

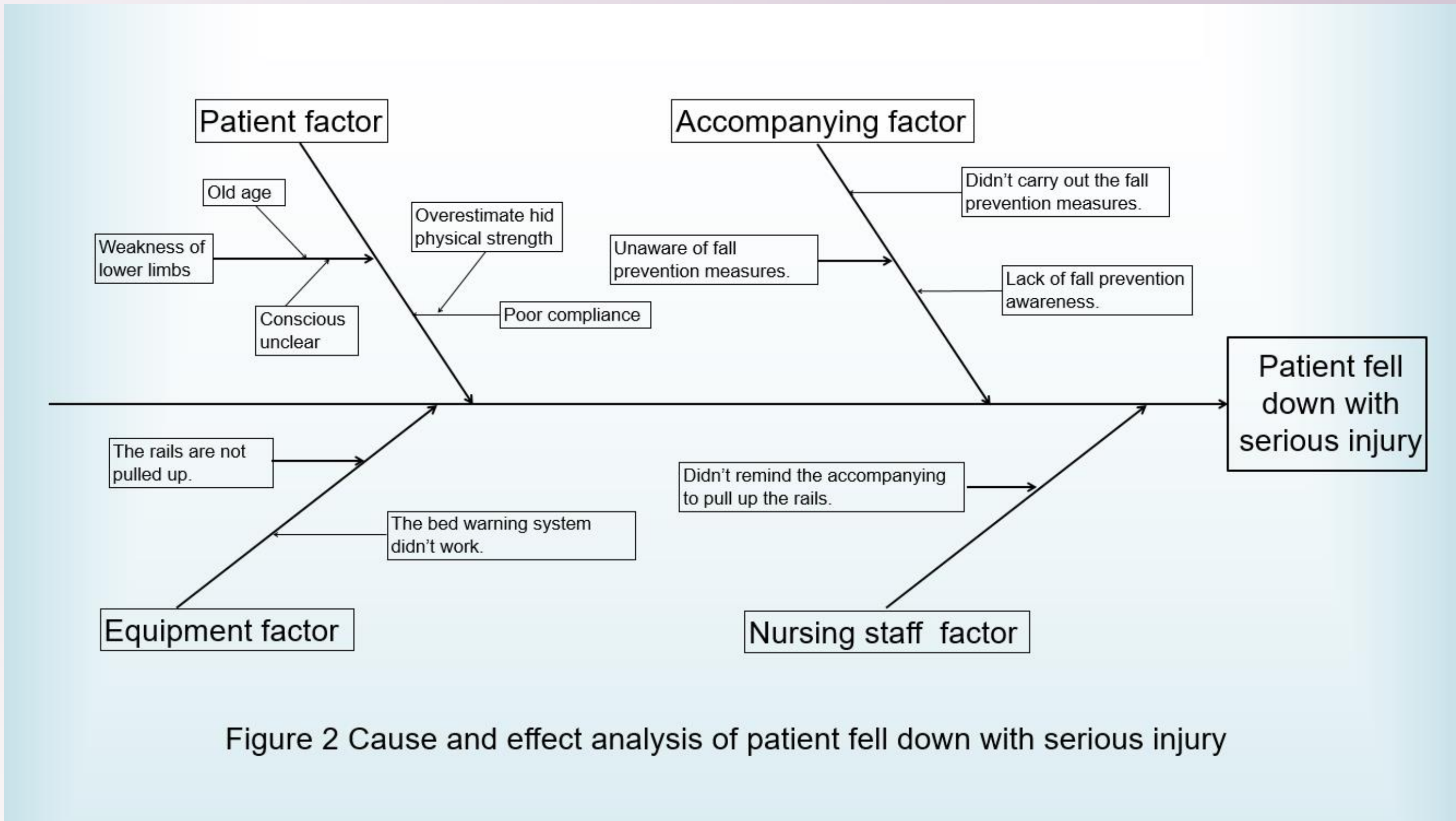
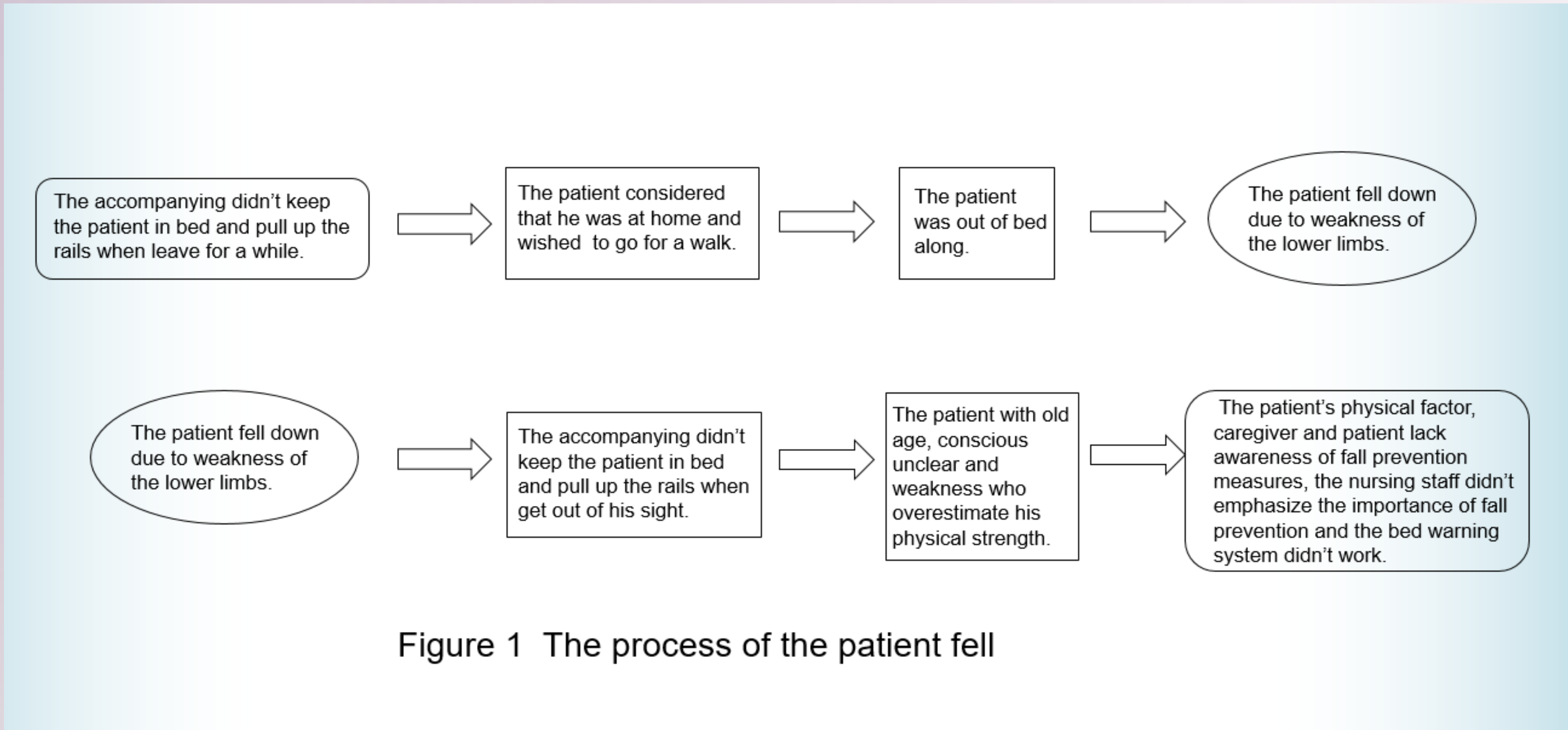


Root Cause Analysis of A Case of Femoral Neck Fracture Caused by Falls

Ya-Jyun,Tang Hui-Mei, Huang Shu-Chen, Liao
Department of Nursing, Taipei Veterans General Hospital, Taipei, Taiwan

Introduction : Fall prevention is one of the important issues that received attention in patient safety incidents of healthcare facility. Fall can cause varying degrees of injury, prolonged hospital stay and other complications such us bruises, contusions, broken bones, head injuries and even death.

Methods : A brief description of the situation. All the process of the event is concisely recorded in the event description table, then the process is disassembled into detailed steps and the original appearance and traceability of the event are presented with a flow chart(Figure 1). Use a fishbone diagram(Figure 2) to analyze the cause of an event. Root cause analysis was carried out. Patient factors: old age, weakness of both lower limb, previous falls at home, lack awareness of injuries caused by falls, poor compliance with preventive measures, no sense of old age, aging physical condition and limited mobility. Accompanying factors: Accompanying didn't aware the importance of preventing falls. Nursing staff factors: Nursing guidance on fall prevention has been given when entering he ward by putting the nursing bell and daily necessities within reached, instructing patients to use the nursing bell, turning on the bed warning system and make sure its function normal but not review the accompanying implementation of fall prevention measures correctly.



Result : Identify root causes of events : patients factors, accompanying factors, nursing staff factors, equipment factors. Improvement measures : (1) For those who are classified as high-risk groups of falls by admission assessment, emphasizing their physical limits and the necessity of being accompanied at all the time when getting out of bed. (2)Make sure that the caregiver aware of the potential seriousness of falls and let them know the fall prevention measures. (3)Hold a cross-team meeting and invite the occupational therapists to instruct nursing staff and caregivers some strengthening exercises for patients with lower extremity weakness. (4)Contact the engineer to find out the reason why the bed warning system malfunctioned. (5)When accompanying patient leave for a while, the nursing staff should be notified, the nursing bell must be placed within reach and the rails should be pulled completely. (6)Nursing staff should evaluate the effect of fall prevention guidance and the implementation. (7)Check the function of bed waring system routinely.

systemic reasons	Implementation measures	outcome
Patient factor and accompanying factor	(1)For those who are classified as high-risk groups of falls by admission assessment, emphasizing their physical limits and the necessity of being accompanied at all the time when getting out of bed. (2)Make sure that the caregiver aware of the potential seriousness of falls and let them know the fall prevention measures. (3)Hold a cross-team meeting and invite the occupational therapists to instruct nursing staff and caregivers some strengthening exercises for patients with lower extremity weakness.	(1)Patients who are high-risk group of falls never out of bed without caregivers. (2)Nursing staff can help patients with lower extremity weakness do some strengthening exercise twice a day.
Equipment factor	Contact the engineer to find out the reason why the bed warning system malfunctioned.	Due to the mattress has been used for 4years, the rebounding function decreased so that the mattress sensor did not detected.
Nursing staff factor	(1)When accompanying patient leave for a while, the nursing staff should be notified, the nursing bell must be placed within reach and the rails should be pulled completely. (2)Nursing staff should evaluate the effect of fall prevention guidance and the implementation. (3)Check the function of bed waring system routinely.	(1)The accompanying patients can notice nursing staff, placed the nursing bell within reach and pull up all the rails when they leave for a while. (2)The accompanying can put the fall prevention measures into effect. (3)All of the staffs can inspect the bed warning system and contact the engineer immediately when it out of bed.

Conclusion : It is hoped that through the project process, the incidence of falls and injuries can be reduced and the quality of care can be improved.