



REVIEW ARTICLE

Change management in oncology nursing practice

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Abstract

Oncology nursing operates within a rapidly evolving environment, driven by continuous innovations in medical treatments, technology, and organizational processes. Effective change management is critical for maintaining quality patient care, enhancing staff satisfaction, and ensuring operational efficiency. This paper explores theoretical foundations of change management, specifically examining Lewin's Change Theory and Kotter's 8-Step Model, and their applicability in oncology nursing contexts. Structured frameworks provided by these theories facilitate the integration and sustained adoption of innovative clinical practices. Additionally, this review assesses implications of structured change management for clinical nursing practice and healthcare leadership. It emphasizes the critical role nursing leaders play in advocating for and implementing change through clear communication, staff empowerment, and transformational leadership practices. Finally, the paper identifies future research directions, highlighting the importance of evaluating long-term impacts of change management strategies, particularly regarding advanced technologies such as artificial intelligence and precision medicine, nurse job satisfaction, and patient care outcomes. This comprehensive analysis underscores the necessity of structured change management to foster resilience, minimize burnout among oncology nurses, and ultimately enhance patient-centered care delivery in oncology settings.

Keywords: Change Management, Oncology Nursing, Lewin's Change Theory, Kotter's Model, Healthcare Transformation

INTRODUCTION

The delivery of oncology care is increasingly complex, requiring nurses to navigate rapid advancements in treatment modalities, electronic health systems, and patient care standards (Cummings et al., 2018). Oncology nurses operate at the forefront of patient interactions, providing not only technical care but also emotional and psychological support to patients and their families (Challinor et al., 2020). This dual role, clinical and emotional, intensifies the impact of systemic and procedural changes on the nursing workforce (Salmond & Echevarria, 2017).

In today's healthcare environment, change is not only inevitable but also necessary (Sampathkumar, 2020). Innovations in oncology, including precision medicine, immunotherapies, and AI-based diagnostic tools, require corresponding changes in clinical protocols, communication methods, and organizational workflows (Dlamini et al., 2020). However, poorly managed change can have

detrimental effects. Studies have shown that ineffective change processes in oncology settings are associated with increased patient safety incidents, higher nurse burnout rates, and lower care quality (Mowll, 2019; Harrison et al., 2021). For instance, healthcare organizations that failed to implement structured change strategies often report increases in medical errors and disruptions in care continuity during system transitions (Heath & Porter, 2019; Carayon et al., 2006). A review by Jones et al. (2013) found that poorly managed electronic health record (EHR) implementations led to a 30% increase in workflow interruptions and a 25% increase in documentation errors, significantly affecting patient care quality. While oncology-specific statistics are limited, broader healthcare studies show that poor change management is linked to a 70% failure rate in implementing new initiatives, contributing to increased error rates, reduced staff morale, and poor patient outcomes (Harrison et al., 2021; Kotter, 2012). These trends likely have even greater implications in oncology settings, where care complexity and patient vulnerability are higher. Overall, these statistics reinforce the critical need for well-designed change management approaches in oncology nursing.

Oncology nursing, in particular, must be responsive to change due to the rapid pace at which cancer research and treatment evolve. Nurses are required to constantly update their knowledge and competencies, adapt to new roles within multidisciplinary teams, and embrace technologies such as telehealth, electronic documentation, and remote

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monitoring tools (Zhang et al., 2024; Grenon et al., 2024). Consequently, change management becomes not just a leadership responsibility, but a shared priority across all levels of nursing practice (Lowe et al., 2018).

The COVID-19 pandemic has catalyzed significant and rapid changes in oncology nursing, highlighting the need for flexible and effective change management. During and after the pandemic, oncology units have been required to adopt new practices, such as the widespread use of telemedicine for patient monitoring, restructuring safety protocols, and adapting care processes to ensure the protection of both patients and staff (Grenon et al., 2024; Zhang et al., 2024). Nurses have been at the forefront of these changes, taking on new roles in communicating with patients and managing uncertainty, while also facing increased job stress and burnout. The pandemic experience has highlighted the importance of implementing structured change management frameworks, as organizations that adopted clear communication, transparent decision-making processes, and systematic staff training were able to maintain the quality of care and enhance the resilience of nurses (Cooley et al., 2023; Ystaas et al., 2023). Furthermore, the post-COVID-19 period is characterized by ongoing adaptations, such as the integration of digital tools and the reassessment of priorities in the provision of oncology care, making change management more timely and essential than ever to ensure the sustainability and quality of health services (Knutsen Glette et al., 2023).

Change management is defined as a systematic method for guiding individuals, teams, and organizations through the process of moving from their present condition to a targeted future condition (Rousseau & Ten Have, 2022). In the context of oncology nursing, it involves applying evidence-based frameworks to introduce and solidify improvements in patient care, safety protocols, and workflow efficiency. The process is multifaceted, encompassing strategic planning, stakeholder engagement, training, communication, evaluation, and reinforcement (Truant & Chan, 2017; Barrow & Annamaraju, 2022)

While change management models have been broadly studied across healthcare disciplines, limited research has focused specifically on their application within oncology nursing. Previous studies have often addressed general nursing environments or organizational change at a macro level without considering the unique emotional and technical demands of oncology practice. This paper addresses that gap by applying foundational change theories specifically to oncology nursing, thereby offering targeted insights into how structured change can be implemented to support nurses, improve care processes, and enhance outcomes for cancer patients.

This paper aims to provide an overview of change management theories and their practical application within oncology nursing. It will examine well-established change models such as Lewin's and Kotter's, explore their relevance to oncology settings, and analyze their implications for clinical practice, nursing leadership, and future healthcare challenges. The goal is to equip nursing professionals and healthcare administrators with knowledge and tools to implement change successfully and sustainably in oncology care settings.

THEORIES OF CHANGE MANAGEMENT AND THEIR APPLICATION IN ONCOLOGY NURSING

Several theories guide effective change management. Among the most cited are Lewin's Change Theory and Kotter's 8-Step Change Model (Table 1). These frameworks provide structured pathways to initiate, manage, and

solidify change, making them particularly useful in high-stakes environments like oncology. The effectiveness of change management models such as Lewin's and Kotter's often depends on an organization's cultural readiness and leadership structure. As Solow and Perry (2023) highlight, aligning change strategies with existing healthcare culture is essential for sustainable transformation, particularly in high-acuity environments like oncology. While Lewin's model is valued for its simplicity, it may be too linear for complex healthcare environments. Kotter's model, although more comprehensive, can be resource-intensive. According to Solow and Perry (2023), successful change in healthcare requires flexibility, cultural sensitivity, and adaptive leadership; factors that neither model fully addresses on their own.

Lewin's Change Theory

Kurt Lewin (Lewin & Cartwright, 1951) conceptualized change as a three-stage process. First, the *unfreezing* stage means the creation of awareness of the need for change. Secondly, the *change (moving)* stage includes introducing new behaviors, processes, or systems. Third and final stage is the *refreezing* where the change is reinforced and institutionalized.

In oncology nursing, unfreezing may involve presenting data on outdated pain management techniques. The change phase might include staff training on new protocols. Refreezing occurs when the new practices become standardized and are consistently applied across care settings (Harrison et al., 2021).

Lewin's change management model helps to enhance the management function in nursing units. Hidayat et al. (2020) applied Lewin's model to optimize delegation processes between head nurses and team leaders in an Indonesian hospital. Although not oncology-specific, the phased approach they used; raising awareness (unfreezing), implementing delegation protocols (change), and stabilizing the process (refreezing); is applicable to unit-level clinical changes, such as updating chemotherapy workflows or documentation standards.

Also, a practical application of Lewin's Change Management Theory was demonstrated in a quasi-experimental study at Mansoura University Oncology Center, where the model was successfully used to implement the teach-back method for improving patient discharge plans. The study reported significant improvements in both nurse performance and patient knowledge post-intervention (Amina et al., 2022). While oncology-specific examples remain limited, the models have been shown to support similar processes such as delegation and electronic record transitions

Kotter's 8-Step Change Model

John Kotter in 1996 expanded Lewin's model into an 8-step approach (Kotter, 2012). Specifically these steps are create urgency; form a powerful coalition; create a vision for change; communicate the vision; remove obstacles; create short-term wins; build on the change and anchor the changes in the culture

This model emphasizes leadership, vision, and stakeholder engagement, aligning well with oncology environments where interprofessional collaboration is vital (Vithianathan, 2024). In their systematic review, Harrison et al. (2021) found Kotter's 8-Step Model frequently applied in hospital-wide implementations, such as electronic health record (EHR) adoption, clinical pathway redesigns, and

nursing leadership transitions. These settings align with oncology environments, where structured change across

multidisciplinary teams is essential to integrate new therapies or patient triage models.

Table 1. Comparison of Lewin's and Kotter's change models in oncology contexts

Aspect	Lewin's Model	Kotter's Model	Strengths & Limitations
Steps	3 (Unfreeze, Change, Refreeze)	8 detailed steps	Lewin: Easy to understand, but may oversimplify complex changes. Kotter: Comprehensive and motivational, but time-intensive.
Focus	Behavioral change	Leadership and strategic communication	Lewin: Good for small unit changes. Kotter: Better for organization-wide transformations.
Application	Small to moderate changes	Large-scale transformations	Lewin: Useful in stable environments. Kotter: Effective in dynamic, high-change settings.
Example	Introducing a new documentation form	Implementing a hospital-wide oncology navigation program	Lewin: Easier adoption in nurse-led projects. Kotter: Demands strong leadership continuity.

THE SIGNIFICANCE OF CHANGE MANAGEMENT FOR ONCOLOGY NURSING

Change in oncology is not only frequent but deeply impactful, affecting patient care protocols, staffing models, technology integration, and communication methods (Schulmeister, 2016). Oncology nurses are often at the intersection of these changes, responsible for adapting clinical practices while maintaining compassionate, evidence-based care. In this environment, effective change management serves as a guiding structure that helps healthcare teams navigate uncertainty and deliver consistent outcomes (Coleman, 2019).

From the clinical perspective, change management ensures that updates in cancer treatment modalities such as targeted therapies, biosimilars, and precision medicine, are translated into practical bedside care through systematic staff education, protocol revisions, and ongoing assessment. For example, when new chemotherapy regimens are introduced, nurses must be trained in administration techniques, toxicity management, and patient education. Change management provides a framework for this transition, reducing errors and enhancing nurse confidence (Harrison et al., 2021; Barrow & Annamaraju, 2022).

Theories of change management, particularly Lewin's and Kotter's models, serve as structured guides for implementing patient-centered improvements in oncology units. For example, the application of Lewin's model in a quasi-experimental study at Mansoura Oncology Center demonstrated a successful transformation of the discharge education process using the teach-back method. By progressing through unfreezing (identifying poor discharge practices), moving (training nurses on communication strategies), and refreezing (embedding these into routine care), the study showed a significant increase in both nurse performance and patient understanding (Amina et al., 2022). This translated to fewer discharge-related complications and greater patient confidence post-hospitalization, directly improving quality of life.

Change management not only streamlines administrative transitions but has profound effects on patient outcomes. Effective implementation of evidence-based changes—such as new treatment regimens, education tools, or digital platforms—ensures that patients receive consistent, clear, and timely care. For oncology patients, who often face complex, multi-phase treatments and high emotional stress, structured change processes reduce confusion, prevent medication errors, and promote adherence to follow-up plans. As Solow and Perry (2023) note, aligning organizational change with patient experience leads to better symptom control, improved

emotional well-being, and stronger continuity of care; factors that are central to a cancer patient's quality of life.

In terms of workflow and documentation, implementing electronic medical records or integrating decision-support systems are changes that fundamentally alter how nurses interact with patient data. Without proper change management, such shifts can lead to inefficiencies or resistance. Utilizing change models helps ensure the new systems are not only adopted but embedded into the culture of nursing practice (Heath & Porter, 2019; Forde-Johnston et al., 2023; Thompson et al., 2023).

Emotional labor is another critical component. Oncology nurses often manage patients during vulnerable moments such as diagnosis, recurrence, or end-of-life care. Any shift in policy or procedure, like changes in palliative care protocols or documentation standards, must be handled with sensitivity. Change management frameworks promote open communication, emotional support, and shared decision-making, which can ease emotional burdens (Santos de Souza & Chimenti, 2024).

Change management has been shown to directly impact on job stress and burnout in oncology nurses. Specifically, the lack of a structured approach to change management has been associated with increased levels of stress, burnout, and lower job satisfaction (Mowll, 2019; Harrison et al., 2021). For example, when implementing new electronic health systems without appropriate support and training, a 30% increase in workflow interruptions and a 25% increase in incorrect entries was observed, which significantly burdened the psychological state of nurses (Jones et al., 2013). In contrast, when structured change management models, such as Lewin's or Kotter's, are applied, a reduction in burnout and an increase in nurses' engagement and satisfaction are observed (Amina, et al., 2022; Ystaas et al., 2023). In addition, studies show that the participation of nurses in the planning and implementation of changes, as well as the existence of clear communication and continuous training, contribute to reducing stress and maintaining staff resilience (Specchia et al., 2021; Wymer & Stucky, 2023). These data highlight the importance of adopting evidence-based change management strategies to ensure the well-being and professional resilience of oncology nurses.

Moreover, change management fosters a culture of continuous improvement and innovation. When nurses understand the 'why' behind changes and are empowered to contribute to the 'how,' they become agents of positive transformation. This not only increases job satisfaction and retention but also positions oncology nursing as a dynamic and adaptive specialty ready to lead advancements in cancer care (Wymer & Stucky, 2023).

Ultimately, successful change management aligns the goals of individual nurses with organizational vision and patient needs. It provides clarity, minimizes disruptions, and promotes a shared commitment to excellence. In the high-stakes, high-impact world of oncology nursing, structured change management is not a luxury—it is a necessity (Chowthi-Williams & Davis, 2022; Hassmiller & Wakefield, 2022).

Nevertheless, implementing change in oncology nursing is often accompanied by significant barriers, which can affect both the acceptance and sustainability of new practices. One of the most frequently reported barriers is staff resistance to change, which is associated with fear of the unknown, concern about loss of control, or doubt about the effectiveness of new procedures (Harrison et al., 2021; Rehman et al., 2021). In addition, inadequate communication and lack of clear vision from management lead to confusion and reduced nurse engagement. Inadequate training and preparation of staff is also a common barrier, particularly when introducing new technologies or complex care protocols (Wieke Noviyanti et al., 2021). Limited resources, such as lack of time, staff, or logistical support, further complicate the successful implementation of changes. Finally, the absence of systematic evaluation and feedback can lead to a failure to identify and correct problems during the process of change (Rousseau & Ten Have, 2022). Understanding these barriers is critical for designing effective intervention strategies and enhancing the resilience of nursing staff to the ongoing developments in the oncology field.

IMPLICATIONS FOR PRACTICE

Effective change management enhances patient outcomes, nurse satisfaction, and operational efficiency (Ystaas et al., 2023; Cooley et al., 2023). Key practice implications include:

1. *Enhanced Clinical Outcomes:* Changes such as adopting evidence-based symptom management can directly improve quality of life for oncology patients. Change models ensure that these interventions are implemented with fidelity (Macphee & Suryaprakash, 2012).
2. *Nursing Empowerment:* Involving nurses in planning and executing change fosters ownership and reduces resistance. Empowered nurses are more likely to embrace new technologies, participate in quality improvement, and advocate for patients (Seifert, 2016; Barnard, 2017).
3. *Improved Communication:* Change models often include structured communication strategies, promoting transparency and reducing ambiguity (Neill, 2018).

Specific mechanisms through which nurses can effectively participate in planning changes (Table 2) include:

1. *Inclusion in multidisciplinary change committees:* Nurses are invited to join committees responsible for designing, implementing, and evaluating new clinical protocols or workflows (Taberna et al., 2020).
2. *Structured forums for input:* Regular meetings or digital platforms are established for nurses to share feedback and ideas regarding proposed changes (Altmiller & Pepe, 2022).
3. *Empowerment through training:* Nurses receive training in change management principles, equipping them to contribute as change agents within their units (Barrow & Annamaraju, 2022).
4. *Pilot projects and feedback loops:* Nurses are involved in piloting new processes and providing real-time feedback, which informs broader implementation strategies (Campbell & Cassidy, 2024)

These mechanisms ensure that nurses' frontline expertise is leveraged, fostering ownership and reducing resistance to change.

Table 2. Mechanisms for nurse participation in change management

Mechanism	Description	Example/Evidence
Multidisciplinary committees	Nurses join planning and evaluation groups	Change committees
Structured input forums	Regular meetings/digital platforms for feedback	Staff meetings, online surveys
Change management training	Training in change principles for nurses	Training programs
Pilot projects & feedback loops	Nurses test new processes and provide feedback	Pilot studies, real-time review
Staff surveys	Regular assessment of change impact and staff satisfaction	Post-implementation surveys
Performance dashboards	Visual tracking of change-related metrics	Quality improvement dashboards
Debriefing sessions	Reflective discussions after major transitions	Team debriefs

Effective change management in oncology nursing should be based on evidence-based strategies that have been proven successful in clinical applications. For example, the active participation of nurses in the planning and implementation of changes has been associated with increased acceptance of new practices and reduced resistance (Seifert, 2016; Barnard, 2017). The implementation of educational programs and continuous staff training, as demonstrated by the study by Amina et al. (2022), significantly improves nurse performance and the quality of care. In addition, the use of feedback tools, such as regular staff surveys and performance dashboards, contributes to the early detection of problems and the adaptation of interventions (Macphee & Suryaprakash, 2012; Mount & Anderson, 2015; Specchia et al., 2021).

IMPLICATIONS FOR MANAGEMENT

Nursing managers play a crucial role in initiating and sustaining change. Their responsibilities include:

1. *Creating a Supportive Environment:* Managers should foster a culture of continuous improvement.
2. *Resource Allocation:* Adequate staffing, training time, and access to materials must be ensured.
3. *Feedback Mechanisms:* Tools such as surveys and performance dashboards can track progress.

Managers must also be change leaders, not just administrators. Their ability to inspire, mentor, and model change behavior influences team dynamics and change sustainability (Macphee & Suryaprakash, 2012; Mount & Anderson, 2015; Specchia et al., 2021). Management

implications in oncology nursing are strongly supported by empirical research demonstrating that specific leadership practices significantly enhance change adoption and sustainability. For instance, studies have shown that when nurse managers actively involve staff in decision-making and maintain clear, transparent communication, there is a marked increase in staff engagement and successful implementation of new initiatives (Macphee & Suryaprakash, 2012; Mount & Anderson, 2015; Specchia et al., 2021). To further strengthen the change process, organizations can deploy structured feedback mechanisms such as regular staff surveys to assess the impact of new practices and gather frontline suggestions, performance dashboards to monitor key metrics and enable timely adjustments, and debriefing sessions following major transitions to facilitate team reflection and continuous learning (Figueroa et al., 2019). These strategies not only support the initial adoption of change but also embed feedback into the organizational culture, ensuring long-term sustainability and ongoing improvement.

Similar, effective change management in oncology nursing should be based on evidence-based strategies that are successful in administrative applications. At the administrative level, creating a culture of open communication and ensuring adequate resources (human and material) are essential prerequisites for the sustainable integration of change (Harrison et al., 2021). Finally, the leadership attitude of nursing directors, which includes inspiration, guidance and example, has been shown to enhance team cohesion and the long-term success of changes (Wymer & Stucky, 2023). The above recommendations, based on empirical data, can serve as a guide for effective change management in both clinical practice and oncology unit administration.

DISCUSSION

The implementation of structured change management in oncology nursing is not merely a strategic option but a professional imperative. As the complexity of cancer care continues to increase, oncology nurses must be agile, informed, and empowered to adopt innovations that improve patient outcomes (Komatsu et al., 2025). The analysis of the findings of this study demonstrates the practical value and theoretical validity of the change management models presented, such as Lewin's model and Kotter's 8-step model, in the context of oncology nursing. The application of change theories such as Lewin's and Kotter's models has demonstrated that well-organized transitions lead to greater staff buy-in, smoother workflow integration, and improved quality of care. Specifically, the application of Lewin's theoretical framework, with the stages of "unfreezing", "change" and "refreezing", was found to facilitate the acceptance and integration of new procedures by nurses, as shown in studies involving the introduction of new educational methods or the upgrading of care protocols (Amina et al., 2022). At the same time, Kotter's model, with its emphasis on creating a sense of urgency, shaping a vision and gradually reinforcing change through small successes, has proven to be particularly effective in multi-level organizational changes, such as the adoption of digital systems or the reorganization of clinical flows. These frameworks also serve as vital tools for navigating resistance, fostering communication, and maintaining momentum throughout the change process (Harrison et al., 2021). Effective change management empowers nurses, enhances interdisciplinary collaboration,

and helps align organizational goals with frontline practice (Ireland, 2016).

Also, the association of change management with nurse satisfaction and performance is confirmed by recent studies. Indicatively, Specchia et al. (2021) and Ystaas et al. (2023) document that active participation of nurses in the decision-making process and the existence of clear communication from management lead to increased job satisfaction, reduced burnout and improved performance. At the same time, the implementation of structured change frameworks, such as the Kotter model, has been associated with positive effects on professional development and the quality of care provided to patients (Wymer & Stucky, 2023).

The data provided in this paper emphasize the importance of involving nurses at every stage of change—from planning to evaluation—to ensure sustainable success. Successful change management in oncology nursing depends not only on the selection of the appropriate theoretical model, but also on its adaptation to the specific needs of each organization, as suggested by Solow and Perry (2023). This review strengthens the literature by offering an adapted theoretical framework that directly connects the findings to the fundamental principles of Lewin and Kotter, while also suggesting the need for further empirical investigation of their application in different cultural and organizational settings.

Although this study highlights the importance of structured change management in oncology nursing, some limitations are recognized. Specifically, the methodological approach was mainly based on a review of the existing literature, which may limit the depth of empirical data and leave out of the analysis some recent developments or local specificities. In addition, the scope of the review focused mainly on theoretical models and examples from international contexts, which may not fully reflect the challenges in different health systems or cultural environments.

In the future, research should prioritize evaluating the long-term impacts of change management strategies in oncology nursing. It is recommended to conduct empirical studies that evaluate specific change management interventions in oncology departments, with an emphasis on measuring indicators such as job satisfaction, burnout, well-being, resilience, and professional satisfaction of nurses and clinical outcomes of patients. In addition, it is recommended to focus on evaluating the integration of advanced technologies, such as electronic health record systems, artificial intelligence tools, and telemedicine platforms, into daily oncology practice. Future research could examine both the factors that facilitate or hinder the acceptance of these technologies by nursing staff, as well as their impacts on patient safety, the efficiency of clinical flows, and the maintenance of nurses' mental resilience. Then, it would be useful to investigate the factors that facilitate or hinder the sustainable integration of changes, taking into account local cultural and organizational specificities. Finally, the development and evaluation of educational programs to empower nurses as change leaders is a promising direction for the further development of the field.

CONCLUSIONS AND RECOMMENDATIONS

Change management is integral to modern oncology nursing. By applying models like Lewin's and Kotter's, organizations can guide transitions effectively, ensuring that innovations translate into better patient care. For

oncology nurses, structured change provides clarity, reduces uncertainty, and promotes professional growth. Nursing leaders must champion change with empathy, vision, and a commitment to excellence.

Looking forward, change management in oncology nursing will need to evolve in tandem with several emerging healthcare trends. One of the most prominent is digital integration. The increasing use of AI, machine learning, and decision-support tools will necessitate agile and adaptive change strategies to ensure successful implementation without disrupting existing workflows. Nurses will need targeted training and ongoing support to utilize these technologies effectively while preserving the human touch in care.

Another significant trend is the shift toward personalized care. As cancer treatments become more individualized, care teams must adjust workflows and patient management strategies accordingly. This customization will require oncology nurses to operate with greater flexibility and precision, making dynamic change management an essential skill.

Interprofessional leadership is also gaining importance. As oncology care becomes more multidisciplinary, change initiatives must be co-led by diverse professionals including physicians, pharmacists, social workers, and administrative leaders. This team-based approach ensures that changes are inclusive and account for multiple perspectives, increasing the likelihood of success.

Moreover, patient and caregiver involvement in the design and implementation of care models is becoming more prevalent. Co-production in healthcare can lead to services that are more relevant, acceptable, and effective. Change management must therefore incorporate mechanisms for patient engagement, feedback, and collaboration.

DECLARATIONS

Ethics approval and consent to participate: Non Applicable

Consent for publication: I hereby transfer, assign, or otherwise convey all copyright ownership, including any and all rights incidental thereto, exclusively to the journal, in the event that such work is published by the journal.

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