Unequal Treatment: Physical Therapy Utilization in Rheumatoid Arthritis

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The American College of Rheumatology (ACR) 2022 guidelines for nonpharmacologic management of rheumatoid arthritis (RA) include a conditional recommendation for physical therapy (PT). Known disparities by socioeconomic status (SES) and race and ethnicity in RA prevalence, patient-reported outcomes of function, disease activity, and access exist and persist over time. In this issue of *The Journal of Rheumatology*, Lane et al present their findings of a cross-sectional study of Medicare data showing disparities in PT utilization by SES and race and ethnicity among persons with RA. Improvement in function with exercise and PT has been reported in RA, and a greater number of PT visits is also associated with greater functional improvement; however, as the authors point out, uptake of PT among persons with RA is low. Non-Hispanic Black individuals with self-reported arthritis of any type had lower odds of a rehabilitation visit compared with White individuals, but no large study of PT utilization among persons with RA has been reported. A complete understanding of health disparities among persons with RA by SES or race and ethnicity remains elusive, and factors at the patient, clinician, and healthcare system level are yet to be fully understood. One 3-step approach to reducing disparities, outlined by Kilbourne et al, involves first detecting disparities, then understanding their origins, followed by intervening to reduce them. Lane et al provide new data on detection and a step forward to better understand disparities in their examination of sociocultural and economic determinants of PT utilization among older, Medicare-insured patients with RA.

This cross-sectional study examined annual Medicare fee-for-service claims from 2012 to 2016 for PT services among older adults (≥ 65 years) with RA and full coverage (Parts A, B, and D). Race and ethnicity data and Medicaid status were obtained through the Master Beneficiary Summary File, and dual Medicare/Medicaid coverage was used as a proxy for low income. The primary outcome was use of PT (yes/no) in the 12 months after case identification, using billing codes for PT or PT-related services. A secondary outcome was the number of PT visits during an episode of PT care; these were then categorized into 4 groups from low (1-2 visits) to very high (> 18 visits). Data analysis included logistic regression models adjusted for patient characteristics, comorbidities, and disease-modifying antirheumatic drug (DMARD) use to identify associations between race and ethnicity and dual coverage with PT utilization and number of visits. The authors included 106,470 older adults with RA in the analyses, of whom 83.9% identified as non-Hispanic White, 8.8% non-Hispanic Black, 7.2% Hispanic (the original sample captured 2.1% Asian or Pacific Islander and 0.7% American Indian/Alaska Native individuals, who were excluded as they represented < 5% of the total). Three-quarters were female, the average age of 75.8 years, 22.6% had dual Medicare/Medicaid coverage, and 44.7% were from the South. DMARDs were reported among 43%. As reported in prior literature, utilization of PT services in each ascertainment year was low, between 9.6% and 12.5% of the sample, with an average of 8 to 9 visits in an episode of care. In each year from 2013 to 2015, non-Hispanic White individuals had the highest PT utilization rates, whereas in 2016, rates between non-Hispanic White and Hispanic individuals were similar. Adults with dual coverage had lower PT utilization (5-8%) compared to those without dual coverage (10-14%). In adjusted analyses, the most pronounced variation in PT utilization was by dual Medicare/Medicaid users, with an adjusted odds ratio (aOR) of 0.44 (95% CI 0.43-0.46) compared to nondual users. Variation by race and ethnicity showed a similar pattern with non-Hispanic Black (aOR 0.77, 95% CI 0.73-0.82) and Hispanic (aOR 0.92, 95% CI 0.87-0.98) older adults with RA having lower odds of PT utilization compared with non-Hispanic White individuals. Use of DMARDs; female sex; residing in the Northeast, South or Western United States; and having comorbid fibromyalgia, obesity, or peripheral vascular disease were all associated with higher odds of PT utilization. With regard to number of visits, there was no variation.
by race and ethnicity; however, individuals with dual Medicare/Medicaid had lower odds of using a medium number of visits compared with a low number of visits.

This large, nationwide population-based study of older adults with RA adds to our understanding of SES and racial and ethnic disparities of PT utilization. Given known disparities in function in RA, this broad underutilization of PT and variation by SES and race and ethnicity likely contributes to ongoing, persistent poorer outcomes. The findings by Lane et al.4 align with prior work by Cifaldi et al., which found disparities in PT (fewer outpatient visits), fewer DMARD prescriptions, and poorer function among older adults with RA receiving dual Medicare/Medicaid compared with those receiving Medicare alone.8 The authors note that many clinics do not accept Medicaid, thus underscoring a system barrier. Clinician-level barriers include rheumatologists or primary care clinicians not providing a referral,9 and patients may be unaware of PT and how it may be beneficial for their arthritis. Part of a comprehensive discussion of treatment for RA should include nonpharmacologic modalities for treatment, as outlined in the recent guidelines.1 Other mechanisms for these disparities are rooted in structural racism, as the authors point out,4 which lead to a complete lack of PT clinicians in certain geographic areas, resulting in “PT deserts,” as reported by Huber et al in their qualitative study of 47 residents in Austin, a large community in Chicago that is 85% African American.10 Modifiable barriers described by residents and healthcare providers included “poor proximity to PT clinics, cost and incomplete knowledge of PT.”10 The role of structural racism in disparities in access and outcomes among persons with RA remains understudied.

Although this study has many strengths, including a large, nationwide sample, it has limitations. Administrative data definitions of RA may lead to inclusion of subjects who do not have RA. Race and ethnicity data are based on codes that preclude self-report of multiple categories or that separate race from ethnicity. Individuals from certain groups were not included in the analysis due to smaller numbers (eg, Asian or Pacific Islander and American Indian or Alaskan Native). Patient-reported factors, such as function or disease activity levels, were not included; this could affect referral patterns by clinicians and/or affect a patient’s ability to attend PT visits. Reported DMARD use in this sample was quite low (43% overall), which is lower than reported in prior studies over a decade ago (63%).11 This may call into question whether the sample included individuals without a true diagnosis of RA or represent barriers in access to rheumatology clinicians (care from a rheumatologist is associated with higher quality of care, including receipt of DMARD).12

In this large, nationwide study of disparities in PT utilization by race and ethnicity and SES among insured older adults with RA by Lane et al.4 the findings underscore stark variation in use, most strikingly by SES, with individuals who have dual Medicare/Medicaid coverage having 56% lower odds of PT utilization than those with Medicare only. Non-Hispanic Black and Hispanic individuals also had lower odds of PT utilization compared with non-Hispanic White individuals. Our understanding of what is driving these disparities requires further exploration, including investigation into patient-, clinician-, and system-level factors. There are questions unanswered by this study: Is there geographic or other types of variation in PT referral patterns among primary care or rheumatology clinicians? What is the role of implicit bias in referrals? What is the quality of communication between clinicians and patients around the role of PT in the life course with RA? Raising awareness among clinicians and patients about the benefits of PT and, now, the new recommendation included in the ACR guideline for integrative treatments for RA could be one step forward. Interventions to improve shared decision making overall for persons with RA and their clinicians may allow for greater mutual awareness of patient-level barriers (mistrust, lack of transportation or childcare) and system-level barriers (no PT facility within reasonable proximity to person’s home, PT clinics that do not take Medicaid). Clinicians need time and resources to share information with patients around what PT is and what it can offer, and this can likely be done across a multidisciplinary team. Individuals with RA should learn of the potential benefits of PT, and understanding each individual person’s workload (taking medications, getting laboratory monitoring, attending other appointments, caring for family, work) and capacity (transportation, time, resources) to engage in PT is critical.13 Disparities by SES and race and ethnicity in PT utilization among older adults with RA are clear. A research agenda moving forward must include a better understanding of why these disparities exist, to inform the development and testing of interventions to effectively reduce disparities and improve outcomes:

- mixed methods research with a focus on communities in PT deserts,
- broad dissemination of new ACR integrative treatment guidelines for RA to patients and clinicians (rheumatology, primary care, physical therapists), and
- intervention studies among populations of interest informed by the mixed methods research.

There is much work ahead to close these gaps and improve RA care for all.

REFERENCES