ORIGINAL ARTICLE

Assessment of emergency physicians' perspectives on shared decision-making in a tertiary hospital in Jeddah, Saudi Arabia

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ABSTRACT

Objective: The purpose of this study was to determine what emergency physicians think about shared decision making (SDM) in their practice.

Methods: A cross-sectional study was performed in the department of emergency medicine of a tertiary hospital in Jeddah, Saudi Arabia, from December 2025 to February 2026. The validated Shared Decision Making Questionnaire—Physician Version (SDM-Q-Doc) was used to gather data. Descriptive statistics were made, and multiple linear regression analysis was conducted to determine factors associated with SDM scores.

Results: A total of 82 physicians participated, yielding a response rate of 97.6%. The mean overall SDM-Q-Doc score was 45.91 ± 7.26 (85.0% of the maximum score), indicating a high level of physician-perceived SDM practice rather than directly observed clinical practice. Higher scores were observed for items related to information provision, while lower scores were noted for collaborative decision-making components. The SDM-Q-Doc demonstrated excellent internal consistency (Cronbach's α = 0.926). In multivariable analysis, physicians aged 46-60 years had significantly higher SDM scores than younger physicians (β = 6.36, p = 0.003), whereas those with more than 20 years of experience had lower scores (β = -6.73, p = 0.003). Gender and professional level were not significantly associated with SDM scores.

Conclusion: Emergency physicians reported high perceived engagement in SDM; however, SDM appeared stronger in information provision than in shared deliberation and joint treatment selection. Given the self-reported nature of the assessment, these findings might overestimate actual SDM implementation and should therefore be interpreted as physicians' perceptions rather than objective measures of clinical practice.

Keywords: Assessment, emergency physician, perspectives, shared decision-making, tertiary hospital, Jeddah, Saudi Arabia.

Introduction

In shared decision making (SDM), the healthcare staff and the patient together reach a decision that is best for the patient, and in SDM, patients can voice their preferences and concerns [1]. The SDM in a health care setting is a crucial component of patient-centered health care policy decisions [2] and particularly in the emergency setting [3]. SDM is known to have a significant impact on reducing resource utilization and enhancing patients' knowledge, their risk understanding, trust in physicians, and care experiences [4,5]. SDM was shown to increase treatment adherence [6], health outcomes [6,7], and overall quality of health care [8].

Despite its benefits, there is limited guidance on the strategy to adopt such an approach daily [1]. SDM can be implemented in three steps, including the provision of choices to patients, then discussing options such as chances, benefits, and harms, and the final step in making the decision [1]. The practice of SDM was encouraged as it respects the patients' values, autonomy, and

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commitment to the agreed health plan and care continuity [9]. However, several healthcare providers still minimally engage their patients in decisions related to their health [10]. The attitude perspectives of healthcare providers toward SDM are crucial, as positive attitudes and good perspectives would lead to proper and equitable delivery of patient-centered care [10].

A study from the USA enrolled 20 clinicians and revealed that the participants supported the implementation of SDM. Nonetheless, they were concerned about the cultural barriers to implementing it globally [11]. Another USA study enrolled family residents and revealed that the residents were more willing to be engaged in SDM when the stakes of the situation were low [12].

A study that enrolled 168 medical residents demonstrated that residents had an overall agreement of 88% regarding SDM with their patients, with no variation between males and females regarding agreement degree [13]. A previous Saudi study conducted in a tertiary hospital in Riyadh assessed the perspective of 125 physicians from several specialties regarding SDM; it was found that most physicians had a positive perspective and attitude toward SDM with their patients [14]. In Dubai, 80% of 50 physicians stated that they had quite a high perspective toward SDM. Additionally, four determinants were discovered, and such determinants were related to physicians, patients, contextual/environmental, and relational determinants [15].

SDM can be implemented in several settings, including the emergency department (ED) [16]. However, most of the studies focused on patients, and research on SDM in EDs remains limited, especially in Saudi Arabia. Investigations of SDM in general wards cannot always be adopted and applied in the emergency setting; therefore, focusing on SDM in ED is necessary [3].

The complexity of emergency care is increasing due to the increasing frequency of treatments, tests, and clinical pathways. Therefore, physicians and patients are facing an increasing number of decision points [17]. The implementation of SDM in the emergency setting is an important element [3]. The assessment of ED physicians' perception regarding SDM with their patients is important as several ED patients want to be part of decision-making when reasonable and multiple options are available [16].

Additionally, residents might encounter challenging situations where patients prefer different options in contrast to the clinical guidance across various low and high-stakes conditions when using SDM [18]. Emergency physicians reported adopting SDM in almost half of the encounters where they believed it was appropriate. However, they emphasized the presence of several barriers to be widely spread [19]. There was no previous Saudi study that identified the perspective of emergency physicians regarding SDM.

The study aimed to assess emergency physicians' perspectives regarding SDM in clinical practice.

Subjects and Methods

This cross-sectional study was conducted in the ED at King Abdulaziz Medical City (KAMC), Jeddah, Saudi Arabia, a tertiary care teaching hospital affiliated with National Guard Health Affairs. Data were collected between December 2025 and February 2026.

The study population included emergency physicians working in the ED at KAMC during the study period. Eligible participants comprised consultants, associate consultants, assistant consultants, staff physicians, and residents at training levels R2 through R4. Both male and female physicians were included. Physicians were excluded if they were residents from other specialty training programs, physicians working outside the ED, residents at level R1, or individuals who declined participation.

A census sampling approach was used due to the limited number of emergency physicians in the department. All eligible physicians were invited to participate based on the official departmental roster obtained from the ED administration. A total of 84 physicians met the inclusion criteria. Of these, 82 physicians completed the questionnaire, yielding a response rate of 97.6%. Two physicians declined participation. No questionnaires contained missing data; therefore, all 82 responses were included in the final analysis.

The physician version of the shared decision-making questionnaire (SDM-Q-Doc), a nine-item instrument validated to measure perceptions of physicians in clinical encounters, was used to gather data. There were two sections of the questionnaire. The first part was used to gather demographic and professional data such as age, gender, professional level, and years in clinical practice. The second section consisted of nine items that evaluated the SDM behaviors in clinical practice.

In each SDM-Q-Doc, items were rated on a six-point Likert scale from 1 (completely disagree) to 6 (completely agree). The total score ranged from 9 to 54; the higher the score, the more likely the perceived involvement in SDM. Use of the SDM-Q-Doc instrument was granted by the original instrument developers.

A questionnaire was created and distributed online via Google Forms. Everyone was asked to participate, and informed consent was obtained before completing the survey. Responses were collected anonymously, and no personally identifiable information was collected. During the data collection period, reminders were mailed to eligible physicians to increase the response rate. The completed questionnaires were kept safely, and only the researchers were allowed access to them.

The overall SDM-Q-Doc total score was the main outcome of the study. Secondary analyses involved correlations between SDM-Q-Doc scores and physician age group, gender, professional level, and years of clinical experience.

Analysis of the data was done in JMP Pro 18 (SAS Institute Inc., Cary, NC). Data for continuous variables were summarized using means and standard deviations, and for categorical variables using frequencies and percentages. For each SDM-Q-Doc item and for the overall scale score, mean scores were computed. The internal consistency reliability of SDM-Q-Doc was examined using Cronbach's alpha.

Multiple linear regression was conducted to find independent variables associated with the total score of the SDM-Q-Doc. The model included the variables of age group, gender, professional level, and years of clinical experience as independent variables. Dummy coding was used with specific reference categories for the entry of categorical predictors. Regression coefficients (β), SE, 95% CI, and p-values were reported.

The assumptions of the linear regression were examined before model estimation and included the linearity of the predictors with the outcome variable, homoscedasticity of the residuals, normality of the residuals, and lack of multicollinearity between the independent variables. To check for multicollinearity, variance inflation factors were calculated, and values were within limits. To test for interaction effects, an interaction term between age and years in practice was also tested, but was not significant and thus not included in the final regression model.

Results

A total of 84 emergency physicians met the study inclusion criteria according to the official departmental roster. Of these, 82 completed the questionnaire, yielding a response rate of 97.6%. Two physicians declined participation, and no questionnaires contained missing data; therefore, all 82 responses were included in the final analysis.

Most participants were male, nearly half were aged 25-30 years, and more than half reported 1-5 years of clinical experience. The sample included physicians across different professional levels (Table 1).

The mean overall SDM-Q-Doc score was 45.91 ± 7.26, corresponding to 85.0% of the maximum possible score, indicating a high level of self-reported SDM engagement among participating physicians. The highest item scores were observed for helping patients understand information and clarifying that a decision needed to be made. In contrast, the lowest scores were observed for jointly selecting a treatment option and thoroughly weighing treatment options together, suggesting that collaborative components of SDM were reported less consistently than informational components (Table 2).

The final regression model accounted for 25% of the variance in the SDM-Q-Doc scores (R^2 = 0.25 and adjusted R^2 = 0.21). A significant association was seen between SDM-Q-Doc scores and age, with physicians within the age range of 46-60 years reporting higher scores compared to those aged 25-35 years. SDM-Q-Doc scores were also correlated with years of clinical experience, with physicians having more than 20 years of experience having lower scores than those with 1-5 years of experience. The gender and professional level were not significantly correlated with SDM-Q-Doc scores in the adjusted model. An interaction term between age and years of clinical experience was tested to evaluate for possible interaction, but was not statistically significant, and therefore not included in the final regression model (Table 3).

In this group, the internal consistency of the SDM-Q-Doc scale was very high (Cronbach's alpha coefficient = 0.926), reflecting the high level of reliability of the items on the questionnaire. The internal consistency of the scale was also confirmed through item-deletion analysis, as no single item's deletion significantly affected the overall internal consistency of the scale, ranging from "alpha if item deleted" of 0.912 to 0.928 (Table 4).

Table 1. *Participant characteristics of emergency physicians (n = 82).*

Variable	Frequency (*n*)	Percentage (%)
Age in years		
25-30	38	46.3
31-35	14	17.1
36-40	5	6.1
41-45	16	19.5
46-50	5	6.1
51-55	1	1.2
56-60	3	3.6
Gender		
Female	30	36.6
Male	52	63.4
Level		
Consultant	15	18.3
Associate consultant	6	7.3
Assistant consultant	11	13.4
Staff physician	15	18.3
Resident R2	14	17.1
Resident R3	10	12.2
Resident R4	11	13.4
Experience in years		
1-5	45	54.9
6-10	14	17.1
11-15	5	6.1
16-20	12	14.6
>20	6	7.3

Discussion

In this study, the emergency physicians' attitude toward the concept of SDM in a tertiary care center in Saudi Arabia was evaluated by completing the SDM-Q-Doc. The overall results showed that the level of SDM involvement was high, with the mean score corresponding to 85.0% of the maximum possible scale value reported by the participating physicians. Regardless of this overall high SDM practice perception, some differences were found between domains of the questionnaire, between physicians' characteristics.

Notably, physicians reported stronger performance on items related to information provision and clarifying that a clinical decision needed to be made, whereas comparatively lower scores were observed for items reflecting collaborative deliberation and joint selection of treatment options. These findings suggested that while physicians frequently report providing information and outlining available options, the later stages of SDM, particularly shared evaluation of alternatives and joint

Table 2. *Descriptive statistics of SDM-Q-Doc items.*

Item	Mean	Percentage (%)	Rank
I made it clear to my patient that a decision needs to be made	5.42	90.33	2
I wanted to know exactly from my patient how he/she wants to be involved in making the decision	4.99	83.17	7
I told my patient that there are different options for treating his/her medical condition	5.14	85.67	4
I precisely explained the advantages and disadvantages of the treatment options to my patient	5.21	86.83	3
I helped my patient understand all the information	5.46	91.00	1
I asked my patient which treatment option he/she prefers	5.06	84.33	6
My patient and I thoroughly weighed the different treatment options	4.79	79.83	8
My patient and I selected a treatment option together	4.69	78.17	9
My patient and I reached an agreement on how to proceed	5.14	85.67	4
Overall	45.91	85.02	SD 7.26

Table 3. *Multiple linear regression analysis of SDM-Q-Doc scores.*

Variable	*β*	SE	*p*-value
Age in years			
25-35 (Ref)	-	-	-
36-45	4.12	2.81	0.452
46-60	6.36	2.06	0.003
Gender			
Female (Ref)	-	-	-
Male	0.19	0.88	0.825
Level			
Consultant (Ref)	-	-	-
Associate consultant	1.84	2.98	0.538
Assistant consultant	-1.71	3.37	0.613
Staff physician	0.13	2.15	0.953
Resident R2	4.90	2.93	0.098
Resident R3	-3.67	2.27	0.111
Resident R4	-0.50	2.47	0.839
Experience in years			
1-5 (Ref)	-	-	-
6-10	-0.34	2.51	0.890
11-15	-0.08	2.65	0.975
16-20	-1.30	3.03	0.669
>20	-6.73	2.16	0.003

R^2 0.25, adjusted R^2 0.21.

decision-making, might be implemented less consistently in routine ED practice.

The high overall score observed in this study suggested that participating physicians perceived SDM to be routinely practiced in their clinical encounters. This finding is broadly consistent with previous studies using the SDM-Q-Doc and related measures, which have reported moderate-to-high levels of physician-rated SDM across different clinical settings [20,21].

However, comparisons across studies should be interpreted cautiously because reported SDM levels might vary according to clinical setting, specialty, healthcare system characteristics, cultural norms, and whether SDM is assessed from the physician, patient, or observer perspective.

In the present study, the SDM-Q-Doc captured physicians' self-reported perceptions rather than directly observed behavior. Therefore, the high scores might be influenced by social desirability and perception bias, with physicians potentially rating their communication practices more favorably than patients or external observers. Previous research has demonstrated discrepancies between physician and patient assessments, with physicians often reporting higher levels of SDM than patients experience in practice [22]. Accordingly, the present findings should be interpreted as evidence of perceived SDM engagement rather than definitive evidence of full SDM implementation.

The relatively high score observed in this study might reflect increasing emphasis on patient-centered care, communication skills training, and respect for patient autonomy within tertiary healthcare settings. However,

Table 4. *Reliability analysis of SDM-Q-Doc (Cronbach's alpha).*

Item	α if item deleted
I made it clear to my patient that a decision needs to be made	0.928
I wanted to know exactly from my patient how he/she wants to be involved in making the decision	0.924
I told my patient that there are different options for treating his/her medical condition	0.915
I precisely explained the advantages and disadvantages of the treatment options to my patient	0.915
I helped my patient understand all the information	0.918
I asked my patient which treatment option he/she prefers	0.914
My patient and I thoroughly weighed the different treatment options	0.917
My patient and I selected a treatment option together	0.913
My patient and I reached an agreement on how to proceed	0.912
Overall Cronbach Alpha α	0.926

this explanation should be interpreted carefully because the current study did not directly assess institutional policies, training exposure, or objective measures of clinician–patient interaction.

A key finding was the difference between informational and collaborative components of SDM. Physicians reported the highest scores for helping patients understand information and clarifying that a decision was needed, whereas lower scores were observed for weighing options together and jointly selecting treatment. This suggested that SDM in the ED might be more consistently implemented as explanation and option presentation than as shared deliberation.

This distinction is clinically important because SDM requires more than information transfer; it also involves eliciting preferences, discussing trade-offs, and reaching a mutually acceptable decision [20,23]. In emergency care, time pressure, high patient turnover, diagnostic uncertainty, and variable acuity might make collaborative deliberation difficult, consistent with prior evidence identifying workflow and contextual barriers to SDM implementation in emergency settings [24]. These findings, therefore, suggested that physicians might support SDM in principle but face practical barriers when attempting to implement its more collaborative components.

Physicians aged 46-60 years had significantly higher SDM-Q-Doc scores than those aged 25-35 years, whereas physicians with more than 20 years of experience had significantly lower scores than those with 1-5 years of experience. These findings should be interpreted cautiously, particularly because age and years of clinical experience were found to be conceptually related and might overlap in their association with SDM-Q-Doc scores, although multicollinearity diagnostics did not indicate substantial collinearity. In addition, the relevant subgroups were relatively small, which might affect the stability of these estimates.

Several non-mutually exclusive explanations might account for these findings. Older physicians might draw on greater clinical confidence and maturity of communication, which could support clearer framing of options and decision points. At the same time, very long clinical experience might be associated with more established practice habits, greater reliance on efficiency-oriented decision-making, or heavier administrative and supervisory responsibilities, all of which could reduce opportunities for extended shared deliberation in a busy emergency setting. Similar discussion points have appeared in physician-reported SDM studies in other settings, though findings are not always consistent across populations [13,15]

Another possible explanation was that more senior physicians might assess their own communication practices more critically, whereas younger physicians might respond more favorably to self-report items. Because the study used a cross-sectional self-reported design, these interpretations remain exploratory and should not be taken as evidence of causal effects.

In addition, the regression model explained 25% of the variance in SDM-Q-Doc scores, indicating moderate explanatory ability. However, a substantial proportion of variance remained unexplained, suggesting that factors not measured in this study might also influence physicians' perceived engagement in SDM. These factors might include ED workload, patient acuity, time pressure, prior communication or SDM training, availability of decision-support tools, institutional culture, departmental workflow, and patient-related factors such as health literacy, preferences for involvement, and cultural expectations regarding physician authority. Future studies should consider including these variables to provide a more comprehensive understanding of SDM practice in emergency care.

No significant associations were observed between SDM-Q-Doc scores and gender or professional level. This might suggest that perceived SDM engagement is distributed relatively broadly across physician groups within the department. It might also indicate that contextual and organizational influences are more important than individual demographic characteristics in shaping SDM practice. Prior studies have similarly found that the implementation of SDM is often shaped by system-level and workflow factors rather than by a single physician attribute alone [15,23]

The findings have practical relevance for emergency care. Although physicians reported high overall engagement in SDM, the lower scores on items related to joint deliberation and shared treatment selection suggested a specific area for improvement. Importantly,

this distinction represented a key clinical takeaway. SDM in the ED might be more consistently practiced as information provision than as shared deliberation. Interventions should therefore focus not only on information delivery, but also on helping clinicians translate discussion into explicit preference-sensitive decisions.

Potential strategies included brief decision aids, structured communication prompts, and targeted training tailored to ED workflows. These approaches might help clinicians integrate patient preferences more efficiently in acute settings where time was found to be limited. Recent reviews of SDM in emergency care supported the value of context-specific tools and implementation strategies rather than assuming that models developed for outpatient care can be transferred unchanged to the ED [24].

This study contributed to the limited body of literature examining SDM among emergency physicians in Saudi Arabia and provided context-specific data from a tertiary care setting. Key strengths included the very high response rate, complete data capture without missing responses, and the use of the SDM-Q-Doc, a validated instrument that demonstrated excellent internal consistency in the present sample.

Several limitations should be considered. First, the single-center design limited the external validity and generalizability of the findings. Although the study used a census sampling approach and achieved a high response rate within the institution, the results might not be generalizable to emergency physicians working in other hospitals, regions, healthcare sectors, or practice environments in Saudi Arabia or elsewhere. In addition, SDM practices might be influenced by local institutional culture, departmental workflow, patient population characteristics, and broader cultural expectations regarding physician–patient decision-making, which were not directly assessed in this study.

Second, the overall sample size was modest, and some subgroup analyses, particularly in higher age and experience categories, were based on relatively small numbers, which might affect the precision and stability of the estimates. Third, SDM was assessed using physician self-report rather than patient-reported or observational measures, introducing the potential for social desirability and perception bias, which might lead to overestimation of actual SDM practices. Fourth, the cross-sectional design precluded causal inference and limited interpretation to associations rather than directional relationships. Finally, other unmeasured contextual factors might have influenced the observed patterns of SDM.

Future research should include multicenter studies across diverse emergency care settings to improve generalizability. Studies combining physician-reported, patient-reported, and observer-based assessments would provide a more complete evaluation of SDM and help clarify discrepancies between perceived and actual practice. Future work should also evaluate brief decision aids, structured communication tools, and workflow-integrated training programs aimed at strengthening shared deliberation and joint treatment selection in emergency care.

Conclusion

The level of perceived engagement in SDM is high among emergency physicians at a tertiary care center in Saudi Arabia. It was pointed out, however, that item-level analysis revealed that SDM was more consistently implemented in its informational aspects rather than in its aspects of collaborative decision making, specifically, shared deliberation and joint treatment selection. Physician age and years of clinical practice experience were associated with SDM-Q-Doc scores, but the correlation between these scores and the number of years in practice or the age of the physician should be interpreted with caution, because of the cross sectional design of this study and the possibility of overlap in the measures. Overall, the results indicated that SDM is conceptually supported in the context of emergency care, but its application is still limited in the collaborative decision-making phase. Context-specific, targeted approaches are thus required to facilitate effective incorporation of patient preferences into clinical decisions, so that SDM can be more fully realized in the context of the clinical practice of the ED.

List of Abbreviations

ED	Emergency Department
KAMC	King Abdulaziz Medical City
KAIMRC	King Abdullah International Medical Research Center
SDM	Shared Decision Making
SDM-Q-Doc	Shared Decision Making Questionnaire–Physician Version

Conflict of interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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Consent to participate

Informed consent was obtained from all the participants.

Consent for publication

All authors consent to the publication of this manuscript.

Ethical approval

The study was approved by the Institutional Review Board of King Abdullah International Medical Research Center (KAIMRC), Jeddah, Saudi Arabia, protocol number NRJ24/027/12, on April 13, 2025.

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