



# Research Week 2020

## Changes in the social network after a Safe Patient Handling Champions Program

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### Keywords

safe patient handling; social network analysis; champions

### Abstract

Safety champions who are best positioned to diffuse safety behaviors are commonly used in healthcare programs as a tactic to advance safety and quality improvement goals through their ability to influence peers and safety stakeholders. However, no study has documented how the safety-related interactions among co-workers change after the implementation of a Safe Patient Handling and Mobility Program (SPHM) that included champions. The program was pilot-tested at a rural critical access hospital (25 beds) in Oregon with a pre (n=38) and post (n=54) design. Social Network Analysis was applied to identify the most central workers in the flow of safe patient handling advice. Identified workers were subsequently invited to complete quality improvement and ergonomic practical training modules to become champions. We assessed changes in the network about safe patient handling interactions among peers and examined whether safety champions influence safer behaviors on their peers. Results showed that after adjusting for age, gender, and tenure, network density that represents the number of connections related to safe patient handling increased after the implementation of the program. Betweenness, which measures the level of network connectivity, also increased. An overall increase was found among all participants after the SPHM on equipment use, safety participation, and safety compliance regardless of the connection they had with champions. However, multiple regression results indicated that workers who sought advice for safe patient handling from a champion reported higher equipment use than co-workers who did not report any connection with the champions. In sum, SNA-selected champions have shown to influence safety behaviors and promote more safety-related interactions after the implementation of the program. More research is needed to assess the generalizability of these network changes.