

Nursing Informatics

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[AP1-E2-2-06] Factors Related to the Perception of Nursing Students for Group Work in Online Classes

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Keywords: Group Work, Online Classes, Nursing Students

The purpose of this study is to clarify factors related to perception of nursing students for group work (GW) in online classes. After GW used break-out session of ZOOM, we asked about the perception and related factors in online classes for 88 nursing students (Number of valid responses: 67). Then we performed Multivariate stepwise linear regression analysis. This study was approved by Research Ethics Committee of Naragakuen University (2-015). There are no conflicts of interest to be disclosed. In online classes, factors significantly related to perception of Goodness for GW were having Worth in Attitudes towards GW ($\beta=0.63$), Psychological Security ($\beta=0.31$), taking classes in my room ($\beta=0.13$), and Stress Management in Social Skills ($\beta=0.12$) (adjusted $R^2=0.78$). Factors significantly related to perception of Contributions to GW were using Skills in Attitudes towards GW ($\beta=0.66$), Psychological Safety ($\beta=-0.30$), and taking classes in my room ($\beta=0.28$) (adjusted $R^2=0.42$). In online classes, we thought that the most important factor lead to perception of Goodness for GW is having Worth for GW. In addition, we thought that ensuring psychological safety, taking classes in their own room, and having stress management capabilities are also important factors. On the other hand, we thought that the most important factor lead to perception of Contribution to GW is using Skills in GW. However, this is a possibility that it has been raised in conditions that taking classes in their own room and no ensuring psychological safety.

Factors Related to the Perception of Nursing Students for Group Work in Online Classes

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Abstract

The purpose of this study is to clarify factors related to perception of nursing students for group work (GW) in online classes. After GW used break-out session of Zoom, we asked about the perception and related factors in online classes for 88 nursing students (Number of valid responses: 67). Then we performed Multivariate stepwise linear regression analysis. This study was approved by Research Ethics Committee of Naragakuen University (2-015). There are no conflicts of interest to be disclosed. In online classes, factors significantly related to perception of Goodness for GW were having Worth in Attitudes towards GW ($\beta=0.63$), Psychological Security ($\beta=0.31$), taking classes in my room ($\beta=0.13$), and Stress Management in Social Skills ($\beta=0.12$) (adjusted $R^2=0.78$). Factors significantly related to perception of Contributions to GW were using Skills in Attitudes towards GW ($\beta=0.66$), Psychological Safety ($\beta=-0.30$), and taking classes in my room ($\beta=0.28$) (adjusted $R^2=0.42$). In online classes, we thought that the most important factor lead to perception of Goodness for GW is having Worth for GW. In addition, we thought that ensuring psychological safety, taking classes in their own room, and having stress management capabilities are also important factors. On the other hand, we thought that the most important factor lead to perception of Contribution to GW is using Skills in GW. However, this is a possibility that it has been raised in conditions that taking classes in their own room and no ensuring psychological safety.

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Introduction

Group work (GW) is activity in which a small number of students tackle common problems in classes. In the midst of active learning, GW is one of the most effective way to bring about the independence of students and develop their own ideas. In nursing education, GW is often incorporated in classes, expecting its high effect. However, the effects of GW are based on the assumption that the classes would be treated on face-to-face, and not online classes at home. Due to the influence of COVID-19, the classes are becoming more online. In view of the fact that GW would shift from face to face to online, it is important to clarify how effective GW can be done in online classes. The purpose of this study is to clarify factors related to perception of nursing students for GW in online classes.

Methods

Classes Overview and Examination

Classes were provided at A University as a "perioperative nursing course" in five weeks (totally 28 hours) from May through June 2020. The GW contents used break-out session of Zoom were intended to solve the problem and discuss it. The group consists of four members at random. In addition, 88 students were enrolled in the third year of the classes.

Accurate sample size for this study is 384 with effect size 0.3, significant level 0.05, statistical power 0.8. However, it was difficult to achieve this, after 28 hours of GW in that online classes, we conducted questionnaires survey of 88 nursing students on the web. Survey items were as follows:

- 1) Perception for GW in online classes: We used Perception Scale for GW in classes [1] that composed of Goodness for GW and Contributions to GW.
- 2) Attitudes towards GW: We used Attitudes Scale for a general GW [1] that composed of having Worth, using Skills, and doing Leadership.
- 3) Social Skills: We used Social Skills Scale for students aiming to provide assistance to others [2] that composed of Precise Self-Expression, Stress Management, Self-Responsibility, Tenacious Negotiation, Presentation Skills, Counseling Skills, Association Skills, Executive Committee, and Skills for Others.
- 4) Psychological Safety: We used Psychological Safety Scale with a change in contents for students.
- 5) Fundamental or Otherwise: We asked about Gender, Telecommunications state, place where taking classes (taking classes in my room or taking classes in common space with family), and Preparing for GW outside classes (prepared properly or not, time to prepare).

Analysis

In this study, we identified the distribution of variables by a statistical description. Then, we performed multivariate stepwise linear regression analysis. (Dependent variable: perception for GW in online classes, Independent variable: Attitudes towards GW, Telecommunications state, place where taking classes, Psychological Safety, preparing for GW outside classes, and Social Skills) In the analysis, we confirmed that the residuals were normally distributed. We also confirmed that there was no problem with the multiple values of independent variables. (Variance Inflation Factor; VIF: 1.046-1.407). Statistical Analysis Software used SPSS 24.

Ethical Considerations

This study was approved by Research Ethics Committee of Naragakuen University (2-015). There are no conflicts of interest to be disclosed.

Results

Of the 88 nursing students contacted, there were 67 (male: 7, female: 60) valid responses. (valid response rate: 76.1%)

As a results of multivariate stepwise linear regression analysis, factors significantly related to perception of Goodness for GW in online classes were having Worth in Attitudes towards GW ($\beta=0.63$, $p<0.01$), Psychological Security ($\beta=0.31$, $p<0.01$), taking classes in my room ($\beta=0.13$, $p=0.03$), and Stress Management in Social Skills ($\beta=0.12$, $p=0.05$) (adjusted $R^2=0.78$). The factors significantly related to perception of Contributions to GW were using Skills in Attitudes towards GW ($\beta=0.66$, $p<0.01$), Psychological Safety ($\beta=-0.30$, $p=0.01$), and taking classes in my room ($\beta=0.28$, $p=0.01$) (adjusted $R^2=0.42$). (Tables 1)

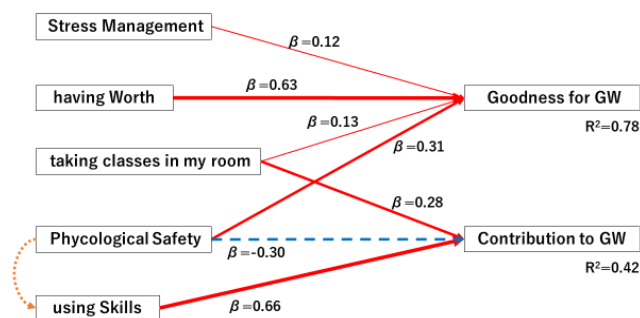
Table 1- Factors related to perception of nursing students for GW in online classes

Factors	Goodness for GW		Contributions to GW	
	β	p	β	p
Attitudes towards GW				
having Worth	0.63	$p<0.01$	-0.00*	n.s.
using Skills	-0.00*	n.s.	0.66	$p<0.01$
doing Leadership	-0.02*	n.s.	0.24*	n.s.
Social Skills				
Precise self-expression	-0.09*	n.s.	-0.01*	n.s.
Stress Management	0.12	$p=0.05$	-0.15*	n.s.
Self-Responsibility	-0.02*	n.s.	-0.14*	n.s.
Tenacious Negotiation	-0.03*	n.s.	0.04*	n.s.
Presentation Skills	-0.06*	n.s.	-0.01*	n.s.
Counseling Skills	0.00*	n.s.	-0.02*	n.s.
Association Skills	0.03*	n.s.	-0.03*	n.s.
Executive Committee	0.02*	n.s.	-0.08*	n.s.
Skills for Others.	0.00*	n.s.	-0.17*	n.s.
Psychological Safety	0.31	$p<0.01$	-0.30	$p=0.01$
place where taking classes (in my room)	0.13	$p=0.03$	-0.28	$p=0.01$
Telecommunications state	-0.04*	n.s.	-0.18*	n.s.
Preparing for GW				
prepared properly	-0.03*	n.s.	-0.07*	n.s.
time to prepare	-0.00*	n.s.	0.05*	n.s.
adjusted R^2	0.78		0.42	
Durbin-Watson	1.97		1.86	

β : Standardized Coefficients *: β In n.s.: not significant

Discussion

We analyzed the factors related to perception of nursing students for GW in online classes and thought of the following: In online classes, we thought that the most important factor lead to perception of Goodness for GW is having Worth for GW. In addition, although not as much as that, we thought that ensuring psychological safety, taking classes in their own room, and having stress management capabilities are also important factors. On the other hand, in online classes, we thought that the most important factor lead to perception of Contribution to GW is using Skills in GW. In addition, taking classes in their own room and no ensuring psychological safety are important factors. In other words, these things are considered that taking classes in their own room, a sense of low Psychological Safety helps them to improve it by using Skills, and this can lead to perception of Contributions to GW in online classes (Figure 1).



※ Only significant Standardized Coefficients were shown.

Figure 1- Factors related to perception of nursing students for GW in online classes

Doing Leadership, preparing for GW outside classes and telecommunications state were not related to Goodness for GW and Contribution to GW. From these results, we could think of the following: First, we thought that Preparing for GW outside classes was important for a positive perception that Goodness for GW and Contributions to GW. There was, however, no relation between them. From this, it would be appropriate to think that the contents of the students' Preparing for GW did not have become a positive perception. Second, we considered securing psychological safety in online classes to be important thing. However, this study found that the inability to secure such supplies was also an important factor to perceive Contribution to GW using skills. Third, we thought that taking classes at home would be important not only in the state of Telecommunication, but also in the places place where taking classes. This study found that in order to effective GW in online classes, it's necessary to have a place where they can concentrate on their classes. Last, as Attitudes towards GW, having Worth and using Skills lead to positive perception for GW was a reasonable result. But as for doing Leadership, it was not confirmed that it would lead to an effective GW. We could not know why, but this is the next issue.

Conclusions

Factors significantly related to perception of Goodness for GW were having Worth, ensuring Psychological Security, taking classes in my room, and having Stress Management capabilities. On the other hand, Factors significantly related to perception of Contributions to GW were using Skills, no ensuring Psychological Safety, and taking classes in my room.

References

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