Original Article

Professional attitudes toward patient safety culture in a bone marrow transplant unit

Atitudes profissionais para cultura de segurança do paciente em unidade de transplante de medula óssea

Actitudes profesionales para cultura de seguridad del paciente en unidade de transplante de medula ósea

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ABSTRACT

Objective: To identify the attitude of health professionals toward the patient safety culture at a bone marrow transplant unit.
Methods: Quantitative research approach, cross-sectional survey conducted at a bone marrow transplant unit in Santa Catarina, Brazil. Data were collected using a Safety Attitudes Questionnaire with 33 health professionals in August and September of 2013. A total of 37 attitudes were assessed according to six safety dimensions of patient safety culture. Data were analysed by applying descriptive and inferential statistics, ANOVA and the Kruskal-Wallis test with a p value equal to or under 0.05.
Results: Attitudes regarding the dimension "job satisfaction" were positive for the patient safety culture, and there was a significant difference between the professionals in this dimension (p-value 0.05). The other dimensions were not assessed positively.
Conclusion: The attitudes of health professionals toward patient safety must be strengthened.
Keywords: Organizational culture. Patient safety. Bone marrow transplantation.

RESUMO

Objetivo: Identificar as atitudes dos profissionais da saúde que evidenciem a cultura de segurança do paciente em unidade de Transplante de Medula Óssea.
Métodos: Estudo quantitativo, survey transversal, realizado em unidade de Transplante de Medula Óssea de Santa Catarina/Brasil. Aplicado Questionário de Atitudes de Segurança com 33 profissionais, em agosto e setembo de 2013. Avaliadas 37 atitudes contempladas entre as seis dimensões que avaliam a cultura de segurança do paciente. Utilizou-se a estatística descritiva e inferencial, com realização dos testes Anova e Kruskall-Wallis, sendo considerado significativo p-valor igual ou menor 0,05.
Resultados: As atitudes referentes a dimensão "satisfação no trabalho" se mostraram positivas para a cultura de segurança do paciente, sendo que houve diferença significava entre os profissionais nesta dimensão (p-valor de 0,05). As demais dimensões não foram avaliadas positivamente.
Conclusão: É necessário fortalecer as atitudes dos profissionais para a cultura de segurança do paciente na unidade investigada.
Palavras-chave: Cultura organizacional. Segurança do paciente. Transplante de medula óssea.

RESUMEN

Objetivo: Identificar las actitudes de profesionales de salud que muestran la cultura de seguridad del paciente en la unidad de Unidad de Trasplante de Médula Ósea.
Métodos: Estudio cuantitativo y transversal, realizado en Unidad de Trasplante de Médula Ósea de Santa Catarina/Brasil. Recolección de datos, desarrollado con el Cuestionario de Actitudes de Seguridad con 33 profesionales, se llevó a cabo en agosto y septiembre de 2013. Evaluadas 37 actitudes entre las seis dimensiones de la cultura de seguridad del paciente. Se utilizó estadística descriptiva e inferencial, con la realización de las pruebas de ANOVA y Kruskal-Wallis, considerando significativo p-valor de 0,05 o menos.
Resultados: Las actitudes en relación a la dimensión "satisfacción en el trabajo" fueron positivos para la cultura de seguridad del paciente con diferencia significaba entre los profesionales de esta dimensión.
Conclusión: Es necesario fortalecer las actitudes de los profesionales para la seguridad de los pacientes en la unidad investigada.
Palabras clave: Cultura organizacional. Seguridad del paciente. Transplante de medula ósea.

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INTRODUCTION

Patient safety is defined as "reducing the risk of unnecessary damage associated with healthcare to a minimum acceptable level"[1] and it is a fundamental duty of health institutions. The 55th World Health Assembly in 2002, in light of studies that found that the occurrence of adverse events is a global public health problem, requested that the WHO lead the development of world norms and standards and support the countries in their efforts to develop policies and practices to ensure patient safety. In 2004, the 57th World Health Assembly approved the creation of the World Alliance for Patient Safety with the mission to coordinate, disseminate and accelerate improvements for the safety of patients all over the world[2].

Since then, Brazil has launched several initiatives to strengthen patient safety. More recently, in 2013, Brazil created the national programme for patient safety that stipulates the promotion of safety culture through learning and organizational improvement, and the involvement of professionals and patients in preventing incidents with emphasis on safety systems training to avoid individual accountability[3].

The safety culture is the product of values, attitudes, skills and standards of individual and collective behaviours that determine the commitment, style and proficiency of the administration of a safe organisation[1,4]. The development of this culture requires strategies that encompass the training of healthcare professionals, assistance at all levels of healthcare and research[5].

It is important to conduct studies that apply quantitative questionnaires to identify the organisational factors that prevent the formation of a patient safety culture[6]. Studies show that the attitudes of health professionals toward patient safety must be valued by employees and managers of the institutions. The use of error reports and the abolition of a punitive culture help reveal the flaws in the work process that increase patient exposure to adverse events[7-9].

Given the rather recent discussion on safety culture in Brazilian institutions, there are few published works on the subject[9], especially in the area of oncology. In recent decades, the hematopoietic stem cell transplant (HSCT) has become an important therapeutic method in hematologic, oncological, hereditary and immunological diseases. Patients subjected to this therapeutic modality must undergo procedures that lead to immunosuppression, greater vulnerability to infection, side effects and physical and psychological suffering. Health workers need support to provide safe care in all the stages of the process. Health units with an established patient safety culture often present a reduced therapeutic risk to patients.

The patient safety culture of the bone marrow transplant unit (BMT) - the HSCT sector of a benchmark hospital in cancer treatment in Santa Catarina - has never been evaluated. Consequently, this study aims to identify the attitudes of health professionals toward the patient safety culture in the BMT unit.

METHODOLOGY

The study originated from the master's dissertation titled, "*Cultura de Segurança do Paciente em Unidade Catarinense de Transplante de Medula Óssea*"[10]. This is a cross-sectional survey with a quantitative research approach. The study was conducted in the BMT unit that specialises in autologous HSCT at a benchmark hospital in cancer treatment in Florianópolis, Santa Catarina, Brazil. The population was made up of health professionals who work in the sector. The team of professionals consisted of a social worker, a dentist, nine nurses, a physiotherapist, 14 doctors, a nutritionist, a psychologist, 17 nursing technicians and an occupational therapist, totalling 46 professionals. The BMT unit is open 24 hours a day, so the nurses, doctors and nursing technicians work 12-hour shifts divided into day shifts and night shifts.

The population included professionals who have worked in the sector for over four weeks. The exclusion criterion was professionals who were away from work for an extended period at the time of data collection, such as vacation, illness or bonus leave. A total of 44 professionals were invited to participate in the study. Of this total, 33 answered the survey, resulting in a response rate of 75%, which was considered sufficient to express the patient safety culture of the unit[11-12].

Data were collected by means of a safety attitudes questionnaire. This questionnaire was translated and adapted for use in the BMT unit by the authors of this study from the Safety Attitudes Questionnaire – SAQ – ICU Version[12] with permission from the authors. The instrument is divided into four parts: the first part contains 64 items related to the patient safety culture; the second part contains information on the quality of collaboration and communication among the professionals; the third part contains questions on the informant's profile

(professional category, age, sex, cancer background and background at the BMT unit); and the last part requests recommendations for patient safety in the referred unit (discursive question).

Although the instrument has 64 items related to patient safety culture, only 30 items were considered to analyse the following six proposed dimensions: "teamwork": quality of perceived collaboration between the professionals (items 3, 26, 32, 36, 37, 40); "safety atmosphere": strong and proactive commitment of the organisation with patient safety (items 4, 5, 11, 12, 22, 23 and 30); "working conditions": perception of quality in the workplace and in logistical support (items 6, 7, 24 and 45); "perception of unit management": approval of managerial actions (items 10, 18, 19 and 28); "perception of stress": recognition of how performance is influenced by stress factors (items 27, 33, 34 and 50); "job satisfaction": positive experience at work (items 2, 8, 15, 31). The remaining items were used to better understand the statistically analysed data, as recommended by the authors of the instrument[12].

The data were collected in August and September 2013. All the professionals were invited to participate in the study during their shift and at the workplace. The participants who accepted were given two copies of the informed consent statement in a white envelope and the questionnaire in a brown envelope. They also received all the guidelines regarding the development of the study. After completing the questionnaire, each professional deposited the two sealed envelopes with the instrument and the consent statement in a sealed urn to ensure the anonymity of responses. There was no identification anywhere in the questionnaire.

For the interpretation of the data, the scores of each item were converted from the 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = somewhat agree 5 = strongly agree) to a 100-point scale, in which a score of 100 is considered desirable. Consequently, the score assumed the following values: strongly disagree = 0, somewhat disagree = 25, neutral = 50, somewhat agree = 75, and strongly agree = 100. Some items have a reverse score, so a lower score for these items represents a more positive attitude. The answers for each attitude scale were added and divided by the number of items on the scale to create a score ranging from 0 to 100, where ≥ 75 to 100 is considered a positive score[12].

A significance level of 5% was considered for the statistical data analysis and the data values were presented with a confidence interval of 95%. Descriptive statistics was used with average calculations and inferential statistics by means of variance analysis (one-way Anova). When the error distribution was not normal and the variance within the groups was not homogeneous, even after transforming the data with Anova, the Kruskal-Wallis test was used to compare the distribution of the averages. The data were entered in a Microsoft Office Excel 2010® spreadsheet and processed using the Statistical Package for Social Science (SPSS) version 17. The recommendations of the professionals to improve the patient safety culture at the investigated unit were grouped by similarity, which led to the composition of 11 suggestions.

The study was approved by the research ethics committee (CEP) of the Universidade Federal de Santa Catarina, CAAE 14890113.1.0000.0121 on 11/06/2013, and by the CEP of the co-participating institution, CAAE 14890113.1.3001.5355 on 11/04/2014. The research complied with the legal requirements of Resolution 196/96[13] and 466/2012[14]. The two resolutions are being mentioned because at the time of submission of the project to the ethics review, the resolution in force was 196, however, resolution 466 was in force during data collection. Therefore the CEP of the co-participating institution requested compliance and acknowledgement of Resolution 466/2012 by the author during research development.

RESULTS

Of the 33 (100%) health professionals who answered the survey, 13 (39.4%) were nursing technicians, eight (24.2%) were nurses, six (18.2%) were physicians and six (18.2%) professionals were categorised as other top-level professionals that include social worker, dentist, physical therapist, nutritionist, psychologist and occupational therapist.

The data presented below shows the distribution of averages of the participant responses regarding the attitudes of healthcare professionals toward patient safety based on the six safety dimensions: safety atmosphere, teamwork, working conditions, perception of stress, perception of unit and hospital management, job satisfaction.

The dimension "safety atmosphere" received an average score of 65.9, and attitudes toward patient safety presented the following averages: 1. I would feel safe if I were treated here as a patient (85.6); 2. The errors are managed

appropriately in this BMT unit (57); 3. I get adequate return on my performance (59.4); 4. In this BMT unit, it is difficult to discuss errors (reverse score) (53); 5. I am encouraged by colleagues to report any concerns I have about the safety of patients (74.2); 6. The culture in this BMT unit makes it easy to learn from the mistakes of others (59); 7. I am familiar with the appropriate means to address issues related to patient safety in this BMT unit (72.7).

The dimension "safety atmosphere" received an average score of 74.1, and attitudes that sustain patient safety presented the following averages: 1. The suggestions of nurses are welcome in this BMT unit (75); 2. In this BMT unit, it is hard to say if I perceive a problem with patient care (64.4); 3. Disagreements are resolved in an appropriate manner (e.g., not who's right, but what's best for the patient) (74.2); 4. I have the necessary support from other members of the team to take care of the patients (81); 5. It is easy for the team members of this BMT unit to ask questions when there is something that they don't understand (78.8); 6. The doctors and nurses work together as a coordinated team (71.2).

The dimension "working conditions" was evaluated with an average score of 57.51, and the attitudes toward patient safety presented the following averages: 1. This place does a good job training newly admitted staff (59.4); 2. All the necessary information for diagnostic and therapeutic decisions are routinely available to me (62.8); 3. Professionals with problems are dealt with constructively by the hospital (46.8); 4. Trainees of my profession are properly supervised (62.1).

The dimension "perception of stress" received an average score of 65.9, and the attitudes toward patient safety presented the following averages: 1. When my workload is excessive, performance is jeopardised (68.2); 2. I'm less efficient at work when I'm tired (71.9); 3. I'm more prone to making mistakes in tense or hostile situations (69.7); 4. Fatigue impairs my performance during emergency situations (50).

The dimension "perception of unit and hospital management" received an average score of 66.9. The attitudes toward safety received the following averages in relation to: a) Management of the BMT nursing unit: 1. It supports my daily efforts (67.4); 2. It does not knowingly compromise patient safety (56.25); 3. In this BMT unit, the team is large enough to handle the number of patients (84.09); 4. I get appropriate and timely information about events that can affect my work (58.6); b) Assistant management of the BMT unit presented the following averages: 1. It supports my daily efforts (68.2); 2. It does not knowingly compromise patient safety (56.8); 3. In this BMT unit, the team is large enough to handle the number of patients (84.09); 4. I get appropriate and timely information about events that can affect my work (60.6); and c) General hospital administration: 1. It supports my daily efforts (64); 2. It does not knowingly compromise patient safety (61.7); 3. I get appropriate and timely information about events that can affect my work (54.7).

The dimension "safety atmosphere" received an average score of 78.7, and attitudes that sustain patient safety presented the following averages: 1. I like my job (93.9); 2. Working here is like being part of a big family (68.9); 3. This is a good place to work (79.5); 4. I'm proud to work in this BMT unit (88.6); 5. The morale of the staff in this BMT unit is high (61.7).

The percentage of participants who positively evaluated the attitudes of healthcare professionals toward patient safety and the average scores of the dimensions by profession are identified (Table 1).

It should be noted that 100% of the category nurses and other top-level professionals presented positive perceptions for job satisfaction, compared with 66.66% of the physicians and 46.15% of the nursing technicians. Only the nursing technicians did not obtain an average score higher than 75. This dimension, according to the Kruskall-Wallis test, showed a significant difference between the professionals, with a p-value of 0.05.

The other dimensions that assess patient safety did not obtain statistically significant differences between the professionals, namely safety atmosphere (p-value of 0.324), teamwork (p-value of 0.371), both of which refer to the Anova test, working conditions (p-value of 0.146), perception of stress (p-value of 0.154) and perception of unit and hospital management (p-value of 0.065), which were calculated using the Kruskall-Wallis test.

The analysis of the degree of collaboration and communication revealed a percentage of positive responses for each professional group (Table 2).

The recommendations of the study participants to improve patient safety were: training, education, enhancement and study groups; improve supervision, training and follow-up of new employees; improve communication and cooperation between professionals; improve the provision of information about risks to patient safety, adverse events and infections; meetings between nursing technicians, nurses and assistant management; improve the quality of communication with the general hospital

Table 1 – Percentage of participants who positively evaluated the attitudes of healthcare professionals toward patient safety and the average scores of the dimensions by profession. Bone marrow transplant unit/Santa Catarina/Brazil, 2013

Dimensions	% (n) positive attitude Average score of dimension			
	Nurses (n = 8)	Physicians (n = 6)	Nursing Technicians (n = 13)	Other top level professionals (n = 6)
Teamwork	75 (6) 81.77	50 (3) 70.83	46.15 (6) 72.11	66.66 (4) 74.1
Safety atmosphere	50 (4) 72.32	33.33 (2) 55.95	23.07 (3) 67.08	33.33 (2) 64.88
Job satisfaction	100 (8) 84.22	66.66 (4) 80.83	46.15 (6) 73.08	100 (6) 81.67
Perception of stress	50 (4) 71.88	66.66 (4) 70.83	23.07 (3) 61.06	66.66 (4) 63.54
Perception of management	25 (2) 67.19	83.33 (5) 75	15.38 (2) 61.06	33.33 (2) 71.18
Working conditions	25 (2) 58.59	66.66 (4) 66.67	- (0) 51.76	16.66 (1) 59.38

Source: Research data, 2013.

Table 2 – Assessment of percentage of positive responses in relation to the degree of collaboration and communication. Bone marrow transplant unit/Santa Catarina/Brazil, 2013

Degree of collaboration and communication	% of positive responses
- with the management:	
General hospital administration	48.48
Nursing management of BMT unit	84.84
Assistant management of BMT unit	84.84
- with the health professionals:	
Nurse	93.93
Physician on duty	90.90
Other top-level professionals	76.04
Nursing technician	96.96

Source: Research data, 2013.

administration; improve the physical structure; encourage the establishment of a sentinel network to register any patient event/incident that compromises patient safety; two physicians per day shift; perform procedures according to the operating manual; increase the number of professionals.

DISCUSSÃO

The results show that only the dimension "job satisfaction" was positively evaluated. Job satisfaction enhances the development and productivity of professional collaboration with the objectives and goals of the institution. However, almost half of the nursing technicians did not positively evaluate this dimension. It is important to note that most of the professionals who worked in the studied scenario are nursing technicians. This dissatisfaction could compromise productivity, attendance, health and welfare of the professionals and increase turnover in the sector, which can also jeopardise patients.

A Brazilian integrative review found that the reasons nursing professionals expressed dissatisfaction were lack of integration between team members, work overload, low pay, professional devaluation, missing and/or insufficient material and equipment, little work stimulus and little autonomy[15]. Further studies on job satisfaction with the staff of this unit could identify the factors that lead a professional category to feel less satisfied than the other. The results could help improve the workplace, the services, the quality of life of the professionals and patient care.

With regard to the dimension "safety atmosphere", only the safety attitude "I would feel safe if I were treated here as a patient" got a positive evaluation. The study participants believed that their place of work does not offer risks during patient care, although other items show their difficulty in discussing, notifying and managing errors, as well as the lack of an adequate return on their job performance. This reality suggests that the professionals would feel safe if they were patients at the investigated unit because they trust in the care provided by the professional staff, that is, the safe care is the reflection of an individual product of the professional that does not consider the other organisational factors involved.

For new technologies that improve patient safety to bring real benefits to the institution, the professionals must understand the error from the systemic approach. A cultural shift in the organisation would allow the professionals to expose the flaws in the work process without fear of punitive measures or of reprisals from colleagues[16].

Half of the attitudes regarding the dimension "teamwork" proved fragile for patient safety, and this dimension was evaluated positively by most nurses. The institution of measures that increase the awareness of professionals and clarify the roles of each professional category and the responsibilities of the team with patient safety is essential to resolve conflicts and enable the sharing of information.

The Department of Defense Patient Safety Program in collaboration with the Agency for Healthcare Research and Quality (ARHQ) created the programme Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS), which is a system of teamwork based on evidence to improve the communication and teamwork skills of health professionals[17-18]. Studies have been conducted using this programme to ascertain its effectiveness and benefits for patient safety. One of these studies used the TeamSTEPPS in 14 hospitals, two long-term care facilities and outpatient clinics of the entire North Shore LIJ Health System. A total of 32,150 health professionals were trained. The Hospital Survey on Patient Safety Culture (HSOPSC) of the AHRQ was applied before and after programme implementation to compare the perceptions of the staff on patient safety. The results showed significant improvements[17].

Another study conducted TeamSTEPPS training with 306 students of medicine, nursing, pharmacy and medical assistants. The results showed that there were significant improvements in the attitudes related to team communication, motivation, utility of training and self-efficacy, team structure, monitoring the situation and mutual support[18].

One of the dimensions, "working conditions" presented the biggest weakness in the professional evaluations. When the workers do not have all the information regarding the patient, equipment, logistical support and proper supervision, their care practice is limited and their autonomy is reduced, which increases the risk of incidents that can cause harm to the patients. It should be noted that none of the nursing technicians positively evaluated this dimension.

In Brazil, the areas of health are compromised by problems related to a shortage of human resources and materials, lack of qualification, excessive workload, absenteeism and non-permanence in the profession, as a result of structural, political, economic and cultural issues. The media routinely report these poor working conditions in public hospitals and the consequent errors and faults in patient care[19]. These issues must be addressed so that health professionals can obtain the resources they need to provide broad access to the services of the unified health system according to the needs of patients and comprehensiveness through assertive and decisive care.

The attitude "professionals with problems are dealt with constructively by the hospital" received the lowest score. This result reflects the need for greater flexibility of the hospital to assist/deal with the professional since conflicting relations among different hierarchical levels may affect job satisfaction, which reflects negatively on the quality of care provided to the patients.

Other Brazilian studies[7-8] found that communication between managers and health professionals is often hierarchical and rigid. Although hierarchy is important, institutions should allow discussion on the daily situations/difficulties that jeopardise professional performance, and the sharing of activities and decision-making responsibilities by clearly defining the limits of each role and complementing actions.

The dimension "perception of stress" identified that the professionals did not believe that stress during their activities could compromise their professional performance, which suggests that the study participants exert pressure on themselves to provide quality care, even when they are exhausted.

Stress can trigger illness among workers. To enable self-care and stress management, the professionals must acknowledge that stress caused by high work demands limits their activities and affects their health[20], which can lead to unsafe, low quality care. Moreover, these issues should be discussed with institution managers when addressing improvements to patient safety.

The dimension "perception of unit and hospital management" was rated as weak for the culture of patient safety. It was only evaluated as positive by most of the physicians, although the value was not statistically significant in comparison to the other categories. The professionals considered that the team is big enough to handle the number of patients, however, they considered that the other attitudes toward patient safety require improvements. Patient safety is a complex system that requires policies and programs to establish improvement measures involving management and the staff and the subsequent evaluation of the effects caused by the implementation of these actions.

A management that values the team and provides mechanisms that facilitate the engagement of workers in professional development courses is also important[15]. Institutional management needs to encourage dialogue, recognition, respect, and continued education programmes that focus on personal and professional development. Furthermore, it must ensure an effective system of internal communication, career plans, jobs and salaries, the inclusion of workers in the decision-making process, congresses and meetings about patient safety, and studies with levels of strong evidence to support proposals for changes in care.

In relation to communication between professionals and their managers, the lowest percentages were related to the general administration. In relation to communication with other professionals working in the sector, the nurses, physicians and nursing technicians got a higher percentages of positive responses. This may be due to the fact that these professional categories work in the sector 24 hours a day every day of the week. The other professionals work from Monday to Friday only during the day shifts.

Errors caused by failure to communicate can be avoided through educational programmes offered to all employees of the organisation. These programmes teach them the skills they require to promote effective communication. The commitment and individual effort of the professionals to participate in these trainings is also essential to improve communication and collaboration between all team members[8]. The fact that the participants recommended training, education, enhancements and study groups to improve patient safety reveals their interest in professional education to provide safe care. These learning spaces are also used to address communication skills and can consequently serve as a means to strengthen the communication between the general administration and the healthcare professionals.

CONCLUSION

The attitudes of the health professionals toward the culture of patient safety in the BMT unit were identified by means of their answers to the following items: I would feel safe if I were treated here as a patient; The suggestions of nurses are welcome in this BMT unit; I have the necessary support from other members of the team to take care of patients; It is easy for the team members of this unit of BMT to ask questions when there is something they do not understand; In this BMT unit, the team is large enough to handle the number of patients; I like my job; This is a good place to work; I'm proud to work in this BMT unit.

The study revealed that the attitudes of the professionals in relation to the dimension "job satisfaction" contributed to patient safety in the investigated BMT unit.

However, the attitudes that contemplate the dimensions "safety atmosphere", "teamwork", "working conditions", "perception of stress" and "perception of the unit and hospital management" require intervention.

Patient safety is a priority in health institutions. It is the result of a complex system that requires policies and programmes that establish joint security measures and the subsequent assessment of the effects caused by its implementation. It is therefore necessary to improve teamwork, increase the quality of communication between health professionals and managers, and provide continued education on patient safety to ensure that errors are systematically addressed and that any concern with patient safety is discussed clearly and assertively without fear of punishment.

The results of this study enabled the diagnosis of the attitudes of health professionals that have hampered the creation of a positive safety culture. These results can serve as a basis for health professionals and managers of the investigated unit to establish and implement effective strategies that can improve patient safety, especially regarding the attitudes that did not obtain a positive assessment. The safety culture can be assessed over time in order to analyse the impact and efficiency of the actions in relation to the attitudes of the professionals. This study and the adopted questionnaire helped raise awareness among the professionals on the research subject. Moreover, the study reinforced the knowledge of these professionals on patient safety and can encourage its replication in other healthcare scenarios.

Considering that the study was conducted with only one BMT unit, we suggest further studies in other states in order to identify the attitudes of health professionals toward patient safety in BMT units at the national level. Undergraduate courses and technical courses in the area of health should also address this subject in a cross-sectional manner during the entire programme in all the contexts of care to ensure that the qualified professionals have a greater awareness of safe care.

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