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Educational Strategy for Empowering Teachers in the Promotion of Visual Health of School Children

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Purpose

• World Health Organization reports that approximately 19 million children under the age of 15 have some kind of visual problem. Of these, 12 million have conditions that could be easily diagnosed and treated. Childhood represents the best phase in life to identify visual difficulties. For this to happen, it is necessary to be alert for signs and symptoms suggestive of visual impairment. In the current global context, nursing has increased in the educational context and has based its practice on the addition of technologies that seek to promote health in schools. Among the technologies used today, educational videos can increase nursing care in schools, since the audiovisual exhibition presents itself as an active teaching-learning method to disseminate information about health and providing knowledge.

Objective

To evaluate teachers' knowledge about visual health care of schoolchildren, before and after educational intervention.

Methods

- Quasi-experimental, before-and-after study with a quantitative approach.
 - We conducted the study in 22 public schools, located in a city from Brazilian northeast. The sample consisted of 55 teachers, whose inclusion criteria were to be a primary school teacher, currently working in classrooms and not to have been exposed to video on visual health of schoolchildren, prior to data collection.
 - Exclusion criteria were as follows: teachers who were on leave, on vacation or absent for any reason that made his participation unfeasible, and to skip some of the study steps.
 - Teachers were chosen by non-probabilistic, convenience sampling.
 - Data collection was conducted from October 2017 to February 2018 using a questionnaire to evaluate teachers' knowledge about school eye health before and after the educational intervention.
 - The educational video called *Saúde Visual de Escolares* was applied to teachers. Before the educational intervention, we clarified teachers about the purpose of the study, explaining objectives, relevance and highlighting the importance of their participation. Then they watched the educational video.
 - We emphasized that they could only attend it once, as well as not share the content addressed in the audiovisual resource with other teachers. After 15 days, we applied the post-test instrument in order to evaluate teachers' knowledge after the educational intervention. Data were analyzed using the Mc Nemar Non-Parametric Tests and the Person's Chi-Square Test.

Results

Teachers were mostly female (94.5%), with mean age of 39.1±8.1. Regarding professional experience, there was a predominance of 2 to 10 years (41.8%). In relation to the degree, the postgraduate level predominated. In addition, most teachers stated that they did not present specific training on this subject (89.1%). Regarding the knowledge about school eye health, when the number of correct answers between pre-test and post-test was compared, we observed a statistically significant increase in the correct answers after the intervention. The results showed improve in the following themes: percentage of school-aged children with visual problems ($p = 0.013$), which are refractive errors ($p < 0.0001$), and signs and symptoms of visual impairment. Signs and symptoms items were difficulty in reading and concentration, cover one eye to see better, lack of attention in the classroom and lower grades ($p < 0.0001$), to confuse words and skip lines during reading ($p = 0.013$), writing in large and crooked letters ($p = 0.001$), and finally lack of interest in the studies ($p = 0.003$).



Conclusion

We conclude that the educational strategy used is viable in the teacher's empowerment about the health care of schoolchildren. This study has implications in the global context in nursing, since the incorporation of technologies in education by nurses has been awakening paradigm changes in the construction of knowledge about comprehensive school eye health. As a limitation of the study, we observed difficulty in access to communication with teachers, since many did not have time. We believe that the educational technology used in this study may contribute to the state of the art of nursing, since technological innovations have been transforming teaching practices, enabling scientific advances in relation to the proposed problem.