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# The Challenges of Improving Nursing Home Quality

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Song et al[1] examined the association of measures of the work environment for care aides (also known as *nursing assistants*) with several key aspects of nursing home care, such as missed and rushed tasks. They used unique primary data, collected from 93 nursing homes in Western Canada, and a previously developed tool to measure organizational context. The authors found that potentially modifiable characteristics of the work environment were associated with missed and rushed care, providing suggestive evidence in terms of reducing these adverse events.

The quality of nursing home care has been a long-standing challenge across the developed world. In the United States, substantial abuse and neglect as well as generally poor conditions were found in a landmark study of nursing homes by the Institute of Medicine in the late 1980s.[2] Following that study, the US government established an extensive set of regulatory requirements for nursing homes, including assessments for all residents at specified intervals, inspections at least once every 15 months, and the submission of electronic data to state and national databases, which are used to monitor and report quality. Over the years, numerous state and federal policy initiatives have targeted the improvement of nurse staffing levels, and countless quality improvement projects initiated by the government, by researchers, or by nursing homes themselves have targeted key aspects of clinical quality. However, although many high-quality nursing homes exist and meaningful gains have been made, low quality and understaffing remain endemic. The regulatory context may differ between countries, but low-quality nursing home care transcends national boundaries.

Why are solutions to low-quality nursing home care so elusive? Part of the issue is the population being served: frail, usually elderly people with functional and/or cognitive impairments. Nursing home residents are ill equipped to monitor their own care, to advocate for themselves, or to exert political influence. Family members are not always available to advocate on behalf of residents. Furthermore, care of nursing home residents is often difficult and subject to uncertainty. Clinical trials of new drugs rarely include this population. Functional and cognitive impairment are often accompanied by multiple comorbidities, and some challenges—such as aggression or other behavioral issues caused by dementia—do not have clear solutions. A second, related issue is that nursing homes in the United States and Canada rely largely on constrained public funding, leading to systematic resource constraints when payment rates are low. To the extent that adequate staffing and meaningful quality improvement require resources, high-quality care may be out of reach for some nursing homes. This is particularly true of nursing homes located in poor neighborhoods, where the limited resources of the nursing home are matched by the limited resources of families of residents.

A large body of research has examined the quality of nursing home care and associations with resident, organizational, and market characteristics as well as state and federal policies in an effort to identify possible pathways to quality improvement. However, quality of care is typically conceptualized and operationalized in terms of resident outcomes, eg, admissions to the hospital, pressure ulcers, falls, infections, or satisfaction. Moreover, most of the larger, quantitative studies cannot fill in the so-called black box of mechanisms between the predictors of quality and the quality outcomes. The study by Song et al[1] adds to this body of literature in several ways. First, the authors focus on missed and rushed care. This domain of quality, ie, omissions of care, emerged as important in the hospital patient safety movement but is just now gaining traction in studies of long-term care. Conceptually, looking at omissions of care is an important addition to the overall construct of quality of care in nursing homes. Second, Song et al[1] contribute to the field by collecting data on missed and

rushed care, which were prevalent in their study. In addition to being interesting outcomes in themselves, these data points can help to fill in the black box of why and how predictors of poor outcomes lead to those poor outcomes.

The study by Song et al[1] found several strong associations between the unit-specific work environment and the odds of missed or rushed care. The most commonly missed or rushed tasks involved taking residents for walks and talking with them. The 3 following aspects of the work environment emerged as the most important: organizational slack in staffing and time, social capital, and culture. However, better organizational culture had an unexpected positive association with missing and rushed care. The authors stress that these organizational characteristics are malleable, providing potential areas for intervention.

While the results of the study are intriguing, they cannot be interpreted as offering solutions, at least in the short term. First, the organizational characteristics they study may be malleable in theory, but exactly how to change social capital and organizational culture is not clear. In a resource-constrained context, how does an organization improve structural and electronic resources? Regardless of resources, how does an organization promote emotionally intelligent leadership? The evidence base on such interventions appears to be weak.

Second, and more important, the study examined only associations and not causal pathways. This caveat is often dispensed with in a sentence in the Limitations section, but when the goal is to use results to identify interventions, it becomes paramount. Specifically, the potential for bias from omitted variables is strong in an association study such as this. Some control variables were included, but the real concern is the unobservable confounders. For example, it is quite plausible that a common omitted factor, such as the competence of the nursing home administrator, directly affected both the organizational environment and whether there were sufficient staff to avoid missed and rushed care. In that case, the associations observed in the study would have been completely spurious, and an intervention to change the environment would have no effect. Similarly, there may be unobservable attributes of the care aides themselves, such as their efficiency or dedication, that affected their ability to complete care tasks and their perceptions of the organizational environment. Without a research design that can isolate the causal pathways, the results are still far from identifying promising interventions.

The main implication of the analysis by Song et al[1] is that we need much more research that can further explore omissions of care, their role in resident outcomes, and the causal mechanisms that can reduce them. The study by Song et al[1] was drawn from a larger study with ongoing data collection, which may offer the opportunity to use longitudinal designs, looking at the changes in work environment over time and their associations with changes in missed and rushed care. In the context of the intractable challenge of improving nursing home quality, this would be a natural next step in finding ways to improve the lives and health outcomes of nursing home residents.

## ARTICLE INFORMATION

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