Central European Journal of Nursing and Midwifery

Cent Eur J Nurs Midw 2022;13(2):625–632
doi: 10.15452/CEJNM.2021.12.0036

ORIGINAL PAPER

NURSING STUDENTS' EXPERIENCES AND PERCEPTIONS OF AGGRESSION: A SAMPLE FROM TURKEY

Elvan Emine Ata[1], Emel Bahadir Yilmaz[2]

[1]*Department of Psychiatric Nursing, Hamidiye Faculty of Nursing, University of Health Sciences, İstanbul, Turkey*
[2]*Department of Psychiatric Nursing, Faculty of Health Sciences, Giresun University, Giresun, Turkey*

Received August 4, 2021; Accepted November 29, 2021.

Abstract

Aim: This study aimed to evaluate nursing students' experiences and perceptions of aggression during their clinical practice. *Design:* The descriptive study. *Methods:* This was a descriptive study comprising students in their second, third, and fourth years in the Faculty of Health Sciences during the spring term of the 2015–2016 academic year. An explanation of the aim of this study was provided to the participants, and the written approval of 213 students was obtained before the study was commenced. A Personal Information Form and the Perception of Aggression Scale were used to collect data. Descriptive statistics and the Kruskal-Wallis Test were used in data analysis. *Results:* The mean age of the students was 21.61 (± 6.93). Most students (98.1%) had received no training on how to interact with angry or aggressive individuals, 11.3% thought that they were unable to provide care to aggressive individuals, and 21.6% wished to receive training on interacting with such individuals. More than half of the students (54.4%) reported that they were unable to interact with angry and aggressive individuals. The mean score of the functional sub-dimension was 3.16 (± 0.59), and the mean score of the dysfunctional sub-dimension was 2.35 (± 0.49). *Conclusion:* Student nurses are often the target of angry and aggressive behavior during their clinical practice, are negatively mentally affected when exposed to aggression, and do not receive enough instruction in how to engage with aggressive individuals. Their negative perceptions of aggression were formed during their undergraduate education.

Keywords: aggression, anger, nursing practice, nursing students, perception of aggression.

Introduction

The increase in violence and aggression towards healthcare staff in recent years has become a global problem. Aggressive behavior directed towards healthcare staff is most likely to be initiated by patients and visitors (Edward et al., 2014; Hahn et al., 2008). Nurses are among the most assaulted workers in the healthcare industry (International Council of Nurses, 2007) as they spend the most time with patients (Swain et al., 2014).

Certain factors affect violence and aggression by patients and relatives towards nurses. Studies show that younger and less-experienced nurses are more likely to be the recipients of aggressive and violent behaviors (Beech, 2008). In addition, they are less likely to have a functional perception of aggression (Pazvantoğlu et al., 2011). Aggression can be perceived in two ways, functional and dysfunctional. A functional perception of aggression means that aggression is an acceptable / understandable phenomenon, and a dysfunctional perception means that aggression is an unacceptable / undesirable phenomenon (Bilgin et al., 2011). In a study conducted to determine nurses' perceptions of the factors that cause violence and aggression in emergency departments, lack of communication was identified as a primary factor (Angland et al., 2014). Edward et al. (2014) conducted a systematic review to examine aggression experienced by nurses in the workplace, finding that physical aggression was the most frequent form in mental health and emergency departments and in nursing homes, while verbal aggression was more commonly experienced by general nurses.

Nurses exposed to verbal or physical abuse often experienced long-term negative psychological effects (Hallett et al., 2021), and 94% of nurses have some degree of post-traumatic stress (Gates et al., 2011). Studies have observed that patient aggression reduces the motivation of nurses, negatively affects the quality of care provided, contributes to increased levels of stress and nurse turnover rates, reduces the mental and physical well-being of hospital staff,

Corresponding author: Elvan Emine Ata, Department of Psychiatric Nursing, Hamidiye Faculty of Nursing, University of Health Sciences, Selimiye Neighborhood Tıbbiye Street No:36 34668, Istanbul, Turkey; email: elvanhenden@gmail.com

worsens their working environment, and decreases their work performance and job satisfaction (Banda et al., 2016; Bernaldo-De-Quiros et al., 2015; Edward et al., 2014; Lepiešová et al., 2015; Schablon et al., 2012). Nursing students share the same working environment as nurses during their clinical practices as part of their education and are, therefore, also exposed to aggression from patients or their relatives. Being less experienced, young, and lack of adequate training are factors that also contribute to their negative experiences of aggression (Bilgin et al., 2016; Magnavita & Heponeimi, 2011). This in turn can influence students' motivation, resulting in some leaving the profession or suffering from mental and physical problems (Bilgin et al., 2016). Students' emotional and behavioral responses are associated with the way they perceive aggression. Students can, however, learn to improve their emotional responses in order to better manage aggressive behaviors. To accomplish this, they must first examine how they feel towards aggressive individuals (Bilgin et al., 2016; Muro et al., 2002).

In order to define their emotional response toward aggression, student nurses are required to report any incidents of aggression. However, studies show that students mostly do not report the aggression they experience in the clinical setting (Hallett et al., 2021; Fathi et al., 2018; Tee et al., 2016). In fact, underreporting is a common issue in nursing. If incidents are not reported, they may not be dealt with and it becomes difficult to identify particular hotspots for aggression (Hallett et al., 2021). There is some limited evidence that student nurses do not report incidents (Tee et al., 2016) partly because they see no concrete outcomes from reporting it (Fathi et al., 2018). The reasons for underreporting are also likely to be associated with nursing students' feelings of impotence in the face of aggression and violent behavior.

The increase in anger, violence, and aggression towards healthcare staff has encouraged discussion around this issue. Many studies have been conducted in Turkey on nurses' exposure to violence and aggression in their work environment (Acik et al., 2008; Bilgin, 2009; Erkol et al., 2007; Özcan & Bilgin, 2011). However, few studies address angry and aggressive behavior of patients and relatives towards student nurses or how this behavior is perceived (Bilgin et al., 2016; Pazvantoğlu et al., 2011). Such research is important, as these students will become professional nurses in the future, and their perceptions of exposure to anger and aggression during their undergraduate studies will be difficult to change. Lasting negative perceptions can influence a student's decision to remain in the profession and their desire to work closely with patients and relatives, and can increase risk of burnout and mental or physical problems. Therefore, it is important to examine their experiences and perceptions of aggression during their clinical practice as students (Hallett et al., 2021), which may lead to early detection of students who have negative perceptions of aggression. This problem can be solved through appropriately targeted training. Finally, it is important to solve a number of issues in hospitals so that a safe environment for nursing students' clinical practice can be established.

Aim

This study aimed to evaluate student nurses' experiences and perceptions of aggression during their clinical practice.

Methods

Design

This was a descriptive study.

Sample

The study, comprising students in their second, third, and fourth years (300 students in total) in the Faculty of Health Sciences at Giresun University, was conducted during the spring term of the 2015–2016 academic year. An explanation of the aim of the study was provided to the participants, and the written approval of 213 students was obtained before the study commenced. The participation rate was 71%. Undergraduate nursing education in Turkey is offered in four-year programs at universities. Excluding the first semester, students rotate positions every semester to meet the requirements of their clinical practicum in areas such as internal diseases, surgery, pediatrics, gynecology, and psychiatry. They are expected to participate directly in patient care and to apply their theoretical background to their clinical practice. Since first-year students start their clinical practice only in the second semester, this group was not included in the study.

Data collection

A Personal Information Form and the Perception of Aggression Scale were used to collect data. Data collection took place in classrooms between 1–29 February 2016, after the study was explained to the participants. The forms were completed by students in 15–20 minutes.

Personal Information Form

The Personal Information Form was designed by the researchers based on a literature review. In order to ensure the validity of the form, two faculty members

who are experts in this field provided feedback before the form was finalized. We conducted a pilot application to determine whether the questions were understandable, distributing the form to ten students. The form included 15 open-ended questions that addressed age, gender, grade, exposure to violence, and aggression and response styles (Bilgin et al., 2016; Pazvantoğlu et al., 2011). The students were asked to anonymously complete the form according to their own self-reports.

The Perception of Aggression Scale

First developed by Gerard Jansen and his colleagues in 1997, the Perception of Aggression Scale (POAS) is used to assess nurses' attitudes towards aggressive patients (Jansen et al., 1997). The psychometric properties of the Turkish version of the scale were investigated by Bilgin et al. (2011). The POAS is a 29-item scale that uses five-point Likert items scored as "strongly agree: 5; agree: 4; neutral: 3; disagree: 2; strongly disagree: 1". The scale comprises two sub-dimensions: Functional (aggression is perceived as an acceptable / comprehensible phenomenon) and dysfunctional (aggression is perceived as an unacceptable / undesirable phenomenon). The functional sub-dimension consists of 12 items (3, 6, 7, 8, 16, 18, 20, 23, 24, 25, 27 and 28) and the dysfunctional consists of 17 (1, 2, 4, 5, 9, 10, 11, 12, 13, 14, 15, 17, 19, 21, 22, 26 and 29). The mean score of the sub-dimensions is obtained by dividing the total score of the sub-dimension by the number of items within the related sub-dimension. High scores are associated with prevalence of the sub-dimension. A higher score for the functional sub-dimension denotes that aggression is perceived more as a "functional / acceptable" phenomenon, whereas a higher score for the dysfunctional sub-dimension denotes that aggression is perceived more as a "dysfunctional / unacceptable" phenomenon. Although some considered aggression to be a normal and acceptable behavior and an opportunity for patient care (e.g., "Aggression is a form of communication and is not destructive for this reason; Aggression is a way to protect yourself; Aggression is an expression of emotions, just like laughing or crying"), others found aggression to be unacceptable and unhelpful in terms of patient care (e.g., "It is unnecessary and unacceptable behavior; It is a tool patients use to exercise power over others; It is something that cannot be tolerated"). In this study, the Cronbach's alpha value of the scale was 0.71.

Data analysis

Data were loaded into the SPSS 16.0 program. Descriptive statistics (percentage distribution, mean, standard deviation) and the Kruskal-Wallis Test were used in the data analysis. The Kolmogorov-Smirnov Test determined that the sample data were not normally distributed. The perception of aggression was the dependent variable of this study. Exposure to angry / aggressive behaviors, individual characteristics, provision of care to aggressive individuals, and making interventions were the independent variables. The Kruskal-Wallis Test was used to compare the mean scores of the students on the POAS for their class-year. Significance (p-value) was accepted as < 0.05.

Results

The descriptive statistics of the students are presented in Table 1. The mean age of the students was 21.61 (± 6.93), 83.1% were female, 86.4% came from a nuclear family, 81.2% had an income level equal to their expenses.

Table 1 Descriptive statistics of students

		n	%
Gender	female	177	83.1
	male	36	16.9
Class year	2nd year	94	44.1
	3rd year	51	23.9
	4th year	68	31.9
Family type	nuclear	184	86.4
	extended	27	12.7
	broken	2	0.9
Economic status	income and expenses are equal	173	81.2
	income is less than expenses	23	10.8
	income is more than expenses	17	8.0
Location of residence	province	109	51.2
	district	69	32.4
	village	35	16.4

Table 2 shows that 98.1% of students had not received training on how to interact with angry or aggressive individuals, 11.3% thought that they were unable to provide care to aggressive individuals, and 21.6% desired training on interacting with aggressive patients.

Table 3 shows that 6.6% of the students had experienced aggression during their previous clinical practices, 21.1% had witnessed these situations, and 6.6% had been mentally affected by them. Over half of the students (54.4%) reported that they were unable to interact with aggressive individuals. Reasons not to intervene included concern that they had not been given enough instruction on how to manage these situations, and fear that the aggressive individuals might cause them harm.

Table 2 Characteristics of students who intervened with angry and aggressive individuals

	n	%
Receiving instruction on intervention for people with aggressive behavior		
received instruction	4	1.9
did not receive instruction	209	98.1
Providing care to aggressive people		
able to provide care	189	88.7
not able to provide care	24	11.3
Needing information to provide care		
need information	46	21.6
do not need information	167	78.4

Table 3 Characteristics of students regarding their experience of aggression and intervention

	n	%
Experience of aggression from patient / patient relative		
have experienced	14	6.60
have not experienced	154	72.30
witnessed	45	21.10
Reason for exhibition of aggressive behavior by patient / relatives[a]		
patients / relatives not informed	9	64.30
care not provided by healthcare staff	3	21.40
patient impatience	2	14.30
Perpetrator of aggressive behavior[a]		
patient	7	50.00
patient relative	7	50.00
Mental effect of angry / aggressive behavior of patient / relative		
affected	14	6.60
not affected	199	93.40
Ability to intervene with aggressive patient		
able to intervene	97	45.60
unable to intervene	116	54.40
Reasons not able to intervene		
did not have sufficient information on how to intervene	17	14.60
the patient could cause harm to students during intervention	7	6.30
fear of being harmed	3	2.50
do not want to answer	89	76.60

[a]n = 14

Table 4 presents the mean score of the functional (acceptable / comprehensible) sub-dimension as 3.16 (± 0.59) and the mean score of the dysfunctional (unacceptable / undesirable) sub-dimension as 2.35 (± 0.49). As expected, the mean of the POAS functional reaction items (3.16), which were designed to measure how healthcare professionals perceive patients' aggressive behavior, is higher than the mean of the scale items (2.50). The mean of the dysfunctional reaction items is 2.35, which is lower than the average of 2.50.

Table 5 illustrates that third-year undergraduate students mostly perceived aggression as a functional reaction, which was not the case with second- and fourth-year undergraduate students ($p = 0.005$). Perceptions of aggression as a dysfunctional reaction were similar for all student groups.

Table 4 Mean scores of students for the Perception of Aggression Scale

Sub-dimensions	min.	max.	mean ± SD
Functional[a]	1.58	4.67	3.16 ± 0.59
Dysfunctional[b]	1.12	3.94	2.35 ± 0.49

[a]An acceptable / comprehensible phenomenon; [b]An unacceptable / undesirable phenomenon; min. – minimum; max. – maximum; SD – standard deviation

Table 5 Comparison of students' mean scores for the Perception of Aggression Scale by class years

	Functional				Dysfunctional		
Class year	**n**	**min.**	**max.**	**mean ± SD**	**min.**	**max.**	**mean ± SD**
2	94	1.75	4.67	3.23 ± 0.53	1.41	3.88	2.36 ± 0.44
3	51	1.92	4.50	3.31 ± 0.58	1.12	3.59	2.39 ± 0.59
4	68	1.58	4.25	2.96 ± 0.63	1.29	3.94	2.31 ± 0.49
Test				Kw = 10.727 p = 0.005			Kw = 1.605 p = 0.448

min. – minimum; max. – maximum; SD – standard deviation; Kw – Kruskal Wallis Test; p < 0.05

Discussion

Violence and aggression towards healthcare staff has become a global problem in recent years. Nursing students share a working environment with nurses during their clinical practice and are, therefore, exposed to aggression by patients or their relatives. This study aimed to evaluate nursing students' experience and perceptions of aggression during their clinical practice. A small percentage of students reported that they had experienced aggression during their previous clinical practices (6.6%) or had witnessed this behavior (21.1%), and 6.6% had been mentally affected by this event. Hopkins et al. (2014) conducted a study with 153 nursing students and identified that half of them had experienced some kind of violence and felt at significant risk of aggression and violence in the clinical setting. In a UK study, the researchers found that the majority of students who responded to the survey had experienced non-physical aggression in the past year (81%), over half had experienced physical aggression (56%), and more than one in three had experienced sexual harassment (40%) (Hallett et al., 2021). According to Palaz (2013), 60% of nursing students stated that they had encountered violent behavior. Budden et al. (2017) found that the experience of being bullied or harassed made students feel anxious (71.5%) and depressed (53.6%). In the same study, 32.8% of the students indicated that these experiences negatively affected the standard of care they provided to patients, with many reconsidering nursing as their intended career. More than half of the students (54.4%) stated that they were unable to intervene with angry and aggressive individuals. Reasons given for non-intervention were as follows: nurses were concerned that they had not been given enough instruction on how to manage these situations, and they feared that these individuals could cause them harm. Nursing students stated that they experienced problems such as anxiety, panic attacks, psychological distress, lack of confidence, and loss of self-respect due to the violence they were exposed to during clinical practice (Birks et al., 2018).

Situations involving expressions of anger and aggression have negative connotations for most people. However, anger is an emotional state that can occur when unexpected changes in the surrounding environment threaten one's integrity or existence. Anger causes elevated levels of arousal and energy that prompt aggressive behavior towards others. However, the occurrence of patient aggression may even be beneficial to the patient, as it allows them to vent (and thus reduce) their anger (Hurskainen & Katainen, 2015). Student nurses should, therefore, perceive patient anger and aggression as functional, and normalize the outburst as an emotional and behavioral response. In our study, the mean score of the functional (acceptable / healthy) sub-dimension was 3.16 (± 0.59), and the mean score of the dysfunctional (undesirable) sub-dimension was 2.35 (± 0.49). When the mean scores of the Perception of Aggression Scale of students in different years of study were compared, it was found that the perception of aggression as functional was higher among third-year undergraduate students than among second- and fourth-year undergraduate students ($p = 0.005$), whereas the perception of aggression as dysfunctional was found to be similar for all student groups. Bilgin et al. (2016) found that female nursing students perceived patient aggression more negatively. In our study, 83.1% of students were female, which may lead to the conclusion that gender is a factor in the regarding of aggression

as dysfunctional. According to Hallett et al. (2021), students consistently reported that they did not know what they were doing when coping with situations during practice. Students who do not know how to deal with aggression tend to regard it as dysfunctional.

In this study, fourth-year undergraduate students regarded patient aggression as less functional than others, maybe because they did not know how to manage such patients. In a multi-center study conducted in Turkey, no difference was found between classes in terms of perception of aggression (Bilgin et al., 2016). Our result might be explained by the effect of the student's experiences of aggression during clinical practice. In the same study by Bilgin et al. (2016), students who had been exposed to patient aggression exhibited an attitude of treating aggression as less normal and understandable. Another study (Bowers et al., 2007) determined that students' attitudes toward patients with aggressive behavior deteriorated over time. The results highlighted the importance of students' feelings of anger and fear towards patients and their preparedness to use containment measures.

In this study, it was found that 98.1% of the students had not received education on how to engage with aggressive individuals, 11.3% were unable to provide care to aggressive people, and 21.6% desired more information on this matter. Numerous studies have suggested that providing student nurses with an appropriate level of knowledge and self-confidence to assist in the management of such incidents is essential, as is accompanying legislative support (Hopkins et al., 2014; Magnavita & Heponiemi, 2011). It is also recommended that assistance be provided to student nurses over the course of their nursing education so that they can understand how their feelings toward aggressive patients are generated and can be managed (Bowers et al., 2007). It is believed that further research and work in this area will support the mental and physical well-being of students and will also prevent them from developing negative feelings towards the nursing profession, increase their desire to provide care to their patients, positively affect the quality of care provided, and decrease their desire to leave the profession. Hogan et al. (2018) developed a blended learning resource to enhance students' capacity for coping. They found that nursing and midwifery students reported an increased understanding of coping strategies for aggression and bullying in clinical environments. Therefore, aggression management training for nursing students should be integrated into the professional curriculum.

Limitation of study

While this study ascertained the perspectives of a number of students from across Turkey, some limitations must be acknowledged. Students from many regions of Turkey study at this school, and these students show similar demographic characteristics to students in many other health sciences universities in Turkey. However, the findings are limited to the date range and health sciences faculty in which the research was conducted. Another limitation is related to the fact that the data are based on students' self-reports, and it may be difficult for students to describe their experiences of exposure to aggressive behavior. When students are exposed to aggression, they may fear repetitions of this behavior or fear being blamed for causing it. Students may not always be informed of the outcome of reporting aggression within a clinical setting since their clinical practice might end before they receive any notification of the results. In addition, the fact that third- and fourth-year students were in clinical practice within the dates of this study caused a reduction in the response rate. Finally, since data collection was performed only in the spring term of the 2015–2016 academic year, it constitutes another limitation of the study. Nevertheless, violence and aggression continue to be a significant threat to healthcare professionals and nursing students, just as they were during the dates of the study. This threat is an ongoing problem for students who share an environment with healthcare professionals.

Conclusion

Students are often the recipients of aggressive behavior during their clinical practice, are negatively mentally affected when they experience aggression, and do not have enough information to effectively engage with aggressive individuals, all of which lead their perceptions of aggression to become negative during their undergraduate education. The health authorities in Turkey have adopted a zero-tolerance policy against violence in clinical settings. However, aggression events in health institutions are frequently reported in the press. The first key step toward dealing with aggression is to acknowledge that there is a long-standing problem within the nursing profession. As we know, nursing students use the same clinical setting as professional nurses, and strategies need to be developed to assist students in dealing with any aggression they encounter during their clinical education. This behavior is unacceptable in any area of clinical education.

Prior to their first clinical practice, nursing students should be introduced to foundational skills and knowledge that can help them deal with aggressive behaviors. Education has also been identified as an important step that facilities student understanding of symptoms of aggression. Education programs should be implemented to equip students with the ability to assess risk of aggression from patients and relatives, to intervene with aggressive individuals, to maintain the quality of care provided, and to protect themselves in cases of aggressive behavior.

Clinical facilitators and faculty staff are the first to explain any aggressive behavior experienced by students. Therefore, they should have the requisite knowledge to counsel an individual who has experienced aggression. Clinical facilitators are expected to evaluate and intervene objectively. Training clinical facilitators to approach students who have experienced aggression may be beneficial.

Further research is needed in Turkey to understand nursing students' experiences of aggression, not just in clinical settings but also within educational institutions. The need for evaluative research into strategies that might assist nursing students in dealing with aggressive behaviors, thus building resilience in the next generation of nurses, is a priority. It may be helpful to integrate aggression management issues into the training program in order to improve students' skills. Therefore, future studies might investigate programs that improve students' aggression management skills.

Ethical aspects and conflict of interest

Written approvals from the management of Giresun University Faculty of Health Sciences, Nursing Department, and the Clinical Research Ethics Committee of Ordu University (2016 / 21) were received. In accordance with the Declaration of Helsinki, participants were informed about the aim of the study, and the study consisted exclusively of participants who had provided their written, informed consent and who were informed that they could leave the study at any time. The authors declare that they have no conflict of interests.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Acknowledgement

We would like to thank all nursing students who participated in the study.

Author contributions

Concept and design (EEA, EBY), data collection (EEA), data analysis and interpretation (EEA), drafting of the manuscript (EEA, EBY), critical revision of the manuscript (EEA, EBY), final approval and accountability (EEA, EBY), supervision (EBY).

References

Acik, Y., Deveci, S. E., Gunes, G., Gulbayrak, C., Dabak, S., Saka, G., Vural, G., Can, G., Bilgin, N. G., Dundar, P. E., Erguder, T., & Tokdemir, M. (2008). Experience of workplace violence during medical speciality training in Turkey. *Occupation Medicine*, *58*(5), 361–366. http://dx.doi.org/10.1093/occmed/kqn045

Angland, S., Dowling, M., & Casey, D. (2014). Nurses' perceptions of the factors which cause violence and aggression in the emergency department: a qualitative study. *International Emergency Nursing*, *22*(3), 134–139. http://dx.doi.org/10.1016/j.ienj.2013.09.005

Banda, C. K., Mayers, P., & Duma, S. (2016). Violence against nurses in the southern region of Malawi. *Health SA Gesondheid*, *21*, 415–421. http://dx.doi.org/10.1016/j.hsag.2016.01.002

Beech, B. (2008). Aggression prevention training for student nurses: differential responses to training and the interaction between theory and practice. *Nurse Education in Practice*, *8*(2), 94–102. http://dx.doi.org/10.1016/j.nepr.2007.04.004

Bernaldo-De-Quiros, M., Piccini, A. T., Gomez, M. M., & Cerdeira, J. C. (2015). Psychological consequences of aggression in pre-hospital emergency care: cross-sectional survey. *International Journal of Nursing Studies*, *52*(1), 260–270. http://dx.doi.org/10.1016/j.ijnurstu.2014.05.011

Bilgin, H. (2009). An evaluation of nurses' interpersonal styles and their experiences of violence. *Issues in Mental Health Nursing*, *30*(4), 252–259. http://dx.doi.org/10.1080/01612840802710464

Bilgin, H., Keser Ozcan, N., Tulek, Z., Kaya, F., Boyacioglu, N. E., Erol, O., Arguvanli Coban, S., Pazvantoglu, O., & Gumus, K. (2016). Student nurses' perceptions of aggression: an exploratory study of defensive styles, aggression experiences, and demographic factors. *Nursing & Health Sciences*, *18*(2), 216–222. http://dx.doi.org/10.1111/nhs.12255

Bilgin, H., Tulek, Z., & Ozcan, N. (2011). Psychometric properties of the Turkish version of the Perception of Aggression Scale. *Journal of Psychiatric and Mental Health Nursing*, *18*(10), 878–883. https://doi.org/10.1111/j.1365-2850.2011.01742.x

Birks, M., Budden, L. M., Biedermann, N., Park, T., & Chapman, Y. (2018). A 'rite of passage?': bullying experiences of nursing students in Australia. *Collegian*, *25*(1), 45–50. https://doi.org/10.1016/j.colegn.2017.03.005

Bowers, L., Alexander, J., Simpson, A., Ryan, C., & Carr-Walker, P. (2007). Student psychiatric nurses' approval of containment measures: relationship to perception of aggression and attitudes to personality disorder. *International Journal of Nursing*, *44*(3), 349–356. https://doi.org/10.1016/j.ijnurstu.2005.03.002

Budden, L. M., Birks, M., Cant, R., Bagley, T., & Park, T. (2017). Australian nursing students' experience of bullying

and/or harassment during clinical placement. *Collegian*, *24*(2), 125–133. http://dx.doi.org/10.1016/j.colegn.2015.11.004

Edward, K. L., Ousey, K., Warelow, P., & Lui, S. (2014). Nursing and aggression in the workplace: a systematic review. *British Journal of Nursing*, *23*(12), 653–659. http://dx.doi.org/10.12968/bjon.2014.23.12.653

Erkol, H., Gokdogan, M. R., Erkol, Z., & Boz, B. (2007). Aggression and violence towards health care providers a problem in Turkey. *Journal of Forensic and Legal Medicine*, *14*(7), 423–428. https://doi.org/10.1016/j.jflm.2007.03.004

Fathi, M., Fallahi, A., Sharifi, S., Dehghani, S., Olyaei, N., & Valiee, S. (2018). Status of violence in a selected faculty: The students' experience. *International Journal of Nursing Education Scholarship*, *15*(1), 20160063. https://doi.org/10.1515/ijnes-2016-0063

Gates, D. M., Gillespie G. L., & Succop, P. (2011). Violence against nurses and its impact on stress and productivity. *Nursing Economic$*, *29*(2), 59–67.

Hahn, S., Zeller, A., Needham, I., Kok, G., Dassen, T., & Halfens, R. J. G. (2008). Patient and visitor violence in general hospitals: A systematic review of the literature. *Aggression and Violent Behavior*, *13*(6), 431–441. http://dx.doi.org/10.1016/j.avb.2008.07.001

Hallett, N., Wagstaff, C., & Barlow, T. (2021). Nursing students' experiences of violence and aggression: a mixed-methods study. *Nurse Education Today*, 105, 105024. https://doi.org/10.1016/j.nedt.2021.105024

Hogan, R., Orr, F., Fox, D., Cummins, A., & Foureur, M. (2018). Developing nursing and midwifery students' capacity for coping with bullying and aggression in clinical settings: students' evaluation of a learning resource. *Nurse Education in Practice*, 29, 89–94. https://doi.org/10.1016/j.nepr.2017.12.002

Hopkins, M., Fetherston, C. M., & Morrison, P. (2014). Prevalence and characteristics of aggression and violence experienced by Western Australian nursing students during clinical practice. *Contemporary Nurse*, *49*(1), 113–121.

Hurskainen, T., & Katainen, M. (2015). *Anger, aggression and violence in healthcare* [Unpublished bachelor's thesis dissertation]. University of Turku. https://www.theseus.fi/bitstream/handle/10024/98308/Anger_%20Aggression%20and%20Violence%20in%20Healthcare.pdf?sequence=1

International Council of Nurses (2007). *Guidelines on coping with violence in the workplace.* International Council of Nurses. https://static1.squarespace.com/static/579770cd197aea84455d6908/t/57d86302d1758e16f4e0f072/1473798914990/guideline_violence.pdf

Jansen, G. J., Dassen, T., & Moorer, P. (1997). The perception of aggression. *Scandinavian Journal of Caring Sciences*, *11*(1), 51–55. https://doi.org/10.1111/j.1471-6712.1997.tb00430.x

Lepiešová, M., Tomágová, M., Bóriková, I., Farský, I., Žiaková, K., & Kurucová, R. (2015). Experience of nurses with in-patient aggression in the Slovak Republic. *Central European Journal of Nursing and Midwifery*, *6*(3), 306–312. http://dx.doi.org/10.15452/CEJNM.2015.06.0020

Magnavita, N., & Heponiemi, T. (2011). Workplace violence against nursing students and nurses: an Italian experience. *Journal of Nursing Scholarship*, *43*(2), 203–210. http://dx.doi.org/10.1111/j.1547-5069.2011.01392.x

Muro, C., Tomas, C., Moreno, L., & Rubio, V. (2002). Perception of aggression, personality disorders and psychiatric morbidity in nursing students [Supplemental material]. *Acta Psychiatrica Scandinavica*, *106*(412), 118–120. https://doi.org/10.1034/j.1600-0447.106.s412.25.x

Özcan, N. K., & Bilgin, H. (2011). Violence towards healthcare workers in Turkey: a systematic review. *Turkiye Klinikleri Journal of Medical Sciences*, *31*(6), 1442–1456. http://dx.doi.org/10.5336/medsci.2010-20795

Palaz, S. (2013). Turkish nursing students' perceptions and experiences of bullying behavior in nursing education. *Journal of Nursing Education and Practice*, *3*(1), 23–30. http://dx.doi.org/10.5430/jnep.v3n1p23

Pazvantoğlu, O., Gümüş, K., Böke, Ö., Yildiz, I., & Şahin, A. R. (2011). Perception of patient aggression among nurses working in a university hospital in Turkey. *International Journal of Nursing Practice*, *17*(5), 495–501. http://dx.doi.org/10.1111/j.1440-172X.2011.01967.x

Schablon, A., Zeh, A., Wendeler, D., Peters, C., Wohlert, C., Harling, M., & Nienhaus, A. (2012). Frequency and consequences of violence and aggression towards employees in the German healthcare and welfare system: a cross-sectional study. *BMJ Open*, *2*, e001420. http://dx.doi.org/10.1136/bmjopen-2012-001420

Swain, N., Gale, C., & Greenwood, R. (2014). Patient aggression experienced by staff in a public hospital setting. *The New Zealand Medical Journal*, *127*(1394), 1–18.

Tee, S., Özçetin, Y. S. Ü., & Russell-Westhead, M. (2016). Workplace violence experienced by nursing students: a UK survey. *Nurse Education Today*, *41*, 30–35. https://doi.org/10.1016/j.nedt.2016.03.014

