

Analysis of the Implementation of a Disability Prevention Program for Patients with Lumbar Spondylosis at The Medical Rehabilitation Unit of Simpang Lima Gumul Regional General Hospital in Kediri

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ABSTRACT

Lumbar spondylosis is a degenerative spinal disorder that can cause lower back pain, limited mobility, and reduced functional ability, all of which carry a risk of disability. Efforts to prevent disability should be undertaken through health education and increased patient involvement in rehabilitation programs. This community service activity aimed to improve the knowledge and understanding of patients and their families regarding disability prevention in patients with lumbar spondylosis through health education and a Home Exercise Program (HEP). The activity was conducted on June 25, 2026, at the Medical Rehabilitation Unit of Simpang Lima Gumul Regional General Hospital in Kediri and involved approximately 20 participants, consisting of patients with lumbar spondylosis and their accompanying family members. The methods included interactive health education, discussions, question-and-answer sessions, and demonstrations of simple exercises supported by leaflets and X-banners. Evaluation was conducted qualitatively through participant engagement, question-and-answer sessions, and oral responses regarding the educational material. The results showed that participants actively participated in discussions, asked questions related to home exercises and disability prevention, and were able to restate several key points of the material. Because no standardized pre-test and post-test instruments were used, changes in participants' knowledge could not be quantitatively measured. Practically, health education combined with HEP demonstrations may support patients and families in understanding disability prevention and maintaining rehabilitation activities at home.

Keywords : Disability Prevention, Health Education, Home Exercise Program, Lumbar Spondylosis, Rehabilitation

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INTRODUCTION

Lumbar spondylosis is one of the degenerative spinal disorders commonly found in adults and the elderly (Punuh1, Mamujaja2, Universitas, De; Manado, 2024; Rosadi, Wardojo; Algifari, 2022). This condition is characterized by degeneration of the intervertebral discs,

changes in the facet joints, the formation of osteophytes, and narrowing of the intervertebral space, which can cause lower back pain, limited mobility, and reduced functional ability (Fessler, 2021; M. Zhou, Theologis, & O'Connell, 2024). Lower back pain is one of the musculoskeletal conditions that most commonly leads to activity limitations and disability worldwide (Felicia & Singh, 2025; Nadhirah, Widodo, & Yunanto, 2026). The Global Burden of Disease Study reports that approximately 619 million people experienced lower back pain in 2020, and that number is projected to rise to 843 million cases by 2050 (Ferreira et al., 2023).

Degenerative changes in patients with lumbar spondylosis can compromise spinal stability, reduce flexibility, decrease the strength of the supporting muscles, and cause balance problems (Alfaya et al., 2023). The clinical manifestations of progressive lumbar spondylosis should not be ignored. This condition has the potential to impair a patient's ability to perform daily activities and increase the risk of disability if not treated optimally from the early stages (Gill et al., 2023; Kirker et al., 2023). Therefore, comprehensive medical rehabilitation interventions are essential to break the cycle of declining functional capacity (Ciardi, Lamberti, Casati, & Paris, 2023; Setyarini, Sitanggang, Haryanto, Labobar, & Rahayu, 2025). Disabilities may be characterized by limited mobility, difficulty performing household activities, work-related impairments, and reduced social participation, all of which ultimately impact the patient's quality of life and independence (Ferretti et al., 2019; Gregg et al., 2024; Sulyman et al., 2025).

Disability prevention is one of the primary goals of medical rehabilitation services. The rehabilitation approach focuses not only on pain reduction but also aims to improve functional ability, maintain independence, and prevent the onset of more severe activity limitations. Various studies have shown that structured rehabilitation programs including lumbar stabilization exercises, core muscle strengthening exercises, ergonomics education, activity modifications, and home-based self-exercises can reduce disability levels and improve the functional abilities of patients with degenerative spinal disorders (Dickson Nwodo et al., 2022; Dimitrijević et al., 2025; Smrcina, Woelfel, & Burcal, 2022).

The success of disability prevention programs is influenced by various factors, including the competence of healthcare professionals, patient adherence to exercise programs, family support, the availability of educational materials, and a continuous monitoring and evaluation system (Cancelliere et al., 2023; George et al., 2021; See et al., 2021). Based on preliminary observations during medical rehabilitation services at Simpang Lima Gumul Regional General Hospital in Kediri, patients showed varying levels of understanding and engagement in home exercise programs. This condition indicates the need to strengthen patient and family education regarding disability prevention and the importance of adherence to rehabilitation programs.

In response to these issues, this community service activity was conducted through health education and demonstrations of home exercise programs for patients with lumbar spondylosis and their families at the Medical Rehabilitation Unit of Simpang Lima Gumul Regional General Hospital in Kediri. This activity aimed to improve participants' knowledge and understanding of disability prevention, with the hope of supporting adherence to rehabilitation programs and maintaining patients' functional abilities.

METHOD

This activity was a community service initiative conducted through health education on disability prevention for patients with lumbar spondylosis. The activity was held on June 25, 2026, at the Medical Rehabilitation Unit of Simpang Lima Gumul Regional General Hospital in Kediri. The target participants were patients with lumbar spondylosis undergoing medical

rehabilitation and their accompanying family members. Approximately 20 patients and family members participated in the activity.

The activity was conducted through interactive health education, discussions, question-and-answer sessions, and demonstrations of the Home Exercise Program (HEP). The educational materials included the definition of lumbar spondylosis, risk factors for disability, the importance of disability prevention, the benefits of home exercises, ergonomic principles in daily activities, and the role of family in supporting the rehabilitation process. The materials were supported by educational media in the form of leaflets and X-banners.

The activity consisted of preparation of educational materials, delivery of the education session, demonstration of simple exercises that could be performed independently at home, discussion and question-and-answer sessions, and evaluation. Participants' understanding was assessed qualitatively through their responses during the question-and-answer session, participation in discussions, and their ability to restate key points of the material. No standardized scoring rubric was used for this qualitative assessment.

The activity did not use standardized pre-test and post-test instruments. Therefore, changes in participants' knowledge before and after the educational intervention could not be quantitatively measured. The activity findings were analyzed descriptively based on participant engagement and qualitative responses during the educational session. All activities were conducted with permission from the Medical Rehabilitation Unit of Simpang Lima Gumul Regional General Hospital in Kediri, while maintaining participant comfort, confidentiality, and ethical principles.

RESULTS

The community service activity was held on June 25, 2026, at the Medical Rehabilitation Unit of Simpang Lima Gumul Regional General Hospital in Kediri. Approximately 20 patients and family members participated in the activity. The activity consisted of health education, a demonstration of the Home Exercise Program (HEP), discussion and question-and-answer sessions, and an oral evaluation.

The educational materials covered the definition of lumbar spondylosis, risk factors for disability, the importance of disability prevention, the benefits of self-directed exercises at home, ergonomic principles in daily activities, and the role of family in supporting the rehabilitation process. The materials were delivered interactively using leaflets and X-banners.

During the activity, participants actively participated in discussions and question-and-answer sessions. Participants asked questions regarding the implementation of self-directed exercises at home, activities that should be avoided to prevent worsening of their condition, and ways to maintain functional abilities during the rehabilitation process. Some participants were also able to demonstrate the simple exercises presented by the implementation team.

Based on the oral evaluation conducted at the end of the activity, participants were able to restate several key points of the educational material, particularly regarding risk factors for disability, the benefits of self-directed exercise, and the importance of adherence to rehabilitation programs. Because the evaluation was qualitative and no standardized scoring instrument was used, the findings are presented descriptively and do not represent a quantitative measurement of changes in knowledge.

DISCUSSION

This community service activity combined health education with demonstrations of the Home Exercise Program (HEP) for patients with lumbar spondylosis and their families. Participants showed active engagement during the discussion and question-and-answer

sessions, particularly regarding disability prevention, home exercises, and the role of patients in the rehabilitation process. These observations indicate that the educational session addressed information needs related to disability prevention and rehabilitation.

The participants' ability to restate several key points of the material during the oral evaluation suggests that the interactive delivery approach supported their understanding of the information provided. The use of interactive lectures, discussions, question-and-answer sessions, and visual educational media allowed participants to receive information and clarify issues according to their needs. Face-to-face education also provides opportunities for two-way communication between educators and participants. Previous studies have emphasized the importance of patient understanding in supporting rehabilitation and disability prevention (Kim, An, Kim, Lee, & Lee, 2022; Medina-Viedma et al., 2025).

The demonstration of the Home Exercise Program (HEP) was an important component of the activity because participants were introduced to simple exercises that could be performed independently at home. Regular self-directed exercises may help maintain flexibility, strengthen muscles supporting the spine, and support functional abilities. Previous studies have reported benefits of lumbar stabilization, core muscle strengthening, and stretching exercises for patients with low back pain and degenerative spinal conditions (Dimitrijević et al., 2025; Parlindungan Napitu et al., 2026; Wahyuni Wahyuni & Serina Laurenza Putri Rianto, 2025). Therefore, combining education with exercise demonstrations may support patients in understanding how rehabilitation activities can be incorporated into daily routines.

Family involvement is also relevant to disability prevention because family members can support patients in performing exercises, maintaining motivation, and applying ergonomic principles in daily activities. Involving family members during education may help reinforce the information provided and support its application at home. This is particularly relevant for rehabilitation programs that require continued participation outside the healthcare facility.

The use of leaflets and X-banners also provided participants with educational materials that could be reviewed after the activity. These materials may help reinforce the information delivered during the session and support the continuity of health education for patients and their families.

However, the findings of this activity should be interpreted with caution. The evaluation was conducted qualitatively through discussion, question-and-answer sessions, and oral responses, without standardized pre-test and post-test instruments or a standardized scoring rubric. Therefore, the activity cannot quantitatively demonstrate changes in participants' knowledge. Future community service activities should consider using standardized pre-test and post-test instruments to obtain more objective measurements of educational outcomes.

CONCLUSION

A community service activity focused on disability prevention for patients with lumbar spondylosis at the Medical Rehabilitation Unit of Simpang Lima Gumul Regional General Hospital in Kediri was successfully carried out through health education and demonstrations of the Home Exercise Program (HEP). This activity demonstrated that participants were able to understand the material presented regarding risk factors for disability, the importance of self-directed exercise, the application of ergonomic principles, and the role of family in supporting the rehabilitation process. The interactive education, supported by leaflets and X-banners, contributed to enhancing participants' understanding and awareness of disability prevention efforts. These findings indicate that health education and the Home Exercise Program have the potential to serve as promotive and preventive strategies that support the success of rehabilitation and help maintain the functional abilities of patients with lumbar spondylosis.

It is recommended that similar educational activities be conducted on a regular basis and integrated with medical rehabilitation services so that the understanding of patients and their families can continue to improve. In addition, more measurable evaluations are needed for future activities such as the use of pre-test and post-test instruments to assess changes in knowledge and the effectiveness of educational programs in preventing disability among patients with lumbar spondylosis.

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