

Introduction

- Medication non-adherence is prevalent across all clinical conditions^{1,2} and causes major medical and economic challenges.^{3,4}
- Several studies have demonstrated that medication adherence enhancing interventions (MAEIs, e.g., pharmacist-led intervention involving telephone assessment of medication use, patient’s educational-behavioral intervention, home telemonitoring, text-message reminders, support groups, etc.) may improve adherence outcomes.^{5,6}
- However, existing evidence on criteria for assessing the value/effectiveness of these different MAEIs is of poor quality.⁷
- Values may include elements to measure health/non-health benefits for the patients or their family/caregiver or also benefits for societal health and the social care system.

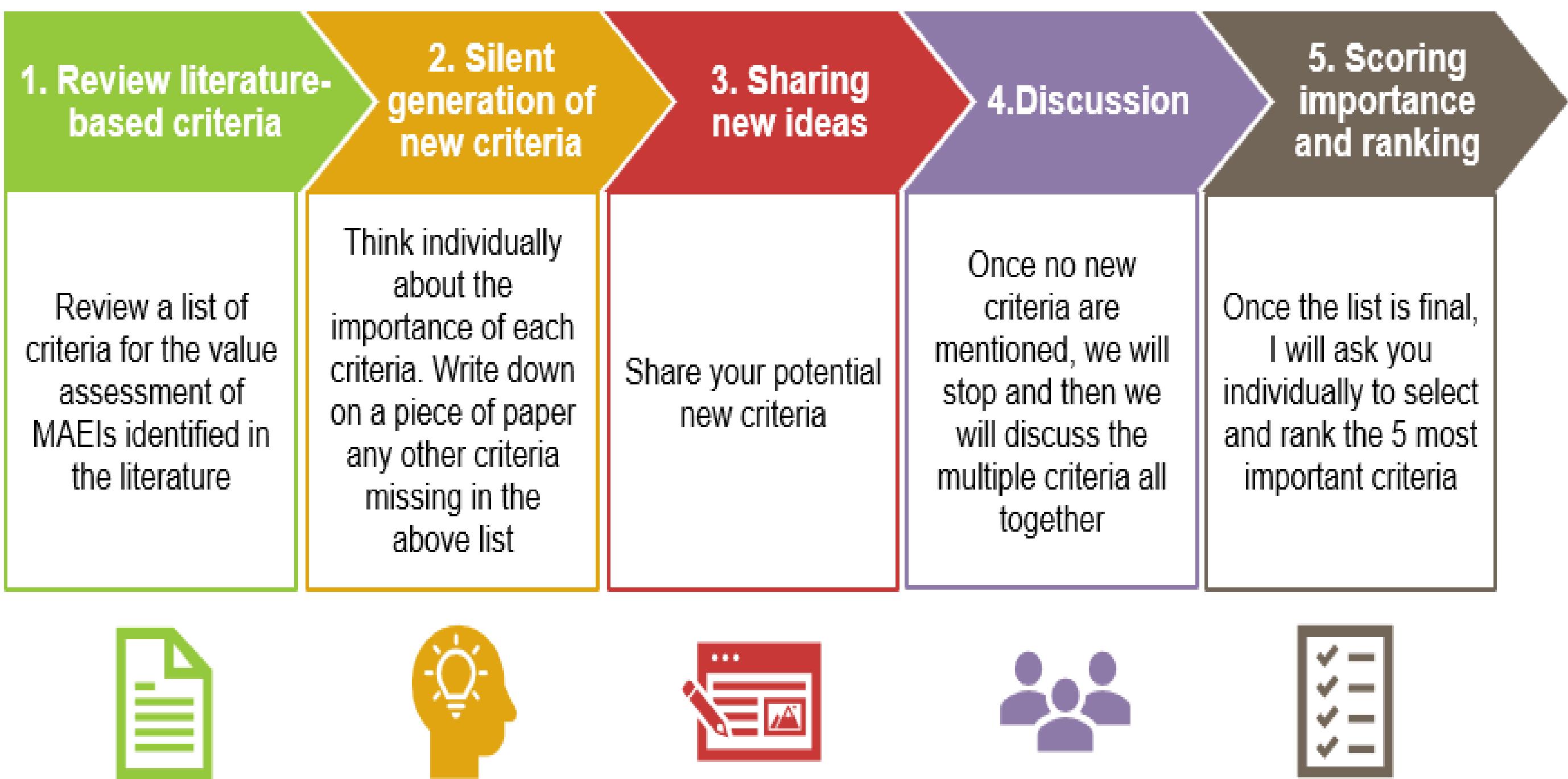
Objective

To identify criteria for the value assessment of MAEIs.

Methods

- To identify and critically evaluate important criteria for the value assessment of MAEIs, focus groups involving academia, pharma, payers, and healthcare practitioners (HCPs) were conducted.
- Participants were presented with a list of criteria identified from a previously conducted systematic literature review (SLR).
- They were asked to critically evaluate criteria presented from the SLR, identify any new criteria, and rank the 10 most important criteria from their perspectives.

Figure 1: Overview of the Focus Group Interview



References:

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Figure 3: Ranking of top criteria by different stakeholders (1=Most Important; 10=Least Important)

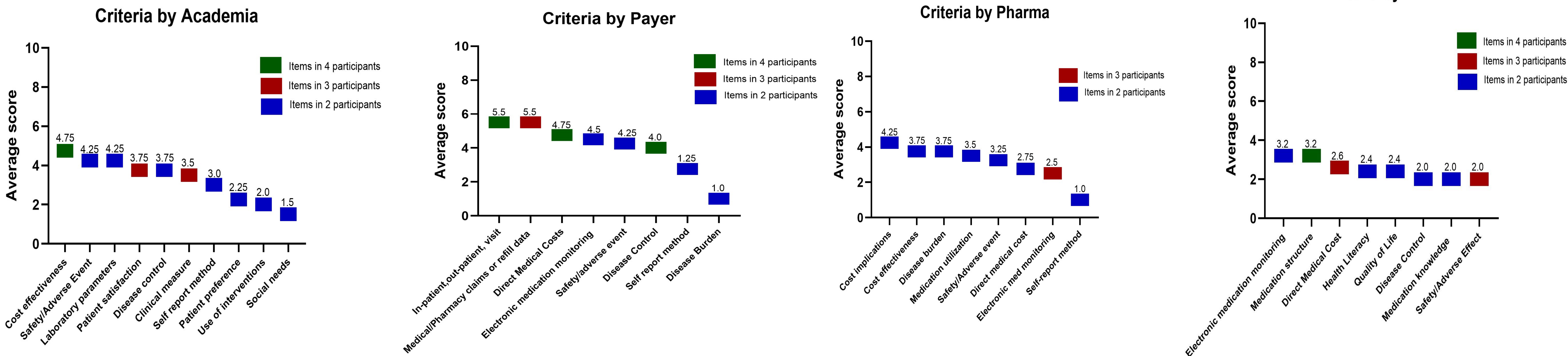


Table 1: New criteria identified from the focus groups

Academia	Pharma	HCP	Payer	Consolidated list of new outcomes*
<ul style="list-style-type: none">Social needs/disparitiesPatient preferencePatient acceptanceTraining Devices	<ul style="list-style-type: none">Convenience to patientsPatient beliefShared decision-makingPatient characteristicsOther purchasesInitial commitment to medicationCost implications	<ul style="list-style-type: none">Medication StructureApplicability of the interventionEvidence -based interventions for medication adherenceHealth care provider trustHealth team integration (provider, pharmacist, support)Indication/reason for use/disease improvement or curePatient acceptance of interventionPatient provider trustPatient time involvementPatient time to interventionRegimen acceptanceResource utilizationStaff and provider timeTools for medication adherence	<ul style="list-style-type: none">Deprescribing; change in therapyFrequency of dosing (in steady of once daily, once weekly)Co-morbid conditionsEscalation of therapy (patients prematurely escalating a drug that is typically used in high-risk patients because of lack of adherence with the initial drug/therapy)	<p>Clinical outcomes</p> <ul style="list-style-type: none">Co-morbid conditions <p>Patient reported outcomes</p> <ul style="list-style-type: none">Patient preferencePatient acceptance of interventionRegimen acceptance <p>Economic outcomes</p> <ul style="list-style-type: none">Patient time involvementPatient time to interventionStaff and provider time <p>Other outcomes</p> <ul style="list-style-type: none">Applicability of the interventionHealthcare provider trustHealth team integration

*A simplified list of 10 new criteria were created after removing any redundant criteria and those already identified from the literature review.

Table 2: Literature-based criteria to evaluate MAEIs

<p>Medication adherence/persistence outcome</p> <ul style="list-style-type: none">Caregiver-report adherenceClinical measureDirect observationElectronic medication monitoringMedical/pharmacy claims or prescription refills dataPill countPhysician-report methodSelf-report method	<p>Clinical outcome</p> <ul style="list-style-type: none">Body weight/abdominal perimeterDisease burdenDisease controlLaboratory parameterLifestyleMortalitySafety/adverse event	<p>Other outcomes</p> <ul style="list-style-type: none">Absence from schoolBarriers of adherenceBehavioral controlBeliefs about medicinesCaregiver burdenMortalityCommunicationConcernsCopingDecisional conflictDisease knowledgeDisease managementEmotional stressEngagement with healthcare providerExpectancyHabit strength for taking medicationHealth literacyImplementationInfection transmission riskInhalation techniqueIntention to adhereLoss to follow-up
<p>Resource use outcome</p> <ul style="list-style-type: none">In-patient, out-patient care, nurse visit and/or emergency room visitMedication utilizationUse of intervention	<p>Economic outcome</p> <ul style="list-style-type: none">Cost-effectiveness/-utilityDirect medical costIndirect medical costProductivity loss	<p>Other outcomes</p> <ul style="list-style-type: none">Medication administration errorsMedication appropriatenessMedication intake-related skillsMedication knowledgeMedication managementMotivationNurse satisfactionPatient's behaviorPerceived supportPerceptionProblems with using medicationsProblem-solving abilityRisk reduction behaviorSelf-careSelf-efficacySelf-esteemSelf-regulationSocial desirabilitySocial functioningSocial supportStigma related to the disease/medicationSubjective norms towards medication adherence
<p>Quality of life</p>	<p>Patient satisfaction</p>	

Results

- Seventeen focus-group participants were recruited for this study; Academia (n = 4), Pharma (n = 4), health-care practitioners (HCPs) (n = 5) and Payers (n = 4).
- Participants reviewed the 67 criteria from the SLR (Table 2) and added 29 new criteria (Table 1).
- The new criteria were further consolidated by removing any redundant criteria and those already identified from the literature review to create a list of 10 new criteria (Table 1).
- Majority of the newly identified criteria were patient-reported and economic outcomes.**
- Of all the criteria, only **Disease Control and Safety/Adverse Reaction** were ranked in the top 10 by 50% or more participants.
- Although 10 respondents ranked Safety/Adverse Reaction in the top 10, this criterion was overall the least important with an average score of 6.8/10 (1=Most Important; 10=Least Important).
- Medical/Pharmacy claims were ranked in the top 10 by six respondents, with the lowest average score of 4/10.

Discussion and Conclusion

- The congruity of rankings varied among the four groups. For example, all academics rated Cost-Effectiveness in the top 10, but only 1-2 from each of the other groups did so (Figure 2).
- This study showed that while multiple potential outcomes can be measured to determine the effectiveness of MAEIs, Safety/Adverse Reaction and Disease Control were at the top of the list by stakeholders.
- The criteria identified by the focus groups will be further solidified using the modified Delphi panel method.