

Using microsoft sway as on line tool for nursing's team training and qualification

Uso do microsoft sway como ferramenta online para treinamento e capacitação da equipe de enfermagem

Uso de microsoft sway como herramienta online para capacitación y calificación del equipo de enfermería

RESUMO

Objetivo: Relatar as etapas de construção de treinamentos para equipe de Enfermagem através da plataforma Microsoft® App Sway. Método: O estudo constituiu-se de uma pesquisa metodológica, aplicada, de produção tecnológica, caracterizada pelo processo de desenvolvimento e criação de um novo produto através de cinco etapas, sendo eles, análise, desenho, desenvolvimento, avaliação e administração. A construção foi uma plataforma de treinamentos online para equipe de Enfermagem através da ferramenta Microsoft® AppSway, onde foram estabelecidos treinamentos admissionais e desenvolvimento de educação em serviço para os colaboradores. Resultado: Foi obtido um total de 3.374 horas de treinamento através de 33 temas online construídos e disponibilizados para os colaboradores através da plataforma Microsoft® Sway. Conclusão: A ferramenta Microsoft® Sway foi considerada um fator positivo para aumento do impacto de treinamento. Sua facilidade de acesso e construção favorece todo esse processo de aprendizagem pela equipe de Enfermagem.

DESCRIPTORIOS: Educação Continuada; Enfermagem; Ensino; Capacitação em Serviço.

ABSTRACT

Objective: To report the training building steps for the Nursing team by using Microsoft® App Sway platform. Method: The study comprises an applied methodological survey, referring to a technological production, featured by development and creation process of a new product, through five steps; they are: analysis, design, development, evaluation and management. The building was an on line training platform intended for the Nursing team, through Microsoft® App Sway tool. In such tool were included admission training and in-service education development for the collaborators. Result: The training course comprised a total of 3,374 hours, by means of 33 online themes built and made available for the collaborators through Microsoft® Sway platform. Conclusion: Microsoft® Sway tool was considered a positive factor for increasing the training impact. Its easy access and building have enhanced the entire learning process by the Nursing team.

DESCRIPTORS: Continued Education; Nursing; Education; Service Training.

RESUMEN

Objetivo: Presentar las etapas de construcción de capacitación equipo de Enfermería por medio de la plataforma Microsoft® AppSway. Método: El estudio comprende una investigación metodológica aplicada, relacionada con la producción tecnológica, destacada por el proceso de desarrollo y creación de un nuevo producto por medio de cinco etapas; son ellas: análisis, proyecto, desarrollo, evaluación y gestión. La construcción ha sido una plataforma de capacitación online destinada al equipo de Enfermería a través de la herramienta Microsoft® AppSway; en ella, se han agregado calificaciones de admisión y desarrollo de educación en servicio a los colaboradores. Resultado: Se obtuvieron un total de 3.374 horas de capacitación a través de 33 temas online diseñados y puestos a disposición de los colaboradores a través de la plataforma Microsoft® Sway. Conclusión: La herramienta Microsoft® Sway ha sido considerada un factor positivo para aumento del impacto de la capacitación. Su facilidad para acceder y la construcción mejoran el proceso completo de aprendizaje del equipo de Enfermería.

DESCRIPTORES: Educación Continua; Enfermería; Educación; Servicio de Capacitación.

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INTRODUCTION

At the Ministry of Health, continuing education (CE) is a type of education at work in health, which concerns activities with a defined period of execution and is usually associated with the use of traditional teaching methodology. The CE is responsible for carrying out interventions that promote technical-scientific knowledge to the health professional, sequentially and cumulatively. Although its definition differs from Permanent Health Education (PHE), which is based on meaningful learning and the transformation of the work reality, since both start from education in health work, the problems faced by CE and PHE may be similar.¹

In this way, the important role of continuing education in mobilizing the potential of nursing workers is evident, because by rescuing a conception aimed at the development of these professionals, it allows a better preparation for the nursing professional to assume and carry out his technical competences and professional posture, always providing a better assistance.

Also in view of the new requirements of health organizations, nursing faces continuous transformations, which implies that people need to look for the best way to expand their knowledge, and one of the ways is education and continuous learning.

Research on Information and Communication Technologies (ICT) is intended to monitor the role of ICTs in different segments of society. Among these segments, we can highlight the ICT Health survey, carried out in 2019, which demonstrated that the use of computers and the internet in health establishments in Brazil ranges from 91% to 99%, depending on the demographic region analyzed. These data demonstrate the approximation of technology to the work environment in the health area, and consequently, indicate the need for adaptation of professionals who work in these environments.²

An integrative review on the use of

technologies for teaching nursing skills described three categories among the analyzed publications: the use of simulation environments, the stimulation of learning, and the learning of nursing skills themselves. Despite the thematic separation, the technological approaches found in the literature were diverse, using resources that vary in cost and showing different possibilities that can be integrated into the educational process and professional training.^{3,4}

By adding information about the perception of nurses, a qualitative study, carried out in 2017, with the objective of identifying the perspective of the study participants on the relevance of the use of educational technologies during graduation, demonstrated that, despite the adoption of technological strategies differing according to the training time of professionals, all respondents considered the use of these tools as important factors for the training process and professional performance.⁵

In view of the technological interventions that can be applied to the construction of knowledge, the Microsoft 365° platform, which has a set of applications, one of which is App Sway, configures an interactive environment that can be conducive to learning. The effectiveness of this platform can be evidenced by the research by Harefa et al, who compared the use of handouts to the use of Sway for teaching chemistry. The data analyzed the pre- and post-test forms, and showed greater significance ($\alpha = 0.05$) in the Sway group.⁶

Corroborating these findings, Usman demonstrated improvement in the knowledge of high school students after intervention with the Microsoft 365° App Sway platform, with an increase from 77.5 in the conventional intervention to 81.5 after using the platform. In addition, the evaluation of this strategy carried out by the study participants obtained favorable responses to its use, highlighting the help in understanding the content, interactive learning and ease of access to the material.⁷

With the knowledge of the Microsoft 365° App Sway tool made available by the institution, an opportunity was observed to improve the provision of training for the Nursing team by the Continuing Education Service, through the construction and availability of online training on care practice.

The objective of the present study was to highlight the methodological steps taken in the construction of a technological product, that is, construction of an online training platform through the Microsoft Sway application where admission training and development of in-service education for the Nursing team were made available.

METHOD

The study consists of a methodological research, applied, of technological production, characterized by being about the process of development and creation of a new product, activity or service, according to the Galvis-Panqueva reference.⁸

The phases of the methodological process of technological production include five steps. The first is the analysis, in this phase the definition of the objective and what is intended to be taught takes place, also taking into account the content that must be made available and the means necessary to achieve this objective.

The second stage is the design, where the didactic activities that will be applied through the teaching tool are carried out, the navigation structure, that is, the interface that the user will have contact with.

The third stage is development, this stage is the materialization of the entire design built in the previous phase, it is the execution of ideas and the materialization of this process.

The fourth stage is the evaluation, where platform users perform tests to verify the viability of the built tool.

Finally, the last stage is the administration, where the platform is managed to ensure its full operation, in addition to building more resources to apply through the technological tool.⁸

Artigo Original EN

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The present study was carried out in an institution specialized in tertiary-level Cardiology that is linked to the Secretary of Health of the State of São Paulo, specialized in care for patients with high complexity heart disease, located in the city of São Paulo.

Between November 2021 and December 2022, admission training was carried out and planned to welcome new nursing professionals in addition to permanent and continuing education, with a focus on new institutional protocols and/or on safe patient care in accordance with the guidelines of the Ministry of Health, for nursing team professionals already working in the institution.

The admission process and training were conducted by the Continuous Education Service (CES), which has the competence to support and manage human resources processes, selection and training of new nursing professionals, as well as permanent and continuing education at the institution.

It was understood that it was not necessary to submit the study to the Research Ethics Committee, as aggregated data were used. However, all ethical-legal aspects were contemplated throughout the technological production of the product.

RESULT

Initially, in the first six months, 22 themes were developed for dissemination during the admission training process and for the permanent education of professionals.

Performing the summation and analysis of the accesses of nursing professionals in 22 themes, in six months, being from December 2021 to May 2022, we obtained the statistics shown in TABLE 1.

After this previously mentioned period, the schedule on the Sway Platform was expanded to 33 courses aimed at content that addressed cognitive, psychomotor and affective resources of Nursing professionals, the summation and analysis of the professionals' accesses was carried out again from June 2022 to December 2022, according to Table 2.

In the total period described, that is, one year, a total of 3,374 hours of training were obtained through 33 online training courses built and made availa-

TABLE 1. Courses available on the Sway Platform and workload by professional category – DECEMBER/21 – MAY/22

Courses available on the Sway Platform	C.N.A.	Nurse	C.N.T.	Training hours
Antiviral Glanciclovir Sodico - Guidance on Preparation, Care in Administration and Disposal	20	26	30	76
Indwelling Vesical Catheter	68	47	71	186
CI.CARE communication	31,5	22	29,5	83
Transfusion Control of Blood Components		2		2
Culture, Quality, Patient Safety and Risk	2,5	5	5	12,5
Adverse Event Related to Health Care	3,5	2	3	8,5
Hypodermoclysis	1	12	8	21
Basic Nursing Manual - EPR	6	45	14	65
Passage of Nursing Shift - EPR MV	7	6	1	14
Preparation, Care in the Administration and Disposal of the Antiviral Ganciclovir Sodico	13	53	10	76
Pressure injury prevention	79	55	122	256
Fall Risk Prevention	130	111	178	419
Delivery of Belongings Protocol	55	42,5	73,5	171
Receipt of Product Requests	26,5	19,5	28,5	74,5
Removing the Hemostatic Bracelet	1	7	5	13
BIOLOGICAL RISKS - NR32	62	42,5	73,5	178
PATIENT SAFETY "Citizen Involvement in their Safety"	30	21,5	30	81,5
Safety in the Use of Medications in Neonatology	14	13	22	49
Product Return Request	25	17,5	29	71,5
Blood Typing and Administration of Blood Components	137	95	178	410
Use of Hospital Medications	0	3	0	3
Safe Use of Medicines	0	4	0	4
Grand total	712	651,5	911	2274,5

Source: Aggregated data extracted from the Continuing Education Service, 2022.

ble to employees through the Microsoft 365® App Sway platform.

DISCUSSION

Sway is a free application, for all users with a Microsoft Account, on a digital platform that allows you to create attractive content and share interactive presentations, personal portfolios, reports and much more. Sway allows you to present

information in a modern, interactive and pleasant way that works on any device. Its development and formatting have highly integrated and simple mechanisms, which makes it easier for the content developer to insert several integrations, enriching the learning environment. It's also cross-platform, shareable and reusable. Useful to use in the classroom context as well as to promote collaborative work.

Based on this knowledge, the deve-

lopment and testing for the initial adjustments of this teaching strategy were started. Initially, the CES was in a pilot unit, where they accessed the class already developed on the Microsoft Sway platform through a tablet and carried out the training in person and received positive feedback on this initiative.

From this initial experience, and from the first stage, the "analysis" the CES evaluated the training needs of subjects, which sought to carry out the immediate development of four subjects, "Injury Prevention, Protocol for Delivery of Belongings, Biological Risk NR-32, Blood Typing and Administration of Blood Components" all necessary and punctual at that time. After construction, the links and QRcodes of the contents developed in the App Sway were disclosed to the Nursing Heads.

Considering the period of disclosure of the four topics mentioned, in a total of 04 days, we obtained access to: 43 nursing assistants, 78 nursing technicians and 55 nurses.

Faced with these results and the positive evaluation of this initiative, the CES verified that the investment between the development of this type of training in the face of institutional demands and the improvement of effective communication and the dissemination of information on educational content to nursing and multidisciplinary professionals was satisfactory, in this way, it sought to carry out the continuity in the development of new content, always addressing institutional processes focusing on patient safety.

In the second stage, to prepare the "design", Bloom's taxonomy was used to establish the teaching-learning process, as it involves several dimensions of the individual that are part of the structuring and construction of knowledge. This structuring goes through the categories: cognitive objectives, affective objectives and psychomotor objectives.^{9,10}

We established that the cognitive objectives are: to know the concepts, definitions and flows of the processes in which nursing is inserted and to acquire technical knowledge to carry out the attributions of the nursing team.

TABLE 2. Courses available on the Sway Platform and workload by professional category – JUNE/22 – DECEMBER/22.

Courses available on the Sway Platform	CNA	Nurse	CNT	Training hours
LF 2001 Enteral Infusion Pump	10	5	8	23
LF SMART Infusion Pump	11	7	21	39
Indwelling Vesical Catheter	19	22	32	73
MSC	7,5	5,5	5,5	18,5
CI.CARE communication	3	4,5	4	11,5
Transfusion Control of Blood Components	10	28	15	53
Culture, Quality, Patient Safety and Risk	8,5	7,5	5,5	21,5
Hypodermoclysis	12	6	6	24
Patient Identification	34	30	64	128
Basic Nursing Manual - EPR	8	11	32	51
NCS EPR Manual - MV	7	48	9	64
High Vigilance Medications (AVM's)	7	19	22	48
Transfusion Reaction Notification		2		2
What is an Adverse Event Related to Health Care?	4	2,5	6,5	13
Passage of Nursing Shift - EPR MV	14	14	15	43
Preparation, Care in the Administration and Disposal of the Antiviral Ganciclovir Sodico	9	11	16	36
Pressure Injury prevention	2	2	16	20
Fall Risk Prevention	6	15	51	72
Delivery of Belongings Protocol	3,5	9	17,5	30
Receipt of Product Requests	1,5	2	3,5	7
Nursing Records X	11	16	21	48
Judicialization of Medical Records				
Removing the Hemostatic Bracelet	12	15	13	40
BIOLOGICAL RISKS - NR32	2	7	20,5	29,5
PATIENT SAFETY				
"Citizen Involvement in their Safety"	4	4	13	21
Safety in the Use of Medications in Neonatology			2	2
Product Return Request	3,5	4,5	10,5	18,5
Blood Typing and Administration of Blood Components	4	15	26	45
Zflow pillow	5	5	12	22
Use of Hospital Medications	4	9	22	35
Safe Use of Medicines	9	12	40	61
Grand total	231,5	338,5	529,5	1099,5

Source: Aggregated data extracted from the Continuing Education Service, 2022.

Thus effective objectives were defined: Provide a light learning tool, easily accessible and that had a more pleasurable teaching-learning process for nursing professionals.

Thus, the defined psychomotor objective was: accessing available training through the Microsoft Sway tool.

In the third stage of “development”, the pedagogical proposal related to the teaching methodology was structured using a presentation in the Microsoft Sway application, based on the available contents created by the Continuing Education Service. About the methodology used, the learning objects (LO) were followed, which were built based on the typologies of factual, conceptual, procedural and attitudinal content.

In the fourth stage, “evaluation”, indicators were built for analysis and control of professionals trained via this online platform. The training hour indicator showed high levels after applying this teaching tool. The CES understood that the tool was well accepted by professionals. In this way and through this analysis, a continuous course plan was proposed that aimed at continuing the development of training and content based on Bloom's Taxonomy, anchored in the cognitive, psychomotor and affective domains through

the Microsoft Sway application.

Finally, as the last step, the “administration” observed that the training hour indicator had a reduction of approximately 50%, however, it still remained at a good average compared to the same institutional indicator in periods when online training was not available. It was analyzed that even with the available resources, it is necessary to stimulate the Nursing team to mobilize them in the search for knowledge updates and new institutional norms. The Continuing Education Service has the duty to propose the learning environment, but it must also encourage professionals in this search.

Searching for new teaching strategies is in accordance with the Patient Safety Plan in the planning of permanent education. Updates on patient care do not stop, we constantly have new content that can change our care practice. Health establishments need to incorporate new technologies to contemplate and disseminate these new contents to their work teams.^{11,12}

It is necessary that dynamic, interactive and innovative strategies be adopted in nursing education, so as to reduce the crystallized practice of stagnant memorization of concepts and start to value reflection and decision-making in the face of clinical

findings. The Microsoft Sway tool comes along this path of providing a new alternative for the various training sessions needed by the Nursing team, in a lighter and more dynamic way.¹³

CONCLUSION

The implementation of this new practical in-service training tool contemplates the permanent education guidelines for the nursing team. Good adherence was observed by the team, since the training indicators had a considerable increase.

The Microsoft Sway tool was considered a positive factor for this increased training impact. Its ease of access and construction favors this entire learning process by the Nursing team.

In a technological world, teaching needs to go hand in hand with the new resources available. Migrating institutional training to the online environment proved to be a good resource for Continuing Education Services. We had an increase in available topics and greater ease of access by the Nursing team.

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