

# A Critical Review of Existing Shared Decision-Making Measuring Approaches in Studies Using the Medical Expenditure Panel Survey

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## Background

- Shared decision-making (SDM) supports patient-centered care by aligning treatment with patient preferences and values.
- A consistent and reliable method for measuring SDM is crucial for accurately assessing its impact on health outcomes across diverse populations.
- The Medical Expenditure Panel Survey (MEPS) has been used to examine the relationship between SDM and patient outcomes.
- The measurement of SDM in MEPS lacks comprehensive evaluation, indicating a need for further refinement.

## Objective

- To assess how SDM is measured in MEPS, identify gaps, and propose improvements.

## Methods

- We conducted a targeted literature review using PubMed, Scopus, and Embase, including peer-reviewed, English-language studies that:
  - Used MEPS data
  - Measured SDM in chronic diseases
- Titles and abstracts were screened for relevance, with full-text review to confirm eligibility.
- Studies were evaluated based on how SDM was conceptualized and operationalized, including theoretical grounding.

## Results

- Of the 41 studies screened, 17 met the inclusion criteria.
- The most common approach to measuring SDM in MEPS was the use of composite measures (Table 1), particularly the Fiks et al. 7-item measure based on the Charles et al. SDM framework (Figure 1).
- Despite being developed for pediatric outcomes, the Fiks et al. measure, which combines SDM and communication items, has been applied in MEPS studies with adult populations.

## Figures and Tables

Figure 1. Charles et al. SDM framework<sup>4</sup>

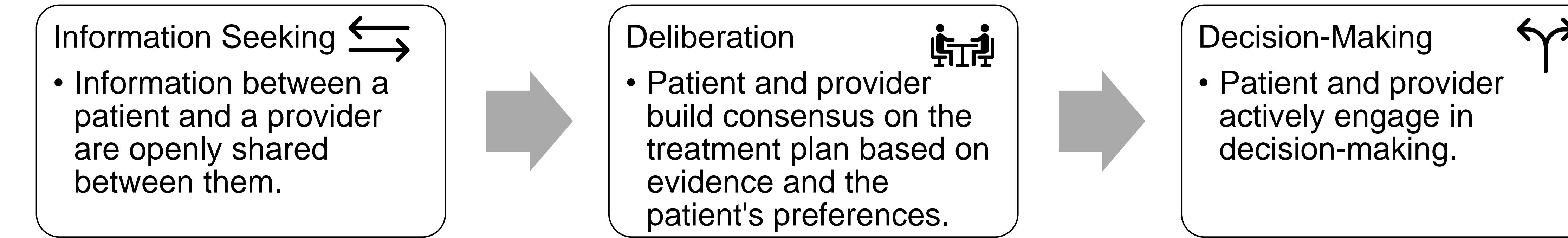


Table 1. Summary of Approaches to Measure Shared Decision Making in the Medical Expenditure Panel Survey (n=17)

Publication	Approach	# of items	Content	Theoretical Framework	Study population
Donneyong et al., 2024 <sup>5</sup>	Composite measure	7	Patient-Provider Communication; SDM	✓	Adults with Major depressive disorder
Kikuchi et al., 2024 <sup>6</sup>	Composite measure	7	Patient-Provider Communication; SDM	✓	Adults with psoriasis
Zaidi & Axon, 2024 <sup>7</sup>	Composite measure	3	SDM	✗	Adults with multimorbidities
Brown et al., 2023 <sup>8</sup>	Composite measure	7	Patient-Provider Communication; SDM	✓	Individuals aged 15 to 85 noninstitutionalized U.S. population
Yakubu et al., 2023 <sup>9</sup>	Composite measure	7	Patient-Provider Communication; SDM	✓	Adults with high blood pressure
Hong et al., 2022 <sup>10</sup>	Latent variable	1	SDM	✗	Adults with type 1 and type 2 diabetes
Chang et al., 2021 <sup>11</sup>	Composite measure	7	Patient-Provider Communication; SDM	✓	Black adults with hypertension
Okunrintemi et al., 2021 <sup>12</sup>	Composite measure	4	SDM	✗	Adults with a ASCVD (coronary heart disease, peripheral arterial disease, or cerebrovascular disease)
Milky & Thomas, 2020 <sup>13</sup>	Composite measure	7	Patient-Provider Communication; SDM	✓	Adults with diabetes mellitus
Batsis et al., 2019 <sup>14</sup>	Latent variables	3	SDM	✗	Older adults
Hong et al., 2019 <sup>15</sup>	Latent variables	2	SDM	✗	Adults who had health insurance coverage for a full year
Okunrintemi et al., 2019 <sup>16</sup>	Composite measure	4	SDM	✗	Adults that reported a usual source of care
Hughes et al., 2018 <sup>17</sup>	Composite measure	4	SDM	✗	Adults with BMI $\geq 18.5$ kg/m <sup>2</sup> that reported a usual source of care
Levine et al., 2017 <sup>18</sup>	Composite measure	7	Patient-Provider Communication; SDM	✓	Adults that reported a usual source of care
Fiks et al., 2012 <sup>1</sup>	Composite measure	7	Patient-Provider Communication; SDM	✓	Children with special health care needs that reported a usual source of care
Fiks et al., 2012 <sup>2</sup>	Composite measure	7	Patient-Provider Communication; SDM	✓	Children (5-17 years) with special health care needs that reported a usual source of care
Fiks et al., 2010 <sup>3</sup>	Composite measure	7	Patient-Provider Communication; SDM	✓	Children with ADHD or asthma

The list of citations for the table, as well as a compilation of commonly used MEPS items to measure SDM, are available via the QR code below

## Recommendations

- Develop a standardized and rigorous approach for measuring SDM in MEPS.
- Prioritize efforts to create contemporary theoretical frameworks and measures that capture SDM across diverse population subgroups within MEPS.

## Limitations

- The review was limited to English-language studies indexed in PubMed, Scopus, and Embase.
- Studies outside of the MEPS were excluded, which may reduce the generalizability of findings to other data sources.
- A limited number of studies applied theoretical frameworks, which constrains the consistency of evaluating the rigor of measuring SDM.
- The review focused on chronic diseases, potentially overlooking SDM studies in other clinical areas.

## Conclusions

- Current approaches to measuring SDM in MEPS lack standardization and rigor, which limits the ability to evaluate SDM-related outcomes across diverse populations.
- Inconsistent measurement of SDM across studies in MEPS highlights the need for standardized, and validated frameworks, as well as comprehensive measures to enhance SDM assessment in future research.

## References

- Fiks AG, Localio AR, Alessandrini EA, Asch DA, Guevara JP. Shared decision-making in pediatrics: a national perspective. *Pediatrics*. 2010;126(2):306-314. doi:10.1542/peds.2010-0526
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Entire list of citations is available using the QR code below.

