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Importance of clinical reasoning description in physiotherapy education

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Introduction In physiotherapy education, evaluating clinical reasoning by writing case reports is considered essential. However, in Japan, there is a tendency to downplay the importance of having interns and trainees write case reports from the viewpoints of work management and harassment prevention. This study examined whether the ability to write clinical reasoning correctly is necessary from both quantitative and qualitative perspectives.

Methods Before the study, the authors created a simulated case of gait difficulty after stroke and assigned priority to information by several physiotherapists (hereafter referred to as "information priority"). Fourteen Japanese physiotherapists ranging from the first year to the 19th year were presented with all medical information and physiotherapy evaluations of the case except for information priorities. The participants were asked to perform clinical reasoning based on the information presented and to (1) write their clinical reasoning, (2) identify problems, and (3) formulate treatment plans. We conducted correlation tests among the following four variables: (1) years of experience, (2) the number of items with high information priority, (3) accuracy of problem identification (discretized into four levels), and (4) treatment planning (evaluated at three levels). We also conducted a qualitative examination of the clinical reasoning sentences to verify the differences in sentence content.

Results The test results showed a strong positive correlation ($\rho=0.76$) between the number of items with a high information priority and treatment planning. A qualitative examination of the sentences revealed that participants with high agreement in treatment planning used FMA and other evaluations to explain motor paralysis. In contrast, the participants with low agreement in treatment planning did not have any evaluation items to explain motor paralysis; they did not mention the treatment of motor paralysis even though the problem was motor paralysis. The participants, who listed less high-priority information in the text, could not formulate a treatment for motor paralysis even though they listed it as a problem. It shows that the problem and treatment did not match due to the inability to capture the problem using the assessment objectively.

Discussion The results suggest that the inclusion of more information priority items in clinical reasoning texts correlates with accurate treatment planning. In addition, qualitative examination of the text indicated that those who were unable to use objective indicators and explanations in the text were unable to formulate correct treatment plans.

Keywords Clinical Reasoning, Education, Text