Report

Using manga/picture books to understanding of patients with mental disorder

—— In-school psychiatric and mental health nursing clinical practicum during the Covid-19 pandemic ——

Tomomi FUJIMOTO   *Aino University*

Yuri KAWANO   *Aino University*

Yumiko OHSHIMA   *Aino University*

Abstract

The purpose of this study is to determine how the use of manga (Japanese graphic novels) and picture books affected the understanding of case patients with mental disorder in school psychiatric and mental health nursing clinical practicum during the Covid-19 pandemic. Before moving on to nursing processes of case study patients, opportunities were established for students to read manga and picture books with the themes of mental illness and mental disability. We analyzed the content related to the use of manga and picture books and the content related to learning as stated in the question "How was the use of manga and picture books affected your understanding of the case patients with mental disorder?" Four categories were identified from the results of the analysis: use manga to get an image of mental illness and learn about the different symptoms of different stages of illness; empathetic understanding of people with mental illness and their families; acquisition of nursing perspective tailored to the individuality of people with mental illness and their symptoms; which were aspects of the positive learning effects using manga and picture books, while; influenced by the content of the manga; was an aspect with a negative effect on learning using manga and picture books.

Key words: understanding of patients with mental disorder, manga/picture book, psychiatric and mental health nursing clinical practicum

Introduction

Nursing practice is a type of class that is developed using human beings as the actual objects of care. It is also meaningful to integrate and deepen the knowledge and skills already learned by using the scientific knowledge and skills learned in lectures and exercises and practicing them on specific subjects in need of nursing care in any nursing situation. (Sugimori et al., 2005).

Starting with Introduction to psychiatry, students deepen their understanding of people with mental illness and mental disabilities through classes in Introduction to Psychiatric Nursing, Psychiatric Nursing Assistance Theory, and Psychiatric Nursing Activity Theory. Based on the knowledge acquired in these subjects, students deepen their understanding of the subjects and self-insight while interacting with mentally disabled people and assisting them in their daily lives through interpersonal processes in the two-week practical training in psychiatric nursing. However, in 2020, students had to refrain from commuting to school due to the declaration of a state of emergency caused by the spread of the new coronavirus (hereafter referred to as COVID-19). In addition, online classes have been replaced by face-to-face classes, and the content of learning has had to be limited. In addition, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and the Ministry of

Health, Labor and Welfare (MHLW) issued a notice regarding the flexible handling of practical training and other classes at school and training institutes in order to respond to COVID-19, and to ensure learning opportunities according to the situation. This forced the cancellation of on-site training in psychiatric nursing practice at our university, and we were forced to switch to on-campus training. As a result, it was difficult for students to have opportunities to understand mentally disabled people through their interaction with them.

The psychiatric nursing practice at this university aims to understand individuals with mental disorders and their families, and to cultivate the basic ability to practice individualized nursing care to promote recovery of mental health. However, in the Psychiatric Nursing Practicum in 2020, which became an on-campus practicum, the nursing process was developed using case studies. In the first semester, students had limited opportunities to use audiovisual materials due to online classes, and it was assumed that they did not have sufficient images of patients with mental illnesses and mental disabilities. Therefore, we decided to use manga and picture books as a method to promote understanding of mentally disabled patients, since students no longer have opportunities to interact with mentally disabled patients in practical training. Many universities use audiovisual materials such as videos in nursing skills training. While audiovisual materials have the advantage that "Videos using actual objects are more realistic and help students deepen their understanding compared to existing paper-based materials," they also have the disadvantage that "videos are limited and not cover all the parts and explanations that students want to see" (Hiraga et al., 2017). In addition, audiovisual materials are often prohibited from being taken off campus, and there are often limited places where they can be viewed. However, manga and picture books, can be read overe and overe again. Furthermore, because they can be read anywhere, students can read them wherever and wherever they want. In addition to such convenience, manga and picture books are considered to have a low psychological burden on the students who read them, and pictures make them more memorable. Many previous studies on learning using manga as teaching materials have been conducted in the field of educational psychology. For example, it has been shown that learning effect is enhanced when the learning content is presented together with peripheral information (e. g., stories) (Yoshida, 2013), that memory is retained over a long period of time when the learning contents is presented in manga form, and that deeper understanding is obtained by reading the story together (Mukogo et al., 1998). Although there have been reports on the learning effect of using manga as teaching materials in other field other than nursing, there are no previous studies in the field of nursing. Furthermore, there are no reports on learning using manga and picture books as teaching materials in nursing practice.

Based on the above, the purpose of this study was to clarify how the use of manga and picture books influenced the understanding of case patients (mentally disabled persons) in the on-campus psychiatric nursing practice conducted in the COVID-19.

Materials and Method

1. Research subject

Ninety third-year students who underwent psychiatric nursing training at the Department of Nursing at X university in 2020.

2. Data collection method

In 2020, 84 students who had completed the Psychiatric nursing Practicum in the Department of Nursing at University X returned the reports titled "Impressions of Learning in Psychiatric Nursing Practicum" to the researcher, who explained the purpose of this study in writing and orally, and requested the researcher to conduct the study. If the students agreed, with the request, they were asked to submit the report again after the researcher left the room, in an unsigned form with their student ID number and name cut out to the collection box.

3. Analysis target

In the report "Impressions of learning in psychiatric nursing practice" written by a student, the report is included in the section "How was the use of manga and picture books affected your understanding of the case patients with mental disorder?"

4. Overview of psychiatric nursing practice in 2020

The psychiatric nursing practicum at this university is conducted in the second semester of the third year for 2 credits of 90 hours, and the duration of the practicum is 2 weeks. The students are assigned to one patient, and they develop a series of nursing processes from

understanding the subject to implementing and evaluating the nursing plan, while establishing a therapeutic patient-nurse relationship. The goal is also to deepen self-insight through the patient's relationship.

In 2020, clinical practice was canceled due to COVID-19, and the students practiced on-campus. 1 week of the 2-week practice consisted of the development of the nursing process using case studies, up to the planning of the nursing plan. 2 weeks consisted of group work on community mental health and welfare activities. The second week consisted of group work on community mental health welfare activities. Since this study describes the efforts made in the development of the nursing process during the first week, only the main content of the first week is presented below.

1) Selection of case patients

Six cases were prepared by the teacher: schizophrenia (acute phase), schizophrenia (chronic phase), depression (acute phase), eating disorders, alcoholism, and Developmental disorders (attention-deficit/hyperactivity disorder). On the first day of practice, students were give an overview of the cases orally, and after discussion among group members, one case was assigned to each student.

2) Criteria for selection and exclusion of manga and picture books

The manga and picture books were based on mental disorders that tend to appear on national examinations. Two picture books on eating disorders were included, and the manga were selected on the basis that they were authored by the authors themselves, and depicted their lives during the first few years after the onset of their illnesses. In addition, the teacher in charge of the practical training read the books carefully and excluded books that contained sexual descriptions as exclusion criteria.

3) Set aside time to read manga and picture books

After the assigned cases were decided, the students spent about one hour reading manga and picture books (Table 1) on the theme of mental illness and mental disability prepared by the teachers in accordance with the selection and exclusion criteria before reading the details of the cases. First, the teachers encouraged the students to read as many manga and picture books as possible, regardless of the illnesses of the cases they were assigned to read. Next, about one hour was set aside for the students to carefully read manga and picture books related to the disease of their cases. Finally, we distributed a

Table 1 Manga and picture books used by students to understand case patients

Theme	Type
Schizophrenia	5
Depression	3
Bipolar disorder	1
Alcoholism	5
Eating disorder	7
Attention deficit/hyperactivity disorder	3
Mental disorders and family	1
Family therapy	1
Cognitive-behavioral therapy	1
Department of Psychosomatic Medicine	1
Developmental disorders	1

form with the details of each case and encouraged the participants to gather information while carefully reading the contents and progress of the cases. After that, we did not intentionally set aside time to read manga and picture books, but brought them to the classroom every day so that students could read them freely at any time during the on-campus training. During the training period, we also allowed students to borrow books upon request.

4) Sharing information on received cases through conferences

On the last day of the first week, we held a case conference to discuss the nursing plan that each member had developed. On the last day of the first week, a case conference was held to discuss the nursing plan developed by each member of the group. Because

Several groups were conducting psychiatric nursing practice at the same time, the case conference was held jointly with all groups to enable discussion across groups.

5. Analysis method

The data were carefully read with a focus on the content related to the use of manga and picture books and the content related to learning described in the report in the question "How was the use of manga and picture books affected your understanding of the case patients with mental disorder?" Specific examples were extracted while focusing on the aforementioned areas of focus. The extracted concrete examples were made to include a single semantic content, and similar concrete examples were grouped together to form subcategories. Subcategories with common meanings were typified and categorized.

In order to increase reliability, the results of the analysis were validated through repeated discussions supervised by a research associate.

6. Ethical considerations

We explained that participation in the study was not mandatory, but was voluntary, and that the report to be analyzed in this study had already been graded, so participation or non-participation in the study would not affect their grades in any way. We also explained to the participants that their consent to this study would be considered given upon submission of the report, and that it would be impossible for them to withdraw their consent after submission because the report had been submitted without names, and we obtained their approval. This study was approved by the Aino University Research Ethics Review Committee.

Result

Eighty-one reports were returned in unsigned form (96.4% collection rate). After analyzing the reports written by the study subjects, 130 specific examples were extracted. These were analyzed by similarity, and were summarized into 9 subcategories and 4 categories (Table 2). The examples in Table 2 are partial.

Table 2 Students' learning using manga and picture books to promote understanding of the paper patient with mental disorder

Categories	Sub categories	Specific examples
Use manga to get an image of mental illness and learn about the different symptoms of different stages of illness	Getting a Vague Picture of Mental Illness	It is useful for understanding patients by providing an image of the disease. It is easy to imagine the disease. Without reading books, it is difficult to develop an image of the disease. The book gave me an image of alcoholism. The process and the manifestation of symptoms were easy to remember, and I was able to develop the nursing process while visualizing the I was able to visualize the disease. By understanding the disease, I was able to visualize the patient in concrete terms. The presentation of patients' life situations, symptoms, and treatments allowed me to learn by imagining actual patients. In the cartoon, we could visually see the patient's condition and could visualize the disease. The book gave me a concrete image of how symptoms appear.
	Understand the differences in symptoms of different stages of mental illness	I could understand the process of schizophrenia in the acute, exhaustive, convalescent, and chronic phases. I could understand the differences in symptoms and treatment in the acute, convalescent, and chronic phases. We found differences in the care during hospitalization and the support of those around them after discharge, depending on the stage of the disease. It was easy to think about the stage of disease of the case patients and understand the differences in their current symptoms and how they will recover in the future.
	Use cartoons to supplement and deepen your knowledge and understanding to supplement and deepen understanding	I was able to read many books and absorb a variety of knowledge. The pictures helped me to consolidate the knowledge. He read books on depression and deepened his knowledge about depression. I was able to acquire my own knowledge by reading books on various diseases. I gained knowledge on how to treat people with ADHD appropriately. They learned how to deal with the symptoms and how to treat them. The cartoon provided further basic knowledge of the disease, including symptoms, impact on daily life, and course of the disease. I gained more knowledge by having pictures as well as text. The cartoons and picture books gave me a general idea of the disease just by looking at them once. It was easy to understand and retain in my memory. The cartoon's storyline helped the students understand patients with mental illness and relearned the stress vulnerability model they had learned in class.

Table 2　Continued

Categories	Sub categories	Specific examples
Empathetic understanding of people with mental illness and their families	Understand the impact of mental illness on a person's life and its treatment	The cartoons of their experiences taught us that paranoia is a life-threatening situation for them. I was able to step into the understanding of alcoholism, such as how many patients and their life backgrounds. I understood the percentage of patients and how effective the treatment was. I could understand the patient's symptoms, the impact on his/her life, and the impact on the patient's family. I was able to feel the pain, suffering, and sadness of depression that one cannot understand without actually experiencing it. I was able to understand the pathology and characteristics of the patients. I was able to learn which symptoms affect my daily life. I was able to read deeply into the symptoms and psychology of the case patients and understand the information and behaviors of each case. I could understand the physical condition of the patients, their feelings, words and actions, and the actual clinical treatment. I could understand the physical condition of the patients, their feelings, words and actions, and the actual clinical treatment. It was possible to find difficulties in daily life that are difficult to notice from a medical point of view. We were able to learn about the thoughts and circumstances that led to the onset of mental illness in people with mental illness. It was easy to understand the thoughts of patients with mental illnesses and the factors that cause them.
	Understand the sense of security for people with mental illness	The patient's wishes should be respected, and the patient should be made to feel at ease. I learned that having a presence that acknowledges oneself is a safe place to be. The presence of a family member who supports and understands the patient leads to a reduction in the patient's anxiety and a sense of security. I was able to understand the perspective of depressed patients, their feelings, and the responses that triggered their recovery.
	Understanding Family Support for People with Mental Illness	I was able to think about the details of family support. It is important for the family to understand the disease, and the patient is not the only target of nursing care. I was able to learn about how to treat family members. I was able to learn about how the family members deal with the patient and their feelings. I learned that family involvement and cooperation are very important in treatment. I was able to learn about the psychological aspects of families, what concerns they have and what interventions they would like to see. He understood that the presence of family and friends around him was a major factor in his recovery. I was able to learn about the difficulties of family members, home care methods, hospital selection, etc. from the perspective of family members. I was able to understand how children with ADHD solve their problems on their own, the relationship between parents and children, and their worries.

Table 2　Continued

Categories	Sub categories	Specific examples
Acquisition of nursing perspective tailored to the individuality of people with mental illness and their symptoms	Individualized nursing care for people with mental illness gaining perspective	The patient was able to visualize what was necessary for the patient's life after discharge from the hospital and to consider the necessary goals for this purpose. Through the experiences of alcoholics, we were able to consider how to support stress coping. Imagining the cartoon patient gave us an opportunity to think about what kind of nursing care was necessary for that patient. I was able to apply the contents of the book and develop a nursing plan with an awareness of the individuality of the patient. A nursing plan utilizing the patient's strengths based on the case patient's environment and upbringing history could be developed. The personality of the case patient and the factors that contributed to the onset of the disease were taken into consideration when devising a plan for intervention. By listening to the patients' life backgrounds and future wishes, we were able to deepen our understanding of the subject and think about individualized nursing care. I realized that the nursing care of patients with mental illness is different for each individual, and that it is necessary to provide more personalized treatment and nursing care. We were able to learn about the problems and solutions of childcare for children with ADHD, and to consider nursing plans based on the characteristics of the subject. The manga helped me understand the disease and facilitated the development of an individualized nursing process for each case patient. The case study patient's recovery status and how the patient felt about the family's support were considered, and a specific plan could be developed. By putting myself in the shoes of a person with ADHD, I was able to identify what support is necessary to make life easier for the person with ADHD.
	Realize that symptoms are individualized	I now understand that there are individual differences even in the same disease. I learned that the symptoms of schizophrenia vary from person to person. Because each patient with schizophrenia has different symptoms, we were able to add individualized nursing care. I could understand that the type and degree of symptoms, treatment plan, the way the family handles and perceives the disease, and the way to relate to the patient differ from person to person, even for the same disease. By learning about the experiences of different patients, I learned that symptoms vary from person to person.
Influenced by the content of the manga	Influenced by what is depicted in the manga.	The assessment was too influenced by the symptoms depicted in the manga.

1. Use manga to get an image of mental illness and learn about the different symptoms of different stages of illness

This category consisted of three subcategories: using manga to supplement knowledge and deepen understanding; obtaining a vague image of mental illness; understanding the differences in symptoms depending on the stage of mental illness.

Students *"gained additional basic knowledge of the disease, including symptoms, impact on their lives, and course of the disease through the manga" "The manga story helped me to understand patients with mental disorders and to deepen my understanding of the stress vulnerability model that I learned in the class"* were the students able to supplement their knowledge and deepen their understanding of what they learned in class thought the use of manga. *"By understanding the disease, I was able to visualize the case patients in concrete terms" "The manga gave me an image of the disease and what symptoms would appear"* were the manga helped the students to obtain a vague image of mental illnesses. Furthermore, *"I could understand the course of schizophrenia in the acute, exhaustive, convalescent, and chronic phases" "It was easy to think about the phases of the case patients, and I could understand the differences in their current symptoms and how they will recover in the future"* the following are

some of the reasons why we were able to understand the differences in symptoms depending on the stage of the mental illness.

2. Empathetic understanding of people with mental illness and their families

This category consisted of three subcategories: understanding the impact of mental illness on a person's life and treatment; understanding the sense of security for a person with mental illness; understanding family support for a person with mental illness.

"I learned that various feelings lead people to drink alcohol, and after reading the manga and books, I have a different perspective on the disease" "I was able to feel the pain, suffering, and sadness of depression, which is something you don't understand until you actually have it" "I was able to find difficulties in my life that are difficult to notice from a medical point of view" were the participants were able to understand the impact of mental illness on people's lives and the treatment of mental illness, through such activities as these. The participants also understood the impact of mental illness on people's lives and the treatment of mental illness. *"I learned that the presence of a person who recognizes oneself is a place where one can feel secure"* The participants were able to understand the sense of security for people with mental illnesses from such comments as *"I learned that it is necessary to respect the intention of the patient and to be involve in giving a sense of security to the patient"* Furthermore, *"I understood that it is important for the family to understand the illness, and that nursing care is not only for the patient" "I was able to learn about the psychological aspects of family members, such as what kind of anxiety they have and what kind of intervention they want"* The following are some of the reasons why the participants were able to understand the family support for people with mental illness.

3. Acquisition of nursing perspective tailored to the individuality of people with mental illness and their symptoms

This category consisted of two subcategories: awareness that symptoms are individualized; gaining an individualized nursing perspective on people with mental illness.

The students were able to gain a perspective on individualized nursing care for people with mental illnesses from the following points of view, *"I learned that the symptoms of schizophrenia vary from person to person" "I could understand that there are individual differences even in the same disease"* the participants were able to realize that symptoms are individualized. In addition, *"I was able to visualize what is necessary for the patient's life after discharge from the hospital, and I was able to think about the necessary goals to achieve them" "I was able to learn about the problems of raising children with ADHD and how to solve them and was able to think about a nursing plan based on the characteristics of the patient"* The students were able to *"develop specific plans by considering the recovery status of case patients and how patients feel about family support" "I realized that the nursing care of patients with mental illness is different for each individual, and that is necessary"* to provide treatment and nursing care that is more suited to each individual.

4. Influenced by the contents of the manga

This category consisted of subcategory Influenced by what is depicted in the manga.

This was due to the description of one student's negative reaction, *"I was too influenced by the symptoms in the case patients and those depicted in the manga, without considering the rationale for my assessment, because I did not have enough knowledge of the essentials".* This indicates that the student was "too influenced by the symptoms depicted in the manga". Since this was the only description of a negative reaction by this one student, it was made an independent subcategory of Influenced by the contents depicted in the manga.

Discussion

1. Student learning through the use of manga and picture books to promote understanding of the subject

Although lectures were resumed at nursing colleges due to COVID-19 through the use of distance learning and other means, on-site training had to be interrupted. Under these circumstances, nursing education places emphasis on on-site training, and it is said that there are many issues to be addressed in on-site education (Imanipour et.al, 2021). In nursing education, in particular, there is much to be learned through interactions with patients and other subjects in clinical practice. Therefore, it is important to develop educational methods for understanding the subject when field practice is interrupted by a coronary disaster, and to examine the results of such attempts.

In recent years, psychiatry has been transi-

tioning to the community, and nursing students have more opportunities to interact with the mentally disabled than ever before. In addition, many students consider that understanding schizophrenia and other mental disorders is not as easy as understanding physical disorders. In order to understand mental disorders, the students supplemented their knowledge with manga in addition to what they had learned in previous lectures, which they believe led them to obtain a vague image of mental disorders. Thus, building up an image of mental illness within the students was one aspect of the way they understood the subject. Since it is not possible to meet mentally disabled persons in on-site training and directly learn about the course of illness, the stages of illness, and the overall picture of treatment and care by substituting encounters with mentally disabled persons through manga and picture book characters, students were able to obtain an image of mental illness and learn the differences in symptoms depending on the stage of illness by using manga, and this enabled them to learn about the differences in symptoms depending on the stage of illness. From this, we believe that the students were attempting to understand the case patients.

When we understand others, we think about and try to understand the meaning of their actions and words by comparing them with our own past experiences. Previous studies have suggested that many factors are involved in the understanding others in the patient-nurse relationship, and that the individual's expressiveness, awareness of the relationship with the other persons, orientation toward the other person, expressiveness, empathy, and self-acceptance influence understanding of others (Fukada, 1998). Tomita et al. (2012) also reported that students view the meaning of empathy as a necessary factor in the establishment of a helping relationship. In clinical practice, these factors are involved in building a helping relationship with patient. Because this training was conducted on campus using a case study patient, it was difficult to experience the process of building a supportive relationship. However, in terms of understanding others, which is the foundation for building supportive relationships, the trainees learned to understand the impact of mental illness on people's lives and treatment and to understand the sense of security for people with mental illness. The nursing profession provides care not only to patients, but also to their families. The social resources in the community, such as home nursing services for the

mentally disabled, are not well-developed, and in order for the mentally disabled to live in the community, their families must support their lives (Matsuda et al., 2013). The manga used in this study depicted the transfer of a person who had developed mental symptoms but had not yet been examined to a medical institution after receiving consultation from his or her family. Through the manga, students learned about the anguish of the family from the onset of mental illness to the visit to a medical institution, and through understanding family support for people with mental illness and empathetically understanding people with mental illness and their families, they learned to understand the subject, including its psychological and social backgrounds.

Mental disorders have individual manifestations depending on the patient's life background and otherfactors. For example, students may understand that the symptoms of schizophrenia include hallucinations and delusions, but it is difficult for them to imagine that the manifestations of these symptoms are individual to each patient unless they have actually interacted with a person with a mental disorder. However, through the reading of manga and picture books, the students were able to realize that symptoms are individualized. In a conceptual analysis study on individualized nursing, Urushibata (2009) states that individualized nursing is "nursing that is created by understanding the subject's situation and background, and combining, adjusting, changing, and improving existing nursing care based on this understanding in order to move the subject's condition in the desired direction. The concept of nursing care is "to create nursing care by combining, adjusting, changing, and improving existing nursing care based on understanding of the subject's situation and background in order to move the subject in the desired direction". He also states that the starting point for the development of individualized nursing is the understanding of the subject. Through manga and picture books, students learned about the situations of mentally disabled people, and by gaining a perspective on individualized nursing for people with mental illness, they were able to gain a perspective on nursing that matches the individuality of people with mental illness and their symptoms, which led to an understanding of the case patients.

In this study, manga and picture books were used as a method to promote the understanding of the target audience. Machida (2014) states that when using manga as teaching materials, it is

necessary to select the most appropriate teaching materials to realize the educational goals and content. The manga and picture books used in this study were selected by teachers according to the selection and exclusion criteria. However, manga and picture books are media that are easily memorable, for better or worse, and students may be influenced by the content depicted in the manga. In other words, it could be influenced by the way students perceive and perceive the cartoons. Although this was the opinion of only one student in this case, it is possible that the other students did not write negative opinions because they were concerned about the impact on their grades, since the report to be analyzed was part of the practical training record. The results of this study indicate the usefulness of manga and picture books as a method of promoting understanding of the subject matter. However, even when manga and picture books are selected according to the selection and exclusion criteria, it is clear that the influence of the content differs depending on the students' own level of knowledge and sensitivity. It is necessary to consider the use of manga and picture books in light of the possibility that some students may have a biased understanding of the subject depending on how they receive the content of the manga and picture books.

2. Limitations of this study and future issues

This study analyzed the contents of reports in an on-campus psychiatric nursing practice at X University, and the results cannot be generalized. However, we were able to propose a new educational method for understanding the subject in psychiatric nursing practice when continuation of on-site training is not possible due to COVID-19. In the future, it is necessary to further examine the contents of the manga and picture books in order to select teaching materials, and to study their use in detail.

Conclusion

1) The following four categories were identified as influences of using manga/picture books to promote understanding of the paper patient with mental disorder: use manga to get an image of mental illness and learn about the different symptoms of different stages of illness; empathetic understanding of people with mental illness and their families; acquisition of nursing perspective tailored to the individuality of people with mental illness and their symp-

toms; which were aspects of the positive learning effects using manga and picture books, while; influenced by the content of the manga; was an aspect with a negative effect on learning using manga and picture books.

2) Although it is possible to promote understanding of the paper patient with mental disorder through manga and picture books, the way students are influenced by the content of the manga and picture books varies from student to student. It is necessary to take consideration that the way students understand the subject may be biased depending on how they receive the content of the manga or picture book.

Addition

This study was presented in part at 26th East Asia Forum of Nursing Scholars Conference.

Disclosure of Conflict of Interest

No conflicts of interest to disclose.

References

Fukada, M. (1998). A study on the way of understanding others in the patient-nurse relationship: Focusing on the concepts of empathy and self-acceptance. *Bulletin of Tottori Junior College of Medical Technology*, 29, 43–49.

Hiraga, M., Nakamoto, A., & Yamanaka, M. (2017). Student's utilization and perception of audiovisual materials introduced in nursing skills exercises. *Bulletin of Senri Kinran University*, 14, 95–105.

Imanipour, M., Habib, S. (2021). COVID-19 pandemic: Nursing students' clinical education challenges. *Journal of Medical Education*, 20(2), 1–3.

Mukogo, T., Mukogo, C. (1998). Effect of manga expression on comprehension and retention of learning content. *Japanese Journal of Educational Technology*, 22(2), 87–94.

Matsuda, Y., Funakoshi, A., Kita, E., & Haneda, Y. (2013). Investigation of factors affecting health of families with mentally disabled persons. *Bulletin of Mie Prefectural College of Nursing*, 17, 59–65.

Machida, M. (2014). The potential manga teaching materials in Japanese as a second language: On the handling method. *Waseda University, School of Education and Integrated Arts and Sciences, Academic Research (Humanities and Social Sciences)*, 62, 163–181.

Sugimori, M., Funashima, N. (2005). Nursing Education, 4th ed. 256–257. Tokyo: Igaku Shoin.

Tomita, Y., Ohori, N., Ishizu, M. (2012). How to understand the meaning of "empathy" for nursing students: An analysis of an on-campus exercises to learn how to form supportive relationships. *Bulletin of Saitama Medical School of Nursing*, 5(1), 31–38.

Urushibata, S. (2009). Conceptual analysis of "individualized nursing". *Journal of Japanese Society of Nursing Technology*, 8(3), 74–83.

Yoshida, S. (2013). Manga as teaching materials. *Setsunan University Educational Research*, 9, 25–34.