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IMPACT PERCEPTION AT WORK FROM AN ONLINE TRAINING ON THE PREVENTION OF PRESSURE INJURY¹

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ABSTRACT

Objective: to assess the impact perception in amplitude, and the support for the transferring of the online training on pressure injury prevention.

Method: this is an exploratory-descriptive study, developed in the city of São Paulo, in the University Hospital of the University of São Paulo. The research population was composed of 97 nurses who worked in units with patients at higher risk of developing pressure injury. In addition, two instruments were applied for assessing the support on the transfer and the impact perception. The data were submitted to descriptive statistical analyzes and Pearson's correlation coefficients, with the aid of the software R[®] 3.2.2. Cronbach's Alpha coefficient was used to verify the internal consistency of the scales.

Results: the impact perception of the training in the current study had an average value of 7.05±1.60. In the assessment of the Transfer Support, the average was 5.82±1.45. The impact analysis on the study showed significant values, indicating that there was transference and construction of knowledge, as well as skills developed by nurses in the online training for the care practice in the prevention of pressure injury. The assessment of the transfer support allowed us to examine the type of environment found by nurses to make the assimilated contents transfer to their professional practice.

Conclusion: the results of the assessments show that the online training provides knowledge to the nurses and contribute to the implementation of new educational technologies in the permanent actions of training and development of the nursing professionals.

DESCRIPTORS: Pressure ulcer. Distance education. Educational technology. Continuing Education in nursing. Training. Informatics in nursing.

PERCEPÇÃO DO IMPACTO NO TRABALHO DE UM TREINAMENTO ON-LINE SOBRE PREVENÇÃO DE LESÃO POR PRESSÃO

RESUMO

Objetivo: avaliar a percepção do impacto em amplitude e o suporte à transferência do treinamento *on-line* sobre prevenção de lesão por pressão.

Método: estudo exploratório-descritivo, desenvolvido no município de São Paulo, no Hospital Universitário da Universidade de São Paulo. A população da pesquisa abrangeu 97 enfermeiros que atuavam em unidades com pacientes de maior risco de desenvolvimento de Lesão por Pressão. Além disso, foram aplicados dois instrumentos para avaliação de suporte à transferência e de percepção do impacto. Os dados foram submetidos às análises estatísticas descritivas e coeficientes de correlação de Pearson, com auxílio do *software* R[®] 3.2.2. O coeficiente Alpha de Cronbach foi utilizado para verificar a consistência interna das escalas.

Resultados: a percepção de impacto do treinamento no trabalho apresentada teve um valor médio de 7,05±1,60. Na avaliação do Suporte à Transferência, a média foi de 5,82 ± 1,45. A análise de impacto no trabalho evidenciou valores significativos, indicando que houve transferência e construção de conhecimentos, bem como habilidades desenvolvidas pelos enfermeiros no treinamento *on-line* para a prática assistencial na prevenção de Lesão por Pressão. A avaliação do suporte à transferência permitiu examinar o tipo de ambiente encontrado pelo enfermeiro para fazer com que os conteúdos assimilados fossem transferidos para sua prática profissional.

Conclusão: os resultados das avaliações evidenciam que o treinamento *on-line* agrega conhecimento aos enfermeiros e contribuem para a implementação de novas tecnologias educacionais nas ações permanentes de treinamento e desenvolvimento dos profissionais da enfermagem.

DESCRIPTORES: Úlcera por pressão. Educação à distância. Tecnologia educacional. Educação continuada em enfermagem. Capacitação. Informática em enfermagem.

PERCEPCIÓN DEL IMPACTO EN EL TRABAJO DE UN ENTRENAMIENTO ON-LINE SOBRE PREVENCIÓN DE LESIÓN POR PRESIÓN

RESUMEN

Objetivo: evaluar la percepción del impacto en amplitud y el soporte a la transferencia del entrenamiento en línea sobre prevención de lesión por presión.

Método: estudio exploratorio-descriptivo, desarrollado en el municipio de São Paulo, en el Hospital Universitario de la Universidad de São Paulo. La población de la encuesta abarcó a 97 enfermeros que actuaban en unidades con pacientes de mayor riesgo de desarrollo de lesión por presión. Además, se aplicaron dos instrumentos para evaluar el apoyo a la transferencia y la percepción del impacto. Los datos fueron sometidos a los análisis estadísticos descriptivos y coeficientes de correlación de Pearson, con ayuda del software R® 3.2.2. El coeficiente Alpha de Cronbach fue utilizado para verificar la consistencia interna de las escalas.

Resultados: la percepción de impacto del entrenamiento en el trabajo presentada tuvo un valor promedio de $7,05 \pm 1,60$. En la evaluación del soporte a la transferencia, la media fue de $5,82 \pm 1,45$. El análisis de impacto en el trabajo evidenció valores significativos, indicando que hubo transferencia y construcción de conocimientos, así como habilidades desarrolladas por los enfermeros en el entrenamiento on-line para la práctica asistencial en la prevención de lesión por presión. La evaluación del soporte a la transferencia permitió examinar el tipo de ambiente encontrado por el enfermero para hacer que los contenidos asimilados fueran transferidos a su práctica profesional.

Conclusión: los resultados de las evaluaciones evidencian que el entrenamiento on-line agrega conocimiento a los enfermeros y contribuyen a la implementación de nuevas tecnologías educativas en las acciones permanentes de entrenamiento y desarrollo de los profesionales de la enfermería.

DESCRIPTORES: Úlcera por presión. Educación a distancia. Tecnología educacional. Educación continuada en enfermería. Capacitación. Informática aplicada a la enfermería.

INTRODUCTION

The development of the professions has advanced considerably, being necessary the continuous updating of the knowledge and the improvement of competences so that the professional can coexist with the diversity of the knowledge.¹

Professional training has been an important ally for institutions in a variety of fields, including health service providers, since they are increasingly looking for workers with broad knowledge and ability to solve problems.² Thus, organizations, increasingly integrated with the use of new technologies, have sought to empower their professionals through a reflective and collaborative education.³

Information and Communication Technologies (ICTs) are defined as tools to facilitate the communication, processing and transmission of information by electronic means. This definition includes, for example, the use of radio, telephone (landline and mobile), computers and the Internet.⁴

The development and use of new ICT in training in organizations are thus essential to facilitate the acquisition and updating of individuals' knowledge.⁵

Organizations, in turn, have used ICT to develop strategies for continuous updating of organizational and individual competencies, and a change in behavior is required, since learning must be collaborative. Teaching and learning should be conducted in a collaborative way, emphasizing, therefore, the importance of each professional to know their role and so they can contribute adequately and effectively in this process.⁶⁻⁹

Thus, education for professionals is understood as a dynamic and continuous process of knowledge construction through free thought and critical-reflexive consciousness, for the creation of personal and professional commitment in the transformation of (and action over) reality.¹⁰

That said, it is important to point out that in the area of Social Psychology and Work, Training, Development and Education (TD&E) is defined as follows:¹¹

Training - used to support individuals in acquiring a new skill and a new knowledge. These are short and mid-term educational events aimed at improving the functional performance by creating situations that facilitate the acquisition, retention and transfer of learning to work activities.¹¹

Development - learning process for the growth of the individual. It is the set of learning experiences and opportunities provided by the organization and that support the employee's personal growth through self-development programs.¹¹⁻¹²

Education - a broader form of learning through programs or sets of medium and long-term educational events that aim at continuous training and professional qualification of employees.¹¹

Although these are distinct concepts, Training and Development are closely related, there are no clear boundaries between them, because the same educational event can be a training for some and development for others.¹³ Thus, the generic use of the term Training is aimed at designating structured actions for the acquisition and retention of knowledge, skills and attitudes.¹⁴

Of the four constituent elements of TD&E, the assessment of the learning needs, planning, program execution, and outcome assessment, we highlight the latter's fragility, demonstrated by the gap in scientific publications in the field of health in Brazil, where the applied techniques are related more to the aspects of reaction assessment and learning. Few studies assess the impact of the educational process. The adoption of a theoretical and methodological reference to guide the assessment process is therefore essential.¹⁵

To this end, the training assessment involves a systematic process of gathering information to improve formal educational activities for professionals. The main objectives of the training assessment are to control the process, feedback the system, make training decisions and make it capable of promoting changes in the environment.¹⁶

According to the benchmark adopted in this research, the assessment of training results addresses three levels of assessment:¹⁷ reaction that corresponds to the degree of satisfaction of the participants in relation to the training, regarding, among other things, the agenda, applicability and usefulness of the content and to the tutor; learning that demonstrates acquisition or increase and retention of the course content as measured by tests or knowledge tests applied by the instructor at the end of the training;¹⁸ and impact that verifies the application in the professional practice of what has been assimilated.

Recent researches on health training assessment, however, points out that the evaluation model should be broader, in order to identify the variables involved in the process.¹⁹⁻²³ In addition, in order to analyze the impact of ICT on learning, important authors consider that there is a need to develop research with more complex, rigorous and multifaceted approaches.²⁴⁻²⁵

The use of digital resources can contribute significantly to learning. However, publications are scarce and new studies are needed in order to identify the impact of the application of these resources on the learning process of health and nursing professionals.²⁶

Thus, considering the importance of ICT in learning and assessment training results, it is essential to develop research with an emphasis on the assessment of online training in a broader way, being able to identify the impact of training in care.

In this context, the Integrated Model of Work Training Assessment (IMPACT) was developed in the area of Organizational Psychology to assess training in organizations.¹⁸

The Impact on Amplitude or Impact of the Work Training includes the concept of transfer of learning and the influence that the instructional action is capable of exerting on the overall performance of the trainee, regarding the correct application in the work environment of the knowledge, skills or attitudes acquired in training situations.¹⁸

The application of what is learned in the daily routine, however, does not depend exclusively on the trainee, since it is necessary to check the working conditions and available resources. This process is called Transfer Support.²⁷

The Transfer Support allows assessing the support that the training participant received to apply the new skills acquired at work, regarding the factors: Psychosocial Support (or Managerial and Social Support) to the Transfer and Material Support to the Transfer.²⁷

The Psychosocial Support assesses the managerial, social and organizational support to the application of the new learning at work, being composed by two sets of items: situational support actors and consequences associated to the application of new skills at work.²⁷

The Material Support aims to assess the quality, quantity and availability of material and financial resources, as well as the quality and adequacy of the physical environment of the workplace.²⁷

The knowledge of the variables related to the process of assessment of the results of training and development contributes to the planning and implementation of tools and instructional programs that strengthen the training and the professional practice, beginning with the assessment of the learning needs.

It is expected, therefore, that the results of this study contribute to the deepening of the knowledge about the complexity that involves the training in the area of Nursing, substantiating the construction of a methodology for the assessment of training in the health area and making possible positive changes in health practices, from the perspective of the nursing care. Thus, note the relevance of the theme Pressure Injuries (PI) for the assessment of the online training.

Regarding the PI theme, the literature addresses the need for health institutions to implement permanent training and development actions for professionals, aiming at reducing the incidence rates and prevalence of PI. The studies, in general, point out to the importance of training and the use of protocols for risk assessment, prevention and

treatment of PIs in order to improve the quality of patient care, minimizing suffering, pain, length of stay and risks of infection, as well as reducing the treatment costs.²⁸⁻²⁹

Therefore, the importance of ICTs and the assessment of educational actions and the need for learning related to PI was emphasized. The objective of this research was to assess the perception of the amplitude impact of the online training on Prevention of Pressure Injury and to assess the transfer support.

METHOD

The quantitative research with exploratory-descriptive design occurred in the city of São Paulo, at the University Hospital of the University of São Paulo (HU/USP), mainly involving a public institution that promotes teaching and research, aiming at the training of nurses on the subject to improve the care practice.

The HU/USP is part of the Integrated Health System of the University of São Paulo and its purpose is to promote teaching, research and extend services to the community. Located on the campus of the University of São Paulo (USP), in the West region of São Paulo, HU/USP has 258 beds, and it works in general areas such as Medical Clinic, Surgery, Obstetrics and Gynecology, Orthopedics and Pediatrics. It is the teaching and research field of the Medicine, Public Health, Nursing, Pharmacy, Dentistry and Psychology Schools. The population served by the hospital is made up of the USP community, which includes professors, students and employees of the University, including its dependents and also the community living in the West region of São Paulo, which has as reference the Basic Health Units of that region.

The research population was composed of 97 nurses who work in units with patients at a higher risk of PI development, being 14 nurses from the Medical Clinic, 14 from the Surgical Clinic, 20 from the Adult Intensive Care Unit (Adult ICU), 24 from the Adult Emergency Room (AER), 10 from Pediatrics and 15 from the Pediatric and Neonatal Intensive Care Units (Pediatric and Neonatal ICU), including three work shifts. The AER was included in this study due to the patients' stay time, when there are no beds available for hospitalization.

It should be mentioned that some nurses failed to fully comply with all phases of the online training on Preventing Pressure Injury and were discontinued from the research.

The online training was hosted in the virtual learning environment Moodle® Modular Object-Oriented Dynamic Learning Environment on the Extension Courses website of the University of São Paulo (<http://cursosextensao.usp.br>).

This 12-hour, four-week training consists of four modules containing a forum for questions, interactive lessons, a library of scientific articles and guidelines, a video-media center, and feedback exercises, as follows: Module 01 - Why to prevent? - it addressed the cost of the problem; Module 02 - Basic concepts - it covered anatomy and physiology of the skin; definition and pathophysiology of PI, Stages of PI, Regions vulnerable to the PI formation, tests to identify the PI Stages; Module 03 - Risk assessment - it addressed the extrinsic and intrinsic risk factors, patient assessment, risk assessment, case studies for the application of the Braden's Scale, and case studies for risk factors assessment; and, Module 04 - Prevention protocol - it contemplated the STOP video, pressure injury, elaboration of a strategic situational plan.

In order to represent the pathophysiology, the staging and the regions vulnerable to the PI formation, the Virtual Man was used, that is, a third-dimensional graphic computational resource that enhances the apprehension of knowledge through spatial and visual abilities.³⁰

The activities carried out were: PI photo tests for the stage classification (multiple choice exercise with feedback); three case studies for the assessment of risk factors for the development of PI, and three for the application of the Braden's Scale; elaboration of a situational strategic planning of preventive measures; and question forums regarding the content of the training. The case studies were elaborated from real situations.

The quality of the online training, before being applied, was assessed by 14 judges from the areas of Stomatherapy, Instructional Design and Distance Education, and Nursing Teaching, and the indicated adjustments made by the experts were applied.

The training had four tutors, with the objective of accompanying, guiding and clarifying possible questions. The tutors were three stomatherapist nurses, participants from the HU/USP Stomatherapy Group, and a nurse from the HU/USP Quality and Teaching Service with a master's degree in PI prevention.

The amplitude impact or the effect of training on the nurse's performance was measured through the proposed instrument and validated by Abbad,²⁰ composed of 12 items, on a Likert scale,

with responses varying in the following proportion: “totally disagree” (1) e “totally agree” (5), that is, the higher the score, the greater the impact on amplitude. The instrument was applied by an electronic form and answered within 45 days after the end of the training.

To assess the Transfer Support, a validated scale was used,²⁰ consisting of a Likert scale, containing 22 items and a graduation from 1 (always) to 5 (never), the last question being excluded because it did not apply to the PI training. The Scale was sent by e-mail, through an electronic form and answered within 45 days after the end of the training.

This study followed the norms of research ethics involving human beings presented in Resolution 196 of 1996 of the National Health Council/Ministry of Health, being approved by the Research Ethics Committee and by the Research Committee of USP (opinion No. 059.318) under CAAE 29396714.3.0000.5392, and by the Research Ethics Committee of HU/USP (opinion No. 765.815) under CAAE 29396714.3.3001.0076.

The study population was invited to participate in the course, being clarified about the objectives and purposes of the research, as well as about the confidentiality, privacy and anonymity of all the participants, ensuring the ethical aspects of the study. The nurses who voluntarily participated in the research completed, through an electronic medium, the Moodle platform®, the Free and Informed Consent Form.

The data was stored in the Excel® software, and the analyzes performed in the R® 3.2.2 software.³¹

The Amplitude Impact and Transfer Support assessment are presented in a descriptive way per item and total score, respectively, in order to demonstrate each evaluative item as a variable and represent a global impact and support variable.

The Amplitude Impact and Transfer Support scores were scaled to vary from 0 to 10. In other

words, the domains estimated for each individual were calculated by the following equation:

$$E_{score} = \frac{\bar{x} - \min(x)}{\max(x) - \min(x)} * 10$$

Where \bar{x} is the average of the questions that make up the domain, $\min(x)$ is the minimum possible value that can be found as answer to the questions, and analogously, $\max(x)$ is the maximum value.³²

The Cronbach's Alpha coefficient was used to verify the internal consistency of the scales.³³

Results

The average age of participants was 37.5 years old. Regarding gender, women represented 89.1% of the nurses who participated in the training. Regarding the nurses' schooling level, 42.2% had a degree; 26.6% had undergone *lato sensu* specialization, and 31.2% had completed the master's degree. The nurses' working areas ranged from: eight (12.5%) in Pediatric and Neonatal ICU; 16 (25.0%) in Emergency Room; nine (14.1%) in Medical Clinic; 10 (15.6%) in Surgical Clinic; 12 (18.7%) in Adult ICU and nine (14.1%) in Pediatrics.

Regarding the role, the group was composed of 61 nursing assistants (95.3%) and three chief nurses (4.7%).

The impact perception of the training on work was assessed positively, with an average of 7.05 ± 1.60 , and a variation of 3.75 to 10.00.

Table 1 shows the frequency of the impact perception assessment items by the degree of agreement. The instrument used presented satisfactory internal consistency index (Cronbach's Alpha=0.901).

Table 1 - Distribution of answers on Amplitude Impact Perception regarding the Online Training on Pressure Injury Prevention. São Paulo, SP, Brazil, 2016. (n=35)

Item	Totally disagree	Disagree	I do not agree nor disagree	Agree	Totally agree
	N (%)	n (%)	n (%)	n (%)	n (%)
I often use in my current job what was taught in the training	1 2.8	1 2.9	10 28.6	14 40	9 25.7
I take the opportunities that I have to put into practice what I was taught in the training	-	2 5.7	3 8.6	16 45.7	14 40
The skills I have learned in the training led me to make fewer mistakes in my work and in training content-related activities	-	2 5.7	7 20	15 42.9	11 31.4
I remember well the contents that have been taught in the training	-	2 5.7	12 34.3	14 40	7 20
When I apply what I have learned in the training, I execute my work with greater assertiveness	-	1 2.9	3 8.6	17 48.6	14 39.9
The quality of my work improved in activities directly related to the training content	-	1 2.9	5 14.3	20 57.1	9 25.7
The quality of my work improved even in those activities that did not seem to be related to the training content	1 2.9	3 8.6	13 37.1	13 37.1	5 14.3
My participation in the training served to increase my motivation at work	2 5.8	2 5.7	16 45.7	4 11.4	11 31.4
My participation in this training increased my self-confidence - I now have more confidence in my ability to perform my job successfully	1 2.8	-	8 22.9	15 42.9	11 31.4
After my participation in the training, I have more frequently suggested changes in work routines	-	2 5.7	19 54.3	9 25.7	5 14.3
This training I took made me more receptive to job changes	2 5.7	3 8.6	11 31.4	11 31.4	8 22.9
The training I took has benefited my co-workers who learned from me some new skills	1 2.8	3 8.6	12 34.3	12 34.3	7 20

Regarding the perception of the training impact at work, 88.5% of the nurses considered applying what they have learned in the training and performing the work with greater assertiveness. Regarding the quality of work, 82.8% of the nurses stated that there was an improvement in the activities directly related to the content of the training.

In the assessment of the Transfer Support,

shown in table 2, the material support had the highest average, 6.2 ± 2.04 ; and the situational support factors show the lack of time to apply at work what the participant has learned, with a percentage of 57.2% of responses. The overall average of the Transfer Support scale was 5.82 ± 1.45 . The result of the internal consistency index of the instrument used was satisfactory (Cronbach's Alpha = 0.735).

Table 2 - Assessment of the Transfer Support. São Paulo, SP, Brazil, 2016. (n=35)

Variables	N	Minimum	Maximum	Average	Standard deviation	Median	1st quartile	3rd quartile
Situational factors of support	35	1.67	8.06	5.68	1.55	6.11	4.17	6.94
Consequences associated to the use of the new skills	35	1.43	8.93	5.72	1.50	5.71	4.82	6.61
Material Support	35	2.00	10.00	6.20	2.04	6.50	5.00	7.25
Overall average	35	2.38	8.33	5.82	1.45	6.19	4.88	6.67

Of the findings related to situational support factors, the following stand out: the lack of time to apply at work what the participant has learned, with 57.2% of answers in the categories "always occurs" and "frequently"; and the high demand of

the deadlines for the delivery of papers that prevent the application of the skills learned in the training, which presented 51.4% of the answers in "always occurs" and "frequently" (Table 3).

Table 3 - Answers to the items of the questionnaire for the measurement of Transfer Support. São Paulo, SP, Brazil, 2016. (n=35)

Item	Occurs always	Frequently	Some Times	Rarely	Never occurs	Total
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Situational Support Factors						
I have had opportunities to use in my work the skills I have learned in training.	-	2	4	16	13	35
	-	5.7	11.4	45.7	37.2	100
I lack time to apply at work what I have learned in the training.	3	17	11	4	-	35
	8.6	48.6	31.4	11.4	-	100
The job goals set by my boss encourage me to apply what I have learned in the training.	1	5	8	13	8	35
	2.8	14.3	22.9	37.1	22.9	100
The deadlines for submitting papers make it unfeasible to use the skills I have learned in the training.	2	16	15	2	0	35
	5.7	45.7	42.9	5.7	0	100
I have had opportunities to practice important skills newly acquired in the training - but often little used at work.	3	7	9	12	4	35
	8.6	20	25.7	34.3	11.4	100
The obstacles and difficulties associated with applying the new skills I have acquired in training are identified and removed by my boss.	2	10	9	9	5	35
	5.7	28.6	25.7	25.7	14.3	100
I have been encouraged by my immediate leader to apply what I have learned in the training to my work.	2	6	6	9	12	35
	5.8	17.1	17.1	25.7	34.3	100
Consequences associated to the use of the new skills						
In my work environment, my suggestions regarding what has been taught in the training are taken into consideration.	1	2	9	16	7	35
	2.9	5.7	25.7	45.7	20	100

Item	Occurs always	Frequently	Some Times	Rarely	Never occurs	Total
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
I receive the information I need for the correct application of the new skills to my work.	-	4	9	14	8	35
	-	11.4	25.7	40	22.9	100
My more experienced colleagues support the attempts I make to use what I have learned in training at work.	1	2	9	16	7	35
	2.9	5.7	25.7	45.7	20	100
Here my attempts to apply the new skills I have learned in the training go unnoticed.	1	1	16	13	4	35
	2.9	2.9	45.7	37.1	11.4	100
My organization emphasizes more the negative aspects, for example: slowness, doubts, instead of the positives aspects regarding the use of new skills.	-	-	14	10	11	35
	-	-	40	28.6	31.4	100
I have been receiving compliments when I correctly apply at work the new skills I have learned.	4	11	12	7	1	35
	11.4	31.4	34.3	20	2.9	100
When I have difficulties in effectively applying the new skills I get guidance on how to do it.	3	5	14	9	4	35
	8.6	14.3	40	25.7	11.4	100
They draw my attention when I make mistakes by using the skills I have acquired in the training.	10	11	11	2	1	35
	28.6	31.4	31.4	5.7	2.9	100
Material support						
My organization has been providing the material resources, equipment, furniture, and whatever is necessary for the proper use of the skills I have learned in the training.	-	4	10	15	6	35
	-	11.4	28.6	42.9	17.1	100
Furniture, materials, equipment, and the similar things have been available in sufficient quantity for me to apply what I have learned in the training.	1	3	11	13	7	35
	2.9	8.6	31.4	37.1	20	100
The equipment and/or materials used by me are in good conditions of use.	-	5	6	17	7	35
	-	14.3	17.1	48.6	20	100
The work tools, computers, examination tables, consultation room, stethoscope, otoscope, for example, are of quality compatible with the use of my new skills.	2	5	11	13	4	35
	5.8	14.3	31.4	37.1	11.4	100
The place where I work in regards to furniture, lighting, and ventilation or noise level is appropriate to the correct application of the skills I have acquired in the training.	4	4	17	7	3	35
	11.4	1.4	48.6	20	8.6	100

The predominant answers of the participants related to the item Consequences Associated to the use of the New Skills were that the trainees' suggestions about what had been taught in the training were "never" and "rarely" taken into account in the work environment; 65.7% of the nurses, and 65.7% of the trainees said that "never" and "rarely" are supported in the attempts to use what they have learned in their training. Another relevant fact is the lack of guidance to effectively apply the new skills, with 37.1% of the participants arguing that they

"never" and "rarely" receive guidance on how to do it, and 40% said that they receive it "sometimes".

Regarding the material support, 48.6% of the nurses state that "sometimes" the place where they work with regards to furniture, lighting, ventilation and/or noise level are adequate to correctly apply the skills that have been acquired in the training.

The transfer Support was significantly correlated (0.374) with Amplitude Impact and in depth within the scope of the online post-training self-assessment.

DISCUSSION

New research on training assessments should seek to measure the impact on “patient care” because it represents a time from which the significant benefits of any educational interventions can be judged, to really assess whether the training has improved the quality effectiveness of care.³⁴ pre-module data were collected on 74% (n=29). Thus, this study aimed to advance the methodology of online training assessment in the health area, through a proposed model that has been used by the organizational psychology, which assesses the amplitude impact, as well as the transfer support of online training.²⁷

Thus, it is necessary to investigate the post-training environment and seek to analyze the interferences that may arise and impact on the expected results of the training.¹¹

The training system consists of the following elements: assessment of the training needs, planning and execution of the training and assessment of the training. The training assessment is essential to provide feedback that ensure the continuous improvement of the training system.³⁵ The assessment process allows reflections that can bring changes, overcoming and evolution.³⁶

The present study showed that there was transference of the learning to the nursing care practice, which may be due to the pertinence of the pedagogical strategy used, since the transfer of knowledge to another situation becomes possible when the teaching-learning strategies are applied properly.³⁷ The assessment of the impact of a face-to-face training evidenced that there was a low retention of the contents learned due to the application of an excessive expositive methodology and distancing to the work situations.²⁰

The amplitude impact is measured in terms of learning transfer and in relation to the influence that the instructional action exerts on the overall performance of the trainee in specific activities related to the purpose of the instructional action and the application of the skills learned in non-training specific situations.³⁸ The nurses perceived the impact of the online training in a positive way, evidencing the application of new knowledge and skills in their work environment and in non-training specific tasks.

The impact in amplitude can be influenced by the proximity of the content taught in the training in relation to the real work situations,³⁹ in this case, the PI prevention is a frequent care in nursing care, ratifying the need for learning and a more assertive practical application on the part of nurses.

Of the findings related to the transfer support, in the situational support factors, the following stand out: the lack of time to apply at work what the participant has learned, and the high demand for deadlines for the delivery of papers that make it impossible to apply the skills learned in the training. Studies indicate that the participation of nursing managers is fundamental in the process of managing people, avoiding work overload.⁴⁰⁻⁴¹

It should also be highlighted that the participant's perception regarding support allows investigating the support with which the trainer counts, or judges to count, to apply the knowledge in practice.¹⁸

Regarding the predominant consequence associated with the use of the new skills, it is important to emphasize the fact that the trainees' suggestions about what has been taught in the online training is rarely taken into account in their work environment.

Supervisor's and peer's support significantly influence the transfer of the training,⁴² which was not observed in this study, since the nurses responded that they were not encouraged by their immediate leader and did not have the support of the more experienced colleagues.

The role of leadership in the follow-up and development of the nursing team worker should be considered relevant as it is the leader who provides feedback on the strengths and needs of improvement.²⁰

It is evident the importance of the supervision process, focused on the educational dimension, which allows knowledge mobility to related areas. This knowledge mobilization is not subordinated exclusively to the individual effort, but also to the investment in qualification, with significant experiences to propitiate the professional reconversion.⁴³

The essential role of the leader as a facilitator/mentor and educator is highlighted here, in order to identify whether learning and co-responsibility have been established as a fundamental element in the conduct of behavior change. Thus, it is necessary to include action plans to reinforce learning through devolutive, causing the trainee to expose their reflections about what has been learned.²⁰

In addition, in order for professionals to apply their knowledge, an organizational change is essential,¹⁵ so that the material support for the PI patient care or developmental risk can promote the prevention and improvement of the quality of the PI treatment.

These findings corroborate the researches that point out the Psychosocial Transfer Support as the major responsible for the Impact of Training at Work

(Amplitude Impact), and suggest the conduction of research that allows to identify obstacles to the transfer of training to the work and to investigate different post-training strategies that can maximize the use of the new skills acquired.³⁹

It is essential to understand the transfer and construction of knowledge, as well as its repercussions on the dynamics of work and on the productivity of employees, both quantitatively and qualitatively, with the objective of verifying how the organization can be, besides a space of professional formation, a space of knowledge, of production and transmission of knowledge.⁴⁴

The greatest difficulty in assessing training occurs in the dimension of results, due to the need to isolate the variables obtained as training results from other organizational variables that may have influenced these results.⁴⁴

CONCLUSION

The online training added knowledge and awareness on the impact of training on the part of the nurses, indicating its contribution to a wider change of knowledge, skill and attitude of nurses, acquired in the online training for the practice of care in the prevention of PI.

The transfer support correlated significantly to the online post-training amplitude impact.

The assessment of the transfer support allowed us to examine the type of environment found by the nurse in order to transfer the learned contents to their professional practice. It also allowed us to understand the identification of material and social aspects, as well as to identify the importance of the support of the leadership so that new acquired skills are put into practice.

This research can thus contribute so other institutions can assess the results of their educational programs, to beyond the more commonly used reaction and learning assessments, and it may also help in the development of other research on training assessment in the Nursing and Health area.

Therefore, it is necessary to improve the entire online training development process, from the first moment, during the survey and evaluation of the topics that need to be addressed in the training, until the identification of long-term improvement in the quality of care.

The insertion of appropriate mechanisms for the diagnosis of needs and assessment of training programs and development of nursing personnel

is fundamental, aiming to facilitate transformations in health institutions within a critical and grounded view on the reality, resulting in the construction of knowledge for the organization, for the profession and for the society.

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