

[Brief Report]

## CONSULTATION FOR TEACHERS BY TV CONFERENCE SYSTEM

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### Abstract

Using tele-communication to facilitate consultation was examined as a means of dealing with various behavior problems in school children. TV conference system was installed in 2 elementary schools, 3 junior high schools, and the pediatrics department of a medical college and the counseling center of a university, and connected by a digital circuit. When interviewing counselors and teachers who participated in consultation using this system, the following advantages and demerits became clear. The advantages included comments such as "the client's appearance can be understood better through the video image" and "directions from counselor can be obtained immediately". Points requiring improvement were that it is difficult to establish rapport or change the focus of the camera using the tele-communication equipment.

Key words: stress management, consultation, tele-communication, TV conference system

### 抄 録

学校現場における子どもの問題行動に対処する一つの方法として、テレコミュニケーション・システム(汎用テレビ会議システム)による小中学校教員対象のコンサルテーションを考案した。本システムの有用性を検討するために、本学臨床心理相談室と小中学校(5校)および医学部付属病院小児科を一般電話回線で結び、本システムの試験運用を行った。コンサルテーションに参加しているカウンセラーや教員に聞き取り調査を行ったところ、利点としては「テレビの映像を通じてクライアントの表情をより理解することができる」「カウンセラーから直ちに指示が得られる」などの回答が得られ、本システムの有用性が示唆された。一方、改良すべき点としては「ラポールを形成しにくい」「カメラの焦点を調整しにくく視線が合わない」などの回答が得られ、今後、これらの点について改良していきたいと考えている。

キーワード： ストレスマネジメント、コンサルテーション、テレコミュニケーション、テレビ会議システム

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## Introduction

In contemporary society, environments for the growth and development of children have changed rapidly. In such a situation, the mental or physical health of children has been damaged by various stressors. There is also an increase in children who are impulsive and suddenly become angry despite being usually calm, so-called "short fuse children", and in classrooms, so-called "breakdown classroom", in which it is too noisy to have any lesson, the psychological burden on teachers are also increasing. The teacher who develops "burn-out syndrome (Freudenberger, H.J. et al 1980, Christina, M. 1976, Maslach, C. et al 1981)" and takes a leave from school is not uncommon. To confusion in the educational field, the Ministry of Education, Science, Sports and Culture, Government of Japan advocated the importance of "educating the mind", and founded the school counselor system (Reynolds, C.R. et al 1984, Sandoval, J. 1993). These plans were effective in the prevention and care of various behavior problems of children. Especially the school counselor system in which the school counselor provides direct consultation to the teacher, could play an important role in reducing a teacher's psychological burden. However, schools with school counselors currently comprise slightly more than 1500 in our country. To arrange school counselors for all elementary schools, junior high schools and high schools, an enormous amount of additional time and expense are needed. It is necessary to immediately develop an efficient means of consultation utilizing the available school counselors, until training of additional school counselors is completed. From these perspectives, consulting by a tele-communication network is expected to develop and expand very much (Doherty-Sneddon, et al 1997, Tokuda, K. 1998). The tele-communication network is a communication means for transmitting and receiving pictures and sounds in real time through a circuit. This system is usually well used for teaching from a remote site or TV conference, etc. It is considered possible to consult by connecting the counseling center, schools and the hospital with the tele-communication network. This network has the possibility of developing as one method of cyber-counseling or consultation.

This study explores methods of consulting with teachers through the tele-communication network. The advantages and the points that require improvement of this system are examined through interviews with teachers and counselors.

## Methods

### (1) The construction of a tele-communication network

The tele-communication system is equipment that transmits and receives pictures and sounds through a digital telephone circuit in real time. As shown in Figure 1, the small digital camera and the 21-inch color display were adopted for input and output of pictures. In this study, the TV conference system called Phoenix 2000HX (Figure 1) by NTT (Nippon Telegraph and Telephone) was adopted, because pictures are smoothly sent in real time through the usual digital circuit called INS64(Information Network System). These equipments were installed in the counseling center of the university, the pediatrics of the college hospital, two elementary schools, and three junior high schools (Figure 2).

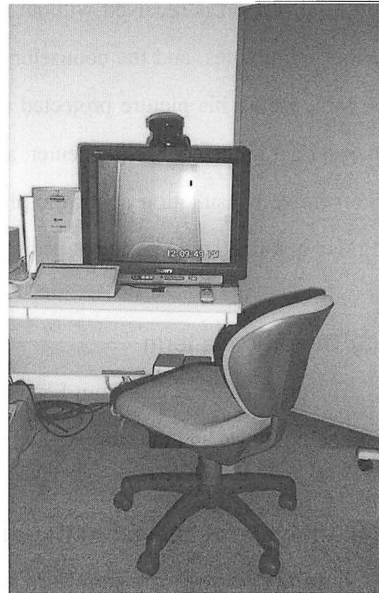


Figure 1 TV conference system (Phoenix 2000HX)

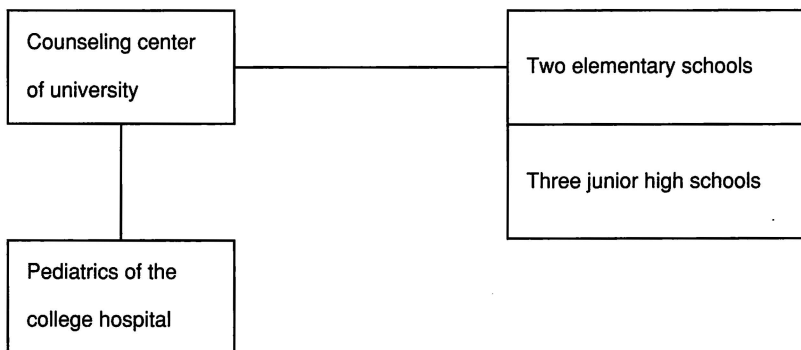


Figure 2 Tele-communication network through INS64

## **(2) The consultation systems**

To receive a consultation from teachers, a counselor who is a licensed clinical psychologist is available every day during a fixed time period at the counseling center of the university. Although the first session is received without reservation, future sessions are by reservation. One session is about 50 minutes, and the counselor communicates with the teacher in the counseling room of his school, seeing his picture projected on the display. Psychological contents of the consultation are carried out in the counseling center, and the physical contents are carried out in the college hospital. To receive consultation about the physical problems of children, a pediatrician is available every Friday at a fixed time period at pediatrics department of the college hospital.

## **(3) The practice term**

The practice term was from September 1, 1999 to August 31, 2000 excluding Saturday, Sunday, Public holidays, and the summer and winter holidays of the university.

## **(4) Analysis of the advantages and points that require improvement based on interviews with the teachers and counselors**

To clarify the advantages and the points that require improvement, five-school teachers and four counselors who had experience using this system were interviewed.

# **Results**

## **(1) Contents of the consultation using this system**

The contents of this consultation are divided into following categories.

1. The means of solving the behavior problem of the child or children.
2. The way of coping with school refusal.
3. The method of guidance for attention deficit hyperactivity disorder.
4. Support for learning disabilities.
5. Methods of class management.
6. A psychological conflicts among teachers or coworkers.
7. Methods of guidance for parents

## (2) Advantages and points that require improvement

The advantages and points that require improvement based on interviews with the teachers and counselors are as follows.

### 1. Responses from the counselors

#### a. Advantages of this system

Atmosphere of the teachers can be identified through pictures in display.

Non-verbal communication, such as expression or eye movement, can be used effectively during counseling.

Consultation is available even though the teacher and the counselor are separated by a distance.

Works, such as a picture or composition that the child drew or wrote, can be seen, and can be used during counseling.

It is not necessary to take the time to visit to a counselor at a separate location.

The counselor can participate in teachers' meetings at each school through this system.

#### b. The points that require improvement

Rapport is hard to establish.

Difficult to develop confidential relations with each other.

Eye contact is seldom matched.

The camera does not move smoothly.

The video pictures in the display do not move smoothly.

It is hard to listen to voices and the sounds of the teacher.

Establishing rapport between the counselor and the teacher is difficult compared with that in face-to-face interviews.

Delicate nuances are rarely transmitted.

### 2. Responses from the teachers

#### a. Advantages of this system

The directions from counselors can be obtained easily.

Continuous counseling can be received.

It is always secure to talk to the counselor.

It is not necessary to take time to visit to a counselor at a separate location.

A child's situation can be objectively analyzed through the consultation.

Talking relieves stress.

b. Points that require improvement

Eye contact is seldom matched.

Teachers using this system are restricted, because of interest in the problem behaviors of children.

The counselor does not observe the child directly.

Since the time period for consultation is restricted, consultation cannot be obtained on demand.

## Discussion

According to the above responses from the teachers and counselors, the advantages and the points requiring improvement were examined.

### (1) The advantages of this system

The advantages of this system are as follows.

a. The advantages of having images available

Since a video consultation is made, seeing images on the display, the atmosphere of each party is far more comprehensible than it would be using a telephone. Doherty-Sneddon, et al (1997) showed that visual information given by video-mediated communication was not very useful. But, in Japan, visual information is very effective, because Japanese people are tend to understand a feeling from facial expression. This view is supported by the fact that Japanese patients with anthropophobia are more than another countries.

Non-verbal communication can be used effectively during counseling. These points are also very important in routine interviews. Observing the client through the display not only gives the counselor access to considerable information, but may also be a useful constituent in establishing a mutually confidential relationship. When the teacher participating in the consultation has the child's works such as drawings or letters and so on, the counselor is

able to actually see these and to understand specific characteristics of the child's objective behavior from these works. That is, it is possible for the counselor to use the information obtained from these works during subsequent counseling. In these are points, this system is superior to telephone consultation.

b. Convenience of tele-communication

Since tele-communication is used, the teacher can receive consultation at his own school, without traveling to another site. This not only contributes to saving time and expense, but also provides feelings of ease, such as "we are always able to obtain counseling". It is considered that this feeling of emotional support is effective in reducing teacher stress.

Consultation at remote sites is possible using tele-communication. This suggests that consultation can be made available the teachers at remote schools where a school counselor is not yet stationed.

**(2) Points that require improvement**

Points of this system that require improvement are as follows.

a. The improvements in the system hardware

The most needed improvements in the system hardware involve the camera position (Doherty-Sneddon, et al 1997, Tokuda, K. 1998). Since the camera is focused on the upper part of the 21-inches display, it dose not facilitate eye contact between the teachers and counselors. For example, if the counselor talks to the teacher while watching his face projected on the display, the teacher would perceive the counselor as looking down-ward. In order to improve this point, equipment, such as a CCD camera that can be arranged in the center of the display using a reflective board, needs to be developed.

Other points of improvement are that the picture movement is not relatively smooth, and the voices and the sound are slightly delayed. Persons using this equipment need to practice ways of smoothly communicating with the other person using the microphone, camera and display, before starting consultation. Furthermore, smoother conversation would be attained using a telephone circuit that can transmit more data.

b. Improvements in the system software

The points that require improvement are that it is more difficult to establish rapport between the counselor and teacher compared with that in a face-to-face interview. This is considered to be due to the equipment. In this investigation, when the counselor visited the partner school and met the teacher at the introductory stage of consultation, mutual rapport was more smoothly established.

When properly establishing rapport in consultation using the tele-communication, if possible, it will be important for the counselor to visit the school and meet the teacher actually at least once in the introductory stage of consultation.

## Conclusion

A one-year experience with consultation by tele-communication was examined and the tele-communication system was considered a useful means of consultation. This system contributed to reducing the mental burden on teachers or behavior problems of children. However, problems with hardware and software, such as camera focus and the electronic transmission rate, are also pointed out. It is necessary to improve this system further. We would also like to consider the application to counseling not only the teacher but also the family, or the child himself in the future.

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