

The Relationship of Stressors for Nursing Students in Practical Training of Pediatric Nursing with Their Stress-Coping Ability and Stress-Coping Behavior

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Abstract

This study identifies the factors that cause stress for students who engage in practical training for pediatric nursing, clarifies these stressors' relationship with the students' stress-coping ability and stress-coping behavior, and considers how practical training should be conducted for nursing students. For this study, an anonymous questionnaire survey was conducted among 109 students at four nursing colleges and vocational schools in the Kanto Koshinetsu and Tokai regions. The students were enrolled in practical training for pediatric nursing during the 2019 and 2020 academic years. Three stressors were identified as a result of a factor analysis of the students' stress. These stressors were then examined with a focus on their relationship with the students' stress-coping ability and stress-coping behavior. It was found that, among the three stressors, "autonomous care of pediatric patients and their families" and "coordination of practical training with ward nurses" correlated with the "sense of meaningfulness," which contributes to the students' stress-coping ability. It was also found that "autonomous care of pediatric patients and their families," "coordination of practical training with ward nurses," and the "implementation process of nursing for pediatric patients" correlated with "emotional expression involving others," a subordinate concept of the Brief Scales for Coping Profile for workers (BSCP). Instructors should encourage students to reflect on their coursework and approach students in an empathetic manner.

Keywords

Practical Training For Pediatric Nursing, Stressors, Stress-Coping Ability, Stress-Coping Behavior, Nursing Students

1. Introduction

Recent years have witnessed the closure of many pediatric wards in Japan because of a decline in the number of hospitalized children and a shortage of pediatricians, a development that transformed the practical training environment for pediatric nursing. Practical training for pediatric nursing is a valuable learning opportunity for students who grew up amid the nation's falling birthrate. They have little experience dealing with children, and some even have trouble in communicating with members of their own families, whether they be children or adults.

Prior studies regarding the feeling of stress experienced by students of basic nursing include those focusing on practical training for basic nursing in "specialization I" (Hongo, Yukari, & Kiyomi, 2011; Kaneko & Kanae, 2015; Momino & Sayuri, 2016; Usui, Sayuri, & Kanae, 2014) and those on practical training for adult nursing in "specialization II" (Kikuchi, Saori, Mitsue, & Tatsuko, 2018). There are also studies focusing on practical training for maternity nursing (Nakajima & Yuko, 2014), practical training for psychiatric nursing (Oosawa & Toshiko, 2012), and practical training for integrated nursing (Yoshioka, Etsuko, & Sayuri, 2019). Therefore, there is an accumulation of studies regarding stressors (factors that cause stress), the students' stress-coping ability, and their stress-coping behavior. However, there are only a few, if any, articles on stressors with respect to practical training for pediatric nursing.

The Ministry of Education, Culture, Sports, Science and Technology (2020) states that on-site clinical training would allow students to assist various people, develop relationships with these people, and acquire problem-solving skills. This also applies to practical training for pediatric nursing, which requires the students to make efforts to bring out the children's full potential by providing them with care, understanding their growth process, and being tuned to their needs. Thus, practical training for pediatric nursing requires students to demonstrate strong interpersonal and problem-solving skills (Ojiro & Hiromi, 2010). However, a decline in children's hospital stays (i.e., a decline in the number of children) led to a reduction in the amount of time allocated to each student for the care of children. Therefore, they must get to know children in a more compressed timeframe as they pursue their coursework. This may result in varying levels of stress for the students.

Thus, this study identifies the causes of stress that students experience in practical training for pediatric nursing, clarifies the stressors' relationship with the students' stress-coping ability and their stress-coping behavior, and considers a scientific and rational means of providing practical training for pediatric nursing based on empirical data.

2. Research Method

2.1. Research Target and Research Period

The study surveyed 109 students enrolled in four nursing colleges and vocational

schools in the Kanto Koshinetsu and Tokai regions who were registered in a practical training course for pediatric nursing during the 2019 and 2020 academic years. They provided their consent for the survey, which was conducted from September 2019 to July 2020.

2.2. Survey Method

The survey was conducted through an anonymous self-administered questionnaire. Questionnaire forms matching the number of target participants were sent to staff members of the cooperating schools. The staff distributed the questionnaire forms to the target students and explained the survey both verbally and in writing to the students. After the students completed their practical training for pediatric nursing, they filled out the questionnaire forms, sealed them so that the contents would not be seen, and put them in a box set up at each school. The schools' staff collected the questionnaire forms and sent them back to the authors by postal mail.

2.3. Survey Contents

The contents of the survey consist of items related to 1) the students' basic attributes, 2) the stressors in pediatric nursing practical training, 3) the students' stress-coping ability, and 4) the students' stress-coping behavior.

- **Basic attributes:** Questions were asked regarding the participants' age, gender, whether they held any part-time job, and their subjective health. Regarding subjective health, the participants were asked to provide an answer based on a five-point scale: "good," "fairly good," "normal," "not very good," "not good."
- **Stressors in pediatric nursing practical training:** Forty items were established for evaluating the stressors in practical training for pediatric nursing. Of these, 29 items were based, in part, on a scale that measures the stressors in practical training for basic nursing (Kaneko & Kanae, 2015). Additional stressors in practical training for pediatric nursing were extracted jointly by researchers specializing in pediatric nursing and those in nursing education. For each item, questions were asked based on a four-point scale: "not stressful," "not very stressful," "somewhat stressful," and "stressful." The higher the score, the stronger the stressor. As for the scale for measuring the stressors in practical training for basic nursing (Kaneko & Kanae, 2015), the authors have obtained approval of the developer for its use.
- **Stress-coping ability:** For evaluating the students' stress-coping ability, the Japanese version of the 13-item, seven-point sense-of-coherence (SOC) scale was used. This Japanese version, based on Antonovsky's original method, was released by Yamazaki and Kiyoko (2008) in 1999. This is a valid and highly reliable method. SOC, which measures a person's ability to cope with stress, consists of three subordinate concepts: "sense of comprehensibility," "sense of manageability," and "sense of meaningfulness." The sense of comprehensibility is a feeling that one can adequately understand and explain

their routine problems or major life problems from the standpoint of what causes such problems or what kind of problems they should expect. The sense of manageability is a feeling that one will be able to somehow manage any problems that may occur because they have adequate resources to effectively handle such problems. The sense of meaningfulness is a feeling that the problems one currently faces are worthwhile because they involve efforts, difficulties, and challenges that are meaningful. The total score for SOC is between 13 and 91, with the five items for the sense of comprehensibility contributing between 5 and 35 and the four items each for the sense of manageability and sense of meaningfulness contributing between 4 and 28. The higher the score, the stronger the stress-coping ability.

- **Stress-coping behavior:** For evaluating the students' stress-coping behavior, the Brief Scales for Coping Profile for workers (hereinafter "BSCP") was used. The method, developed by Kageyama and Toshio (2017), is valid and highly reliable. BSCP, which evaluates stress-coping behavior, consists of six subordinate concepts: "active solution," "seeking help for solution," "changing mood," "changing a point of view," "emotional expression involving others," and "avoidance and suppression." "Active solution" refers to one's own proactive effort to solve problems. "Seeking help for solution" is an effort to receive help from others to solve problems. "Changing mood" refers to an attempt to engage in a different activity to quell one's feelings of unease, such as anxiety or irritation. "Changing a point of view" is to find a positive value in problems or to change the viewpoint, idea, and value, on the ground that there is no use thinking about the things that cannot be changed. "Emotional expression involving others" refers to an emotional act of expressing and venting one's frustration in the presence of others. The concept "avoidance and suppression" means that one either endures or postpones dealing with problems without doing anything about them. The total BSCP score is between 18 and 72, with each of the subordinate concepts contributing between 3 and 12. The higher the score, the stronger the stress-coping behavior.

2.4. Analysis Method

Among the collected survey responses, those in which the consent confirmation box had not been checked, and those in which at least 80% of the questions had not been answered, were eliminated. Other responses were regarded as valid.

To clarify the factor structure of the stressors in practical training for pediatric nursing, an item analysis was conducted first with the use of descriptive statistics. Items were confirmed based on the ceiling effect ($M + SD > 4.0$) and the floor effect ($M - SD < 1.0$), and those with a noticeable distribution bias were eliminated. Items were also confirmed based on the inter-item correlation ($r > 0.800$) and the item-total correlation ($r < 0.200$). Subsequently, an exploratory factor analysis (maximum likelihood method, promax rotation) was performed. Items with high factor loading ($r > 0.400$) were selected from each of the ex-

tracted factors, and a confirmatory factor analysis (principal factor method, varimax rotation) was performed to confirm the factor convergence. An eigenvalue of 1.0 or higher was set as the criterion for the factor extraction. Afterward, the reliability of each extracted factor was confirmed through Cronbach's α coefficient.

The stressors' relationship with the stress-coping ability and the stress-coping behavior was confirmed by Pearson's correlation coefficient. Before the validation, the normality of distribution was confirmed with the use of the Shapiro-Wilk test.

For statistical processing, statistical analysis program SPSS Ver. 25 was used, with a significance level set to $p < 0.05$.

2.5. Ethical Considerations

This was an anonymous survey designed in such a way that individual participants could not be identified. The participants expressed their consent to this survey by checking the consent box on the survey form. Participation was voluntary, and students were guaranteed that their grades would not be affected if they did not participate or if they were to stop answering questions in the middle of the survey. The survey form was in conformity with the Act on the Protection of Personal Information and the ethical guidelines for medical research involving people. The participants were informed that the obtained data would be statistically processed and maintained and that they would be carefully discarded after analysis. They were also told that their data would not be deleted once they sent the survey, even if they were to withdraw their cooperation. They were guaranteed that the information obtained in the survey would not be used for any purposes other than this study and that only the aggregate results would be released, not the names of individual students or their schools. They were also notified in writing that the results would be released to the public at academic conferences, in academic journals, or on the internet.

This study was reviewed and approved by the Research Ethics Committee of Nagano College of Nursing (approval number 2019-6). There is no conflict of interest.

3. Results

3.1. Overview of the Survey Participants

Of the 109 people contacted, 72 responded to the survey (the response rate: 66.1%). All 72 of them provided valid responses (the valid response rate: 100%).

The survey participants' average age was 20.9 years. The number of men was 10 (14%) and that of women was 62 (86%). Eleven students (15%) had a part-time job, while 61 students (85%) did not. Forty-nine students (68%) responded that their subjective health was "good" or "fairly good" (Table 1).

3.2. Factor Structure of the Stressors in Practical Training for Pediatric Nursing

First, an item analysis was conducted through descriptive statistics to identify

Table 1. Basic attributes.

		n = 72	
		n	%
Age	(mean ± SD)	20.9 ± 3.0	
Basic education curriculum	Nursing universities	7	10
	Vocational schools on nursing	65	90
By gender	Male	10	14
	Female	62	86
Part-time job	Yes	11	15
	No	61	85
Subjective health	Good	24	33
	Fair	25	35
	Normal	18	25
	Not very good	2	3
	Not good	3	4

the factor structure of the stressors in practical training for pediatric nursing. Of the 40 stress factors in practical training for pediatric nursing, none had a ceiling effect. However, four factors had a floor effect, and they were eliminated after their contents had been examined by the researchers. There were 24 items that had an I-I correlation coefficient of $r = 0.800$ or higher, and 13 of them were eliminated because of similarities among one another. There were no items that had an I-T correlation efficient of less than $r = 0.200$. Consequently, the number of stressors in practical training for pediatric nursing was reduced to 23.

An exploratory factor analysis (principal factor method, varimax rotation) was conducted on the 23 stressors thus obtained, and the results led to an extraction of three factors. This happened because there were 20 items with a factor loading of 0.400 or more, and these 20 stressors were then converged to three following a confirmatory factor analysis. The cumulative contribution rate was 60.3% (Table 2).

The first factor was named “autonomous care of pediatric patients and their families” because the extracted items had to do with understanding the children and their families and determining and implementing the appropriate care necessary for responsible nursing.

The second factor was named “coordination of practical training with ward nurses” because the extracted items had to do with the coordination, guidance, and relationship building with the trainer and ward staff that are necessary for the students to provide care as members of the nursing team.

The third factor was named the “implementation process of nursing for pediatric patients” because the extracted items had to do with identifying the problems related to the nursing of children, formulating specific plans, and consulting with

Table 2. Factor structure of stressors in practical training for pediatric nursing and the confidence coefficient.

Stressors in practical training for pediatric nursing			
	F1	F2	F3
F1 [Autonomous care of pediatric patients and their families] (Cronbach α = 0.926)			
31 Providing care according to the children's development	0.867	0.075	0.316
24 Gathering information about the children	0.825	0.158	0.123
35 Communication with families	0.781	0.277	0.045
38 Understanding the role of the health care team	0.753	0.240	0.339
39 Determination from an ethical point of view	0.742	0.267	0.157
37 Determination of care priorities	0.695	0.399	0.152
23 Collaboration with group members	0.648	0.220	0.182
20 Prior learning about knowledge and technology	0.563	0.406	0.079
29 Dealing with children who refuse to receive care	0.488	0.008	0.176
F2 [Coordination of practical training with ward nurses] (Cronbach α = 0.897)			
10 Activity coordination with ward staff	0.132	0.761	0.174
18 Announcement of daily activity plan	0.364	0.731	0.095
4 Reporting to the trainer	0.200	0.729	0.335
14 Relationship with ward staff	0.077	0.669	0.389
21 Conference announcement	0.208	0.649	0.238
11 Guidance from the trainer	0.262	0.595	0.387
17 Time required for practical training	0.459	0.493	0.199
F3 [Implementation process of nursing for pediatric patients] (Cronbach α = 0.833)			
2 Creation of nursing care plan	0.105	0.233	0.752
12 Guidance from the instructor	0.328	0.342	0.604
1 Identifying problems	0.237	0.360	0.602
8 Consulting the instructor	0.350	0.261	0.592
Factor contribution rate	27.2	20.4	12.7
Cumulative contribution rate	27.2	47.6	60.3

Factor extraction method: Principal factor method (Varimax method); 23 items total: Cronbach α = 0.943.

and receiving guidance from, instructors.

Thus, these three extracted factors, “autonomous care of pediatric patients and their families,” “coordination of practical training with ward nurses,” and the “implementation process of nursing for pediatric patients”, were identified as the stressors in practical training for pediatric nursing.

The Cronbach confidence coefficient for the three factors and 20 items was α = 0.943.

3.3. The Relationship of the Stressors in Practical Training for Pediatric Nursing with the Students' Stress-Coping Ability and Stress-Coping Behavior

The nursing students' combined score for their ability to cope with stress during practical training for pediatric nursing was 54.7 ± 8.5 . "Autonomous care of pediatric patients and their families" ($r = -0.326, p < 0.05$) and "coordination of practical training with ward nurses" ($r = -0.381, p < 0.05$), which are stressors in practical training for pediatric nursing, had a negative correlation with the "sense of meaningfulness," a subordinate concept of SOC (Table 3).

Furthermore, "autonomous care of pediatric patients and their families" ($r = -0.260, p < 0.01$), "coordination of practical training with ward nurses" ($r = -0.388, p < 0.05$), and the "implementation process of nursing for pediatric patients" ($r = -0.318, p < 0.05$), which are stressors in practical training for pediatric nursing, had a positive correlation with "emotional expression involving others," a subordinate concept of BSCP (Table 3).

4. Discussion

4.1. Factor Structure of the Stressors in Practical Training for Pediatric Nursing

The stressors in practical training for pediatric nursing extracted in this study may reflect the learning content of practical training for pediatric nursing.

In practical training for pediatric nursing, children's growth and the characteristics of their day-to-day living are grasped to provide care for the children with

Table 3. Relationship among the stressors in practical training for pediatric nursing, stress-coping ability, and stress-coping behavior.

	Stressors in practical training for pediatric nursing		
	F1	F2	F3
Sense of coherence (SOC)			
SOC (the sense of comprehensibility)	0.079	-0.173	-0.106
SOC (the sense of manageability)	-0.206	-0.024	0.004
SOC (the sense of meaningfulness)	-0.326**	-0.381**	-0.232
Brief Scales for Coping Profile (BSCP)			
Active solution	-0.185	0.013	-0.166
Seeking help for solution	-0.106	-0.109	0.018
Changing mood	-0.101	0.051	0.163
Emotional expression involving others	0.260*	0.388**	0.318**
Avoidance and suppression	-0.039	-0.052	-0.052
Changing a point of view	0.151	0.231	0.121

Pearson's correlation coefficient, ** $p < 0.05$, * $p < 0.01$; F1: [Autonomous care of pediatric patients and their families], F2: [Coordination of practical training with ward nurses], F3: [Implementation process of nursing for pediatric patients].

health problems and their families. Practical training for geriatric nursing (Tsutsumi, Kawamura, & Kiyonaga, 2019), practical training for psychiatric nursing (Kosaka & Jong-Seong, 2010), and practical training for maternity nursing (Nakajima & Yuko, 2014) also require nursing care that is in accordance with the patients' developmental stages and physical conditions. Thus, these fields require students to acquire vast knowledge and skills. Therefore, there are reported cases in which students experience stress in providing care to meet the needs of specific patients in these fields. Similarly, this study, which focuses on practical training for pediatric nursing, also extracted a stressor involving practical nursing training: "autonomous care of pediatric patients and their families." Unlike other fields, pediatric nursing provides care in accordance with the children's developmental stages. However, as pediatric patients are physically growing, nursing students face various challenges in assessing their reactions. The students must consider, for example, whether the care they have provided respected the children's wishes and those of their families. Therefore, they are likely to experience extensive stress in providing care.

In providing nursing care that meets the needs of the target patients, coordination with the trainer and ward staff is essential. Prior studies have also reported that students experienced stress in interacting with their trainer (Masamura et al., 2003; Ogasawara et al., 2009; Oku, Kayo, & Atsushi, 2011) and ward staff (Hatanaka, Hiromi, & Midori, 1999; Ogasawara et al., 2009). This study has also identified a similar stressor, "coordination of practical training with ward nurses." This may mean that the stress experienced by the survey participants is not particularly unique to students of pediatric nursing; it is a kind of stress experienced by all students during their practical training.

Furthermore, practical training for pediatric nursing is designed in such a way that students, as they pursue their coursework, will be able to grasp the impact that health problems may have on the children and their families and help them identify the needs of the children. There is a prior article regarding the stress that students experience when they pursue practical training for basic nursing for the first time or when they care for multiple patients during their coursework (Kaneko & Kanae, 2015). Similarly, in practical training for pediatric nursing, a stressor related to the coursework was also found. This stressor is the "implementation process of nursing for pediatric patients." This stressor exists probably because students nowadays experience more stress as they pursue their coursework in a compressed timeframe as children's hospital stays decline. They must work quickly even as they consider the patients' developmental stages.

All three extracted factors indicated Cronbach $\alpha = 0.800$ or higher, meaning that the internal consistency was secured for each factor.

4.2. Stress-Coping Ability and Stress-Coping Behavior

1) Total score for the stress-coping ability

SOC's formation, growth, and improvements are influenced by one's life ex-

periences and day-to-day occurrences, dictated by clear rules and regulations according to which one goes through life based on one's clear sense of responsibility and value (Yamazaki & Kiyoko, 2008). In other words, practical training for nursing plays an important role in fostering and improving students' SOC.

This study surveyed various practical nursing programs to observe students' stress-coping ability and found that their SOC was 49.6 ± 9.3 in "basic practical training for nursing I" (Hongo et al., 2011) and 55.5 ± 8.1 in "basic practical training for nursing II" (Kaneko & Kanae, 2015; Momino & Sayuri, 2016). The figure was 54.6 ± 9.5 for practical training for adult nursing in "specialization II" (Yamanaka et al., 2018), 53.8 ± 8.8 for practical training for psychiatric nursing (Oosawa & Toshiko, 2012), and 51.3 ± 4.6 for integrated nursing and practical training in the integrated field (Yoshioka et al., 2019). This study found that the total stress-coping ability score for students in practical training for pediatric nursing was 54.7 ± 8.5 , similar to the score for students in practical training for adult nursing (Yamanaka et al., 2018) and those in practical training for psychiatric nursing (Oosawa & Toshiko, 2012), which belong to "specialization II." Thus, there were no major differences in scores among different specializations.

Instructors, trainers, and ward nurses, who provide extremely important support to students as they provide care during practical training for pediatric nursing, may be regarded as useful "generalized resistance resources" to help the students develop and improve their SOC. Therefore, students may be able to improve their SOC by utilizing such generalized resistance resources to have a successful coping experience. Thus, instructors may need to intentionally create a learning environment to facilitate this process.

2) Stressors in practical training for pediatric nursing and the stress-coping ability

In response to the stressors and the stress they produce, an attempt was made to mobilize the individually formed generalized resistance resources to deal with the stressors (Yamazaki & Kiyoko, 2008). An effort to deal with stress during practical training for nursing, if successful, may benefit the students' health and strengthen their SOC.

This study found that "autonomous care of pediatric patients and their families" and "coordination of practical training with ward nurses," which are stressors in practical training for pediatric nursing, had a negative correlation with "the sense of meaningfulness," a subordinate concept of SOC. The sense of meaningfulness is a feeling that the problems one currently faces are worthwhile because they involve efforts, difficulties, and challenges that are meaningful (Yamazaki, 2017). These stressors—"autonomous care of pediatric patients and their families" and "coordination of practical training with ward nurses"—are closely related to practical training and coordination. Pediatric nursing targets children who are in various developmental stages, such as infancy, early childhood, school age, and adolescence, and the students must provide care by considering the patients' vital signs according to these developmental stages (Lambton, Pauly-O'Neill, &

Dudum, 2008). These students, although they have little experience with children, are placed in a situation where they must handle children who are in a bad mood because of pain, who are crying, and who are scared of medical treatment. They must also deal with the children's mothers and family members who are fatigued and stressed. In such an environment, students often find themselves unable to deal with the reactions of children in various stages of development, such as their cries and refusal to receive treatment, or they fail if they try to manage the situation. This may occur even as students begin to build some confidence in their abilities to provide basic care (the only service they could provide as students) after going through various training sessions starting from the basic practical training (Nishida & Yasuko, 2005). Such an experience may negatively affect the students' sense of meaningfulness.

Thus, a concrete support measure must be developed to promote the students' sense of meaningfulness, a subordinate concept of SOC. Students should reflect on their practical training and consider whether they took into account the children's growth stages in providing nursing care. Instructors, for their part, should come alongside the students in an empathetic manner and encourage them to assign meaning to their experiences and discover areas of improvement for themselves so that they can strengthen their self-affirmation.

3) Stressors in practical training for pediatric nursing and the stress-coping behavior

In stress management, the work environment must be improved systematically, and measures must be created to help individual workers (Yamazaki, 2017). Individual workers must understand their stress and manage it independently.

This study found that "autonomous care of pediatric patients and their families," "coordination of practical training with ward nurses," and the "implementation process of nursing for pediatric patients," which are stressors in practical training for pediatric nursing, correlated with "emotional expression involving others," a subordinate concept of BSCP. "Emotional expression involving others" refers to an emotional act of expressing and venting one's frustration in the presence of others. Although coping strategies are context-dependent, it has been reported that "avoidance and suppression" and venting frustration may often be warning signs of unfavorable developments (Kageyama & Toshio, 2017). In each practical training session for nursing, students gain understanding of their target patients and the objectives of their care. They also learn sickness prevention, health restoration, health maintenance and promotion, and how to care for people with sickness or disabilities (Ministry of Health, Labour and Welfare, 2007). Thus, they learn how to care for patients from adulthood to old age. However, when it comes to practical training for pediatric nursing, students encounter difficulties regarding the sickness, age, and condition of individual children. They find that the integration and application of knowledge, which were not so problematic when dealing with adult patients, are more complex

when the patients are children. Consequently, they find themselves at a loss (Nishida & Yasuko, 2005) and unable to handle the situation positively. Thus, they try to deal with their stress by expressing and venting their frustration to others.

Therefore, instructors should help students learn how to deal with the stress they experience during the practical training for pediatric nursing. Instructors should perform appropriate actions at the right time to serve as a model for the students to emulate. They should also demonstrate their eagerness to provide support when students are in trouble and help them find a solution. Teachers must involve themselves in this matter so that students will be able to acquire a positive coping mechanism as required by the situation.

4.3. The Limitations of This Study and Future Challenges

This study was cut short because practical training for pediatric nursing at hospitals had been interrupted in favor of training on school campuses as a result of the COVID-19 pandemic. Therefore, the number of participants was small, and the performance of individual institutions could not be compared. Thus, another study should be conducted when the pandemic subsides.

The future challenge, with a view to creating a new curriculum, is to establish an even better structure for providing practical training based on the finding of this study—the relationship of the stressors in practical training for pediatric nursing with students' stress-coping ability and their stress-coping behavior.

5. Conclusion

A factor analysis of the stress experienced by students in practical training for pediatric nursing has identified three factors and 20 items. The three factors were “autonomous care of pediatric patients and their families,” “coordination of practical training with ward nurses,” and the “implementation process of nursing for pediatric patients.” The Cronbach confidence coefficient for the three factors and 20 items was $\alpha = 0.943$.

The study also examined the stressors' relationship with the students' stress-coping ability and their stress-coping behavior. With respect to the stressors in practical training for pediatric nursing and the students' stress-coping ability, the results indicated the following: “autonomous care of pediatric patients and their families” ($r = -0.326$, $P < 0.01$) and “coordination of practical training with ward nurses” ($r = -0.381$, $P < 0.01$) had a negative correlation with the “sense of meaningfulness,” a subordinate concept of SOC. In addition, with respect to the stressors in practical training for pediatric nursing and the students' stress-coping behavior, “autonomous care of pediatric patients and their families” ($r = 0.260$, $p < 0.05$), “coordination of practical training with ward nurses” ($r = 0.388$, $p < 0.01$) and the “implementation process of nursing for pediatric patients” ($r = 0.318$, $p < 0.01$) had a positive correlation with “emotional expression involving others”, a subordinate concept of BSCP.

Therefore, in practical training for pediatric nursing, instructors should come alongside the students in an empathetic manner by urging them to reflect on whether they have provided care in accordance with children's growth stages. Instructors should also perform appropriate actions at the right time to serve as a model for the students to emulate and demonstrate their eagerness to provide support when the students are in trouble and help them find a solution. Such efforts may help students improve and strengthen their stress-coping ability and stress-coping behavior.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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