health behavioral sciences by integrating patient-centered perspectives into adherence research. By employing a phenomenological approach, it extends existing behavioral theories through the lens of real-world patient experience. The findings are expected to refine conceptual models of medication adherence, emphasizing the interplay of cognitive comprehension, emotional readiness, and relational trust (Han et al., 2022). Furthermore, the study offers insights into how hospital-based contexts modify adherence determinants compared to community or outpatient settings. These theoretical implications strengthen the integration between behavioral health theory and clinical nursing practice. Consequently, the research enriches scholarly understanding of how adherence

operates as both a psychological and relational phenomenon in complex healthcare environments.

Practically, the study offers valuable contributions to clinical practice and hospital management. Its findings can inform the design of patient education modules that are adaptive to individual comprehension levels and emotional states. Healthcare institutions may also use the results to develop communication protocols that foster trust, motivation, and continuity of care (Wiarsih et al., 2023). For nurses, the study reinforces the importance of empathetic engagement and personalized health teaching as part of holistic care delivery. On a broader scale, the outcomes may support policy initiatives aimed at improving hypertension control through patient empowerment and education. Thus, the study's practical value lies in bridging the gap between theoretical frameworks and tangible improvements in patient outcomes.

Overall, this research underscores that medication adherence in hypertension management is not merely a matter of compliance but of comprehension. By situating patient understanding at the center of analysis, the study reframes adherence as a dynamic process shaped by cognition, emotion, and interaction. This perspective is particularly relevant within medical-surgical care, where patients navigate complex therapeutic regimens under physical and psychological strain. Through a qualitative exploration of their lived experiences, the study seeks to illuminate the factors that enable or hinder effective adherence. Ultimately, the findings are expected to inform both theoretical advancement and practical innovation in hypertension management. In doing so, the research contributes to a more holistic, empathetic, and sustainable model of patient-centered healthcare.

## LITERATURE REVIEW

### *Hypertension and Medication Adherence Challenges*

Hypertension is one of the non-communicable diseases with the highest prevalence globally and is the main cause of morbidity and mortality (World Health Organization, 2023). In the Indonesian context, the prevalence of hypertension in the adult population reached 34.5% in 2023, with a low level of treatment adherence (Ministry of Health of the Republic of Indonesia, 2023). Global studies show that only about 50% of hypertension patients adhere to prescribed pharmacological therapies, mainly due to a lack of understanding of the disease and its long-term effects (Lopez et al., 2022). Medication adherence greatly determines the success of therapy, as non-adherence can increase the risk of complications such as stroke, heart failure, and chronic kidney disease (Nogueira et al., 2021). This phenomenon underscores the urgency of understanding deeply how patients interpret compliance and how the context of care affects their behavior. Therefore, research on patients' understanding of medication adherence is important in improving the effectiveness of hypertension treatment in hospitals.

### *The Dimension of Medication Compliance in a Psychosocial Perspective*

Medication adherence is not only related to the mechanical behavior in taking medication, but it also reflects the complex interactions between

psychological, social, and cultural factors (Santos & Duarte, 2022). Models such as the Health Belief Model explain that an individual's perception of the benefits and risks of treatment greatly influences their decision to comply (Becker, 2021). In addition, the Theory of Planned Behavior emphasizes that social norms and perceived behavioral controls play a major role in shaping the intention to comply with treatment (Miller & Zhang, 2023). In the context of hypertensive patients, self-efficacy and family support were also found to be the main determinants of compliance behavior (Rahman et al., 2022). Meanwhile, recent qualitative studies reveal that patients often reinterpret medical instructions based on personal experiences and traditional beliefs (Luna et al., 2024). Thus, understanding these psychosocial dimensions is key to designing contextual and patient-centered educational interventions.

### ***Health Literacy and Patient Understanding of Treatment***

Health literacy is the ability of individuals to acquire, understand, and use medical information in health-related decision-making (Paasche-Orlow & Wolf, 2020). Low literacy rates have been associated with decreased medication adherence and an increased risk of recurrent hospitalization (Nguyen et al., 2022). Empirical studies show that patients with a good understanding of the purpose and side effects of medications are more likely to exhibit long-term compliant behaviors (Chen & Ibrahim, 2021). In Indonesia, the lack of health literacy is still a challenge, especially among elderly and poorly educated patients (Sari et al., 2023). In the context of the medical-surgical care space, patient understanding is often influenced by the quality of communication of healthcare workers and the level of complexity of therapy (Hernandez & Gomez, 2023). Therefore, improving health literacy should be a strategic focus in the management of medication adherence for hypertensive patients in hospitals.

### ***Therapeutic Communication between Nurse and Patient***

The professional relationship between healthcare workers and patients plays an important role in shaping adherence to medication (Fernandez et al., 2020). Effective therapeutic communication allows patients to understand the medical reasons behind the therapy being performed, while increasing trust and engagement in the treatment process (Anderson & Taylor, 2022). Research shows that empathy, clarity of information, and consistency of messages from nurses are directly related to increased patient compliance (Liu et al., 2023). In the context of the medical-surgical space, where patients often experience physical and emotional stress, therapeutic communication is becoming an important instrument in supporting recovery and promoting medication adherence (Kumar et al., 2021). Recent qualitative studies have also revealed that two-way communication increases patient awareness of the importance of treatment and strengthens the relationship of trust between nurse and patient (Garcia & Flores, 2024). Thus, therapeutic communication strategies must be an integral part of the compliance-based health care system.

## **METHODOLOGY**

### ***Research Approach and Design***

This study uses a qualitative approach with an interpretive phenomenological design, which aims to explore in depth the experience and understanding of hypertension patients towards medication adherence during treatment in the medical-surgical room. The phenomenological approach was chosen because it allows researchers to understand the subjective meanings that patients experience regarding their treatment process, rather than simply measuring behavior quantitatively (Creswell & Poth, 2023). Interpretive design supports the exploration of personal perceptions, beliefs, and meanings formed through patient interactions with healthcare workers and the hospital environment (Smith & Shinebourne, 2022). The research paradigm is constructivistic, emphasizing that knowledge of drug adherence is formed through individual experiences and the social context that surrounds it (Charmaz, 2021). Thus, this study is focused on interpreting patient experiences contextually to understand the cognitive, emotional, and relational dimensions of antihypertensive medication adherence in hospitals.

### ***Population and Sampling Techniques***

The study population included adult patients with a diagnosis of essential hypertension who were undergoing treatment in the medical-surgical ward at a type B general hospital in Jakarta. The selection of locations is carried out anonymously (disguised) to maintain the confidentiality of the institution in accordance with the ethical principles of health research (Polit & Beck, 2022). The sampling technique used purposive sampling with inclusion criteria: (1) patients aged 30–70 years who have undergone antihypertensive therapy for at least six months; (2) able to communicate verbally effectively; and (3) be willing to give written consent to participate. A total of 12 participants were selected because the number was considered adequate to achieve data saturation, which is a condition when no new themes were found in the interviews (Guest et al., 2023). This non-probability approach is in line with phenomenological research principles that emphasize data depth rather than statistical generalizations (Hennink et al., 2023).

### ***Data Collection Techniques***

Data were collected through semi-structured in-depth interviews, which allowed researchers to obtain an open narrative regarding the patient's understanding of medication adherence during treatment. The interview guidelines were prepared based on adaptations of the Medication Adherence Interview Guide which has been modified to suit the context of Indonesian hospitals (Williams et al., 2021). Each interview session lasts between 45–60 minutes and is conducted in a quiet space to maintain privacy. In addition to interviews, supporting data was collected through field observation records and medical documentation (with official permission) to verify the narrative data. The validity of the data is strengthened through triangulation of sources and methods, namely by comparing the results of interviews, observations, and documentation (Patton, 2021). The entire interview process is recorded (with the

consent of the participants), then transcribed verbatim. The researcher also conducted member checking by confirming the results of the initial interpretation to several participants to ensure the accuracy of the resulting meanings (Nowell et al., 2023).

### ***Research Implementation Procedure***

The research was carried out in four main stages. The first stage is ethical preparation and licensing, including submitting proposals to the institutional ethics committee and the hospital to obtain ethical clearance (Smith et al., 2021). The second stage is participant recruitment, carried out with the help of the head nurse who provides research information and participation consent forms. The third stage, field data collection, was carried out for three weeks with in-depth interviews and direct observation of patients' routines related to the use of antihypertensive drugs. The fourth stage, data processing and analysis, includes the process of transcription, coding, and thematic interpretation. All data is stored securely and coded anonymously to protect the confidentiality of the patient's identity (World Medical Association, 2023).

### ***Data Analysis Techniques***

Data analysis was carried out using the interpretative thematic analysis method, which aims to identify, organize, and interpret themes that emerge from patient narratives (Braun & Clarke, 2021). The analysis process involves six main steps: (1) familiarization with the data through repeated reading; (2) the provision of initial codes for relevant statements; (3) the grouping of codes as the initial theme; (4) review and refinement of the theme; (5) naming of the main theme and subtheme; and (6) the writing of interpretive narratives that connect findings to clinical theory and context (Nowell et al., 2023). The entire analysis process is assisted by using NVivo 14 software to systematically manage and organize qualitative data (Woolf & Silver, 2023). The validity of the analysis is maintained through peer debriefing and trail audits to ensure the transparency of the interpretation process. This approach allows the identification of three key dimensions related to the patient's understanding of medication adherence: cognitive, emotional, and relational dimensions.

## **RESEARCH RESULTS**

### ***Limited Understanding of the Benefits of Long-Term Therapy***

The results of the analysis showed that most participants had a limited understanding of the long-term benefits of antihypertensive treatment. Many of them consider that the consumption of medication is only necessary when blood pressure rises or when feeling unwell. This perception reflects a cognitive gap between medical instruction and personal meanings of drug function. One participant said, "*I think if the tension is normal, the medicine doesn't need to be taken anymore. The problem is that most drugs will damage the kidneys.*" (P3, August 6, 2025). This statement points to concerns stemming from misunderstandings and lack of explanation regarding long-term therapy. Another participant added, "*The doctor said I had to drink it every day, but sometimes I stop first when the body feels*

good, later I start again if I have dizziness" (P7, August 9, 2025). This statement shows a pattern of fluctuating obedience due to subjective perceptions of body conditions.

Some patients also admitted that they did not understand the main purpose of therapy, as expressed by participants, "I don't really know what this medicine is for, just said so that the tension doesn't rise. But I don't know when it will go up." (P1, August 5, 2025). In addition, there are still patients who rely on personal experience rather than medical advice, "I've been taking this medicine for a long time, but sometimes I change the hours of drinking on my own, the important thing is just to drink, it's the same" (P10, August 11, 2025). These findings suggest that patients' cognitive understanding of the benefits of therapy is still superficial and inconsistent with long-term hypertension control principles.

### ***Emotional and Conditional Barriers to Compliance***

In addition to the understanding factor, the interview results revealed that patient compliance was also greatly influenced by emotional and situational conditions during hospitalization. Some patients experience boredom, anxiety, and even fatigue with their treatment routines, especially because they have to take several types of medications at the same time. One participant revealed, "Every day I take a lot of medicine, it feels saturated. Sometimes I want to skip a day so that my body is not 'dependent'" (P4, August 7, 2025). This emotional condition indicates psychological resistance to the therapy routine. Another participant said, "I was stressed because in the old hospital, my body was weak, my eating was not good. Sometimes I forget to take medicine because I'm tired of thinking about everything." (P9, August 10, 2025).

In addition to emotional exhaustion, some patients also face physical obstacles that affect the regularity of taking medication. "My hands are shaking, so if I take medicine, I have to be helped by a nurse. If the nurse is busy, sometimes it's late." (P5, August 8, 2025). Drug side effect factors are also the cause of a decrease in compliance motivation, as expressed by participants, "After taking blood pressure medication, I often felt dizzy and weak. So I thought, maybe it's better to reduce the dose." (P11, August 12, 2025). These findings confirm that adherence is not only influenced by knowledge factors, but also by the emotional and physical condition of the patient during the hospitalization process.

### ***The Role of Communication and Relational Support in Improving Compliance***

Communication between patients and healthcare workers emerges as an important factor that shapes patients' understanding and motivation in following therapy. Most participants assessed that the explanations given by the nurse or doctor had a great influence on their clarity in understanding the medication regimen. One of the participants stated, "If the nurse explained patiently, I became more enthusiastic about taking medicine. Especially when you know how to use one." (P2, August 6, 2025). However, some patients feel that the information provided is still lacking in detail, "Sometimes doctors just say 'this is high blood pressure medicine', but they don't explain what the side effects are. So I'm scared to drink all the time." (P6, August 8, 2025).

In addition, emotional support from family has also been proven to help patients in maintaining their treatment routine, *"My child often wants to take medicine, even bringing water if I forget. If I don't have him, maybe I won't be routine."* (P8, August 9, 2025). The role of nurses as educational mediators is also recognized by some patients, as conveyed, *"The nurses are good, often asking if they have taken medicine or not. If you forget, you are reminded, so you feel cared for"* (P12, August 13, 2025). These data suggest that therapeutic communication and social support have a major contribution in strengthening patient adherence behaviors to antihypertensive treatment.

## DISCUSSION

The study found that most hypertensive patients in the medical-surgical care room still have a limited understanding of the long-term benefits of antihypertensive therapy. Most participants considered that taking medication should only be done when blood pressure is elevated, not as part of preventive therapy. These findings show that long-term benefit perceptions have not been fully formed, even though according to the Health Belief Model framework, benefit perception is one of the main determinants of compliance behavior (Widiyanto, 2023). These results reinforce the view that the health education that has been provided so far may not have touched on the perception of long-term risks and benefits. Theoretically, these findings confirm that patient understanding is not only a matter of medical knowledge, but also a personal interpretation of the experience of the disease and belief in therapy. Thus, a partially formed understanding can be a real obstacle in maintaining medication adherence.

During the interview, most patients revealed that declining physical condition, stress due to hospitalization, and complex treatment routines were factors that hindered them from maintaining medication consistency. This phenomenon suggests that compliance is influenced not only by cognitive factors, but also by the emotional and situational aspects that accompany the inpatient experience. Research by Liang et al. (2023) suggests that drug side effects, fatigue, and psychological burden can reduce patients' motivation to follow a regular therapy regimen. A similar thing was seen in this study, where patients felt bored or even bored due to the amount of medication they had to take each day. Conditions like these show that in the context of medical-surgical care, compliance must be understood multidimensionally, encompassing cognitive, emotional, and contextual dimensions. This also expands the application of the Theory of Planned Behavior in explaining the patient's perceived behavioral control over the treatment routine.

Another aspect that stands out is the role of communication and interpersonal relationships between patients and healthcare workers. Many patients say that the nurse's attention, clear explanations, and empathic attitude make them feel more valued and motivated to adhere to treatment. These results are in line with the findings of Guo et al. (2023) who show that social support and health literacy are strong predictors of medication adherence in hypertensive patients. In the context of the hospital in Jakarta where this study was conducted,

therapeutic communication has been shown to act as cues to action that encourage patients to better understand the importance of long-term therapy. Thus, nurses not only function as implementers of medical measures, but also as facilitators of the formation of meaning and understanding of patients towards the treatment undergone.

However, there is an interesting difference between the results of this study and some previous studies. Some studies confirm that good knowledge is almost always directly proportional to the level of compliance (Pan et al., 2023), but the results of this study show that rational understanding alone is not enough to guarantee compliance. There are patients who know the benefits of medication, but remain irregular in drinking because they feel bored or tired of the treatment routine. This suggests that affective factors and personal experiences often have a greater influence than cognitive understanding alone. In other words, the success of health education is not enough to be measured by the increase in knowledge, but must be seen from the real behavioral changes that arise afterwards.

Hospital environmental factors also play an important role in shaping patient behavior. During treatment, patients often lose control of their routines because they are completely dependent on the schedule and instructions of medical personnel. Some patients say that they become passive because they are used to being "regulated" during treatment, and after going home, the habit of taking medication becomes less consistent. These findings support the view that the transition from hospital to home is an often overlooked critical phase in compliance management (Malkon et al., 2023). Therefore, a transitional approach is needed that focuses not only on hospital care, but also on the development of independent behavior after the patient returns home. This strategy is important for maintaining the continuity of compliance behavior in the long term.

From a theoretical perspective, this research makes an important contribution to the development of a model of compliance behavior in the context of medical-surgery. Results show that patient understanding is holistic and influenced by the interaction between benefit perception, emotional state, and social support. The HBM framework, which has been focusing on individual perception, can be expanded by including relational and situational factors. This kind of approach is in line with new ideas in the study of health behavior that emphasize the importance of social and environmental contexts in behavior formation (Santoso, 2024). Theoretically, this study enriches the literature on compliance by adding the perspective of hospitalization as a unique context that dynamically shapes patient behavior.

From a practical perspective, the results of this study encourage the need for innovation in patient education approaches in hospitals. Educational programs should be designed not only to transfer information, but also to change patients' perceptions and emotions towards treatment. For example, group education sessions involving families, the use of simple language, and empathic communication can increase patients' confidence in undergoing therapy. In addition, technological support such as digital reminders or visual guides can also help patients understand the benefits of therapy in a more concrete way.

Thus, a participatory and personal educational approach will be more effective than an informative approach.

Finally, this study also has limitations that need to be noted. Because it used a qualitative design with a limited number of participants, the results could not be generalized to the population of hypertensive patients at large. In addition, interviews are conducted while the patient is still being treated so that the perception that arises may not be emotionally stable. However, the results of this study provide a rich picture of the dynamics of patient understanding in the medical-surgical space and open up opportunities for further research with a mixed-method approach. Future research is expected to explore the relationship between understanding, emotion, and compliance quantitatively to strengthen theoretical and applicative foundations in the field of nursing and chronic disease management.

## **CONCLUSION AND RECOMMENDATION**

This study concludes that patient adherence to antihypertensive therapy cannot be understood only from a cognitive aspect, but must also be seen as the result of the interaction between emotional, relational, and contextual factors that shape the patient's experience during treatment. Limited understanding of the long-term benefits of medications, saturation of treatment routines, and psychological distress during hospitalization are the main factors that affect the consistency of medication behavior. On the other hand, effective therapeutic communication between nurses and patients has been shown to foster trust, motivation, and positive perceptions of treatment. Thus, compliance in the context of medical-surgical care should be viewed as a dynamic process influenced by the patient's perception, experience, and social support.

Based on these findings, improving the effectiveness of hypertension management requires a more personalized and patient-centered approach. Educational strategies are not enough to just transfer medical information, but need to strengthen emotional understanding and build collaborative relationships between health workers and patients. Individualized interventions based on patient needs such as participatory educational sessions, family support, and the use of digital reminder technology can increase patients' motivation and independence in undergoing long-term therapy. By integrating cognitive, emotional, and relational dimensions into nursing practice, the model of care in the medical-surgical space is expected to become more adaptive to the human needs of patients and more effective in achieving sustainable hypertension control.

## **ADVANCED RESEARCH**

Future studies are recommended to explore more deeply the multidimensional factors that influence adherence to antihypertensive therapy, particularly emotional and relational aspects that are often overlooked in clinical settings. Further research could investigate how different forms of therapeutic communication, personalized education models, and family involvement shape long-term adherence patterns among patients with chronic conditions. In

addition, examining the effectiveness of digital tools—such as reminder applications, telehealth counseling, and wearable monitoring devices—may provide valuable insights into technology-supported adherence strategies. Comparative studies across various hospital units or patient populations may also help identify contextual differences that influence motivation, psychological readiness, and treatment engagement. Through these expanded research directions, future studies can contribute to developing more comprehensive, patient-centered care models that effectively support sustainable hypertension management.

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