

# Can Shared Decision Making Help Eliminate Disparities in Rheumatoid Arthritis Outcomes?



In this issue of *The Journal*, Barton, *et al*, publish a study on the quality of shared decision making between providers and patients with rheumatoid arthritis (RA) followed in 2 northern California cohorts<sup>1</sup>. Why is such a study important in what seems like a golden age of RA treatment? After all, there has been an explosion in RA treatment options and strategies, which has made remission a realistic target<sup>2</sup>. Earlier, more aggressive, and better treatment of RA has resulted in greatly improved outcomes compared to past decades<sup>3</sup>. Barton, *et al*'s study is not only important but timely, because not all have shared equally from the therapeutic benefits of the biologic era.

There is abundant evidence of racial and ethnic disparities in RA outcomes in the United States. Bruce, *et al* demonstrated that white patients with RA had less disability and better global health compared to nonwhite patients with RA<sup>4</sup>. Barton, *et al* reported lower disease activity and better functional status in whites, anglophones, and non-foreign-born patients in a university rheumatology clinic<sup>5</sup>. Greenberg, *et al* recently published their findings from the Consortium of Rheumatology Researchers of North America RA registry showing that racial and ethnic disparities in disease activity and remission rates remained prevalent during the 2010–2012 time period<sup>6</sup>.

RA care disparities are neither limited to ethnic minorities nor restricted to the United States. Researchers in Sweden found that socioeconomic status and occupation influenced hospitalization rates for RA<sup>7</sup>, while patients in the United Kingdom from more deprived socioeconomic areas have been found to have a worse functional status than those from more affluent areas<sup>8</sup>. The multinational Quantitative Monitoring of Patients with Rheumatoid Arthritis (QUEST RA) cohort has also shown a negative association between disease activity and gross domestic product per capita<sup>9</sup>. The QUEST RA data also are remarkable for the less frequent achievement of remission in women compared to men<sup>10</sup>.

It is likely that some of the disparities seen in RA outcomes are related to inequity in medication use. Review of the Healthcare Effectiveness Data and Information Set showed that males, nonwhites, and persons of lower socioeconomic status were less likely to receive a disease-modifying antirheumatic drug (DMARD)<sup>11</sup>. The initiation of DMARD therapy is also often delayed in ethnic minorities<sup>12</sup>. Yelin, *et al* have recently published data revealing that the use of biologic therapies is affected by sociodemographic characteristics including income and ethnicity<sup>13</sup>.

Health literacy (HL) is another variable that may help explain systematic differences in medication use and disparities in RA care. HL has been defined as “the degree to which individuals can obtain, process, and understand the basic health information and services they need to make appropriate health decisions”<sup>14</sup>. A more nuanced conceptualization of health literacy focuses not only on the patient's skills, but also takes into account the demand side of the equation and the complexity of the healthcare system<sup>15</sup>. Nearly one-half of adults in the United States have limited HL<sup>16</sup>, and low HL is more prevalent among the elderly and ethnic minorities<sup>17</sup>.

Low HL is associated with poor health outcomes in many non-arthritic chronic diseases<sup>18</sup>. Similarly, RA patients with limited HL have worse functional status and wider discordance between provider and patient assessments of disease activity than patients with preserved HL<sup>19,20</sup>. A key next step in the HL RA research agenda is to define the mechanisms by which low HL affects RA outcomes.

There are several causal pathways by which limited HL might influence health outcomes: access and use of healthcare, patient-provider interaction, and self-care<sup>21</sup>. Our research at Denver Health has recently demonstrated that 1 in 4 patients at our safety-net public health clinic were unable to complete the visual analog scales used to

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obtain common patient-reported outcomes such as the patient global assessment of disease activity and general health<sup>22</sup>. This research provides an example regarding how systemic factors make the use of healthcare challenging for those with low HL.

Barton, *et al's* publication in this issue of *The Journal*<sup>1</sup> focuses on provider-patient communication, a salient factor that might mediate the relationship between low HL and RA outcomes. The researchers found that nearly one-third of subjects reported suboptimal shared decision making (SDM) communication. Low HL, lack of trust in physician, and limited English proficiency were all independently associated with poor SDM. These findings raise the question of how suboptimal SDM affects RA medication adherence and disease outcomes. The role of SDM in RA patients with low HL needs to be clarified given recent research in vulnerable patients demonstrating that unwillingness to take a DMARD<sup>23</sup>, and poor DMARD adherence<sup>24</sup>, are associated with risk perception and high medication concerns, respectively.

The emerging field of HL-related rheumatology research has clarified the HL skills of our patients, the readability of our written material, and the outcomes associated with limited HL. Barton, *et al's* study is an important contribution to the newest and most essential strand of HL research in rheumatology — how do we improve outcomes and eliminate disparities for RA patients with low HL? Little has been published to answer this question, with the exception of 1 study in which plain language information and individualized education failed to improve adherence and self-efficacy in patients with inflammatory arthritis<sup>25</sup>.

Wayne Gretzky famously remarked, “You miss 100 percent of the shots you never take.” Fortunately rheumatologists are starting to take aim and fire at this vexing question. Exciting research is being conducted regarding potential interventions to improve shared decision making, including the design of an HL universal precautions toolkit for rheumatology<sup>26</sup>, and the development of medication decisional aids<sup>27</sup>. Such research needs to be continued and supported until the most vulnerable patients in our societies are unrecognizable from the most affluent in terms of RA disease activity and functional status.

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