## OTHERS

# Exploring the Mental Health of Japanese Graduate Trainees in Psychology : Comparison with Non-Trainees in Other Departments

Mina Nakano[1], Tomoya Takeda[2], and Koudai Fukudome[3]

*[1]Department of Psychology, Fukuyama University, Hiroshima, Japan, [2]Department of Psychology, University of Human Environments, Ehime, Japan ; Department of Psychiatry, Graduate School of Biomedical Science, Tokushima University, Tokushima, Japan, [3]Department of Psychology, St. Catherine University, Ehime, Japan*

**Abstract : This study investigated the mental states, such as depression and anxiety, of Japanese psychology graduate trainees (N = 57) who aspired to become psychologists, compared with non-trainees (N = 80) in other departments. The results showed that, among trainees, 25% exhibited mild depression, 26% exhibited moderate depression, 9% exhibited moderately severe depression, and 5% exhibited severe depression. Among non-trainees, the corresponding figures were 31%, 10%, 6%, and 4%, respectively. Welch's t-test revealed that the trainees showed significantly higher anxiety and higher scores on the "work or study" subscale of the Sheehan Disability Scale (SDISS) compared with the non-trainees. A two-way ANOVA indicated that first-year trainees had a significantly higher SDISS total score than second-year trainees. The survey was conducted 2–4 months after the commencement of first-year clinical training, during which first-year trainees tend to face many new challenges. This might be the reason for their higher SDISS than the second-year trainees. These findings emphasize the importance of prioritizing the mental well-being of Japanese graduate students pursuing careers in psychology, given their high levels of anxiety. J. Med. Invest. 71 : 356-359, August, 2024**

***Keywords*** **:** *clinical psychologist, psychology graduate trainee, mental health*

## INTRODUCTION

Mental health issues among graduate students have received increasing attention in recent years. Graduate students are extremely busy and stressed when attending lectures, writing reports, and conducting research for their master's thesis. High levels of depression and anxiety have been reported among graduates in many countries. Evans *et al*. (1) studied 2,279 individuals from 26 countries and found that graduate students were six times more likely to experience depression and anxiety than the general population.

In Japan, the poor mental health of graduate students has been gaining attention. A survey of 42 universities showed that graduate students are in a harsh and unstable situation owing to research, experiments, career paths, and financial situations, and that mental health and psychological counseling are used more often than for undergraduate students (2). According to a survey of graduate students' mental health and truancy tendencies, many graduate students are aware of their mental health problems, such as depression and anxiety, and 11% exhibit suicidal ideation (3).

A study by Kondo and Miyashita (4) showed that psychologists have a significantly higher "diminished sense of personal accomplishment" than other professions.

According to Killian (5), many therapists experience physical symptoms and sleep disturbances due to work stress. A systematic review found that 20%–40% of psychotherapists experience burnout (6), and Yang and Hayes (7) revealed that several mental health professionals experience burnout at some point in their careers. Owing to the severity of distress and burnout in psychologists, Posluns and Gall (8) argued for the need for self-care by mental health practitioners, especially incorporating self-care into clinical practice.

Although the mental health of graduate students and psychologists has received increasing attention worldwide, little research has been conducted on the mental health of graduate students aspiring to become psychologists. Similar to medical students, dental interns, and pharmacy interns, graduate trainees in clinical psychology are likely to experience high distress. Inexperienced psychological assistants are likely to experience compassion fatigue (9), which can have depressive effects and adversely impact their quality of life.

Japanese graduate trainees aspiring to become psychologists are likely to experience great tension and responsibility in their off-campus clinical practice and on-campus casework. It is not until the master's program that trainees experience full-fledged off-campus clinical psychology practice. Many questions have not yet been answered about Japanese graduate trainees, such as whether first-year trainees with low practical training experience more anxiety and depression, whether second-year students have poorer mental health owing to anxiety about job placement, and whether mental health differs depending on the sex of the trainees.

This study focused on the mental health of Japanese graduate trainees aiming to become psychologists (trainees), comparing their mental health, such as depression, anxiety, and social functional impairment, with that of graduate students in other departments that do not require any practicum (non-trainees). We examined whether mental health differs based on grade and sex. We believe that the findings of this study will help us understand the points that should be considered in the training of graduate psychology students.

Received for publication March 21, 2024 ; accepted July 4, 2024.

Address correspondence and reprint requests to Mina Nakano, Department of Psychology, Fukuyama University, 985-1 Sanzo, Higashimura-Cho, Fukuyama, Hiroshima 729-0292, Japan and E-mail : mnakano@fukuyama-u.ac.jp

## METHOD

A survey was conducted with the help of four graduate schools and a private research firm to compare the mental health of Japanese trainees and non-trainees. The survey was conducted between November and December in 2022, when many Japanese first-year trainees were expected to have completed their pre-training study and had already begun off- and on-campus training.

Valid responses were gathered from 57 trainees (first-year trainees : 4 men, 19 women, 1 unknown ; second-year trainees : 10 men, 23 women) and 80 non-trainees (first-year non-trainees : 17 men, 15 women ; second-year non-trainees : 24 men, 24 women). The mean age of the trainees was 26.7 years (*SD* = 8.07), and of the non-trainees was 24.1 years (*SD* = 1.64).

## SURVEY

*Face sheet*

Trainees and non-trainees were asked about their age, grade and sex.

*Depressive symptoms*

Patient Health Questionnaire-9 (PHQ-9) Japanese version (10) was used, comprising nine items scored on a four-point scale from "not at all" (0 points) to "almost every day" (3 points). Regarding depressive symptoms, a score of 0–4 was categorized as none, 5–9 as mild, 10–14 as moderate, 15–19 as moderate-severe, and 20–27 as severe. Internal consistency in this study was $\alpha = .88$.

*Anxiety symptoms*

The Japanese version of the Generalized Anxiety Disorder-7 (GAD-7) (11) was used, comprising seven items scored on a four-point scale ranging from "never" (0) to "almost every day" (3). Regarding anxiety severity, a score of 0–4 was rated as minor, 5–9 as mild, 10–14 as moderate, and 15–21 as severe. The internal consistency in this study was $\alpha = .92$.

*Social function impairment*

The Japanese version of the Sheehan Disability Scale (SDISS) (12) was used. It comprises three items— "work/study," "social life," and "family life/home responsibilities"—scored on an 11-point scale ranging from "not at all disrupted" (0 points) to "extremely disrupted" (10 points). In this study, the internal consistency was $\alpha = .91$.

*Conflict of interest disclosure*

The authors have no conflicts of interest to report. This study received approval from the Ethical Review Committee of the Fukuyama University.

## RESULTS

*Depressive symptoms*

The mean score of the 57 trainees was 7.95 (*SD* = 5.78), with 25% of them categorized as mild, 26% as moderate, 9% as moderate-severe, and 5% as severe. The mean score for the 80 non-trainees was 6.20 (*SD* = 5.51), with 31% of them categorized as mild, 10% as moderate, 6% as moderate-severe, and 4% as severe.

*Anxiety symptoms*

The mean score of the 57 trainees was 5.86 (*SD* = 5.46), with 21% of them categorized as mild, 18% as moderate, and 9% as severe. The mean score for the 80 non-trainees was 4.01 (*SD* = 4.45), with 19% categorized as mild, 13% as moderate, and 3% as severe.

*Social function impairment*

The mean SDISS score was 9.91 (*SD* = 7.40) for trainees and 7.95 (*SD* = 6.27) for non-trainees.

*Correlation analysis*

Correlation coefficients were calculated for depressive symptoms, anxiety symptoms, and social functional impairment among trainees and non-trainees. Correlation analysis revealed that all three variables were significantly correlated with each other for both the trainees and the non-trainees ($r = .67–.90$, $p < .001$).

*T-test comparing the trainees and non-trainees*

Trainees exhibited significantly higher scores on GAD-7 and the SDISS subscale "work/study" than the non-trainees ($t$ [135] = 2.10, $p < .05$, $d = .37$, 95% CI [0.03, 0.71] ; $t$ (135) = 2.13, $p < .05$, $d = .38$, 95% CI [0. 04, 0.72]). No significant differences were observed for the other items.

*Two-way analysis of variance with trainee grade and sex as independent variables and each indicator as the dependent variable*

There were no significant interactions in any of the measures. On the other hand, main effect of grade was found for SDISS total score ($F$ [1,52] = 4.13, $p < .05$, $\eta p^2 = .07$) and SDISS social life ($F$ (1,52) = 5.78, $p < .05$, $\eta p^2 = 0.10$) (Table 1). For non-trainees, there were no significant interactions and main effects by grade or sex in any of the measures.

Table 1. Means and analysis of variance results of trainees by grade and sex.

| | First-year trainees | | Second-year trainees | | Main effect (F) | | partial $\eta^2$ | | Interaction (F) |
|---|---|---|---|---|---|---|---|---|---|
| | Men | Women | Men | Women | Grade | Sex | Grade | Sex | |
| PHQ-9 | 8.00 (9.80) | 10.32 (5.56) | 5.00 (4.06) | 7.26 (5.54) | 2.56 | 1.47 | 0.05 | 0.03 | 0.00 |
| GAD-7 | 6.25 (7.32) | 7.89 (6.07) | 3.10 (3.67) | 5.26 (5.04) | 2.59 | 1.12 | 0.05 | 0.02 | 0.02 |
| Work/Study | 4.00 (4.90) | 5.16 (2.36) | 2.70 (2.36) | 3.22 (2.61) | 3.29 | 0.88 | 0.06 | 0.02 | 0.13 |
| Social Life | 4.25 (5.06) | 4.89 (3.14) | 1.40 (0.97) | 3.30 (2.48) | 5.78 * | 1.90 | 0.10 | 0.04 | 0.47 |
| Family Life | 2.50 (3.79) | 3.16 (3.10) | 1.30 (0.95) | 2.39 (2.13) | 1.40 | 1.10 | 0.03 | 0.02 | 0.07 |
| SDISS total | 10.75 (13.50) | 13.21 (7.71) | 5.40 (3.72) | 8.91 (6.34) | 4.13 * | 1.58 | 0.07 | 0.03 | 0.05 |

*$p < .05$

## DISCUSSION

This study revealed that 40% of trainees and 20% of non-trainees exceeded the PHQ-9 cut-off, and 27% of trainees and 16% of non-trainees exceeded the cut-off on the GAD-7. Evans *et al*. (1) conducted a survey on the mental health of graduate students across 26 countries, revealing that 39% exceeded the PHQ-9 cut-off and 41% exceeded the GAD-7 cut-off. In the context of Japanese graduate students, Horii (3) indicated that many graduate students are aware of their mental health problems such as depression and anxiety, and 11% exhibit suicidal ideation. Seto *et al*. (13) demonstrated mean scores of 6.9 for PHQ-9 and 4.9 for GAD-7 among graduate students at Tohoku University. Previous studies did not specify the percentages of Japanese graduate students surpassing PHQ-9 or GAD-7 cut-offs. Nevertheless, we find the percentages reported in this study comparable, considering the mean scores of non-trainees. Through this study, we have identified the proportion of Japanese graduate students exceeding the cut-off scores for PHQ-9 and GAD-7. This contribution enhances our understanding of the mental health challenges faced by graduate students.

There were no significant differences in depression between the trainees and non-trainees. These findings suggest that Japanese graduate students, trainees and non-trainees, are likely to experience depressive symptoms. This result supports previous studies indicating that graduate students have poor mental health (1, 2). The t-test results indicated that trainees were significantly more anxious than non-trainees. It can be inferred that interacting with clients and patients at the clinical training site, conducting psychological tests and psychotherapy, such as counseling and cognitive-behavioral therapy, creating case reports, and managing individual cases arouses a great deal of anxiety for trainees. It is also inferred that they often feel more caught up in preparing for upcoming training and feel worried and anxious rather than having the time to be immersed in a depressive state. They may often feel unsure of their actions and wonder if they are doing the right thing. After completing one training, another awaits them at the next training site. The cycle of anxiety about the next practical training session may occur without having time to experience feelings of release or accomplishment.

One possible reason for the lack of a difference in anxiety between first- and second-year trainees is that the nature of anxiety differs depending on grade. This survey was conducted between November and December, two to four months after first-year trainees in most graduate schools in Japan had completed their pre-training studies and started participating in off-campus training. Second-year trainees were more familiar with practical training than first-year trainees, but the hours of training were much longer than in the previous year, and the skills required of them were higher than those of first-year trainees. Such heavy responsibilities and tight schedules for practical training are likely to arouse anxiety.

Regarding social functional impairment, the higher anxiety of the trainees may have led to impairment in work/study, which was significantly higher than that of the non-trainees. Trainees may become nervous by repeatedly recalling their past failures and regrets in practical training or become anxious about future training, which may increase their rumination even when they are away from training. This rumination may make it difficult for students to concentrate on their classes and report assignments, which may interfere with their work or study. Additionally, the tight schedule of practical training may reduce sleep time and drain physical strength.

While there were no significant differences in depressive and anxiety symptoms between first- and second-year trainees, first-year trainees showed significantly higher scores than second-year trainees on the SDISS total score and "social life" subscale. It is possible that, compared with second-year trainees, first-year trainees are unfamiliar with practical training, have not yet mastered the skills to control their emotions, and, in their social life, cannot keep their minds off the training. This may affect their social lives.

This study suggests that Japanese graduate trainees aspiring to become professional psychologists have depression levels as high as those of non-trainees. However, anxiety was found to be significantly higher among trainees than non-trainees, suggesting the need for further consideration. Moreover, it is necessary to clarify the causes of depression and anxiety in clinical practice to reduce these symptoms among trainees. Regarding high levels of stress, it is essential to understand what trainees tend to feel particularly anxious about, for example, whether the trainees are highly anxious about their past actions and behaviors in clinical fields. Further development of this study may lead to improvements in practical training, including pre- and post-learning in graduate schools.

## LIMITATIONS

The present study had several limitations. First, we did not compare data before and after the COVID-19 outbreak. There is a possibility that the mental health status of both trainees and non-trainees was affected by COVID-19.

Second, the number of samples and participating graduate schools in the survey were insufficient. We obtained survey cooperation from four graduate schools, but this alone is inadequate to understand the overall mental health trends of trainees in Japan.

Third, it would have been more desirable to collect data before and after the trainings. It is possible that the trainees initially had a higher tendency towards anxiety compared to the non-trainees. Obtaining longitudinal data will be required in future research.

## DISCLOSURE STATEMENT

The authors report there are no competing interests to declare.

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