

RHEUMATOID ARTHRITIS SELF-MANAGEMENT TOOLKIT FOR PHYSICIAN ASSISTANTS

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Abstract

Background: Self-management is a key component of treatment for rheumatoid arthritis (RA), a systemic inflammatory autoimmune disease. Primary care physician assistants (PA) are uniquely situated to provide chronic disease management, equipping patients with the education and skills needed to self-manage RA. **Purpose:** To create a self-management toolkit for primary care PAs to use with patients diagnosed with RA. **Methods:** Characteristics of effective patient self-management interventions for individuals with RA were identified through a literature search. Ovid MEDLINE, EMBASE, and CINHALL databases were systematically searched and a total of 8 articles met inclusion criteria. Thematic analysis identified common themes of effective RA self-management interventions.

Results: Four patient characteristics were identified to influence self-management of RA including patient medication management and education, healthy lifestyle, symptom management with non-pharmacological interventions, and emotion management. Two primary healthcare provider characteristics were identified to impact patient self-management of RA including smooth transition of care between healthcare providers and knowledgeability and confidence of primary healthcare providers. **Implications:** Based on the identified characteristics of effective RA self-management, a toolkit for primary care PAs was proposed.

Keywords: Rheumatoid Arthritis, Physician Assistants, Primary Health Care, Self-management Strategies, Chronic Disease Management

Rheumatoid Arthritis Self-Management Toolkit for Physician Assistants

Arthritis is a highly prevalent chronic condition and a growing burden for Canadians that places serious strain on public healthcare and the economy. The Arthritis Alliance of Canada (AAC) estimated that rheumatoid arthritis (RA) along with osteoarthritis cost the Canadian economy \$33 billion in direct and indirect (e.g., lost productivity) healthcare costs. (1) Rheumatoid arthritis is a painful and debilitating progressive disease that primarily onsets in adults between the ages of 40 and 70 years. (2,3) In Canada, approximately 272,000 people reported a diagnosis of RA and this number is estimated to grow as our population ages. (1,4) Rheumatoid arthritis is the most common inflammatory joint disease and is associated with negative changes in mental and physical health, impacting quality of life. (3) Self-management skills complement medical treatment of RA and are critical for addressing symptoms and improving patients' self-confidence. (5) Primary care practitioners play a vital role in addressing and helping patients manage RA, during routine office visits and between appointments with specialists. (1,6)

Self-Management and Rheumatoid Arthritis

The Chronic Care Model (CCM) is an approach to caring for patients with chronic disease to help improve patient care and health outcomes. (7) Self-management is fundamental to the CCM, referring to the decisions and daily behaviour of an individual managing a chronic condition. (7,8) Successful self-management of RA includes patients taking a proactive role in treatment and maintaining a high quality of life. (9) To develop self-management skills, patients need timely access to quality healthcare focused on

educating patients with chronic disease. (10) Unfortunately, due to shortages of rheumatologists across North America, patients with RA wait months to see specialists for chronic disease care. (11,12) The interim responsibility of RA management falls on primary care providers.

Primary care physicians are requesting additional support to assist with chronic disease management. (13,14) Physicians often have limited time for self-management education during lengthy follow-up visits for chronic diseases such as RA. (13) The use of advanced practice providers, including physician assistants (PA) and nurse practitioners in chronic care management are a promising new direction to support physicians treating patients with chronic disease. (15)

Role of Physician Assistants in Chronic Care Management

The advent of physician assistants in Canada has changed the healthcare provider landscape across multiple specialities, including primary care. (16) PAs are advanced healthcare practitioners who practice medicine in collaboration with supervising physicians. (15,17) PAs are trained as generalists and work in many different specialties, including primary care. (16) In primary health care, PAs encounter and treat patients with chronic disease and are uniquely positioned to provide education and extensive follow-ups. (18) A review of the literature revealed that PAs can contribute to the successful attainment of primary care functions, including providing comprehensive care and chronic disease management. (17)

RA Toolkit for Primary Care Physician Assistants

Family medicine PAs are responsible for ongoing care of patients with chronic disease, including those with RA. On average PAs working in primary care interact with 73 patients each week, of which 30-40% of patients are aged 65 and older. (19,20) Patients with comorbid chronic conditions make up approximately half of all encounters. (17) With a rapidly growing aging population there is an expected increase in older adult patients in primary care and a large volume of patients with chronic disease. (21) Although RA constitutes a small portion of chronic disease, it will be the focus of this paper, as primary healthcare practitioners (PHCP) play an important role in initiating RA therapy in hopes of improving long-term outcomes. (17,22) With an increasing shortage of rheumatologists in Canada, patients are often waitlisted to see a specialist, thus PHCPs play an important role in providing interim and continuous chronic disease education and treatment. (1,6,11) A framework is needed to support primary care PAs providing chronic disease care to patients with RA.

To provide comprehensive care for patients with RA in primary care, characteristics of effective self-management intervention strategies for this population will be identified. After completing a review of the literature, a RA self-management toolkit for primary care PAs will be proposed.

Methods

Literature Search

A database search was conducted in OVID MEDLINE, EMBASE, and CINHALL on July 15, 2019. These databases are relevant to the focus of the literature review, identifying characteristics of effective RA self-management interventions. Search terms were developed for electronic databases using three main keywords: (1) primary health care, (2) rheumatoid arthritis, and (3) self-management. A list of these search terms and synonyms that reflect the focus of the review was first developed in OVID MEDLINE and then adapted to EMBASE, and CINHALL.

Full-text articles were included if they (1) were written in English, (2) were peer-reviewed journal articles and (3) examined characteristics that contribute to effective rheumatoid arthritis self-management interventions in primary care for adults aged 40 and older. Articles were excluded if they (1) focused on chronic illnesses other than rheumatoid arthritis, (2) were continuing studies (e.g., pilot studies), or (3) were not accessible through Queen's University Library. The reference lists of included articles were reviewed to

identify any additional articles that reflected the focus of the literature search. A total of 20 articles were found, of which 7 met eligibility criteria (articles excluded for duplicates (N=2), not accessible through Queen's Library (N=1), and not relevant to the focus of the review (N=7)). An additional article was identified through reviewing reference lists of included articles.

Data Synthesis and Analysis

In total, 8 articles were retained for final inclusion. Intervention characteristics, outcomes, and suggestions for effective self-management were extracted. From the collected information, a list of "tools" was created based on common themes across included articles (Appendix, Table A).

Results

Eight articles were identified from the literature search, of which 3 were experimental studies and 5 were review studies. Thematic grouping revealed six tools for effective RA self-management; see Table A in Appendix.

Patient Focused Self-Management Tools

The literature search defined several patient characteristics and skills that are important for self-management of RA. Primary healthcare providers, specifically PAs, can help patients develop these skills (herein defined as "tools") through providing patient-centered care and setting SMART goals (i.e., specific, measurable, attainable, and time-specific goals) with patients based on their desired health outcomes. (23)

Medication management and education.

Five studies identified medication management and education as an important tool for patients to develop in order to self-manage RA. Specifically, medication management and patient education is associated with increased medication adherence, improved self-efficacy, and better symptom management (24,25,26,27,23) Patients can develop this skill through talking with their PCHP about their understanding of and beliefs about medication used to treat RA symptoms. (27) Additionally, learning about the disease course of RA and learning different treatment options that help reduce inflammation may improve patients' knowledge of RA and their self-efficacy in being able to self-manage symptoms. (24,25)

To assess patients' information needs, PHCPs may use the educational needs assessment tool (ENAT) with patients, which was developed by arthritis patients and physicians to identify learning gaps and tailor education to patients' needs. (23) Upon discussion learning objectives, PHCPs can provide resources and also refer patients to community RA education courses. (25,26,23) Through assessing patients' understanding of pharmacotherapy and the RA disease course, PHCPs may help develop patient's self-management skills by addressing education gaps.

Healthy lifestyle.

A few studies identified that a healthy lifestyle was an important tool for self-managing RA. Bruce and Peck (24), Home and Carr (25), and Voshaar et al. (23) noted that exercise including yoga, strengthening exercises, daily walking, along with healthy eating (e.g., Mediterranean diet) contribute to increasing self-management skills. (24,25,23) These lifestyle interventions help patients manage RA symptoms (e.g., joint pain) and also build patients' self-efficacy. (24,25,23) To guide patients in developing a healthy lifestyle, literature suggests that PHCPs should discuss patients' goals, and priority of health outcomes, and then discuss the role of healthy living in achieving desired health outcomes. (24,25,23)

Symptom management with non-pharmacological interventions.

Bruce and Peck (24), Home and Carr (25), and Voshaar et al. (23) identified the positive impact non-pharmacological interventions have on patient self-management skills. The authors suggest that PHCPs should discuss alternative or supplementary treatment options with patients to help them self-manage their symptoms, such as joint pain and tenderness. This may especially be helpful for individuals who are waiting

to see a rheumatologist. (6,13) Patients may learn how to self-regulate in response to RA symptoms through engaging in aquatic, physical, or massage therapy. (24,25,23)

Emotion management.

Five studies identified the role of emotion management in RA self-management. (24,25,28,29,23) Effective emotion management includes addressing depressive symptoms and fatigue, maintaining a positive attitude, and developing an emotional support system. (24,25,28,29,23) Depression and depressive symptoms are common in individuals with RA. (28) Contributing factors include decreased participation in recreational activities and social outings due to flare ups of RA symptoms. (28) PHCPs are encouraged to complete annual emotional “check ins” assessing the patient’s support system (23) and create interventions to address depression for patients that are tailored to the patient’s socioeconomic status and individual preferences. (28) Through using supportive communication and encouraging patients to self-monitor their emotional state, PHCPs can work with patients to learn emotion management skills to improve their self-management of RA. (23,28)

PHCP Focused Self-Management Tools

Two themes emerged from the literature review focusing on PHCP characteristics that are important tools for patient self-management of RA. Primary healthcare providers, specifically PAs, can help patients develop self-management skills through improving their knowledge and confidence in treating RA and providing a smooth transition of care between PHCPs.

Smooth transition of care between PHCPs.

Five articles identified the importance of providing continuity in shared care between healthcare providers. (25,27,29,30,23) Shared care is defined as joint participation between PHCPs and specialists in the planned delivery of care for individuals with chronic illness, informed by enhanced information exchange that exceeds routine discharge or referral letters. (27) When patients are seeing multiple healthcare providers for chronic conditions, care may become fragmented and patients may become confused and overwhelmed by the instructions they receive from healthcare providers. (25,27) Healthcare providers must work together to include patients as a member of their healthcare team, providing patient-centered care that is focused on goals set by the patient. (23,29) Smooth transition of care between healthcare providers has been demonstrated to have an impact on patient health outcomes, in addition to impacting their ability to self-manage RA symptoms. (25,27,29,30,23)

Knowledge and confidence of PHCPs.

A few articles identified the impact of the PHCPs’ confidence and knowledge of RA on patients’ self-management skills. Given that many PHCPs report feeling inadequately equipped to treat RA symptoms, literature findings suggest providing education courses for PHCPs on RA medication (e.g., workshops run by rheumatologists). (30,27,23) PHCPs are more equipped to help patients develop self-management skills when they exhibit knowledge and confidence of the disease and treatment options. (27)

Discussion

Overall, there are several tools that are important for effective RA self-management interventions. The patient and PHCP tools are associated with improved patient health outcomes, safety, medication adherence, self-efficacy, self-regulation skills, and overall self-management. (25,27,30,29,23) Physician assistants can help develop and implement these tools with patients diagnosed with RA in primary care settings. These tools were combined to create a RA self-management toolkit (Figure 1) that can be used to address patients’ needs and provide a patient-centered approach to care. An evaluation of expected outcomes (e.g., patients’ self-management skills and health status) is needed in order to determine effectiveness of employing the listed activities with PAs in a primary care setting. This evaluation will help inform RA management in primary care and may be applied to other chronic diseases in the future. (18,15)

The proposed self-management toolkit can be used by PAs working one-on-one with patients in a primary care office setting. Additional materials that would be helpful for successful toolkit implementation include printed educational resources, ENAT, and printed goal setting exercise sheets. Printed educational resources would provide another means for patient engagement. (31,32) By having readily available resources, PAs can efficiently employ self-management activities with their patients. Patients may be encouraged to bring their written goals to future appointments with specialists to help improve shared care of patients among healthcare providers. (27)

Potential barriers for developing self-management skills include patients' low self-confidence, lack of social support, limited financial resources, and low health literacy. (33,34) Additionally, patient-provider communication can be a barrier or facilitator to self-management of a chronic illness, thus PAs should be intentional in acknowledging patients' needs in appointment visits. (33) PAs should familiarize themselves with barriers to patient care, and create a plan with patients to address potential barriers to goal achievement to help improve patient outcomes and self-management skills. (33)

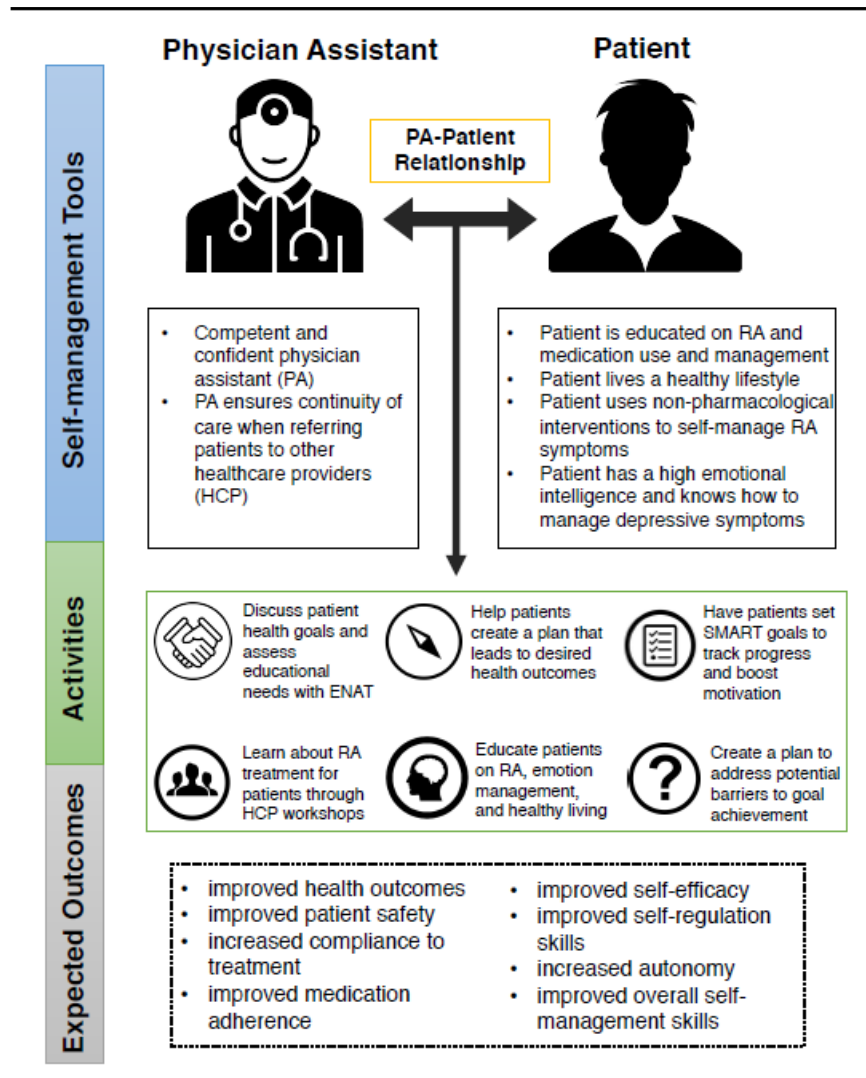


Figure 1: RA self-management toolkit for physician assistants in a primary care setting

Conclusion

Physician assistants are uniquely positioned to provide RA self-management support in primary care settings. A toolkit for PAs developing patient self-management skills was proposed based on components of effective RA self-management identified in the literature. An evaluation of the proposed outcomes of the toolkit needs to be completed to determine intervention effectiveness. This may further contribute to the literature on the role PAs play in chronic disease care. With a growing aging population, it is especially important to ensure patients receive sufficient chronic care support in primary care. The advent of PAs provides an opportunity for more comprehensive self-management support through utilizing effective interventions.

Table A: Important self-management tools for effective RA self-management (SM=self-management)

Identified Self-Management "Tools"	Articles Identified	Associated Improved Outcomes	Effective implementation of the self-management tool
1. Patient medication management & education	<ul style="list-style-type: none"> • N=5 • (25,21,23,24,22) 	<ul style="list-style-type: none"> • Symptom control • Medication adherence • Increase compliance to treatment • Increase self-efficacy 	<ul style="list-style-type: none"> • Target patient beliefs about medication • Use motivational interviewing to explore patients' beliefs and identify barriers to medication management • Explain disease course and treatment • Encouraging patients to engage in community courses on RA • Use of educational needs assessment tool (ENAT)
2. Healthy lifestyle of patient	<ul style="list-style-type: none"> • N=2 • (21,22,23) 	<ul style="list-style-type: none"> • Build confidence and self-efficacy • Symptom control 	<ul style="list-style-type: none"> • Discuss patient's priority of health outcomes, and lifestyle needed to reach health outcomes
3. Patient symptom management with non-pharmacological interventions	<ul style="list-style-type: none"> • N=2 • (23,22,21) 	<ul style="list-style-type: none"> • Improve self-regulation, self-help, and SM skills • Symptom control 	<ul style="list-style-type: none"> • Discuss alternative or supplementary treatment options to reduce unpleasant symptoms
4. Patient emotion management	<ul style="list-style-type: none"> • N=5 • (26,21,27,23,22) 	<ul style="list-style-type: none"> • Improve health outcomes • Improved patient safety • Increased autonomy 	<ul style="list-style-type: none"> • Creating interventions to address depression tailored to patients' socioeconomic status and individual characteristics • Annual emotional check ins • Support for family and caregivers • Supportive communication
5. Smooth transition to shared PHCP care and continuity in care	<ul style="list-style-type: none"> • N=5 • (25,28,21,27,23) 	<ul style="list-style-type: none"> • Improve patient SM skills • Improve health outcomes 	<ul style="list-style-type: none"> • Helping patients access services • Inter-professional learning and discussions • Patients seen as members of their healthcare team • Patient-centred care • Goal-setting with patients
6. Knowledgeability and confidence of PHCPs about RA	<ul style="list-style-type: none"> • N=3 • (25,28,21) 	<ul style="list-style-type: none"> • Improve patient SM skills 	<ul style="list-style-type: none"> • Education course for PHCPs on DMARDs run with rheumatologists • Inter-professional learning • Patient self-management resource kits

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