Shared decision making in peri-operative medicine: Miles to go in Indian scenario

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Abstract

Shared Decision Making (SDM) in peri-operative medicine is increasingly encouraged as an ideal model of treatment decision making in the medical encounter. Moreover, it has the potential to improve the quality of the decision-making process for patients and ultimately, patient outcomes. This review focuses on several published literature on SDM in peri-operative medicine, its Implementation, barriers faced by Patient and the Provider, Myths regarding SDM and current scenario of SDM in India. Within the anesthetic community, patient consent is rigorously guided. However, this community suffers from lack of advancements in implementing the patient-focused rather than doctor-focused characteristics of SDM. Out of the several barriers, the most common barrier towards the implementation of SDM is the lack of time from the provider community. Within the anesthesiology domain, the consultations discussed directly preceding the surgery do not pursue the customary and highly organized stages of typical outpatient consultations. Under these backgrounds and to be successfully implemented, it becomes imperative to begin the process of SDM pre-operative assessment clinic targeting both the high- and low-risk patients. It is critical to summarise that SDM does not end at the time of anesthesia for the peri-operative healthcare professional, but it gets to carry forward until patient discharge. Therefore, it is carried as the Pinnacle of Patient-Centred Care.

Keywords: Healthcare, India, peri-operative medicine, shared decision making

Introduction

In current years, there have been remarkable advancements within the healthcare industry. The advent of digital platforms and social media in the healthcare industry has triggered the access towards a range of clinical information. The patients are increasingly becoming aware and knowledgeable, and therefore, willing to play as an active participant towards the betterment of their health. This scenario has led to the evolution of P4 medicine-health care that is personalized, preventive, predictive, and participatory. This promising concept targets to improve the patient outcomes and clinical interactions in which both the patient and clinician have access to the patient’s data, which is evidence-based and accurate. These may help reduce the ever-increasing costs of healthcare. This concept can be easily illustrated by taking cognizance of the patients’ characteristics, which allows for targeted therapies involving less invasive and economical treatment decisions.

Implementing P4 medicine will necessitate the confrontation of societal and technological contests. Studies have found that the patients assess their treatment preferences differently from their clinicians. For example, the patients suffering from breast cancer tend to take into account multiple factors in their decision making, like adverse effects, fertility, and...
its impact on their daily life. On the contrary, clinicians focussed more on the survival parameters.[8,9]

The shared decision-making (SDM) theory has turned out as an effective means to amalgamate the desires of both the clinician and the patient. SDM process the patients and the health professional’s work together to make healthcare choices.[10] SDM is an elementary requirement towards informed consent and patient-centred care. SDM helps to combine the doctors’ expertise and the patient’s preferences and values to establish the best care for the patient. A central objective of SDM is to help patients play an active role in the decisions for their health. SDM takes the help of the best available evidence of the risks and benefits of all the available options. SDM involves the following components:

- Establishes the context wherein the patients’ viewpoint related to treatment options are considered significant,
- Helps to transfer the technical information from the clinician to the patient,
- Helps to ensure that the patients understand and comprehend this technical information,
- Assists the patient’s population, their desire on the best possible evidence available and
- Supports to figure out the patients’ preferences and reveal the treatment recommendations.

Therefore, SDM attempts to fulfil is the ultimate goal of patient-centred care.[12,13]

The role of patients’ participation in decision-making has increased from the informed consent to patient autonomy and control in their treatment paradigm. The central characteristics of SDM include the following:

- The patient and physician and should be engaged as active participants
- The patient and physician should disclose the relevant and accurate information with each other
- The patient and physician must reach the mutual consensus on the decided treatment, and
- The patient and physician should consent to implement the treatment.[14,15]

Along with the patient, their family members can also play different roles within these associations. Family members can assist in offering advice, congregating, and interpreting the medical information and providing financial and emotional support to their suffering family members. Hence, it can be seen that SDM is not the mutually-exclusive concept and goes far beyond the conventional binary yes and no choices provide to the patients.[16]

SDM involves the traditional paternalistic model. In this unidirectional model, the medical information flowed one way from the clinician to the patient, and the final decision over the treatment option was made by the clinician. SDM has been related to lower anxiety about treatment choices and less decisional regret, and, better health outcomes, including increased patient satisfaction. There are some minor challenges towards implementation of SDM, and they are primarily faced by clinicians. They are summarily described in detail in this review article.

The concept of SDM has been successfully implemented in several countries. The government of Netherland has stressed the inclusion of outcomes of patient experience within its healthcare programs.[19] In the United Kingdom, policymakers within the health sections authorities have engaged key opinion leaders from clinical setup and the patient representatives in the national initiatives to work around SDM.[21] The Government of Germany ensures to incorporate the patient information and SDM in the social health insurance programs.[22] In the United States, policy-driven initiatives such as the Affordable Care Act and the patient-centred medical home provisions have highlighted the importance of implementing the shared decision in its healthcare program [Figure 1].[23]

The objective of the current review paper is to help understand the present Indian scenario of Shared Decision Making in Peri-Operative Medicine. We begin by reviewing the history of SDM and Implementation of SDM. We then describe the Myths about SDM, and we end with the concept of SDM within the Indian scenario.

History of SDM

The terminology ‘shared decision making’ employed in the healthcare domain might appear in the medical literature published only a quarter of a century ago, but its fundamental concept of shared participation between the clinician and his patient was first described by Szasz (1956).[24] This shared participation concept was based on reciprocating respect and equality among the participants. Since its inception, this concept was anticipated for successfully managing chronic medical conditions. It was later recognized that the patient-driven factors like his lifestyle changes, psychological attributes, behavioural aspects, and strength of social interactions in combination with the best possible medical assistance could significantly ameliorate patient’s health management portfolio. This stood on rationalizing the clinical and ethical thought that shared decision and has begun to develop into separate identity. The Presidential Commission Report (1982) concluded that “shared decision-making is the appropriate ideal for patient-professional relationships.”[25] In its primitive form, this patient-clinician relationship exhibited in the form of patient education programs and informed consent activities. This form continued for a long time until in 1997 when the breakthrough
study was undertaken by Charles et al. provided an action plan to implement the principles of SDM into the clinical practice.\textsuperscript{[26]}

This study stressed the importance of active participation from both the clinician and his patient to mutually share all the relevant knowledge and information. This is the most commonly cited context for SDM interventions. Since then, this key concept of SDM has come a long way to promote the patient-clinical association. It is now regarded as the foundation of both the practices and culture of health systems and individual patient-clinician associations. The principles of SDM also find a place in the frameworks of national health policy. Similarly, in 2011, the Salzburg Statement on Shared Decision-making, the product of international collaboration in formulating SDM's core goals, recommended both the patients and clinicians to “work together to be co-producers of health” through the appropriate provision of two-way communication[Figure 2].\textsuperscript{[27]}

Quite recently, several kinds of literature involving the concept of SDM have been published. In 2000, around 95 publications were indexed with these keywords; whereas in 2006, more than 200 publications and in the year 2013 close to 600 manuscripts have been published in peer-reviewed international scientific journals [Table 1]. Therefore, it does not come across as shocking news that SDM has been making rapid development in the healthcare domain. Following is the collection of notable contributions towards the advancement of SDM in healthcare policy.

All these publications focus on the achievement of processes that more robustly involve patients in peri-operative decisions. This remains an important goal for all health surveys. Several surveys of inpatient experiences performed in the UK by the Care Quality Commission reveal the significance of engaging
### Table 1: List of publications involved in shared decision making

| Study, Publication year, Country | Title of study                                                                 |
|----------------------------------|--------------------------------------------------------------------------------|
| Katz D, 1984, UK[28]             | The Silent World of Doctor and Patient                                          |
| Emanuel & Emanuel, 1992, US[29]  | Four models of the Physician-Patient relationship                              |
| Gerteis, 1993, UK[30]            | Through the Patient eyes                                                       |
| O’Connor et al. (1997), Canada[31]| Physicians’ opinions about decision aids for patients considering systemic     |
| adjuvant therapy for axillary-node negative breast cancer | |
| Charles et al. (1997), Canada[32] | Shared decision making in the medical encounter: What does it mean? (or it takes at least two to tango) |
| Elwyn et al. (1999), UK[33]      | Towards a feasible model for shared decision-making: focus group study with general practice registrars |
| Hammond et al. (1999), USA[34]   | Nurse, physician, and consumer role responsibility perceived by health care providers |
| Howell (1999), USA[35]           | Physicians’ opinions about patient involvement in health and medical care decisions and telephone-based decision support |
| Elwyn et al. (2000), UK[36]      | Shared decision-making and the concept of equipoise: the competences of involving patients in healthcare choices. |
| Holmes-Rovner et al. (2000), USA[37] | Implementing shared decision-making in routine practice: barriers and Opportunities |
| McKeown et al. (2002), USA[38]   | Shared decision making: Views of first-year residents and clinic patients       |
| Keefe et al. (2002), USA[39]     | Medical students, clinical preventive services, and shared decision-making.     |
| Stapleton et al. (2002), UK[40]  | Qualitative study of evidence based leaflets in maternity care.                |
| Graham et al. (2003), Canada[41] | A qualitative study of physicians’ perceptions of three decision aids.         |
| Ford et al. (2003), UK[42]       | What are the ingredients for a successful evidence-based patient choice consultation?: a qualitative study |
| Lewis et al. (2003), UK[43]      | Factors involved in deciding to start preventive treatment: qualitative study of clinicians’ and lay people’s attitudes. |
| Davis et al. (2003), UK[44]      | Exploring doctor and patient views about risk communication and shared decision making in the consultation. |
| Charles et al. (2004), Canada[45]| Self-reported use of shared decision-making among breast cancer specialists and perceived barriers and facilitators to implementing this approach. |
| Jones et al. (2004), UK[46]      | Is patient involvement possible when decisions involve scarce resources? A qualitative study of decision-making in primary care. |
| Wetzels et al. (2004), Netherlands[47] | GPs’ views on involvement of older patients: an European qualitative study. |
| Bajramovic 2004, Australia[48]  | Perceptions around concordance-focus groups and semi-structured interviews conducted with consumers, pharmacists and general practitioners. |
| McGuire et al. (2005), USA[49]   | Missed expectations? Physicians’ views of patients’ participation in medical decision-making. |
| Stacey et al. (2005), Canada[50] | Barriers and facilitators influencing call center nurses’ decision support for callers facing values-sensitive decisions: a mixed methods study. |
| Kim et al. (2005), Mexico[51]    | Promoting informed choice: evaluating a decision-making tool for family planning clients and providers in Mexico. |
| Naik et al. (2005), UK[52]       | Will older persons and their clinicians use a shared decision-making instrument? |
| Thomson et al. (2006), UK[53]    | A computerised guidance tree (decision aid) for hypertension, based on decision analysis: development and preliminary evaluation. |
| Seale et al. (2006), UK[54]      | Sharing decisions in consultations involving anti-psychotic medication: a qualitative study of psychiatrists’ experiences. |
| Suurmond et al. (2006), The Netherlands[55] | Shared decision-making in an intercultural context: barriers in the interaction between physicians and immigrant patients. |
| Ruldan 2006, Norway[56]         | Clinicians’ perceived usefulness of a support system for patientcentered cancer care. |
| Towl et al. (2006), Canada[57]   | Putting informed and shared decision-making into practice.                     |
| Le ‘gare’ et al. (2006), Canada[58] | Primary health care professionals’ views on barriers and facilitators to the implementation of the Ottawa Decision Support Framework in practice. |
| Hamann et al. (2006), Germany[59] | Shared decision-making for in-patients with schizophrenia.                    |
| Lester et al. (2006), UK[60]     | Patient involvement in primary care mental health: a focus group study.        |
| Sullivan et al. (2006), USA[61]  | Brief report: training interns in shared decision-making about chronic opioid treatment for noncancer pain. |
| Siminoff et al. (2006), USA[62]  | A decision aid to assist in adjuvant therapy choices for breast cancer.        |
| Saba et al. (2006), USA[63]      | Shared decision-making and the experience of partnership in primary care.      |
| Stacey et al. (2016), UK[64]     | Implementation of a patient decision aid for men with localized prostate cancer: evaluation of patient outcomes and practice variation. |
| Huang et al. (2015), China[65]   | Shared decision-making in the People’s Republic of China: current status and future directions. |
| Gravel K. (2006), France[66]     | Barriers and facilitators to implementing shared decision-making in clinical practice: a systematic review of health professionals’ perceptions. |
| Elwyn et al. (2012), UK[67]      | Patient preferences for shared decisions: A systematic review.                 |
| Chewning et al. (2012), UK[68]   | Shared Decision Making: A Model for Clinical Practice                          |
| Joseph-Williams N et al. (2018), UK[69] | Implementing shared decision making in the NHS: lessons from the MAGIC programme |
patients in decisions about their health and care. In addition to the substantial engagement, there is a need for patients to have their opinions responded and to be offered several choices related to their treatment [Figure 3].

This concept is drafted in the NHS Constitution as part of a patient’s rights, and in the GMC’s ‘Good Medical Practice’ guidance for practitioners practising in the United Kingdom.

Anesthesiology is a highly task-focused specialty, and since the past century, the field of anesthesiology has developed into a major specialty. The rate of its advancement has outdone most other branches of medicine. The knowledge about drug delivery, physiology, and monitoring has tremendously increased. Anesthesiology has made it possible to undertake even the most complex surgical and diagnostic procedures that were considered not possible earlier. The anesthesiologist imparts continuous medical care before, during, and after an operation to consent the surgeons in undertaking surgeries [Figure 4].

The anesthesiologist is presented with a patient who is suffering from many co-morbidities and getting planned for undergoing a procedure. The anesthesiologist has to assess the risk of morbidity and mortality and physiological state for the high-risk patient. To reach the best possible outcomes for such high-risk patients, anesthesiologist should be provided with glycated hemoglobin, electrolytes and hemoglobin results at time of referral. The role of the anesthesiologist in the entire peri-operative pathway is very important and emphasize the fact that decision-making is not a distinct event but a temporally unfolding process. This knowledge-sharing process commences well before the anesthesiologist gets involved and is not discontinued even when the patient leaves the recovery room. The anesthesiologists play a significant role in warranting that outstanding recovery is a reality [Figure 5].

**Implementation of SDM**

Quite recently, the medical decision-making community has diverted its focus from exploring the principles of SDM to implement into the regular clinical practice. Several instruments play a role in implementation of SDM. The decision aids are one of the most common types of instrument, which has played a significant role in executing the principles of SDM. Researcher Cathy Charles has implemented the SDM model, and their contribution treated the decision aids and SDM as the same. Studies have confirmed positive outcomes associated with the use of decision aids. However, the flip side of involving decision aids in SDM is that its focus is to deliver more information to the patients. This is not completely synonymous with the generally accepted concept of the SDM. Under the ideal circumstances, SDM involves a deliberation stage, which is followed by the knowledge transfer process.

**Obstacles in the peri-operative domain**

The challenges in implementing the practices of SDM become quite noticeable in the peri-operative setting. There seem to be several obstacles in implementing a patient-centred decision-making process in the peri-operative domain. Lack of time has been the most common obstacle in executing SDM in the peri-operative domain. The Royal College of Surgeons in their document, ‘Consent: Supported Decision-Making’ had recognised; ‘time pressures can leave little opportunity to discussed diagnoses or treatment options’. Naturally, in such a time-pressed environment, the obvious time to begin SDM in the anesthetic practice is within the pre-operative assessment settings. SDM in the pre-operative assessment clinic has garnered tremendous response from many researchers. This arrangement is highly desirable for the high-risk patient for whom decisional tension can be better resolved by spending more time in every visit and then having sufficient time to introspect over the importance of available diagnostic and treatment choices and discuss the same with family members.

**Myths about SDM**

*SDM is like a passing shower*

It is interesting to note that the SDM concept has been around for a long time. The involvement of patients as one of the dimensions was recommended by a study by Menzel et al. (1959). This study concluded that there should not be any unequal relationship between the patients and doctors for achieving excellence in innovation, such as new devices or drugs. Further, this study advocated that the patient should have the freedom to opine about what he or she thinks about a certain therapeutic approach. A major breakthrough event involving US Presidential Commission on medical decision-making ethics recommended that the SDM is the “appropriate ideal for patient-professional relationships that a sound doctrine of informed consent should support”. The final survey report of this Commission revealed that more than half of the physicians and the general public believed that increasing the active participation of patients would improve the quality of care. Therefore, considering the relevance of general tendency of patient-centred care in today’s context and its history, it can be safely commented that SDM is not a passing shower, but it will play a major role in healthcare management system in future.

*In SDM, patients are left to make solitary decisions*

This myth arises when the essence of SDM is not completely understood. By definition, shared decision making is an
interdependent process wherein the patient and the healthcare provider influence each other while they collaborate towards making decisions about the patient’s health care. This proposal of balance between the two active collaborators is vital to SDM. Also, an important consideration is the degree of the decision that is shared by either of the parties. Similarly, the degree of the decision varies widely in terms of the treatment options and health conditions. It is needless to say that the clinician is involved in each stage of the decision-making process. The clinician is involved in presenting the evidence and counselling the patient and identifying that a decision needs to be made and implementing a strategy with which both parties feel comfortable.

Everyone does not want SDM
This debatable myth arises as the decision-making process is highly dependent upon patients’ characteristics and the clinical situation. The critics argue that some patients may not desire to have elaborate information, and this might undermine the very relevance of SDM. However, the published evidence suggests an apparent desire from the patients for more information about their health condition. A few studies report that the patients’ unwillingness to participate in the decision-making process may not indicate a true need to be involved in the decision-making process. Instead, this observation suggests a lack of self-efficacy. Therefore, it may not be completely correct that the patients do not participate in SDM. It is desirable that new ways to be searched to engage these reluctant patients in SDM rather than abandoning the noble attempt.

SDM is not everyone’s cup of tea
As per the standard definition of SDM, it attempts to reach a logical conclusion after a series of communication between the patient and the clinician. SDM is not an inherited talent but a combination of skill set which can be developed and streamlined over time. It is a protocol-based activity and should not be assessed for its effective implementation on its first or preliminary attempts.

SDM is time consuming
Time constraints are among the most commonly reported hurdles to clinical change. In spite of this largely popular opinion, no literature evidence has yet been published to support the claim that SDM is time-consuming. Two studies found that SDM interventions took longer than usual care; whereas one study found that it took less time than a traditional consultation, and six found no statistically significant difference in consultation lengths. These studies show that decision aids have a variable effect on length of consultation, and there is a need to reflect further on which contexts are associated with longer duration, shorter duration, and no impact.

SDM is already occurring
This was one of the most surprising observations. This was corroborated by a systematic review of 33 studies that assessed SDM in clinical practice using observer-based outcomes. It summarised that it had not yet been adopted in clinical practice. This failure to accept SDM may not be a collective instance since there may be a lack of understanding in all the aspects of SDM. Further, the clinicians may be confused between SDM and patient-centered approach. Some studies have reported that few healthcare professionals believe that the mandatory informed consent process and SDM is the same.

SDM is incompatible with Clinical Practice guidelines
Clinical practice guidelines (CPGs) are “systematically developed statements to assist patient and practitioner decisions about appropriate healthcare for specific clinical circumstances”. Some studies have reported that the involvement of patients in their decisions could pose problems if the selected course of treatment conflicts with any CPG recommendation. One landmark study reported that physicians’ purpose to implement one of the behaviours had no clinically significant effect on their purpose to adopt the other, and therefore, concluded that using CPGs and engaging in SDM are not inherently mutually exclusive clinical behaviours. This demonstrates effectively dismisses the myth that a practitioner has to choose between engaging the patient in SDM and following CPG recommendations.

SDM will be expensive
The issue of expense is of paramount significance to all the policy framers worldwide. This issue arises due to the notion that SDM is the commerce-driven model. Hence, it will increase the demand for costly, harmful, and irrelevant medical procedures. This, in turn, will cause significant misallocation of healthcare resources. On the contrary, the proponents of this model suggest that implementation of SDM will, cause equitable allocation of healthcare resources. For instance, the Cochrane review on decision aids reveals that in the context of overuse, patients being more active in the decision-making process may be associated with the reduction of costly interventions when less costly ones are available to similar outcomes. Given the tight healthcare budgets in many countries, there is an urgent requirement to improve the strength of the evidence-based knowledge regarding the cost of SDM.

SDM is devoid of any emotions
SDM engages emotions in the decision-making process. Emotions are complex psychosocial reactions that include cognitive appraisals, action impulses, and somatic reaction. In contrast to the popular belief, emotions do not necessarily act as a hindrance to cognitive reasoning. The available literature on SDM is yet to clearly find the association between emotions and
the decision process. One study reports that many healthcare practices affect patients’ emotional autonomy by virtue of their effects “not only on patients’ treatment preferences and choices but also on their self-identities, self-evaluations, and capabilities for autonomy”. Consequently, it is expected that in future, there will be an increased interest in the connection between emotion and shared decision. This connection can form an effective patient-healthcare provider relationship.

Despite the several myths around the concept and implementation of SDM, many studies have found it to be relevant, suitable, feasible and adequate means to approach the clinical encounter in the 21st century. Even though SDM may not solve all the problems associated with the healthcare system, still it can help to address and effectively resolve some of the challenges. SDM is one of the many components needed to optimise the use of scarce resources in healthcare. Global health association is focusing more on the health systems that integrate patient-centred approaches within their treatment paradigm, and SDM will surely play a pivotal role in such circumstances.

**Indian scenario**

The healthcare landscape in India is complex. In India, the public health system is overburdened and under-resourced. Additionally, the majority of the people are poor and the public health system is under-resourced and over-burdened. The patient-physician relationship is affected by Economic, Social, Educational, and Cultural variables. In spite of making significant progress in medical education, India remains the paternalistic society in terms of the relationship between doctors and their patients. This predominant form of doctor-patient relationship is materialized when the patients generally passively acquiesce in decisions made by the doctor or the family. There are several reasons for this paternalistic relationship to thrive. These reasons include a rigidly hierarchical society and a high degree of illiteracy. The problem is compounded by the fact that the majority of people living in rural society show more emphasis on their health than exerting autonomy over clinicians. From the Indian healthcare perspective, there needs to be a definite and elaborate evaluation of the patient’s compliance to participate and its extent in the decision-making process. Additionally, an exhaustive study to incorporate the individual’s beliefs and choices over the extent of information and participation in SDM is the need of the hour. Furthermore, there is an urgent requirement to customize and individualize the processes of SDM and informed consent.

The medical field includes the non-disclosure and full disclosure models of communication. The non-disclosure model prohibits the patient from active participation in the decision-making process, prevents the patient of possibility to understand with the actual situation, destabilizes the patient-physician relationship, compels the patient to collect information from uninformed sources, and therefore, inadvertently gives rise to false hopes; whereas the full disclosure model does not consider that all the information may not be appropriate for all patients, the time of disclosure of the information and the quantum of information that should be made available. In India, both these models are untenable and unrealistic. On the contrary, the SDM model takes into account the varying extents to which patients want to get concerned in the process of decision making.[22]

In India, the concept of SDM and informed consent has become a difficult issue to implement within the private healthcare sector.[23] Due to several challenges borne out due to SDM implementations, it is based on legal considerations and not entirely on the ethical practice. Rampant following of the paternalistic culture and nondisclosure models of communication cause the core of defensive medical practice. This poses major challenge toward the implementation of valid informed consent and SDM difficult in clinical practice in India. The Indian healthcare industry is plagued by suboptimal practice compounded by several factors like lack of continuing professional education and lack of clinical audits. In current circumstances, there is an urgent need for a critical review of the challenges and concerns regarding SDM and informed consent process and outcomes. Effective implementation of the SDM and Informed consent will help increase our understanding of life and humanity and culture and biology. In spite of all the hurdles, SDM is possible and perhaps particularly important in India.

**Conclusion**

This review is carefully drafted, and further detailed studies will have to be carried out considering the individual’s choices and beliefs regarding the extent of information to be conveyed and the patient’s participation in decisions on the choice of treatment. There is a definite need to customise and individualize the processes of SDM and informed consent. Several international funding agencies have prioritized their research to engage the patient as active partners in their healthcare practices and regimens. SDM, one of the models of decision making is garnering immense interest among the medical community. SDM is the central component of the international priority of delivering completely patient-focussed and high-quality healthcare. Major requirement in SDM is the active and elaborate communication which takes place during several rounds of consultations. These interactions provide the patient time for deep introspection over the treatment regimens.
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