Pharmacist supporting adherence in Rheumatology patients.

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INTRODUCTION

In a secondary hospital, patients initiating DMARD therapy and requiring further education, requiring adherence support (scoring ≥1 on Medication Adherence Questionnaire (MAQ)) with their DMARD or gout therapy are referred from the Rheumatology clinic to an outpatient pharmacy clinic. Beliefs about Medicines Questionnaire is completed at the Pharmacy Clinic for patients scoring ≥ 1MAQ. Pharmacist uses MAQ, BMQ and discussion with patient to determine adherence barriers and determine appropriate adherence intervention. Previous studies have reported adherence rates in patients with RA using DMARD therapy to range from 30-80%.[1] Complex initiation dosages and initial side effects can be difficult for patients to manage and patients may therefore benefit from support at this phase.[2] Monitoring requirements both clinical and including laboratory tests mean patients taking DMARDs require ongoing support to maintain safe use of their medications and achieve optimal outcomes.[3] Evidence suggests that RA patients with higher medication adherence tend to have lower disease activity.[4]

AIMS

To describe the role of the pharmacist in supporting medication taking behaviour in rheumatology outpatients, specifically:

- Determine barriers to medication adherence to DMARDs
- Describe the pharmacist implemented strategies to improve adherence
- Describe the utility of MAQ and BMQ in informing pharmacist implemented adherence strategies.

METHODS

This was a retrospective observational study of rheumatology patients attending an outpatient pharmacy clinic for adherence support (scoring ≥ 1 on the MAQ) or DMARD initiation support. Patients who attended the pharmacy clinic between June 2018 and August 2018 were identified using the pharmacy clinic referral and attendance database and archive of MAQs from the Rheumatology Clinic. Patients were excluded from the study if they declined referral to the pharmacy clinic, failed to attend appointment with pharmacist on two occasions or were referred for gout medication management. Descriptive statistics were used to describe the patient population demographics and questionnaire responses.

Figure 1: Adherence screening and referral to pharmacy clinic

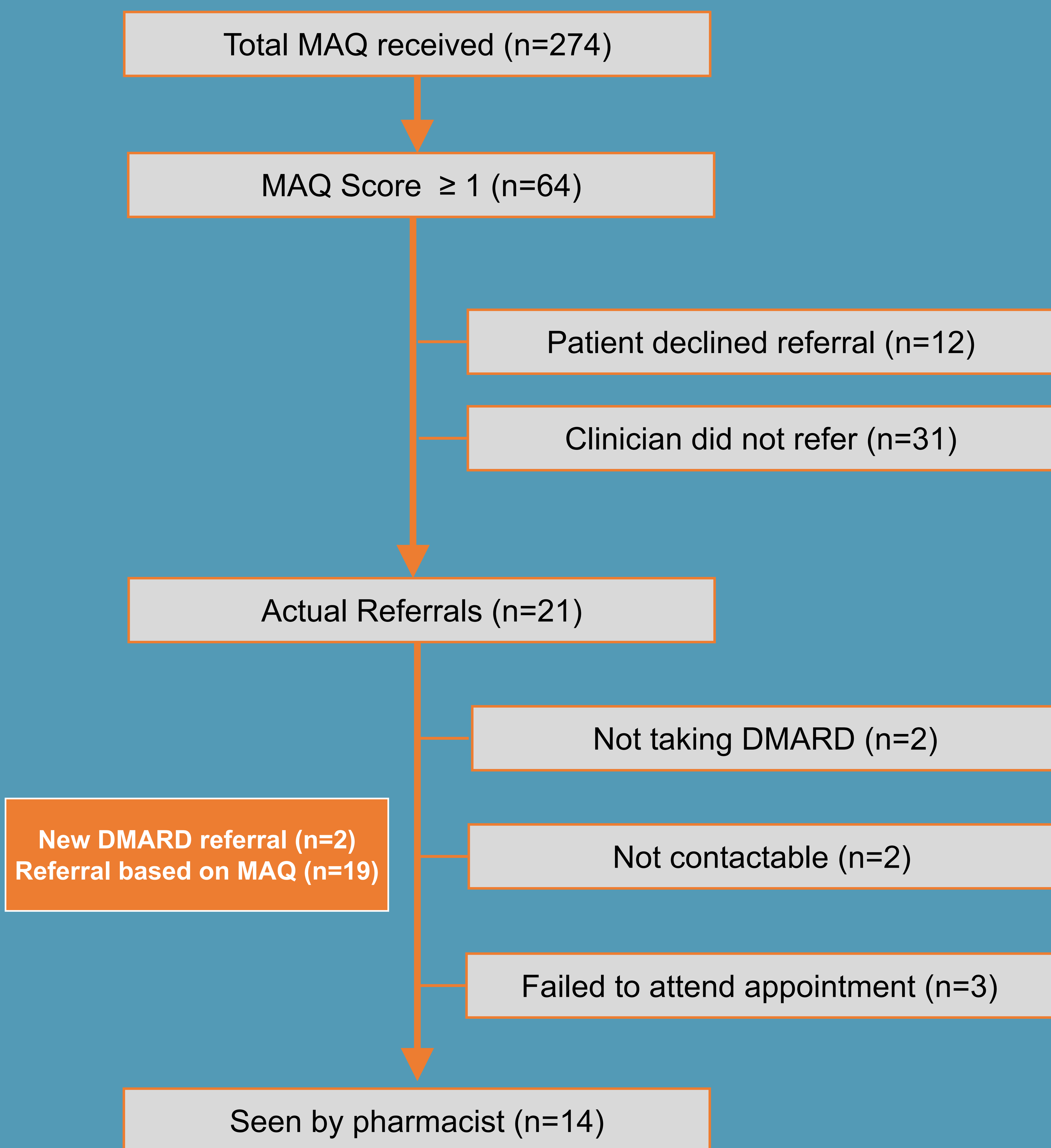

Table 2: Cohort BMQ necessity and BMQ concerns scores

BMQ Score	Mean ± SD	Mean differential ± SD
Necessity score	20.83 ± 2.79	6.83 ± 4.28
Concerns score	14 ± 3.25	

RESULTS

Twenty-one patients were referred from the rheumatology clinic and only 14 were seen in the pharmacy clinic during the 2-month study period. (see Figure 1) Out of those, 2 were newly started on DMARDs and required initiation support, and the remaining 14 scored 1 or more on the MAQ.

Average age was 58.4 years and 86% of study population were female.

Main reason for non-adherence identified by the MAQ was forgetfulness. The mean BMQ necessity scores for the sample are reported in Table 2 and individual participants scores in Table 3. The Adherence interventions implemented by the pharmacist based on the MAQ, BMQ scores and discussion with the patients is reported in Table 3. Strategies implemented included cognitive educational (verbal/written), reminder systems, behavioural counselling, in addition to other interventions individualized to patient needs.

Table 1: MAQ items and number of patients answering yes to each item

Item	Question	n (%)* answered yes
1	Do you ever forget to take your medicine?	8 (66.7%)
2	Are you careless at times about taking your medicine?	2 (16.7%)
3	When you feel better, do you sometimes stop taking your medicine?	2 (16.7%)
4	Sometimes, if you feel worse when you take the medicine, do you stop taking it?	4 (33.3%)

* Some patient have answered yes to more than one question

Table 3: Summary of questionnaire scores, adherence barriers and pharmacist adherence interventions

Patient	MAQ Score (Qn answered yes)	BMQ Score	BMQ score differential	Adherence barriers	Adherence intervention
1	1 (4)	N 18 C 12	6	Changing dosage regimen Self-ceased DMARD due to ADRs	Cognitive educational
2	1 (1)	N 20 C 13	7	Period of high stress, ran out of medication	Cognitive educational & reminder systems
3	1 (4)	N 22 C 14	8	Understanding of DMARD action (PRN extra doses)	Cognitive educational & behavioral counselling
4	1 (1)	N 21 C 14	7	Work schedule forget am doses	Cognitive educational & reminder systems
5	1 (1)	N 22 C 10	12	Lacks motivation	Cognitive educational, reminder systems and behavioral counselling
6	2 (1, 2)	N 22 C 20	2	Low motivation due to ongoing active disease	Cognitive educational, reminder systems and behavioral counselling
7	3 (1,3,4)	N 24 C 9	15	Adverse effects	Cognitive educational & behavioural counselling
8	1 (1)	N 24 C 17	7	Avoid adverse effects on work days/ hobby day	Cognitive educational & reminder systems
9	1 (2)	N 20 C 12	8	Medication indication understanding	Cognitive educational & behavioural counselling
10	2 (1,4)	N 23 C 18	5	Adverse effects and lack of efficacy	Cognitive educational & behavioural counselling
11	1 (1)	N 14 C 16	-2	Anxiety about medication taking	Cognitive educational, reminder systems & behavioral counselling
12	1 (3)	N 20 C 13	7	Long term adverse effects	Cognitive educational & behavioural counselling
13		New DMARD		N/A	Cognitive educational, NPS RA Action Plan
14		New DMARD		N/A	Cognitive educational, NPS RA Action plan

CONCLUSIONS

To our knowledge, this is the first study evaluating the utility of MAQ and BMQ in informing pharmacist implemented adherence strategies to improve medication adherence in the Rheumatology setting. Our study, despite the limitation of sample size, has shown that the MAQ and BMQ are useful tools in identifying adherence barriers allowing the pharmacist to discuss and implement an adherence strategy with the patient. More studies are needed to help identify adherence interventions based on BMQ necessity and concerns scores.

References

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