

Use of media resources as educational strategy for the training of community health agents in craniofacial anomalies



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Abstract

Objective: Check the use of media resources as a strategy for training of community health workers in craniofacial anomalies. **Methods:** We conducted a study of cross-sectional, descriptive, with quantitative approach in the Family Health Unit (FHU) Stars Floor, located in the city of Recife, with the ACS of the two teams of the ESF, for the period September 2015 to February 2016. **Results:** of the 11 ACS participating in the study 9 (92,7%) answered correctly agents evaluations inter modules, while 2 (18,2%) had median development to respond the same evaluations. In the evaluations inter modules, the distribution of correct answers throughout the training process was observed revealing a high rate of correct answers to question 204 (81.6%). When evaluating the data referring to the scores of teaching methodology questionnaire for each study score, it can be seen high rates of positive responses. **Conclusion:** The tele-education was an effective instructional tool for continuing education process of community health workers, since it enables the dynamic information exposure by providing the necessary knowledge of craniofacial anomalies.

Keywords: Family Health; Community Health Workers; Inservice Training; Craniofacial Abnormalities.

Resumen

Utilización de recursos mediáticos como estrategia educacional para la capacitación de agentes comunitarios de la salud en las anomalías craneofaciales

Objetivo: Verificar la utilización de recursos mediáticos como estrategia para la capacitación de agentes comunitarios de salud en las anomalías craneofaciales. **Métodos:** En la Unidad de Salud de la Familia (USF) Chão de Estrelas (traducción libre: Suelo de Estrelas), ubicada en la ciudad de Recife, con los ACS de los dos equipos de la ESF, referente al período de referencia, se realizó un estudio del tipo corte transversal, descriptivo, con abordaje cuantitativo, en la Unidad de Salud de la Familia (USF) de septiembre de 2015 a febrero de 2016. **Resultados:** De los 11 ACS que participaron en el estudio 9 (81,8%) agentes respondieron correctamente las evaluaciones intermodales, mientras que 2 (18,2%) presentaron desarrollo mediano al responder las mismas evaluaciones. En las evaluaciones inter-módulos, se verificó la distribución de respuestas correctas durante todo el proceso de capacitación revelando un elevado índice de respuestas correctas al cuestionamiento 204 (92,7%). Al evaluar los datos referentes a los escores del cuestionario de metodología de enseñanza, para cada puntaje estudiado, se pueden observar altos índices en respuestas positivas. **Conclusión:** La tele-educación fue una herramienta instrumental efectiva para el proceso de educación permanente de los agentes comunitarios de salud, posibilitando la exposición de la información de forma dinámica propiciando el conocimiento necesario sobre las anomalías craneofaciales.

Palabras-clave: Salud de la Familia; Agentes Comunitarios de Salud; Capacitación en Servicio; Anomalías Craneofaciales.

Resumo

Utilização de recursos midiáticos como estratégia educacional para capacitação de agentes comunitários de saúde nas anomalias craneofaciais.

Verificar a utilização de recursos midiáticos como estratégia para capacitação de agentes comunitários de saúde nas anomalias craneofaciais. Métodos: Realizou-se um estudo do tipo corte transversal, descritivo, com abordagem quantitativa, na Unidade de Saúde da Família (USF) Chão de Estrelas, situado na cidade do Recife - Pernambuco, com os ACS das duas equipes da ESF, durante o período de setembro de 2015 a fevereiro de 2016. **Resultados:** Dos 11 ACS que participaram do estudo 9 (81,8%) agentes responderam corretamente as avaliações inter módulos, enquanto 2 (18,2%) apresentaram desenvolvimento mediano ao responderam as mesmas avaliações. Nas avaliações inter módulos, foi verificada a distribuição de respostas corretas durante todo o processo de capacitação revelando um elevado índice de respostas certas ao questionamento 204 (92,7%). Ao avaliar os dados referentes aos escores do questionário de metodologia de ensino, para cada escore estudado, foram observados altos índices em respostas positivas. **Conclusão:** A tele-educação foi uma ferramenta instrucional efetiva para o processo de educação permanente dos agentes comunitários de saúde, possibilitando a exposição da informação de forma dinâmica propiciando o conhecimento necessário sobre as anomalias craneofaciais.

Palavras-chaves: Saúde da Família; Agentes Comunitários de Saúde; Capacitação em Serviço; Anormalidades Craniofaciais.

Introduction

The Craniofacial Abnormalities comprehend a wide group of congenital defects where morphology and function are compromised. The causes are multiple and complex, involving from teratogenic factors to genetically determined causes. The Craniofacial Abnormalities affect about 5% of the live births all over the world. These anomalies already respond to 10-25% of pediatric hospital admissions, occupying a relevant place among the mortality and morbidity causes in the first year of life^{1,2,3,4,5}.

The treatment is burdensome because it requires the involvement of many professionals, the use of complex procedures with the consumption of high technology and monitoring afterwards for a long period of time. Due to this, rarely it can be funded by the families. In contrast, appropriate actions in time and quality are proven effective, which is essential to the individuals' better adaptation to the social environment and productive life¹.

The access to healthcare can't be given by chance or be dependent on efforts based in what everyone needs. The craniofacial abnormalities are a public health problem^{1,3,5}. Due to this, the idea that the state should take on healthcare in this area is defended. To not formulate and, above all, to not implement health policies capable of relieving the suffering and promoting a dignified life to people with deformities is to assist the chance of ethics and care responsibility⁶.

The current health system in Brazil has in the universality, equity and completeness its guiding principles, and has as its doorway primary healthcare. This was only possible by a change in healthcare's objective, shifting the individual to the collective. In order for this change to take place, a group of characters were important, women in their majority, that started to carry out basic healthcare actions, emerging from this moment a group of professionals called Community Health Agents (ACS)^{7,8,9}.

The ACS have a deep knowledge about the local reality because they are part of the community, their gaze revealing

the necessities from a different point of view which therefore, opens doors to a new intervention universe⁹. These interventions can be carried out in the prevention and promotion of conducts that prioritize the health of people with some kind of facial abnormality that live in the community.

However, in order for these actions to be carried out, it is necessary that the agent comprehends the knowledge regarding what are facial abnormalities. To this end, it is necessary to incentive the incorporation of technology resources to promote these agents' permanent education activities, being tele-education one of these resources^{10,11}.

Tele-education consists in the use of technological tools to construct and improve the students' and professors' knowledge in the different areas of knowledge, including health professionals. It is widely internationally used^{10,12,13}, however, in Brazil, researches in this area are scarce, specially when directed towards the theme of craniofacial abnormalities.

In this regard, the present research has as goal to verify the use of media resources as strategy for the training of health community agents in craniofacial abnormalities.

Methods

It is a cross-sectional, descriptive pilot study, with a quantitative approach.

The present study was developed in a Unidade de Saúde da Família (USF) (free translation: Family Health Facility) from the Municipal Government of Recife-Pernambuco. The study's population was composed by all the ACS from both units' health teams, totaling 11 community agents, 10 female and one male. The level of education referred by the patients went from primary school (Elementary school completed) to higher education. The research occurred in the period of September 2015 to February 2016.

The tele-education strategy was reasoned in 4 modules. Each module discussed a different theme about the explained subject, them being: the craniofacial abnormalities; The craniofacial abnormalities etiology; Preventative Conducts for craniofacial abnormalities and the CADEFI as reference center.

A week after each module's presentation, a quick evaluation was carried out to measure each participant's level of understanding. After the end of the training strategy, a didactic material was delivered, in which all ACS participants can fully access everything that was studied.

With the end of the training strategy, an evaluation about the effectiveness on the tele-education strategy, according to the vision of each health community agent, was carried out. The tool used for this evaluation was a multiple choice structured questionnaire, providing a score creation. The scores were divided in four segments: knowledge, clarity, aptitude and didactics. The creation of these scores provided the authors with the comprehension of the ACS point of view before the training process they experienced.

The study data was stored in a database specifically created in the statistical program of public domain Epi-Info 3.5.1 for Windows. To analyze the data the statistical program STATA 12.1 was used, carrying out the descriptive analysis, by the results, in percentage, to each inquiry of the questionnaire. To analyze the researchers' knowledge before and after the course, the McNemar test was applied ($p \leq 0,001$).

The strategy was carried out through the approval of the Ethics Committee involving Humans from the Instituto de Medicina Integral Prof. Fernando Figueira - IMIP (free translation: Prof. Fernando Figueira Institute of Integral Medicina), under the number 4971-15 and each interview was conducted only after the clarification of the study's goals and the participant's consent, through the signing of an Informed Consent Form.

Results

In the sampling, the obtained data about the acquired knowledge between each module, reveal that from the 11 ACS that participated in the study, 9 (81,8%) agents answered the intermodule evaluations correctly, while 2 (18,2%) showed a median development when answering the same evaluations.

Still about the intermodule evaluations, the correct distribution of the right answers during the whole training process was verified, revealing a high rate of right answers to the questionnaire 204 (92,7%). The increment in the proportion of right answers was statistically significant (Table 1).

Table 1: Distribution of right answers from the Community Health Agents (ACS) in the intramodule questionnaire

Modules	Individuals (11)	
	N Right Answers (%)	N Wrong Answers (%)
Module 1	53 (96,4%)	2 (3,6%)
Module 2	50 (90,9%)	5 (9,1%)
Module 3	52 (94,6%)	3 (5,4%)
Module 4	49 (89,1%)	6 (10,9%)
Total	204 (92,7%)	16 (7,3%)
Significance Level	P ≤ 0,001	

When evaluating the data about the scores from the teaching methodology questionnaire, to each studied score, it can be observed a high rate of positive answers in the knowledge, clarity and aptitude scores, where 100% of the researched answered yes in the evaluation, only in the didactics score, where 3 (6,8%) of the achieved answers demonstrated disagreement with the way the whole training process was directioned, the significance level was $p \leq 0,001$ demonstrating statistical significance (Table 2).

Table 2. Distribution of the scores from the teaching methodology questionnaire

Scores	Answers		Total
	N Yes(%)	N No(%)	N(%)
Knowledge	22 (100.0)	0 (0.0)	22 (100.0)
Clarity	22 (100.0)	0 (0.0)	22 (100.0)
Didactics	43 (93,2)	3 (6,8)	46 (100.0)
Aptitude	10 (90.9)	0 (0.0)	10 (100.0)
Total	97 (97.9)	3 (3.1)	100 (100.0)
Significance Level	$P \leq 0,001$		

Discussion

Since its creation, the Estratégia de Saúde da Família (ESF) (free translation: Family Health Strategy) has been extending in national level, achieving the significant number of 48,391 thousand teams, present in 92% of the municipalities, granting an Estimate of the Covered Population of 123,605,306 millions of brazilians. It means there are 332,289 thousand of ACS, in 5,504 thousand municipalities all around the territory^{14,15}.

In this respect, the challenge resides on providing, in an equal way, training courses for this high number of agents, distributed in various regions of the country. Therefore, articulation is necessary to promote a bigger offer of these permanent education courses, being important to encourage the incorporation of information and communication technologies¹⁴.

The results obtained in this study (Table 1) demonstrate that the ACS had a high performance while answering the questions directed to the taught content, from each studied module, being this result statistically significant ($p < 0,001$) the used teaching methodology was effective to the acquisition of knowledge about the theme craniofacial abnormalities¹⁴.

During the training, it was sought to provide not only theoretical concepts, but to contextualize them through learning tools, allowing that they could bring their lived experiences among the community as well as acquire the pedagogically based knowledge. Another essential element was the organization of the activity that involved the adequate selection of contents, the use of graphic and interactive material, that were cohesive to the taught themes during the training, the resource of expository classes divided in modules with question breaks, the use of images and videos to illustrate the concepts that were to be acquired were key conditions that contributed to the activity's success^{14,15,16}.

In what mattered to the data obtained through the teaching methodology questionnaire (Table 2) the training in craniofacial abnormalities had as concern to provide, during the course application the exposition of contents in a clearer, more didactic way, allowing the researched to

create aptitudes to explain the contents in their daily jobs. The obtained results demonstrated the functionality that the strategy had, since in all the studied scores the results were relatively high, besides the didactics score.

The relevance of the results were due to the way the course was planned and articulated, since it took into consideration the various aspects inherent to the participants' reality. Besides that, the construction of the course had as main assumption the comprehension that the ability to retain information is influenced by a series of factors, such as the quantity of information, the way of acquiring it, the duration of the exposition and the interventions during this process^{14,15}.

Furthermore, the absorption of knowledge is given through various communication channels, both verbal and non-verbal, and it may involve reading, hearing, vision and practical implementation of situations. In the training program in which the ACS were submitted, previously there was the concern about these aspects, since the used interactive tele-education tool provided different audiovisual resources^{14,15}.

Other aspect that can support the level of information retention are the socioeconomic levels and the schooling, however significative correlations between schooling and socioeconomic classification and the level of information retention were not observed. The demographic aspects were not analyzed in the present study, due to the homogeneity of the casuistry¹⁵.

Literature points that the level of information retention also correlates to the individual's engagement and the use of these informations, in other words, if not frequently used, the learned content goes to the work memory and is disposed afterwards. In contrast, if said content is daily used, it reaches the long term memory and is retain.¹⁶

All in all, it was verified through the results, the strategy's effectiveness, as well as the high performance obtained in the intramodule segments, which indicates that the proposed goals were reached as it can be verified in the behaviour changes from the ACS in their professional activity, demonstrating, therefore, effectiveness in the learning process.

Conclusion

The tele-education strategy is an instructional tool that is effective to the permanent education process of the health community agents in the area of cranial malformations, allowing the exposition of the referred information in a dynamic way, providing the health community agents with the necessary knowledge about cranial malformations, so that they can carry out actions of health promotion and prevention, while also fortifying the bond with the reference center.

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