Commentary

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Tackling the Social Determinants of Health: A Critical Component of Safe and Effective Healthcare

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Interview with the author available on the PQ9 Podcasts page.

Consider a 5-year-old boy presenting to the primary care center after a recent emergency department visit for an acute asthma exacerbation. His pediatrician prepares for the visit by briefly examining his chart. After reviewing clinic and emergency department records, the clinician is convinced that this exacerbation could have been prevented if the child had been taking his prescribed controller medication and not missed his last appointment. Feeling frustrated, the clinician knocks on the door unsure where this visit should go. The clinician believes that medical management has been appropriate and evidence-based—why is this child's asthma still under poor control?

Every day, clinicians enter similar patient rooms, aiming to make the best clinical decisions for their patients. They seek optimal outcomes by closing care gaps. Unfortunately, gaps related to underlying social determinants of health (SDH)—the conditions in which patients live, work, learn, and play—are often overlooked.[1] Such factors can become lost during clinical encounters. Here, we propose that failing to assess, identify, and act on these "nonmedical" risks can lead to adverse outcomes.

Let us return to our patient. The clinician gleans from the chart that this boy is the youngest of 4 in a single mother-headed household. The chart does not include that he lives in public housing in 1 of the city's poorest neighborhoods, there is little food in the family's refrigerator, the mother is struggling to make ends meet, and the family's public benefits have lapsed and they do not know how to renew them. Even if this mother did have monetary resources, going to the supermarket or pharmacy would be a chore: there are limited resources within her community, and she does not have access to transportation. Perhaps related, this mother is confused about when her son should use his various prescribed inhalers. Without knowing these critical factors, we isolate his care from context, setting us up for failure.

A medical error is defined as the "failure of a planned action to be completed as intended (ie, error of execution) or the use of a wrong plan to achieve an aim (ie, error of planning)."[2] Relatedly, a medical mistake is "a commission or an omission with potentially negative consequences for the patient."[3] Screening ineffectively might be considered an error of execution, recommending contextually difficult medical plans an error of planning, and ignoring contextual issues during patient care an error of omission.

Clinicians must acknowledge the risk of patient harm related to these errors and mistakes. One approach to identify and reduce this risk uses Reason's "Swiss Cheese" Model of accident causation.[4] The cheese represents defenses intended to prevent harm. Imperfections in these defenses are represented by holes in the cheese. When holes line up, hazards pass through, creating paths for adverse outcomes. The more holes present, the higher the likelihood of adverse outcomes occurring.

With this in mind, we propose an aligned model in the context of a complex medication regimen, the hazard, and an asthma exacerbation, the adverse outcome (Fig. 1A). Potential "holes" in defense layers—staff, procedure, institution, and community—can vary in size and position, complicating the achievement of desired outcomes.

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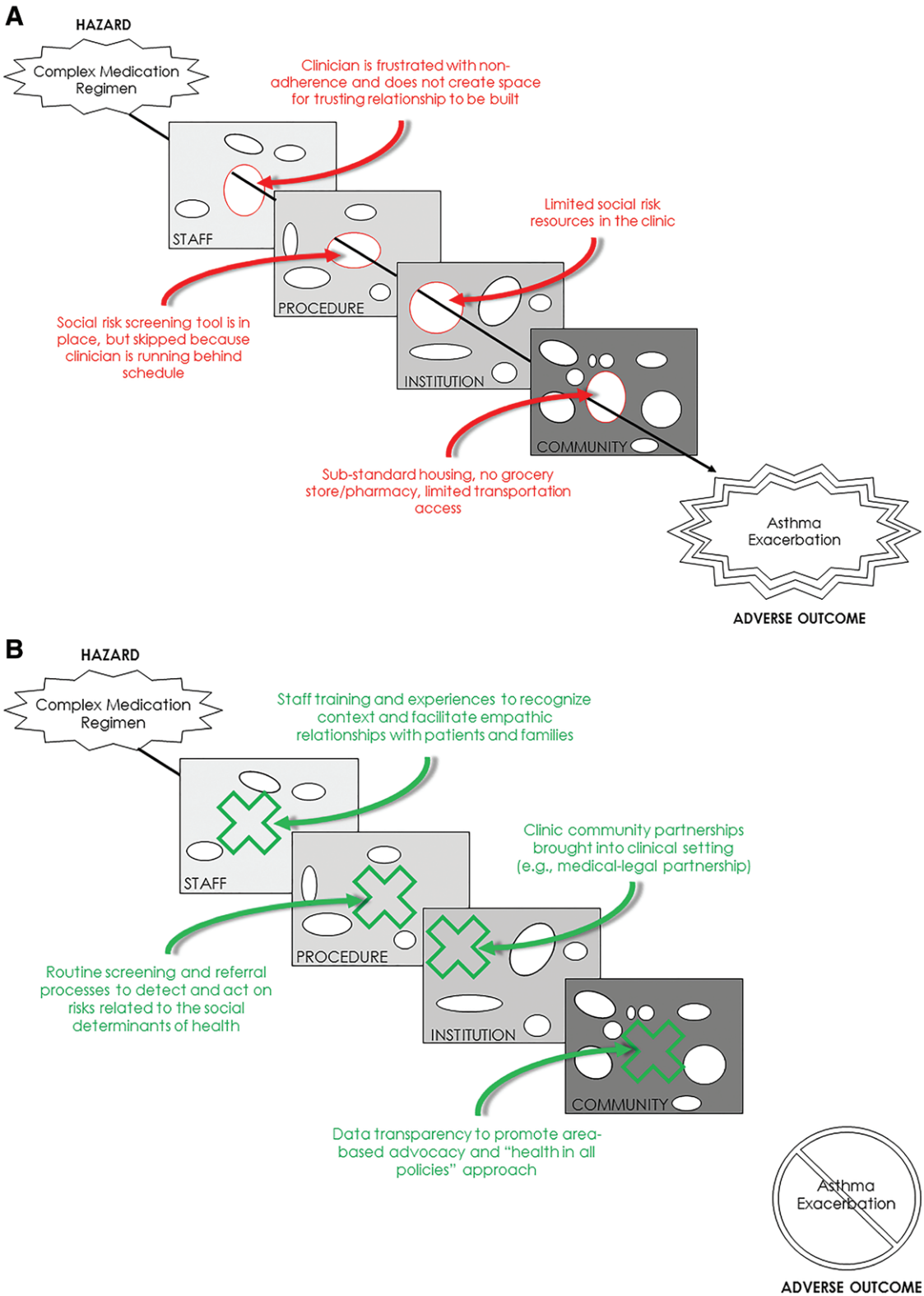

Fig. 1. A, Reason's Swiss cheese model adapted to the experience of a patient being cared for in our clinical setting, highlighting those potential gaps in care delivery linking a hazard (complex medication regimen) to an adverse outcome (asthma exacerbation). B, Model illustrating how and where holes can be made smaller or closed.

A lack of training or comfort surrounding cultural humility represent "human" holes. Procedurally, the lack of an effective SDH screening tool, processes ensuring reliable completion of that screen, and screening without connection to appropriate resources may be prominent holes.[5] Inadequate SDH-relevant clinical resources (eg,

care managers, social workers, community health workers, medical-legal partnership) or limited institutional relationships with community-based resources are large holes. Poor housing conditions, pharmacy and grocery "deserts," and inaccessible transportation are just a few paths for hazards to pass through at the community level.

We must devise strategies to shrink and eliminate the holes for errors and mistakes to pass through (Fig. 1B). To begin with, we must ensure that our staff are trained and supported to adequately interact with issues surrounding SDH.[6] Health care leaders are increasingly considering ways to reliably incorporate SDH screening tools into clinical care.[7,8] With reliable screening procedures in place, concrete interventions must be provided in ways that modify the medical management in clinically meaningful ways.[9] Thus, strong institutional partnerships with community resources as referral sites may be just as impactful as referring to clinical subspecialists.[10] Relatedly, at the community level, policies and resources are needed to ensure patients have the opportunity to make healthy choices, regardless of income, education, or ethnic background. We recognize that holes in the institutional and community layers of our model are difficult for a single clinician to close on their own. Instead, they should motivate us to work collaboratively across disciplines, with institutional leadership, communities, and families to identify ways in which holes can be closed.

We once again return, newfound defenses in place, to our patient. Upon intake, the standardized screening process detects substandard housing and medication access problems as the family lives in a neighborhood without a pharmacy. Our patient and his family are quickly referred to an on-call social worker and legal advocate. The social worker connects the family to a local food pantry while also helping arrange transportation through Medicaid. A legal advocate arranges a home visit to assess for violations of housing ordinances, which may be remediable through action by the landlord. After discussion with the child's mother, the newly formed team also connects the family to a community health worker who meets regularly with the mother in the home. This individual insures that the family knows when and how to use the different prescribed inhalers while serving as a connection back to the clinic. Weeks then months pass, and this child's asthma remains under control.

Cases with errors and mistakes such as this are too common in clinical settings. With implementation of defenses focused on SDH identification and intervention, vulnerable patients like our child with asthma can experience improved outcomes and enhanced quality of life. A more effective approach to the SDH may allow our patients and their families to live, work, learn, and play as healthy members of their community.

DISCLOSURE

The authors have no financial interest to declare in relation to the content of this article.

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