

# **PATIENT SAFETY ISSUES: THE ROLE OF ORGANIZATIONAL BEHAVIORAL APPROACH (OBA) IN ADDRESSING ISSUES RELATED TO MEDICAL ERROR AND SAFETY CULTURE**

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## **ABSTRACT**

During these recent years, patient safety has become a prominent issue in the medical atmosphere and appeared to be the main target for improvement (Leroy et al., 2012). As one of the disciplines in health sciences, psychology might play an important role in addressing the problems occurred in patient safety. There are broad aspects where psychology may contribute (Nash, McKay, Vogel, & Masters, 2012), but the involvement of psychology in changing the safety within health care setting has been underestimated and its role has been partially described (Øvretveit, 2009). Therefore, this paper is proposed in order to demonstrate one of the behavioral theories in psychology, named the Organizational Behavioral Approach (OBA) to give a wider understanding on how psychologist may contribute to address the issues in patient safety, especially the problems related to medical error and safety culture.

**Keywords:** *patient safety, medical error, safety culture*

## **Introduction**

During these recent years, patient safety has become a prominent issue in the medical atmosphere and appeared to be the main target for improvement (Leroy et al., 2012). The importance of preventing the adverse events is a major concern highlighted in patient safety (Carayon et al., 2014). Some research has been done in order to identify the causes and implement particular interventions for reducing the problems within patient safety, however, most of the interventions performed are based on the clinical setting targeted to solve specific issues, for example, giving the particular antibiotics for patients before surgery to avoid infections (Øvretveit, 2009). Therefore, the improvement in patient safety showed slow movement and did not lead to any significant changes.

At this present time, the challenges faced in patient safety are not only about specific safety issues, but also about modifying the cultures and changing organization behaviors to place patient safety as a high priority (Sexton et al, 2011).

Besides, there are also scientific challenges in term of assessing whether the interventions that have been implemented are efficient or not if applied in the health organization which has multifarious program (Gordon, Darbyshire, & Baker, 2012). Hence, creating the cumulative schemes about the effectiveness of certain interventions and elaborating the new thinking perceptions in regard to factors contributed in organization behaviors are the collaboration issues which need to be considered in patient safety (Øvretveit, 2009).

As one of the disciplines in health sciences, psychology might play an important role in addressing the problems occurred in patient safety. There are broad aspects where psychology may contribute (Nash, McKay, Vogel, & Masters, 2012), but the involvement of psychology in changing the safety within health care setting has been underestimated and its role has been partially described (Øvretveit, 2009). These facts might have happened due to indirect solutions recommended by psychological interventions in handling safety issues, such as delivering individual therapies which do not contribute to wider input (Kerfoot, Bamford, & Jones, 2012).

However, since nowadays the concern of patient safety itself has been shifted from just avoiding harm to patients into creating the safety culture (Weaver et al., 2013), and current research also found that indirect solutions could create better social conditions that help health care workers in selecting as well as applying appropriate direct solutions (Kerfoot, Bamford, & Jones, 2012), so the contribution of psychological perspectives should be placed into a main consideration to be applied in medical setting to improve the quality of patient safety. Besides, this new paradigm will also become the challenge for psychologists to change their intervention from an individual into an organizational level.

Based on those descriptions, therefore, this paper is proposed in order to demonstrate one of the behavioral theories in psychology, named the Organizational Behavioral Approach (OBA) to give a wider understanding on how psychologist may contribute to address the issues in patient safety, especially the problems related to *medical error* and *safety culture*.

### **Organizational Behavioral Approach (OBA)**

OBA is a psychological theory which aims to understand the behavior within the organization by analyzing the reasons why people do certain behaviors

and implementing the relevant evidence-based interventions to improve those behaviors (Cunningham, 2009). OBA is rarely used in hospital setting as the health care providers assume this approach will take a long process and will be time consuming (Øvretveit, 2009). Besides, the existence of several gaps between OBA and health care management also create the barriers to the approval of OBA techniques by health care professionals (Cunningham & Geller, 2009). For example –in understanding the concept of error– error is viewed as the unavoidable events in medical setting, however in OBA error is considered as one of the trigger factors that guides into more appropriate behavior in the future (Cunningham & Geller, 2009; Cunningham, 2009).

In spite of this matter, OBA is a comprehensive method because it has a clear interpretation that behavior is influenced and formed by the system (Goh, Chan, & Kuziemsky, 2013). Thus, based on this approach, the organization behavior within the health system should be changed in order to minimize medical error and create safety culture which are the main objectives for enhancing the patient safety quality.

As aforementioned, the targets of OBA are on what people do, analyzes why they do it, and then applies an evidence-based intervention strategy to improve what people do (Cunningham & Geller, 2009). The relevance of OBA to improving health care is obvious. While poorly designed systems contribute to most medical errors, OBA provides a practical approach for addressing a critical component of every imperfect health care system –behavior. Behavior is influenced by the system in which it occurs, yet it can be treated as a unique contributor to many medical errors, and certain changes in behavior can prevent medical error (Cunningham & Geller, 2009).

## **Medical Error**

According to numerous studies, there are some errors occurring in medical settings, including diagnosis, treatment, monitoring, infection control, and communication errors; and most of these errors are caused by several issues, such as mistake in transcription and calculation or fail to follow checking procedures (Carayon & Wood, 2010). Furthermore, certain care units in hospital also encounter vulnerable situations and have higher prevalence of error compared to other care

settings. For instance, in Intensive Care Units (ICUs), patients are more prone to hazards due to complication conditions, demand for urgent interventions, and significant workload variability (Garrouste-Orgeas et al., 2012; Latif et al., 2013). Below is the table explaining the detail of the most common incidents occurred in patient safety setting based on The Agency for Healthcare Research and Quality (AHRQ) Patient Safety Indicators (PSIs).

**Table 1.**  
**Two Widely Used Taxonomies for Patient Safety Incidents and Medical Errors**

AHRQ PSIs		Leape Typology of Errors	
	Domain		Error
1. Accidental puncture of laceration	Diagnostic	1.	Error or delay in diagnosis
2. Complications of anesthesia		2.	Failure to employ indicated tests
3. Death in low-mortality Diagnostic Related Groupings (DGRs)		3.	Use of outmoded tests or therapy
4. Decubitus ulcer		4.	Failure to act on the results of monitoring or testing
5. Failure to rescue		5.	Technical error in the performance of a procedure
6. Foreign body left during procedure		6.	Error in administering treatment
7. Iatrogenic pneumothorax		7.	Error in dose or method of use of a drug
8. Selected infections due to medical care		8.	Avoidable delay in treatment or in response to an abnormal test
9. Postoperative hemorrhage or hematoma		9.	Inappropriate care
10. Postoperative physiologic and metabolic derangement		Treatment	10.
11. Postoperative pulmonary embolism or deep vein thrombosis	11.		Inadequate treatment monitoring or follow-up
12. Postoperative respiratory failure	12.		Failure in communication
13. Postoperative sepsis	13.		Equipment failure
14. Postoperative wound dehiscence	14.		Other systems failure
15. Transfusion reaction	Preventive		
16. Birth trauma and obstetric trauma (3 types related to delivery methods)			
	Other		

Source: Cunningham and Geller (2009), page 3.

There is a lot of literature explaining why human error might occur. One of human error theory proposed by Rasmussen, Pejtersen, and Goodstein (1994) –which is very well known theory in human error–classifies the error into two types, namely latent and active failure. Latent failure is the error occurred within a system due to the decision made by the managers or other professionals, whereas the active failure is the error caused by the behaviors that directly involved in the accidents, such as wrong medication prescription or lack knowledge about the disease (Rasmussen, Pejtersen, & Goodstein, 1994). From these explanations, it has been obviously

comprehended that the main causes of errors are associated with the system and behavior, and these should become the primary targets for improvement.

To deal with medical errors, OBA offers some effective strategies. According to this approach, medical errors which are caused by latent failure are better to be addressed through system change, because poorly designed system is one factor which leads into adverse events that affect the harm to patient (Cunningham & Geller, 2009). The implementation of Health Information Technology (HIT) is the key element for reducing the error in system change. There are two common HIT systems used in hospital, namely Computerized Physician Order Entry and Clinical Decision Support Systems, and various evaluation studies found that these two HIT systems had significantly reduced the medical errors (Maslove, Rizk, & Lowe, 2011; Jaspers, Smeulers, Vermeulen, &Peute, 2011; Bright et al., 2012). In addition, OBA also suggests that advanced education and training decrease the errors caused by active failure (Cunningham & Geller, 2009), thus the health practitioners may improve their knowledge and skill (Pani&Chariker, 2004).

## **Safety Culture**

Safety culture is defined as the behaviors and attitudes that are required in health care setting to make sure that adverse events occurred are reported, assessed, and prevented (Øvretveit, 2009). The safety culture within the organization forms the individual's beliefs and behaviors because it transforms either positive or negative impacts based on the messages conveyed to the organization members (Cooper, 2002). Nowadays, the development of safety culture is the essential attempt to improve the quality of patient safety (Singer &Vogus, 2013). Consequently, the understanding of which approaches are effective as well as predicting the factors that may contribute to the effectiveness are very important to achieve the significant improvement later on (Gordon, Darbyshire, & Baker, 2012).

In order to build the effective safety culture in health organization which has a high-risk environment condition, several approaches have been proposed, for example improving nurse-physician communication (De Meester, Verspuy, Monsieurs, &Bogaert, 2013), improving the information access (Koch et al., 2013), and reducing the blame when reporting medical errors (Kalra, Kalra, &Baniak,

2013). However, those recommendation just gave the superficial solutions which encouraged the clinicians to report medical errors and reduce adverse events (Weaver et al., 2013).

Therefore, by using a psychological perspective, OBA introduces the new concept termed as “organization culture” to describe not only the causes of adverse events, but also how to create the safety as the important culture within the organization (Goh, Chan, & Kuziemy, 2013). Besides, this approach also gives the comprehensive description regarding how to analyze and evaluate the safety problems as well as the techniques used to measure the safety culture itself (Wagner, Smits, Sorra, & Huang, 2013). To implement this new concept, several studies have been performed; these aimed to enhance the medical professionals in understanding how to establish the organizational culture within their health organization (Øvretveit, 2009).

Moreover, even though no completely accepted model has been generalized to quantify the safety culture, through implementing the organization culture, the health care providers might incorporate the holistic perception that safety culture is not just an outcome, but also the product of collaboration as well as reciprocal reaction between people (psychological), jobs (behavior and attitude), and organization (system) (Cooper, 2002).

## **Conclusion**

Through comprehensive and collaborative understanding, health care practitioners might improve patient safety issues with the appropriate as well as effective ways. The role of psychology as one of the health disciplines should also be considered in order to develop the holistic intervention, such as by utilizing the Organization Behavior Approach. However, the methods which integrated both medical and psychological perspective can be more valuable and beneficial as it might contribute to the significant improvement in the future, especially to reduce medical error and develop safety culture.

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