Research Article

Learning Experiences of Nursing Students Participating in an Interaction Meeting with Patients with Rheumatoid Arthritis: A Qualitative Descriptive Study

Kojiro Hirai*, Kazue Iwase, Yumi Tanaka, Mariko Nishizaka and Yoko Ushio

Kawasaki City College of Nursing, 4-30-1 Ogura, Saiwai-ku, Kawasaki-shi, Kanagawa 212-0054, Japan

*Corresponding author: Kojiro Hirai, Kawasaki City College of Nursing, 4-30-1 Ogura, Saiwai-ku, Kawasaki-shi, Kanagawa 212-0054, Japan

Abstract

Purpose: This study aimed to clarify what first-year nursing students learned through interactions with patients living with rheumatoid arthritis (RA) by exploring their understanding of patients' actual living conditions and illness experiences.

Methods: An exchange meeting between RA patients and first-year nursing students was held at a university in the Kanto region of Japan. Eight students who voluntarily participated submitted free-text reflections immediately after the session. The data were analyzed qualitatively using a descriptive approach. Codes were generated from meaningful units, organized into subcategories, and abstracted into overarching categories through iterative comparison and consensus among multiple researchers.

Results: Three categories and seven subcategories were identified: 《Understanding Rheumatoid Arthritis》, 《Engaging with Patients as a Nurse》, and 《Recognizing and Supporting Social Challenges》. Students gained insights into invisible symptoms such as pain and fatigue, the fluctuating nature of RA, and life-course impacts. They also recognized the importance of individualized care that respects self-management, empathic communication, and awareness of social support systems (e.g., Help Marks and disaster-time assistance).

Conclusion: Engagement with RA patients provided multidimensional learning that extended beyond textbook knowledge, promoting the integration of knowledge and practice. Such patient-participatory education may cultivate empathy and social awareness among nursing students and contribute to person-centered care competencies.

Limitations: This study was conducted at a single institution with a small sample and relied on immediate post-session reflections.

Keywords: Rheumatoid arthritis; nursing education; patient-participatory education; qualitative descriptive study

Introduction

Rheumatoid arthritis (RA) is a representative chronic disease that causes symptoms such as persistent pain and fatigue, significantly impairing patients' quality of life (QOL) [1,2]. Although advances in pharmacological therapies, including biologics, have improved the prognosis in recent years, patients continue to face substantial physical and psychosocial challenges in their daily lives. Therefore, it is important for healthcare professionals to foster an attitude that enables them to understand and support patients' everyday lives, which has become a key educational issue in clinical practice. In nursing education as well, the importance of incorporating patients' perspectives has been emphasized internationally. Traditional lecture- and practicum-centered approaches alone have been pointed out as insufficient for comprehensively understanding the complex experiences and psychosocial difficulties faced by individuals with chronic illnesses. Consequently, patient-participatory education—in which patients themselves are involved in the educational process— has drawn increasing attention. Such approaches are expected to provide students with learning opportunities that go beyond clinical knowledge, helping them deepen their understanding of humanity and empathy [3]. In particular, direct interactions with patients living with chronic diseases allow students to recognize the long-term impact of illness and difficulties in daily life, serving as an opportunity to consider multiple perspectives on supportive care.

The European Alliance of Associations for Rheumatology (EULAR) has issued comprehensive recommendations aimed at improving the quality of patient education, emphasizing the importance of systematically providing education and support to patients by healthcare professionals. Specifically, eight recommendations were proposed, including the structuring of educational programs, individualization, emphasizing interaction, and outcome evaluation. These recommendations define patient education not merely as the provision of information but as a bidirectional, continuous learning process [4]. Such international trends support the importance of actively incorporating patient participation in nursing education. However, in the field of nursing education in Japan, patient-participatory education has not yet been fully disseminated. Although clinical practicum and simulation-based learning have been widely

implemented, systems that enable patients to participate actively in educational settings remain limited. In particular, opportunities to learn through direct interactions with individuals such as patients with RA, who experience long-term treatment and daily life with chronic illness, are still scarce. Educational initiatives that integrate the lived experiences and narratives of chronic illness patients into nursing curricula remain in the developmental stage.

From this perspective, incorporating an interaction program with patients with RA into nursing education can provide students with opportunities to understand not only the medical aspects of the disease but also the patients' daily lives and psychosocial contexts. Previous studies have suggested that interactions between students and patients with chronic diseases may foster empathy and promote attitudinal change [3]. However, in Japan, such evidence remains limited. Moreover, few studies have qualitatively clarified the learning obtained by nursing students through interactions with patients focusing specifically on RA. Because RA is characterized by invisible symptoms such as fatigue, which are often difficult for others to understand [5]. educational opportunities to hear patients' personal narratives may be particularly effective in grasping the lived realities of the disease. Based on these considerations, the present study aimed to qualitatively analyze the learning experiences of nursing students who participated in an interaction meeting with patients with RA and to clarify their characteristics. The findings of this study are expected to demonstrate the usefulness of patient participation in nursing education for chronic illness care and to suggest directions for future educational practice.

Purpose

The purpose of this study was to clarify what nursing students who participated in an interaction meeting learned through their interactions with patients with rheumatoid arthritis (RA) by exploring their understanding of the patients' actual living conditions and experiences with the disease.

Methods

Participants and Data Collection

In March 2023, at the Faculty of Nursing of University A located in the Kanto region of Japan, an interaction meeting was held in which patients with rheumatoid arthritis (RA) and nursing students could converse freely. The study participants were eight first-year nursing students who received an explanation of the study purpose, provided informed consent, and took part in the meeting. The participants were six women and two men, aged 18–19 years, and had completed a ward-observation practicum. They had not yet had substantive clinical practicum experience and were in the basic phase of nursing education. Four individuals diagnosed with RA who belonged to a patient association and were living with the disease participated in the meeting and freely shared their experiences with the nursing students. Data collection was conducted immediately after the meeting. Students were asked to submit free-form written reflections and were instructed to describe the learning they gained through participation. The reflections were handwritten and collected in a collection box.

After collection, all materials were anonymized, and any personally identifying information was removed.

Analysis

The students' reflections were transcribed into text while preserving the original wording and were analyzed using a qualitative descriptive approach. The analytic procedures were informed by the methods of Miles et al. (2014) [6]. First, the descriptions were segmented into units of meaning, and descriptive codes were assigned to each unit. Next, similarities and relationships among codes were compared and organized into subcategories based on conceptual proximity. Furthermore, through procedures that gradually increased the level of abstraction, subcategories were integrated into categories, and major themes representing the students' learning through the interaction were derived. The analysis proceeded iteratively, and, as necessary, label names were merged, split, or renamed to resolve duplication and ambiguity among codes.

Trustworthiness

To ensure trustworthiness, two researchers first performed initial coding and classification of results independently, after which two additional researchers verified the entire analysis. When interpretive discrepancies arose, consensus was reached through discussion, and the definitions of codes, subcategories, and categories were re-examined. In addition, advice was obtained as needed from one researcher experienced in qualitative research and possessing perspectives in chronic-phase nursing and nursing education. To ensure analytic accuracy, we returned to the data throughout the process and continually confirmed that the results were grounded in the original text.

Ethical Considerations

This study was approved by the Research Ethics Committee of Kawasaki City University of Nursing (approval no.: 22-J013). Participation in the study was entirely voluntary, and it was explained to all participants in writing and verbally beforehand that neither participation nor withdrawal would result in any disadvantages, including with respect to academic grades. The nursing students were asked to cooperate on the premise that the study was independent of coursework; written informed consent was obtained after clearly stating the study purpose and methods, the scope of data use, the anonymization policy, and the possibility of public dissemination (conference presentations and publications). The collected reflections were anonymized by removing descriptions that could identify individuals and were stored and analyzed as data without identifiers. Access to the data was limited to study personnel and the data were stored in a secure location. Care was taken to avoid psychological burden on participants, and they were informed in advance of their right to discontinue their responses.

Results

As a result of the qualitative descriptive analysis of the written reflections, three categories and seven subcategories of learning among the nursing students were extracted (Table 1). Below,

Table 1: Themes of learning identified from nursing students' interactions with patients with rheumatoid arthritis.

Understanding Rheumatoid Arthritis	Basic disease knowledge	Rheumatoid arthritis is an autoimmune inflammatory disease. (A, H)
		The main symptoms include joint swelling, deformity, pain, and fatigue. (A)
		RA was initially perceived as a disease mainly characterized by joint deformity and pain. (B)
		The disease is not easily recognizable from outward appearance. (C)
		A wide range of medications is used in its treatment. (D)
		RA may cause various comorbidities. (B)
	Individual differences	The symptoms and severity of RA vary widely among individuals. (B, C, D, F)
		Symptoms may fluctuate depending on factors such as season, weather, and treatment. (D, E)
		RA can develop even in younger individuals. (H)
		Patients demonstrate individual differences in how they cope with the disease. (D)
		Early-onset RA can affect pregnancy and the child-rearing period. (H)
Engaging with Patients as a Nurse	Understanding patients	In nursing care, understanding not only the disease but also the patient's daily life is essential. (A)
		Nurses' encouragement and positive words can become a source of hope and strength for patients. (A, B, C, E)Nursing aims to promote independence and maximize patients' capabilities. (B)
		Nurses strive to understand patients' pain and difficulties and engage with empathy. (F, G)
		Nurses seek to create an environment where patients can communicate without hesitation. (B)
		Nurses maintain a continuous attitude of deepening accurate knowledge about the disease. (H)
	Providing individualized nursing care	Information obtained from patients is applied to subsequent care planning. (A)
		Nurses respect and support patients' use of assistive devices and self-initiated adaptations. (B)
		Nurses support patients in achieving what they wish to do, without being bound by conventional approaches. (B)
		The need for assistance is determined according to each patient's individual situation. (C)
		Nurses work to clarify patients' needs. (F, H)
		Nurses stay close to patients' symptoms and strive to adopt the patients' perspective. (F)
Recognizing and Supporting Social Challenges	Difficulties and challenges in social life	Patients often experience difficulties in performing daily and social activities. (A, B, H)
		Pain and daily life challenges are often invisible to others. (E, F)
		Patients have to continue their activities while enduring pain. (D)
	Coping strategies and adaptations in daily life	Patients make creative adaptations in daily life by using assistive devices. (A, B, C, H)
		Home modifications and adjustments such as redesigned remote controls are implemented to improve daily functioning. (F)
		Patients often need to prepare specialized shoes or orthotic devices. (B)
	Social interactions and public understanding	Students recognized the lack of social understanding and persistent prejudice toward patients with RA. (E, G, H)
		There is a need for greater public awareness and promotion of social understanding. (A, E)
		Improvements in institutional supports—such as help marks, priority seating, and disaster-time assistance—are needed. (D)
		Awareness and proactive communication by staff in public facilities and stores are important. (H)

Note: Letters in parentheses (A–H) indicate the student ID corresponding to the data source.

categories are indicated with 《 》 and subcategories with 〈 〉, and the content of the students' descriptions is presented. First, learning related to 《Understanding Rheumatoid Arthritis》 was identified. Under 〈Basic disease knowledge〉, students concretely understood basic features of the disease—for example, that rheumatoid arthritis is an autoimmune inflammatory disease and can develop even in younger individuals, and that symptoms include joint swelling and deformity as well as pain and fatigue. They also referred to the diversity of pharmacological treatments, noting that a wide range of medications is used, and mentioned the possibility of various comorbidities, indicating a comprehensive acquisition of textbook-based knowledge. Under 〈Individual differences〉, multiple students recognized that the symptoms and comorbidities differ among

individuals and that suffering and pain are not easily recognizable from outward appearance. In particular, descriptions that RA may occur after childbirth or in youth served as an opportunity to revise the prior image of RA as mainly a disease of older adults.

Next, 《Engaging with Patients as a Nurse》 was emphasized. With regard to 〈Understanding patients〉, drawing on accounts in which patients reported receiving hope from encouraging words during hospitalization, students learned the importance of verbal encouragement and psychosocial support. They also repeatedly referred to the importance of creating an environment in which patients can communicate without hesitation and of maintaining an empathic, supportive stance. In contrast, under 〈Providing

individualized nursing care⟩, students highlighted perspectives such as supporting patients in accomplishing what they wish to do without being bound by conventional approaches while respecting the use of assistive devices and self-initiated adaptations, and determining the need for assistance according to symptoms and living conditions. In addition, they expressed an intention to clarify patients' needs and to provide care that stays close to patients' symptoms and strives to adopt the patients' perspective.

Finally, learning related to 《Recognizing and Supporting Social Challenges》 became evident. Under ⟨Difficulties and challenges in social life⟩, through statements such as finding it difficult to lift objects and experiencing severe pain that is not apparent from appearance, students came to understand the reality that everyday actions can pose major difficulties; they also noted the reality of having to continue activities while enduring pain. Regarding ⟨Coping strategies and adaptations in daily life⟩, the repeated discussion of the use of assistive devices and creative adaptations in daily life emphasized a stance of expanding what can be done through such adaptations; examples included home modifications and redesigned remote controls, as well as the need for specialized shoes or orthotic devices. Under ⟨Social interactions and public understanding⟩, while students noted the necessity of institutional supports such as help marks, priority seating, and disaster-time assistance, they also encountered accounts of hurtful remarks and of distress that is difficult for others to understand, leading them to strongly recognize the importance of promoting broader public understanding of the disease; they also pointed to the importance of awareness and proactive communication by staff in public facilities and stores. In sum, the students learned comprehensively not only about the disease itself but also about the nurse's role and the need for social support, indicating that interactions with patients with RA have multifaceted educational significance.

Discussion

Key Findings of This Study

In this study, the learning of nursing students through interactions with patients with rheumatoid arthritis (RA) showed a tendency to expand stepwise—from textbook knowledge about the disease, to an understanding of lived experience, to the formation of an empathic stance, and further to a perspective on social support. This learning process is consistent with the experiential learning cycle model [7] and can be understood as an educational process in which students reconstruct their own knowledge and attitudes through experience. Students first understood that RA is an autoimmune disease and that symptoms such as joint swelling and deformity differ among individuals, thereby grasping the basic structure of the disease. Building on this, through patients' narratives they learned lived realities not available from textbooks—pain and fatigue that are not discernible from outward appearance, difficulties in daily activities, and fluctuations in symptoms. These insights appear to have developed from understanding the disease itself to understanding patients as persons, including their life contexts. Furthermore, the students began to think concretely about how to support patients as nurses. In addition to the importance of encouragement, verbal approaches, and a stance of staying close, they learned the necessity of support tailored

to each patient's situation, such as the use of assistive devices and environmental adjustments. These learning outcomes provided an opportunity to move beyond a disease-centered perspective to consider comprehensive care that includes patients' lives and their relationships with society. Such learning—which unfolds from understanding the disease to understanding patients' lives, and further to a perspective on social support—promotes the integration of knowledge and practice in nursing education. For example, in educational practice using community health fairs, it has been reported that students broaden their perspectives through practice and learn about the actual living conditions of patients and community residents [8]. In addition, educational research that promotes experiential learning through simulation has shown that case-based experiences enhance students' clinical judgment and empathy [9]; similarly, the patient interactions in this study can be said to have the effect of enhancing practical sensitivity. Therefore, the interaction meeting with patients with RA has educational significance not only for deepening students' understanding of the disease but also for enabling them to understand patients as persons living with the condition and to expand their sense of their professional role as nurses. Furthermore, the process of reframing the need for social support from their own perspective fosters the ability to situate nursing practice within a social context and is considered to provide important implications for future chronic illness nursing education.

Significance as Patient-Participatory Education

In this study, the interaction with patients with rheumatoid arthritis (RA) is positioned as a form of patient-participatory education. This educational approach aims to provide students with opportunities to learn through patients' experiences by having patients actively engage in the learning process. Recent systematic reviews have indicated that involving patients in education may promote students' understanding of illness experiences, empathy, and the broadening of professional perspectives [10]. This observation is consistent with our findings that students came to understand pain and difficulties in daily life that are not apparent from outward appearance. Furthermore, Boshra et al. (2022) reviewed interventions that included patient-participatory education for students and reported that such education enhances students' empathy and understanding [11]. In this study as well, the fact that students, through patients' narratives, came to appreciate the importance of nurses' involvement—such as encouragement and verbal approaches—suggests similar effects.

Moreover, in light of experiential learning theory, [7] patient-participatory education can be regarded as a framework that promotes the cycle of concrete experience, reflection, conceptualization, and practice. Students gain concrete experience through interactions with patients, then engage in reflection through subsequent reflective writing, abstract their learning, and connect it to future nursing practice. The structure of learning extracted in this study (understanding of the disease, understanding of patients' lives, nursing support, and a perspective on social support) corresponds to this experiential learning cycle. In addition, patient-participatory education is meaningful in that, by positioning patients as equal partners in learning, it deepens students' understanding and empathy

as persons and contributes to promoting understanding across the society that supports healthcare. By moving one step beyond student-centered education and incorporating patients' perspectives into learning content, education becomes more grounded in reality and contributes to fulfilling the social responsibility of preparing nursing professionals. Such an educational approach is not merely knowledge transmission but learning grounded in dialogue and co-creation, and is considered to contribute to qualitative improvements in nursing education.

Learning Specific to RA and Its Educational Implications

The learning of nursing students revealed in this study strongly reflected characteristics specific to rheumatoid arthritis (RA). Students developed a concrete understanding that RA is a disease with "invisible symptoms," "fluctuating conditions," and "lifelong impact." Moreover, through observing how patients reconstructed their daily lives by using assistive devices and environmental adjustments, students learned the importance of self-management and recognized the need for social understanding and institutional support for difficulties that are not outwardly visible. These findings highlight unique learning challenges in RA education and provide insights applicable to chronic illness nursing education as a whole. First, what left a strong impression on students was the invisible nature of RA symptoms. In particular, they described how subjective burdens such as pain and fatigue cannot be judged from appearance and are difficult for others to understand. Previous studies have also identified fatigue as one of the most significant sources of distress for patients with RA, regarded alongside pain and functional impairment as a key outcome from the patient perspective. Furthermore, RA-related fatigue is reported to be multidimensional and closely related to pain, functional limitation, and psychological distress [12]. Because fatigue is associated with multiple dimensions—including physical, cognitive, emotional, sleep, and activity aspects [13]—it is essential that its multifaceted nature be addressed in educational contexts. The present findings confirmed that, through patients' narratives, students were exposed to the lived reality of fatigue and came to view it not merely as a symptom but as a major difficulty in daily life. This supports the value of learning about pain and fatigue in RA not through lectures alone but via patients' stories and lived experiences. Students also focused on the fluctuating and unpredictable nature of RA symptoms. They expressed surprise that the disease changes with the seasons and weather, with good days and bad days alternating. Understanding such characteristics provides a foundation for nurses to flexibly adapt their assistance to patients' day-to-day conditions and to offer individualized support. Educationally, scenario-based learning that incorporates fluctuating symptoms can help students develop assessment and care-planning skills grounded in clinical reality.

In addition, students learned that RA can develop even in young individuals and affect critical life stages such as pregnancy and child-rearing. Rohini et al. (2024) reported that disease activity during pregnancy influences maternal and fetal outcomes among women with RA and that balancing treatment with medication poses challenges [14]. The students' learning in this study aligns with these international findings, underscoring the importance of addressing life-stage-

specific support in nursing education to cultivate diverse perspectives in nursing practice. Furthermore, students noted how patients actively reconstructed their lives through the creative use of assistive devices and environmental modifications. The European Alliance of Associations for Rheumatology (EULAR) recommendations on self-management in inflammatory arthritis identify the provision of comprehensive self-management support—including information sharing, problem-solving, goal setting, and peer support—as a key professional responsibility of healthcare providers [15]. The students' descriptions of modified remote controls and customized household items exemplify such practical self-management, from which they learned the importance of nurses' respect for and support of patients' autonomy. These learnings illustrate an approach to nursing that upholds patients' agency and self-efficacy.

Finally, students showed strong concern about the lack of social understanding. Their reflections included observations about help marks, priority seating, and disaster-time support systems, demonstrating their awareness of the need for social and institutional responsiveness. Zangi et al. (2015), in the EULAR recommendations for patient education, described education as both individualized continuous support and a learning process connected to the social environment [4]. The students' awareness of the necessity for social support aligns with this perspective. Nursing education should likewise incorporate understanding of social resources and systems into the curriculum to foster the ability to support patients within the social structure. Taken together, the interaction meeting with RA patients functioned as an educational practice that fostered multifaceted insights in nursing students through learning specific to RA—such as invisible symptoms, symptom fluctuation, life-course impact, self-management, and social support. This learning nurtured the ability to view patients not only in terms of disease but as individuals living within daily and social contexts, representing an educationally significant contribution to the advancement of chronic illness nursing education.

Limitations

This study has several limitations. First, the participants were eight first-year nursing students from a single university located in the Kanto region of Japan; therefore, the findings cannot be generalized to all nursing students or educational settings. Nevertheless, the study has educational significance in that it clarified how students at an early stage of their studies learn through direct interactions with patients with rheumatoid arthritis (RA).

Second, the data were based on free-form written reflections collected immediately after the interaction meeting, which may have reflected subjective impressions or emotional reactions. Future research should combine interview surveys or follow-up evaluations to examine the process of deepening learning, including temporal changes.

Third, the patients with RA who participated in the meeting were members of a patient association and were accustomed to sharing their own illness experiences. Therefore, their comments may have differed from those of the general patient population. Future educational

practice could be strengthened by including patients with a wider range of experience in expressing their illness narratives.

Finally, as this study was conducted in an educational context, the learning outcomes were derived from students' self-reported descriptions. Hence, the findings do not directly demonstrate improvements in clinical competence or empathy in actual nursing practice. In the future, it will be necessary to formally integrate patient-participatory education into the nursing curriculum and to verify learning outcomes using objective evaluation methods.

Conclusion

This study qualitatively and descriptively analyzed reflective essays written by nursing students who participated in an exchange meeting with patients with rheumatoid arthritis (RA). Three categories and seven subcategories were identified as the students' learning outcomes: 《Understanding Rheumatoid Arthritis》, 《Engaging with Patients as a Nurse》, and 《Recognizing and Supporting Social Challenges》. In addition to acquiring fundamental knowledge of the disease, students gained a concrete understanding of invisible symptoms such as pain and fatigue, the fluctuating nature of symptoms, and the difficulties and strategies in daily life. They also learned the importance of individualized nursing support, including encouragement, environmental adjustments, and the use of assistive devices. Furthermore, students recognized the necessity of considering social resources such as help marks and disaster support systems, thereby developing a perspective that views patients as people living within society. These findings suggest that patient-participatory education provides an effective learning opportunity that promotes the integration of knowledge and practice while enhancing empathy and practical judgment. Future efforts should focus on systematically incorporating such programs into nursing curricula and verifying learning outcomes using objective indicators to contribute to the improvement of chronic care nursing education.

Competing Interests

The authors declare that they have no competing interests.

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Authorship

All authors meet the ICMJE criteria for authorship, contributed substantially to the work, approved the final version, and agree to be accountable for all aspects of the work.

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