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From Process Control to Knowledge Creation

Clinical-path-Based Knowledge Management

of Medicine -

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This study aims to build theoretical knowledge creation model of clinical-path based on medicine, and practical proposal. This study is guided by the major research question “What kind of knowledge process in clinical-path has existed in production and implementation?” and the following three subsidiary questions: (1) “What kind of knowledge is embedded in clinical-path?”; (2) “How did the medical professionals knowledge share, utilize and create knowledge in which production and implementation exist in process of clinical-path?”; (3) “What kind of problem is there in the process of production and implementation of clinical-path?”

In order to answer to the research questions, the case study was conducted. Three hospitals carrying out clinical-path based medical process were selected. They are "Fukui General Hospital", "Saiseikai Kumamoto Hospital", and "University of Miyazaki Hospital." The contents of clinical-path activities performed in the hospitals were scrutinized.

The major research question can answer as follows: (1) There are three stages in clinical path which are production, implementation, and improvement in clinical-path. (2) Three processes have "Ba" where tacit knowledge and explicit knowledge carry out interaction. (3) However, if "Ba" of an improvement does not function, knowledge creation is not connected

spirally.

The answers to the subsidiary research questions are: (1) Clinical-path was created from diverse knowledge which various medical professionals own. Interaction of dialogs and discussions are required for creation of the knowledge. By this interaction, possibility that the medical process of a patient optimum will be created becomes high (2) In production stage in clinical-path, individual tacit knowledge is transformed into explicit knowledge which organization can use. In implementation stage, individual realizes new knowledge by sharing and utilizing created explicit knowledge. (3) In order to pull out diverse ideas, weak flat "Ba" of hierarchy is required to produce clinical-path production. However, method of setting up "Ba" is not found.

The theoretical implications of this study are as follows: (1) Not only medical work process but knowledge process is included in clinical-path. This knowledge process creates new knowledge continuously, sharing and utilizing knowledge. (2) This knowledge process is divided into 3 phases, "accept", "integrate", and "practice". (3) These phases are the organizational knowledge creation models connected spirally. (4) However, if "Ba" of improvement does not exist in clinical-path, this model does not function.

The practical implications are as follows: (1) By surely participating in clinical-path activities, medical professionals may have multidisciplinary group consciousness and may spread out the human network. (2) Grasping that patient's state that you can not evaluate scientifically is also important. It is because the targets of medical treatments are complicated "body and heart." (3) Cost-consciousness of many of medical professionals has been weak. However, offer of medical process which disregarded cost by the comprehensive medicine expense system having been introduced cannot be performed. Therefore, participation to the clinical-path of specialist who can educate cost-consciousness to medical professionals is desired.

Finally, as suggestions for future study, I am planning for study of theoretical model of knowledge management required for multidisciplinary care. And organizational knowledge creation model obtained by this work will be used for study of theoretical model in multidisciplinary care.