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Khoong, Elaine C

Fernandez, Alicia

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Title: Language, culture, and preventable readmissions: pragmatic, intervention studies needed

Authors

Elaine C Khoong,¹ Alicia Fernandez^{1,2}

¹ Division of General Internal Medicine at Zuckerberg San Francisco General Hospital, Department of Medicine, University of California San Francisco, San Francisco, CA, USA

² Center for Vulnerable Populations at Zuckerberg San Francisco General Hospital, Department of Medicine, University of California San Francisco, San Francisco, CA, USA

Corresponding Author

Alicia Fernandez

Building 10, Ward 13

UCSF Box 1364

1001 Potrero Avenue

San Francisco, CA 94110

Phone: 628-206-5394

Fax: 415-206-5586

Email: alicia.fernandez@ucsf.edu

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3 Preventable hospital readmissions are considered a marker of care quality. Readmissions
4 burden patients and their families and are a significant driver of healthcare costs.[1,2] In the
5 United States (where we are based) readmission penalties have resulted in an array of
6 interventions, ranging from the relatively simple (e.g., ensuring a timely follow-up
7 appointment) to bundled interventions with multiple components (e.g., medication
8 reconciliation plus phone follow-up plus structured handoff to outpatient clinicians).[3]
9 Evaluation results, however, have been mixed and progress in reducing readmissions difficult.
10 Studies generally have provided limited details about interventions and the patient groups
11 involved, making it impossible to know what worked for whom. [3,4] Complicating the practical
12 implications of this research is that bundled interventions, which tend to be more successful,
13 require greater investment of clinical and financial resources and at times result in net financial
14 loss, significantly dampening health system enthusiasm for implementation of programs to
15 reduce admissions.[5] Importantly, despite well-documented racial/ethnic disparities in
16 readmission rates,[6] many studies in the US have taken a “one-size-fits-all” approach by
17 designing interventions that do not attempt to address the specific needs or circumstances of
18 diverse populations.
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24 The study by **LEAD AUTHOR** and colleagues in this issue of *BMJ Quality & Safety* [7] differs from
25 much of the readmission literature in two important ways. First, the study focused on discharge
26 practices and activities adapted for diverse populations. Working with a patient population in
27 Israel that included a diverse groups of patients – Russian-speaking immigrants from the former
28 Soviet Union, Arabic-speakers from several ethnic groups and Hebrew-speakers —the authors
29 examined the association of what they termed cultural factors (e.g., health literacy, minority
30 status, etc), specific discharge practices, and patient perception of discharge preparedness with
31 hospital readmission rate. The second important contribution of this study lies in its attempt to
32 untangle the complex, proxy marker that is race/ethnicity/minority status and sort out how
33 specific discharge practices can address multiple cultural factors. Minority status is inclusive of
34 a breadth of cultural, societal, and biological factors and concepts that may contribute to
35 differences in health care outcomes.[8,9] Yet the drivers of these differences are poorly
36 understood and often not explored. By examining the role of cultural factors, the investigators
37 allow for a more nuanced understanding of patient differences.
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42 This study found that factors suggestive of increased cultural tailoring during the discharge
43 process were associated with patients reporting higher preparedness for discharge, and in turn
44 fewer readmissions. Put another way, the study observed a reduction in readmission rates
45 based on low-cost practices – teach back, clinician cultural competence, caregiver presence and
46 language concordance at discharge – that are relatively easy to implement and often within a
47 clinician’s control, yet not systematically accomplished at most institutions. The authors also
48 found that the relationship between minority status and readmissions was significantly
49 mediated by the studied discharge practices.
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53 Like much within health services research, this study’s conclusions, particularly on the
54 importance of language concordant care, may seem self-evident. Language concordant care
55 results in better patient comprehension than professional interpreter use [10] and is associated
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3 with improvement in many outcomes.[11] For fairly simple instructions, such as using statins
4 for lipid control, use of professional interpreters appears equivalent to language concordant
5 clinicians.[12] But for complex interactions, such as improving glycemic control among Spanish-
6 speaking patients with diabetes, language concordance with the primary care physician has
7 been associated with better outcomes. [13,14] The complexity of the discharge process cries
8 out for the easier give and take of a language concordant interaction, and this study's finding is
9 both self-evident and yet important because health systems by and large do not prioritize
10 language concordance for complex interactions and, specifically, do not ensure that language
11 and culturally concordant nurses deliver discharge instructions.
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15 The finding that a family caregiver present at discharge was associated with reduced admissions
16 is similarly unsurprising. As adult physician children have discovered and studies show,
17 caregiver integration into the discharge process can aid understanding, prevent medication
18 mishaps, increase adherence, and ultimately reduce readmissions.[15,16] The "family
19 collectivism" orientation of immigrant communities in the US and around the world is a source
20 of strength which health systems can choose to harness. From personal experience (AF),
21 intensive care "family rounds" in major teaching hospitals in Buenos Aires are held twice daily
22 at prescheduled times, once in the morning and once in the evening to accommodate working
23 family members, thereby providing an easy way for families to stay updated. This is in marked
24 contrast to a US clinician's laborious task of scheduling ad hoc meetings. Health systems can do
25 much more to facilitate family engagement and understanding.
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30 What are the implication of this work for clinicians and researchers? Individual clinicians and
31 patients are variable in their beliefs and behaviors. The details of these variations are key to
32 determining what actions or factors impact outcomes. The United States healthcare system has
33 recently redoubled its effort to collect race and ethnicity data and started more systematically
34 collecting data on language preference, sexual orientation, and gender identity. This study
35 underscores the need to explore in greater detail the cultural and other differences that may
36 drive disparities in health outcomes. Similarly, this study reinforces the need to investigate
37 clinician behavior to delineate what clinician actions most impact patient outcomes. As an
38 example, studies have shown that physician gender differences impact patient outcomes,[17]
39 but gender is not a modifiable factor. By identifying behaviors more frequently employed by
40 women physicians that improve outcomes,[18] we can advise all clinicians, regardless of
41 gender, to adopt those behaviors.
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46 Researchers should pursue (and funders need to fund) interventional studies that test the most
47 effective behaviors of individual clinicians. Some may argue that data from observational
48 studies such as these are sufficient, particularly when the behaviors noted – teach back,
49 ensuring language concordant care, or encouraging caregiver presence – are relatively easy and
50 low risk. Devoting resources to a clinical trial of these actions would appear unnecessary.
51 Although we understand this perspective, we believe that at least in the United States,
52 pragmatic intervention studies (e.g., cluster randomized trials, stepped wedge design) that
53 incorporate these practices and use theory-based implementation science approaches are
54 necessary to quantify the benefit of providing this bundle (teach back, language concordance,
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3 caregiver presence when possible). This information would enable health systems and health
4 plans to promote widespread system change in discharge practices. From this observational
5 study, for example, it is difficult to isolate a particular patient phenotype that most benefits
6 from language concordant discharge, or the number needed to treat to avoid a costly
7 readmission, both important policy considerations. Additionally, clinician time is limited, with
8 many clinicians experiencing burnout which itself is associated with costs to the healthcare
9 system.[19] Additional demands on the time or energy of clinicians will be more easily accepted
10 when accompanied by solid evidence. Medical interventions should be assessed with rigor
11 before being widely implemented; patient or clinician-directed behavioral interventions should
12 be subject to the same standards.
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17 With the current unprecedented global migration of populations, the need for culturally
18 tailored health care is greater than ever before. The United Nations estimates that in 2017 the
19 number of migrants reached 258 million.[20] As these immigrants and other diverse
20 populations enter hospitals, healthcare systems must provide culturally adapted care to
21 prevent the development or exacerbation of disparities in health outcomes. Rigorous,
22 pragmatic trials of discharge practices that allow health systems and clinicians to sort out which
23 readmissions interventions work for whom are needed. While these studies alone will not drive
24 health system change, they can provide guidance on the path forward to health equity in the
25 increasingly large immigrant population.
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