

## CHAPTER VIII



### DISCUSSION

The results, using the sixth year clinical practicum grade as the dependent variables, showed that Cognitive Entry Behaviors with regard to the fifth year grade was still the best predictor of the sixth year clinical practicum grade. However most of the fifth year course composed of clinical part. Thus, it was logical that the one who had ever practiced well should have the higher performance. However, the percentages of explanation by the fifth year grade were not too much, and the scores of some departments such as, Oral Diagnosis Department and Oral Biology Department could not be explained by any variables. It may be possible that there may be other variables which were not in this study and related to the sixth year clinical practicum grade. The other factors which were interesting and attracted to do further study were environment factor, with regard to patient factors, service satisfaction, clinical management and so on. However, these results would serve as baseline data for further study.

The results for Ora Surgery Department, using the sixth year clinical practicum grade as the dependent variable, showed that the level of education of mother was the best predictor. However the percentages of explanation

were only 14% . This results agreed with the research of the Nursing College Division(1984). Therefore, the study in depth of socioeconomic status of the students should be concerned in the further investigation.

The results for Orthodontic Department, using both the sixth year and the sixth year cumulative clinical practicum grade as the dependent variables, showed that sex was the best predictor, and female could learn better than male. It may be possible the characteristics of work in this department concerned about esthetic dentistry and female had trend to do esthetic work better than male. However the percentages of explanation were not to much.

The results, using the sixth year cumulative clinical practicum grade as the dependent variables would represent the whole performance of the students in each department, while the sixth year clinical practicum grade would represent only the performance in the sixth year. It was discovered that, one of the best predictors of the sixth year cumulative clinical practicum grade was still Cognitive Entry Behaviors with regard to the fourth year grade and the percentages of the explanation were relatively high.

In case of the average of all clinic, which represented all the performance of every departments, it was found that ( $R^2=0.2923$ ) 29% of the variation in the sixth year cumulative clinical practicum grade could be explained

by the fourth year grade. This implied the use of the fourth year grade as an early warning systems which could predict 'at-risk' students at an early stage. In fact, we could not improve their intelligence, but we could focus on the groups that had low grade. And we could give extra intervention to these groups.

There were many possible strategies such as, the creation of counselling teacher system. The counselling teacher system should be established specifically in clinic so called the clinical counselling teacher. The missions of the clinical counselling teachers is to give suggestion to the students about clinical practicum management such as, number of patients, time of appointment, treatment planning, problem case management and so on. Moreover, they should give cues, and reinforcement to the students especially the one who had low grade.

For Oral Surgery Department, it was found that ( $R^2=0.4721$ ) 47% of the variation could be explained by the fourth year grade and opinion on teacher. Especially, the fourth year grade could explain 39%. This showed that the knowledge from the theory was the most important part in clinical practicum of Oral Surgery field. And 8% explanation from teacher showed that the characteristics of teacher could effect some part of the student performance. Furthermore, the nature of instruction in Oral Surgery Department was different from the others. The students had learned the pure

theory with regard to sciences and clinical sciences. There was no laboratory before clinical practicum at all. The students had to integrate the knowledge from the theory and transferred to the clinical practicum. Therefore, the teacher had to demonstrate and had close relationship in teaching individually. Thus, the characteristics of teacher may influence the performance of the students. As mention earlier, the knowledge from the theory was necessary for clinical practicum. Therefore, preclinical test of knowledge should be established to identify the error. Then, the teacher could fullfill their knowledge in order to prepare them for the clinical practicum part.

For Restorative Department, it was found that ( $R^2=0.5340$ ) 53% of the variation could be explained by the study habits with regard to working method and delay avoidance, and evaluation. The fourth year grade had ever enter on the first step number, but when evaluation entered, the fourth year grade had been removed from the equation. This showed that evaluation was the strong influence variable. Indeed, the characteristics of evaluation in this department had more details. For example, for filling one tooth, there were at least five steps to check and the students had to pass the former step before doing the next step and each steps were examined by individual eyes of each teacher. Therefore, if the evaluation were not clear, it may affect the clinical practicum achievement. Therefore, we should improve

evaluation urgently to reduce bias as much as possible. The suggestion strategies were, calibration of examiner teacher, construction form of check list, communication between examiner and also the students.

As suggestion earlier, the counselling clinical teacher could give advice to students who had bad study habits about clinical practicum management such as number of patients, problem cases management, time of appointment, treatment planing, and so on.

Due to the variation of educational management of each department, there may be still other variables that were not included in this study. The departments which prepare the patients for studying such as, Oral Surgery Department, Pedodontic Department, Orthodontic Department, and Oral Diagnosis Department would not have the problem of patients management. On the other hand, for Prosthodontic Department, Periodontic Department, Restorative Department, and Oral Biology Department (Occlusion), the educational management was established in center system. The students recieved a number of patients and were responsible for their own patients. They had to arrange many things such as; time of appointment, number of patients in each visit, planning for treatment in each visit. They had freedom to do any work which they wanted in each period. Therefore, the factors that were interesting and should be studied further were the environment factors, especially the patient factors and the

service factors.

### Recommendation

The recommondations from sound research data are as follow.

Present research data of quality of instruction to every departments in order to be the guideline in improvement.

Create clinical couselling teacher system in every departments.

Improve evaluation of Restorative Department.

For further study, the investigator should concern about environment factors such as service factors and patient factors.

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## CONCLUSION

This study has concentrated on the factors which expected to be the predictors of the clinical practicum achievement of dental students at Khon Kaen University. The factors selected in this study were the student characteristic factors and the instruction factors. The student characteristic factors composed of past academic grade, study habits and attitudes, sex, and socioeconomic status. The instruction factors composed of opinion on instruction with regard to content, learning activities, evaluation, teacher, and learning facilities. And the clinical practicum achievement used both the sixth year clinical practicum grade and the sixth year cumulative clinical practicum grade of each department and average all the departments as the dependent variables. The sample were 37 the sixth year dental students in academic year 1990. Survey form of study habits and attitudes, questionnaire for sex and socioeconomic status, questionnaire for opinion on instruction, and transcript were used to collect the data. The data were analyzed by the stepwise multiple regression analysis. The results were summarised as follow:

When using the sixth year clinical practicum grade as the dependent variables, it was found that Cognitive Entry Behaviors with regard to the fifth year grade were still the best predictors of most departments except Oral Surgery Department and Orthodontic Department which the best predictors were level of education of mother and sex

respectively. However the percentages of explanation were not to much and some departments such as Oral Diagnosis Department and Oral Biology Department could not be explained by any variables. These results would serve as baseline data for further study.

When using the sixth year cumulative clinical practicum grade as the dependent variables, it was found that Cognitive Entry Behaviors with regard to the fourth year grade were still the best predictors of most departments and the percentages of explanation were relatively high. For Oral Surgery Department, the best predictors were the fourth year grade and opinion on teacher. For Restorative Department, the best predictors were study habits with regard to delay avoidance and working method, and opinion on evaluation. The percentages of explanation were also relatively high in both departments. However, Prosthodontic Department could not explained by any variables in this study.

The results, using the sixth year cumulative clinical practicum grade as the dependent variables would represent the whole performance of the students in each department, while the sixth year clinical practicum grade would represent only the performance in the sixth year. It is suggested to create clinical counselling teacher system in every departments to look after the students about clinical practicum subjects. Moreover, the improvement of evaluation



in Restorative Department should be established urgently. For further study, the investigator should concern on the environment factors such as service factors and patient factors.



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