

# An Education Program for Cultivating Medical Safety Awareness

Haikuo Yu

School of Knowledge Science,  
Japan Advanced Institute of Science and Technology  
March 2013

**Keywords:** Incident, Safety Education, Cognitive Characteristic, Faith Opposition, Introspection Support

Many highly sophisticated and technical safety plan was introduced based on the analysis towards the previous medical emergencies and incidents. However, even though a safety plan was accordingly introduced and implemented to solve a particular categories of incidents, the issues still exist and can not be completely avoided.

Because of the fact that the specially made safety plans for medical scene do not completely avoid the incidents, the provision of training to the paramedic teams in order to improve the risk censoring and critical decision making skills has become the most important topics to study.

To ensure the medical safety quality, it is very necessary to scientifically identify the issues at the medical scenes from a professional perspective. From the analysis based on actual medical incidents, as a matter of fact, most of the problems are suggesting that issues happen from the staff themselves. However, with the progress of the technology to avoid human error, medical scenes are becoming more safe than ever, the senses of risk from the patients have been significantly reduced, as a result, it finds the paramedic teams have comparably lost the opportunities to develop their safety knowledge and ability.

Because medical safety sense is not a kind of knowledge for a particular area, in the operation of activity participation and implementation, Meta suggests based on the observation, in order to acquire an advanced identifying ability, it's very important to absorb

the lessons from previous failures. Due to the fact that medical failure is not acceptable, it can not happen at medical scene, the method to improve medical safety is more based on an off-the-job training rather than an ideal on-the-job training.

Off-the-job method is more based on an artificial environment; learners can only gain the experience from some typical medical incidents that picked purposely for the trainings. It is expected that the ability to reduce risk can be developed, but it is doubtful if a sensibility of potential risk can be successfully brought out.

Therefore, in this research, in order to clarify the issue that what kind of education to implement to cultivate the safety knowledge, we will aim to meet the objective of the research through studying these topics.

1. Materialise the concept of medical safety sense.
2. How to carry out the education to improve medical safety sense.
3. The implementation of education materialisation.

The approaches brought to solve the above topics consists of three parts. First, the faiths behind the sense of safety and the interview of value reflection. Secondly, the discussions based on the education of faith and value. Last, the meta-rule methodology of faith and value delivery.

In this research, through the interviews conducted with the medical safety management, it suggests the different people have different strategies towards the same phenomenon. In another way, the plan brought out by different people can vary due to the different values, the it creates conflicts when making decisions. Because it does not always give you a certain answer because of the different values and faith people hold, this research will develop the topic from a few different points of view.

In order to investigate the medical safety plan from different points of view, this research has conducted a few surveys based on the possibilities of carrying out the education on faiths and values. Based on the analysis towards the knowledge of medical safety management, the results suggest a different summary from the researches conducted in the early days. This theory is called meta-rule. Meta-rule is about the characteristics people reflect in the process of studying and knowledge utilisation. Through the characteristics of the thinker, it inducts people how they act to prevent forgetting the relevant knowledge. The research is conducted through the investigation on meta-rule and the change on medical staff's senses of safety and the specification that meta-rule has shown for medical safety purpose, and also the purpose of teaching practical medical ability to facilitate medical scene. As a result, it helps the paramedic team improve their medical safety sense and knowledge.

The course created by this research meta-rule is being conducted by Miyazaki University

among 110 Grade 1 medical students. The research designed a course report to improve the learners study quality also to facilitate then improvement of their safety awareness. The reports summarized from the course are analyzed from four parts. Firstly, the comprehension to meta-rule. Secondly, the impact it has from learning medical safety awareness. Moreover, it is whether they experience the conflicts. The last is whether the intention of the conflicts can be realized. The professors get the result and did some analysis based on it.

The research is conducted among the medical students, in order to extend it in future, the courses will be open to nursing students, nurses and medical officers and observations will be carried out. The education of meta-rule cultivate the faith and also advocate the ability of self management, it also plays an important role for students' creativity.