

BRIEF REPORT

Examining the impact of a communication-focused intervention on promoting first-year college students' sense of adjustment to the school environment: a case study

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INTRODUCTION

Communication is thought to be an important factor in smoothly adapting to a new educational environment (Payne, 2008). From elementary school to junior high school, and from junior high school to high school, students must adapt with each change of environment. In the step from high school to college in particular, first-year students can experience major changes from their previous school life, such as irregular timetables and frequent classroom transfers, and this might be considered to be a personal challenge for many of them. Furthermore, with potentially wider diversity of classmates compared with high school, students may encounter people from more varied backgrounds than before, such as those who live alone and those in the same grade but of different ages.

Becoming acquainted by various forms of communication and building good relationships may enable students to find their place in school (Payne, 2008), perhaps fulfilling a sense of security (Okubo, 2005) and helping to facilitate college life. Communication within smaller groups is thought to be easier than within larger groups (Fay, 2000), so in a smaller college it may be easier to establish relationships than in a larger institution.

During the COVID-19 pandemic, students who spent their three years of high school under its influence may have missed out on important training opportunities to build new relationships. During those unprecedented times, students and faculty wore masks, and social distance recommendations meant that they refrained from conversation on the school premises and beyond. As a result, people who were students at high school during that critical period may be comparably poor communicators because they had less experience in interpersonal communication

than normal during that time. They may have difficulties in successfully adapting to a new educational environment (Nakanishi, 2014). With this background, the current study focuses upon communication, examining the adaptation to the new environment for first-year college students through a two-part intervention including a lecture and a group activity in which they had the opportunity to put the learned content into practice.

METHODS

Participants

Twelve first-year students (three men and nine women) attending a small medical college participated in the study. They have been enrolled in the same class since entering the college and have spent most of their time together at school. They were all either 18 or 19 years old and had each spent all three of their high school years during period most affected by the COVID-19 pandemic.

Intervention period

The intervention was implemented in November, which was seven months after the students first entered the college. Follow-up measurements were taken in February of the following year, three months after beginning the intervention. The purpose, research methods and data handling were explained verbally in advance, and the research was conducted after collecting written consent forms from the students.

Condition before intervention

Compared to the behavior normally exhibited by students in other classes, the students were rarely seen to be talking with each other during breaks, even after seven months of entering the school.

Some communal events, such as a sports festival and a school festival had been held, but there was comparatively little close interaction within the whole group, and the event preparations were done only by a few students. Some female students would eat lunch in the same classroom, but they were seated apart, eating silently in their own seats while looking at their smartphones, while students in other classes would eat and talk during lunch. Furthermore, although the class spontaneously created a social networking group as a means of sharing information about the school, the students were reluctant to reply to senders who voluntarily shared some information. Therefore, their social networking communication seemed to be one-way in every situation. In summary, relationships within the class appeared to be unusually tenuous.

Intervention

Two intervention programs were conducted. The first intervention was a 90-minute lecture on communication. Referring to Daibo's (2022) book on communication psychology, the students were lectured on the purpose of communication, the effects of communication, contemporary relationships, nonverbal communication, and online communication. Then, they were introduced the cognitive theory (Bernstein, 2021), the basis of cognitive therapy, that "cognition mediates between stimulus and behavior." The students learned that behavior (attitude) changed according to one's own cognition (interpretation). The students were assigned a task of identifying two own interpretations that they would like to check in order to verify the accuracy of their cognitions about

their classmates. An example of the cognitions is "my classmates are not interested in what I say."

The following week, a 120-minute luncheon was held. The students chose *takoyaki* (octopus dumplings) as a main menu item, and they cooked and ate together at a large table. Meanwhile, they were instructed to ask a question to each of their classmates in turn and to observe the classmates' behaviors to verify the two things of the cognitions they would like to check.

Measurement

The 'sense of comfort,' a subscale of the Subjective Adjustment Scale for Adolescents (Okubo, 2005), was measured using a five-point scale. This subscale consists of 11 items, including 'the atmosphere is one in which I can talk freely' and 'I help others around me,' and has shown high reliability ($\alpha = .92$). Concurrent validity showed a high positive correlation ($r = .70$) with the Sense of School Enjoyment Scale (Furuichi, 1994), and construct validity showed a high negative correlation ($r = -.51$) with the Self-rating Depression Scale Japanese version (Fukuda, 1973), indicating that the sense of comfort is considered an appropriate measure of school adjustment (Kumagai, 2016). Measurements were taken three times: immediately before, immediately after, and as part of a follow-up three-month after the luncheon.

RESULTS

A within-subjects one-factor analysis of variance was conducted to examine the changes in school adjustment at the three time points. There was significant difference in the sense of adjustment at each

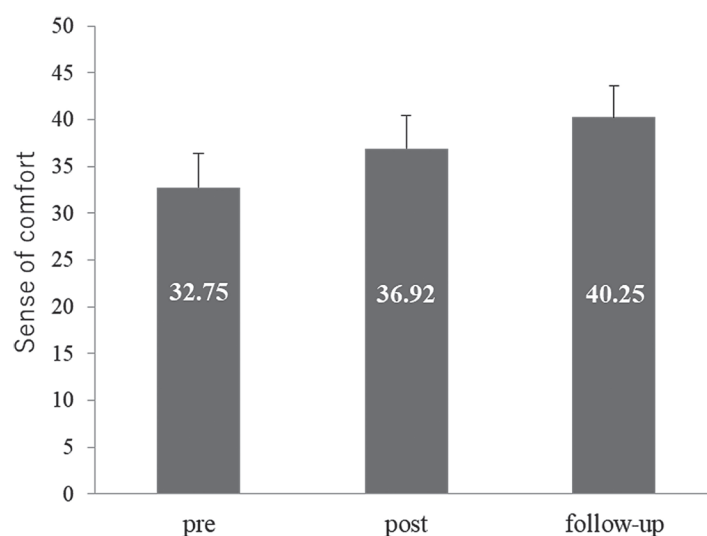


Figure 1. Means of sense of comfort before, after, and 3 months after the intervention

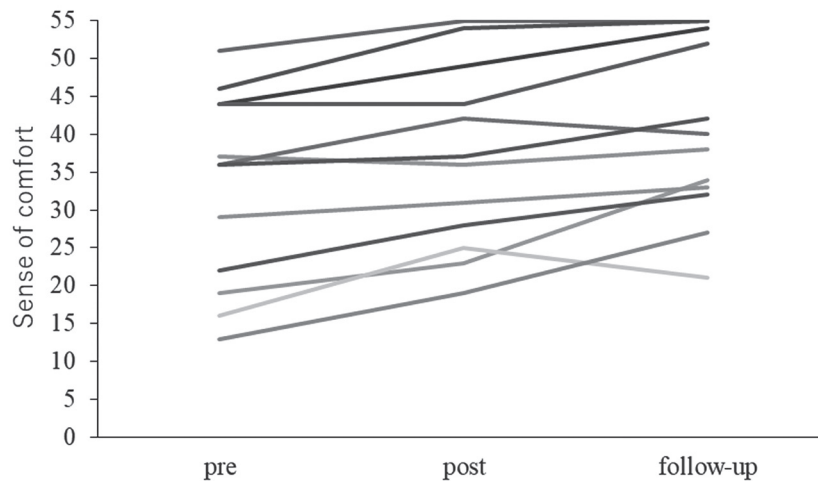


Figure 2. Changes in sense of comfort before, after, and 3 months after the intervention

time point, $F(2, 10) = 20.22$, $p < .0001$, $\eta^2 = .80$. Post-hoc analysis revealed a significant difference ($p = .002$) between immediately before ($M = 32.75$, $SD = 12.76$) and immediately after ($M = 36.92$, $SD = 12.11$) the intervention, a marginally significant difference ($p = .069$) between immediately after the intervention and at the three-month follow-up ($M = 40.25$, $SD = 11.59$), and a significant difference ($p < .0001$) between immediately before the intervention and at the three-month follow-up (Figure 1). Changes in scores for each participant are shown in Figure 2.

DISCUSSION

This study examined the effects of a two-part communication-centered intervention to promote college students' adaptation to their new educational environment. After the intervention, their sense of school adjustment was shown to be increased. The effect of the intervention was also found to be increasing when measured three months later, indicating that the taught aspect of the intervention focused on communication was effective in promoting college students' school adjustment.

Although the intervention included lectures and social interaction practice, the first measurement was conducted just before the social interaction luncheon event, which was one week after the lecture was given. Unfortunately, no measurement was conducted before the lecture, so the effectiveness of the lecture itself is unclear. All the scores measured in the study are therefore representative of only the effects of the social interaction practices. However, the participants likely practiced what they learned in the lecture at the luncheon event. Taking this into account, it can be

considered that the scores immediately after the lunch and at the follow-up at least to some extent included the effects of both the lecture contents and interaction practices. Given that the effects of the lecture and the interaction practices cannot be analyzed separately, it is not clear which factor had the greater effect or whether an interaction between the two factors occurred. This is a limitation of this study. The luncheon conducted in this study was rather time and labor intensive, so it would be desirable to promote students' sense of school adjustment through lectures alone; however, it remains to be seen whether the same effect would have been achievable by lectures alone.

Regarding the changes of individual scores, the results showed that one student's score dropped by 1-point from the immediately before to the immediately after the intervention, and two students' scores dropped by 2- and 4-point in the time from the immediately after the intervention to the follow-up. On the other hand, there was an increase in all students from the score taken immediately before the intervention to that taken as part of the follow-up. For those with a drop in the score from immediately before intervention to the immediately after it, it is possible that their scores dropped because the students felt they were unable to successfully practice what they learned in the lecture at the luncheon. Their scores nonetheless rose at the follow-up, perhaps because they successfully practiced later in their school life. For those whose scores dropped from the immediately after the luncheon to the follow-up, it is possible that their scores rose significantly due to a temporary increase in elation immediately after the interaction. Although some scores dropped between immediately after the intervention and the follow-up, the scores at the

follow-up were still higher than those immediately before the intervention. These results suggest that the intervention was effective.

Comparing the scores between the male and female students, although there were no significant differences, the male students had higher mean scores than the female students at all three time points. The result was inconsistent with the previously-reported notion that the scores in the 'sense of comfort' are usually significantly higher for female students than for male students (Okubo, 2005). The comparatively small number of participants in this study might have some influence over the results. In addition, because this study was limited to a single case, the generalizability of this intervention is unclear. Future research is needed.

In this study, an intervention focusing on communication was thought to be effective in promoting school adjustment among our college students. It suggests that there may be a certain number of college students who are poor at understanding the importance of interpersonal communication in a new environment and who have or have had comparatively few opportunities for interpersonal communication. Participants in this study were all medical college students who will be expected to become professionals in interpersonal assistance and to communicate smoothly with patients. Communication skills are an important skill for building human relationships, so experiencing and practicing various types of interper-

sonal communication while in college is thought to be an important preparation for becoming a member of society in the future.

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