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Cognitive in Chinese Medicine

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Key words: System thinking; Theory of Chinese medicine; Cognitive style; characteristics

Abstract: This article reviews the past achievements in research of cognitive science and system thinking. It discusses the cognitive style of traditional Chinese medicine (TCM) on life and disease, and elaborates on characteristics which are implicated in the course of cognitive process to information of the human body by TCM.

It is widely acknowledged that cognitive science is to study human cognition and thinking information's processing, when we take the human being as the research subject specifically. System thinking is the offspring of the crossing and fusion between system science and thinking science. It takes cognitive objects as a system to understand, grasp, and investigate them synthetically and accurately from the interrelationship and interaction between whole and part, part and part, structure and function, optimization and construction, information and organization, control and feedback, system and environment. The purpose is to know objects optimally and practice exactly.

It is necessary to explain the cognitive style of TCM in treating life and disease with system thinking. The main findings are discussed as follows.

1. Explain Cognitive Style of TCM with System Thinking

1) Internal Relation between Thinking Mode of TCM and System Thinking. TCM is inclined to image thinking. It pays more attention to internal systematicness, relationships, sociality and mentality of the human body, and emphasizes the relativity of function and the patiotemporal feature of the vital process. It has possessed many characteristics of modern system thinking on methodology, such as holistic, dynamic, hierarchical, optimal and modeling means.

2) The Course of Cognition and Processing to Information of Human Body by TCM. TCM, with the guide of the system thinking mode, takes the human body as a unified organic entirety, researches body and disease in a holistic view. It constructs a cognitive model with dummy components or elements inside, and the cognitive model possesses practical effectivity and imaginal fuzzification. Such as "visceral symptoms".

2. Characteristics of Cognitive Style of TCM based on System Thinking

1) The Leap of Cognition Level. Modern system thinking deems that we must promote the level of the cognitive. The holistic theory of TCM emphasizes the "integration of nature and man" and "union of appearance and spirit". It not only pays attention to the components inside and their relationship to the human body, but also considers the information and communication between the human body and environment.

2) Attaching Importance to Emergence of a System. Any complex system has holistic emergence, which means the birth and elimination of information. The Chinese herb is an enormous, multistrata and multidimensional complex system. The efficacy, property, flavor, and meridian distribution are determined by the holistic level of the herb. It shows holistic emergence in the course of its interaction with the human body.

3) The Intellective Emergence of Cognitive Agent. It not only embodies the self-adapting and restructuring of the knowledge structure in the individual, but also embodies the intellective emergence of the group. The "selection of treatment according to differential diagnosis" of TCM belongs to individual diagnostic and treatment style. "From the qualitative to the quantitative meta-synthesis system method", provides us possibility to achieve the emergence of group intelligence.