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ARTÍCULO ORIGINAL

Educational intervention on the knowledge level of oral health in primary school teachers in a rural area of Puno, Peru

Intervención educativa sobre el nivel de conocimiento de salud bucal en docentes de educación primaria de una zona rural de Puno, Perú

Intervenção educativa sobre o nível de conhecimento de saúde bucal em professores do ensino fundamental em uma área rural de Puno, Perú


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KEYWORDS

knowledge, teachers, educational intervention, oral health.

ABSTRACT. The objective was to determine the effect of an educational intervention on the level of oral health knowledge in primary school teachers in the district of Huayrapata – Puno, Peru. Methodology: The research approach was mixed, the pre-experimental, longitudinal, and prospective designs. The sample consisted of 32 teachers from eight educational institutions selected as non-probabilistic for convenience considering the sample selection criteria. The study was carried out in three periods. First, a questionnaire of 18 questions was applied to teachers to determine the level of knowledge about preventive measures, main oral diseases, and dental development. Subsequently, the educational intervention was carried out, which consisted of didactic training with images and videos for teachers. Finally, the teachers were evaluated with the

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same 18-question questionnaire. The levels of knowledge were evaluated with a Likert scale as good, regular, and bad. The Wilcoxon non-parametric statistical test of ranks was used to test the hypothesis. Results: the results obtained before the educational intervention on the level of knowledge of oral health were good 28.12%, regular 65.6%, and bad 6.26%. After the educational intervention, the results obtained were a good level of knowledge 87.5%, regular 12.5%, and bad 0%. Conclusion: The educational intervention on the level of knowledge of oral health applied to the teachers of the district of Huayrapata - Puno, Peru was effective because their knowledge increased, which will have repercussions on their students and family.

PALABRAS CLAVE

conocimiento, docentes, intervención educativa, salud bucal.

RESUMEN. El objetivo fue determinar el efecto de una intervención educativa sobre el nivel de conocimientos de salud bucal en docentes de educación primaria del distrito de Huayrapata – Puno, Perú. Metodología: El enfoque de investigación fue mixto, el diseño pre experimental, longitudinal y prospectivo. La muestra estuvo conformada por 32 docentes de ocho instituciones educativas seleccionados por muestreo no probabilístico por conveniencia considerando los criterios de selección de muestra. El estudio se realizó en tres periodos. Primero se aplicó un cuestionario de 18 preguntas a los docentes para determinar el nivel de conocimiento sobre medidas preventivas, principales enfermedades bucales y desarrollo dental. Posteriormente, se realizó la intervención educativa que consistió en una capacitación didáctica con imágenes y videos a los docentes. Finalmente se procedió a evaluar a los docentes con el mismo cuestionario de 18 preguntas. Los niveles de conocimiento se evaluaron con una escala Likert como bueno, regular y malo. Para la contrastación de la hipótesis se usó la prueba estadística no paramétrica de rangos de Wilcoxon. Resultados: los resultados obtenidos antes de la intervención educativa sobre el nivel de conocimiento de salud bucal fueron: bueno 28.12%, regular 65.62% y malo 6.26%. Después de la intervención educativa los resultados obtenidos fueron: nivel de conocimiento bueno 87.5%, regular 12.5% y malo 0%. Conclusión: La intervención educativa sobre el nivel de conocimiento de salud bucal aplicada a los docentes del distrito de Huayrapata - Puno, Perú fue efectiva porque sus conocimientos incrementaron, lo cual repercutirá en sus estudiantes y familia.

PALAVRAS-CHAVE

conhecimento, professores, intervenção educativa, saúde bucal.

RESUMO. O objetivo foi determinar o efeito de uma intervenção educativa no nível de conhecimento de saúde bucal em professores do ensino fundamental no distrito de Huayrapata – Puno, Perú. Metodologia: A abordagem de pesquisa foi mista, o desenho pré-experimental, longitudinal e prospectivo. A amostra foi composta por 32 professores de oito instituições de ensino selecionadas como não probabilísticas por conveniência considerando os critérios de seleção da amostra. O estudo foi realizado em três momentos: primeiro, foi aplicado um questionário de 18 questões aos professores para determinar o nível de conhecimento sobre medidas preventivas, principais doenças bucais e desenvolvimento dentário. Posteriormente, foi realizada a intervenção educativa, que consistiu em uma formação didática com imagens e vídeos para os professores. Por fim, os professores foram avaliados com o mesmo questionário de 18 perguntas. Os níveis de conhecimento foram avaliados com escala Likert como bom, regular e ruim. Para testar a hipótese, foi utilizado o teste estatístico não paramétrico de postos de Wilcoxon. Resultados: os resultados obtidos antes da intervenção educativa sobre o nível de conhecimento em saúde bucal foram bons 28,12%, regulares 65,62% e ruins 6,26%. Após a intervenção educativa, os resultados obtidos foram: bom nível de conhecimento 87,5%, regular 12,5% e ruim 0%. Conclusão: A intervenção educativa sobre o nível de conhecimento de saúde bucal aplicada aos professores do distrito de Huayrapata- Puno foi eficaz porque seu conhecimento aumentou, o que repercutirá em seus alunos e familiares.

1. INTRODUCTION

Oral diseases have become one of the most prevalent problems in our current society (Enriquez & Fuentes, 2020). This may be due to inappropriate lifestyles and unhealthy habits we have learned over time (Santa Cruz-González et al., 2019).

When dental caries develop and are not treated, it causes pain that affects chewing, physical development, and the ability to concentrate and study (Calle Sánchez et al., 2018), for which teeth will be lost, changing the alignment of the teeth. permanent teeth (Eleonor Velez et al., 2019).

Dental caries is a multifactorial disease that affects primary teeth according to their eruption time, rapidly involving many teeth and causing significant caries development in primary and posterior permanent teeth (Echeverría-López et al., 2020); Malocclusion is a dental condition in which the teeth are misaligned so that the upper and lower jaws do not close properly, making it difficult to remove plaque and food particles trapped between misaligned teeth (Parise-Vasco et al., 2020). This can lead to periodontal disease (inflammation, sensitivity, redness of the gums, and bleeding while brushing or flossing (Arteaga Espinoza et al., 2019).

Educational interventions in oral health are opportunities to intervene in educators (Montañez & Gásperi, 2013); in turn, these must be methodologically planned; they require before and after evaluation in order to have statistical evidence to visualize the effect of the applied intervention (Sánchez & Sotomarin, 2020). The objective of any educational intervention in oral health is to help those intervened acquire knowledge that motivates the modification of behaviors through healthy living practices and practices (Acosta Cabezas et al., 2019), and knowledge is the ability to convert data and information into practical actions (Serrano Figueras et al., 2019).

Studies carried out in Peru show low performance in schoolchildren in terms of knowledge about oral hygiene (Diaz Soriano, 2021), and according to (Cervantes et al., 2020), Peru is one of the countries most affected by oral diseases like any developing country; In another study by León et al. (2011) in our country showed that 63.5% of teachers evaluated had a regular level knowledge regarding oral health, and 36.5% had a bad level, this, especially in the social sectors with the lowest economic resources such as the areas rural and marginalized urban areas, where many times health programs are not adequately delivered, one of the factors being difficult accessibility to the site, preventing these health programs from reaching every corner of the country (Delgado R., 2012).

It is essential to recognize the role that teachers play since the school is the second home where knowledge is transmitted (Fleites Did et al., 2021), so it is essential that teachers are trained and aware of the importance of oral and general health, so that they can impart their knowledge to the students with whom they share most of the day, in addition to imparting it to other relatives and friends, they become true promoters of oral health in their community environment (Tello Gabriela, 2021).

This research work was carried out to improve oral health in primary school children, giving talks, training, and the use of audiovisual material to their teachers (Lucente & Briceño, 2017) because caries, infections, or other types of oral disease can be very harmful, generating deficiencies in nutrition, language development, pain and self-esteem problems; therefore, oral care helps children maintain good health at a general level (Vélez-Vásquez et al., 2019).

With this research work, we intend to evaluate the effect of an educational oral health intervention (Aguirre Córdova et al., 2015) on teachers' knowledge level since they turn out to be the mentors in developing prevention interventions in children. And it is at this stage that healthy habits are created that will improve their health throughout their lives (Martínez García et al., 2015).

In this way, implementing an educational intervention for teachers would result in better learning for good oral health (Soto et al., 2014) and therefore would contribute to children's general health. This research would be the basis for future projects and research on promotion and prevention (Contreras Rengifo, 2016).

The purpose of this study was to determine the "effect of an educational intervention on the level of knowledge of oral health in primary school teachers in a rural area of Puno," which will make it possible to inform the authorities of educational institutions, the real problem of our teachers regarding the knowledge of oral health.

2. METHOD

A study was carried out with a mixed, quasi-experimental approach, with pre and post-tests in the eight primary education institutions of the district of Huayrapata-Puno, Peru. The population comprised all the teachers of the eight primary education institutions. The sample size considered 32 teachers selected by non-probabilistic sampling for convenience. The sample selection criteria included being a teacher in the public sector at the primary level of the Huayrapata district and giving their informed consent to participate in the study. The data obtained during this study were handled anonymously and confidentially.

The technique was the survey, and the instrument was the questionnaire validated by expert judgment in another investigation (Delgado R., 2012). The questionnaire has 18 questions about the level of knowledge, of which:

- 6 questions correspond to the knowledge of preventive measures.
- 6 questions correspond to the knowledge of main oral diseases.
- 6 questions correspond to the knowledge of dental development.

2.1 Data collection procedure

After the respective permits in the educational institutions and the informed consent, the following procedure was followed:

2.2 Pre-test of the educational intervention

Teachers met at each institution and were given a questionnaire consisting of 18 questions for 30 minutes, thanking them for their participation; the questionnaires were collected, taking care that they were all answered. The levels of knowledge were evaluated with a Likert scale as good, regular, and bad. Then, the information was systematized for its subsequent analysis and interpretation.

2.3 Educational intervention itself

It was carried out in two parts: theoretical and practical. In the theoretical part of the educational intervention, all the teachers were informed about the concepts of oral health: knowledge about preventive measures, about main oral diseases, and knowledge about dental development, with the help of didactic material such as slide shows, images, and videos. The acrylic board was also used as a means of support for the explanation of the topics.

In the practical part of the educational intervention, each teacher was made to use a typodont or model to carry out the procedures of correct tooth brushing. Then, each teacher was asked to go to the blackboard to highlight the most essential parts of the oral cavity in the images. Likewise, the teachers interacted by asking and answering questions related to the topic of oral health.

2.4 Post-test of educational intervention

The same questionnaire of 18 questions was delivered for 30 minutes, thanking them for their participation; the questionnaires were collected, verifying that they were filled out. The levels of knowledge were evaluated with a Likert scale as good, regular, and bad. Then, the systematization of the information was carried out for its subsequent analysis and interpretation.

The data obtained in the questionnaires were entered into Microsoft Excel 2016, once ordered, tabulated, and analyzed according to the nature of the study variables. For the elaboration of graphs and tables, descriptive statistics were used through the elaboration of frequency tables and bar graphs. For hypothesis testing, non-parametric statistics were used with the Wilcoxon rank test with the help of the SPSS 25v program.

3. RESULTS

Table 1. Level of knowledge about oral health before the educational intervention in primary school teachers in the district of Huayrapata - Puno, Peru.

Knowledge level	Preventive Measures		Oral Diseases		Dental Development	
	N	%	N	%	N	%
Good	8	25	4	12.5	9	28.13
Regular	22	68.75	19	59.37	18	56.25
Bad	2	6.25	9	28.13	5	15.62
TOTAL	32	100	32	100	32	100

The results obtained on the level of knowledge of Oral Health before the educational intervention are shown where, according to the dimensions analyzed, the level of knowledge in preventive measures with the highest preponderance is regular 68.75%, and the level of knowledge about oral diseases with the highest percentage is regular 59.37% and the level of knowledge about dental development with greater preponderance is regular 56.25%.

Table 2. Level of knowledge about oral health after the educational intervention in primary school teachers in the district of Huayrapata – Puno, Peru.

Knowledge level	Preventive Measures		Oral Diseases		Dental Development	
	N	%	N	%	N	%
Good	27	84.38	24	75	27	84.38
Regular	5	15.62	8	25	5	15.62
Bad	0	0	0	0	0	0
TOTAL	32	100	32	100	32	100

The results obtained on the level of knowledge of Oral Health after the educational intervention are shown where, according to the dimensions analyzed, the level of knowledge in preventive measures with greater preponderance is good 84.38%, and the level of knowledge about oral diseases with greater prevalence, is good 75% and the level of knowledge in dental development with greater preponderance, is good 84.38%.

Table 3. Comparison of the level of knowledge of oral health before and after the educational intervention in primary school teachers in the district of Huayrapata – Puno, Peru.

Knowledge level	Quantity	%	Quantity	%
Good	9	28.12	28	87.5
Regular	21	65.62	4	12.5
Bad	2	6.26	0	0
TOTAL	32	100	32	100

Note. Contrast test: Wilcoxon rank test; Significance value: 0.05; Confidence interval: 95%; p -value = 0.000.

The comparison was made on the level of knowledge of oral health before and after the educational intervention, where it can be seen that before the educational intervention, the level of knowledge with the highest percentage is regular at 65.62%, and after the educational intervention the level of knowledge with a higher rate is good with 87.5%.

The hypothesis contrast test was carried out with the Wilcoxon range test, which resulted in a significance level of less than 0.05, so we affirm that there are statistically significant differences between the level of knowledge before and after, therefore that the alternative hypothesis is accepted, which means that the educational intervention applied to teachers was effective since the level of knowledge in oral health was improved.

4. DISCUSSION

Caries and periodontal diseases affect a large percentage of the population; timely prevention is the only way to maintain oral health (Delgado R., 2012). The results of this study showed that before the educational intervention on the level of oral health knowledge, most of the teachers obtained a regular level. These results are similar to those reported by Díaz et al, who carried out an educational intervention on oral health in primary school teachers (Díaz Martell & Gato Fuentes, 2011).

These results show that it is essential to implement, in educational institutions, educational programs aimed at schoolchildren and teachers to strengthen activities and improve their knowledge about oral health. In this early stage of childhood, the collaboration of teachers is essential to discover the bad habits that can be acquired and educate children on vital habits in their care and maintenance and the protection of oral health (Tello Gabriela, 2021).

According to the results of this study, after the educational intervention, most of the teachers obtained a good level of knowledge, coinciding with what was reported by Acosta et al., who evaluated the effectiveness of the oral health education program in inmates of the Center for Attention to the Young man from the Sancti Spíritus province, where a change was observed in the level of knowledge from bad to good, as well as in brushing practices and efficiency (Acosta Cabezas et al., 2019), similar to the results of our study. Educational intervention that improved both oral hygiene habits and knowledge about oral health.

This is because educational interventions are fictitious in nature: there is a subject-actor (student-teacher), there is a sentence language (the action is to achieve), there is an action to achieve a future event (goal), and a binding mind. The educational intervention is carried out through differentiated processes of self-training and education (Serrano Figueras et al., 2019). The results obtained in this study show that teachers' educational intervention on oral health and the level of knowledge from fair and bad to good in three dimensions: preventive measures, oral diseases, and dental development. These results are similar to those reported by Matos et al., who state that the knowledge level has improved significantly from inadequate to adequate after applying the educational program (Matos Cantillo et al., 2017).

This increase in the levels of knowledge is the result of the use of audiovisual educational materials in the research, as well as the fact that adolescents, like teachers, seem to be more interested in learning about oral hygiene, unlike children who do not do much. This is why educational interventions are so effective because they improve and produce surprising results in transforming knowledge about oral health (Castillo et al., 2020).

The results show that applying an educational intervention to oral health is notoriously ideal for positive changes in educators, schoolchildren and parents.

5. CONCLUSION

The levels of knowledge about oral health in primary school teachers before the educational intervention ranged from fair to poor. After the educational intervention, the teachers had a good level. There was a statistically significant difference in the level of knowledge before and after the educational intervention, which confirms that it was effective in the knowledge of oral health applied to teachers in the Huayrapata – Puno, Peru district.

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Klever Ramírez: Conceptualización, curación de datos, análisis formal, investigación, metodología, administración del proyecto, escritura -preparación del borrador original, escritura -revisar & edición.

Jorge Mercado: Conceptualización, análisis formal, investigación, metodología, administración del proyecto, recursos, software, supervisión, validación, visualización, escritura -preparación del borrador original, escritura -revisar & edición.

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REFERENCES

- Acosta Cabezas, M., Morgado, D. E., Roríguez Betancourt, M., & Castillo Arencibia, Y. (2019). Programa Educativo de salud bucodental en reclusos del Centro de Atención al Joven. Sancti Spíritus. Gaceta Médica Espirituana, 21(2), 53-64.
- Aguirre Córdova, J., Porras Rodríguez, D., & Ríos Villasis, K. (2015). Estrategia de intervención educativa sobre la salud bucal en pacientes de 6 a 32 años con Síndrome de Down. Revista Estomatológica Herediana, 25(4), 262. <https://doi.org/10.20453/reh.v25i4.2735>
- Arteaga Espinoza, S. X., Chusino Alarcón, E. D., Carrasco Sierra, M., & Bravo Cevallos, D. M. (2019). La maloclusión y su relación con los hábitos bucales no fisiológicos. Revista Arbitrada Interdisciplinaria de Ciencias de la Salud. Salud y Vida, 3(6), 207. <https://doi.org/10.35381/s.v.v3i6.341>
- Calle Sánchez, M. J., Baldeón Gutiérrez, R. E., Curto Manrique, J., Céspedes Martínez, D. I., Góngora León, I. A., Molina Arredondo, K. E., & Perona Miguel de Priego, G. A. (2018). Teorías de caries dental y su evolución a través del tiempo: Revisión de literatura. Revista Científica Odontológica, 06(01), 98-105. <https://doi.org/10.21142/2523-2754-0601-2018-98-105>
- Castillo, S., Parejo, D., Montoro, Y., Mayán, G., & Renda, L. (2020). Intervención educativa sobre salud bucal en adolescentes de secundaria. Invest.Medicoquir, 12(2), 1-15.
- Cervantes, S., Sucari, W., & Padilla, T. (2020). Programa educativo sobre prevención en salud bucal en niños menores de cinco años. Revista Innova Educación, 2(1), 6-19.
- Contreras Rengifo, A. (2016). La promoción de la salud general y la salud oral: una estrategia conjunta. Revista Clínica de Periodoncia, Implantología y Rehabilitación Oral, 9(2), 193-202. <https://doi.org/10.1016/j.piro.2016.07.003>
- Delgado R. (2012). Nivel de conocimiento sobre salud bucal de los docentes inicial y primaria en los distritos rurales de huachos y capillas, provincia de Castrovirreyna - Huancavelica. universidad nacional mayor de san marcos, 150.

- Díaz Martell, Y., & Gato Fuentes, I. H. (2011). Intervención educativa sobre salud bucal en maestros de enseñanza primaria. *Revista Médica Electrónica*, 33(1), 8.
- Díaz Soriano, A. (2021). Efecto de un programa de intervención educativa en el nivel de conocimiento y comportamiento sobre higiene bucal en niños y niñas de 6 a 9 años. tesis.
- Echeverría-López, S., Henríquez-D'Aquino, E., Werlinger-Cruces, F., Villarroel-Díaz, T., & Lanas-Soza, M. (2020). Determinantes de caries temprana de la infancia en niños en riesgo social. *International journal of interdisciplinary dentistry*, 13(1), 26-29. <https://doi.org/10.4067/s2452-55882020000100026>
- Eleonor Velez, Encalada Liliana, Fernández María José, & Salinas Grecia. (2019). Prevalencia de caries según índice CEOD en escolares de 6 años Cuenca- Ecuador. *Kiru*, 16(1), 27-31. <https://doi.org/10.24265/kiru.2019.v16n1.04>
- Enriquez, A. B., & Fuentes, A. M. (2020). Salud Bucal como parte de mi Salud Integral. *Revista Mexicana De Medicina Forense Y Ciencias De La Salud*, 5(1 sup), 93-96.
- Fleites Did, T. Y., Gispert Abreu, E. de los Á., Quintero Fleites, E. J., Castell-Florit Serrate, P., & Blanco Barbeito, N. (2021). Necesidades educativas sobre salud bucodental en el grado preescolar. *Revista Cubana de Estomatología*, 58(2), 13.
- Lucente, R., & Briceño, M. (2017). El software educativo como herramienta para la formación de los docentes de preescolar en la promoción de la salud bucal. *Investigación y Postgrado*, 32(1), 9-32.
- Martínez García, Y., González Valdez, S., & Fina Rebollido, O. (2015). Intervención educativa en la enseñanza pre escolar para promocionar conocimientos sobre salud bucodental. *Revista Conrado*, 11, 48-51.
- Matos Cantillo, D., Matos Matos, M., Carcases Obana, Y., Pita Labori, L., & Nicot Navarro, A. (2017). Intervención educativa sobre salud bucal en adolescentes venezolanos. *Revista de Información científica*, 96(2), 64-72.
- Montañez, M., & Gásperi, R. (2013). Estudio comparativo del nivel de conocimiento sobre salud bucal a partir de un programa educativo de promoción de salud bucal a docentes de la escuela básica Gladys Briceño Méndez. *Boletín Médico de Postgrado*.
- Parise-Vasco, J. M., Zambrano-Achig, P., Viteri-García, A., & Armas-Vega, A. (2020). Estado de la salud bucal en el Ecuador. *Odontología Sanmarquina*, 23(3), 327-331. <https://doi.org/10.15381/os.v23i3.18133>
- Sánchez, N., & Sotomarin, R. (2020). Intervención educativa sobre conocimiento en salud oral en madres e higiene bucal de preescolares del centro de salud belén Iquitos 2017. Universidad Nacional de La Amazonia Peruana.
- Santa Cruz-González, N. O., Pérez-Aquino, C. F., Villagra-Rivera, N., & Achucarro-Galeano, S. (2019). Nivel de conocimientos y prácticas sobre salud bucodental de estudiantes de posgrado de la Carrera de Enfermería de la Facultad de Ciencias de la Salud de la Universidad Católica de Asunción. *Memorias del Instituto de Investigaciones en Ciencias de la Salud*, 17(2), 56-63. <https://doi.org/10.18004/mem.iics/1812-9528/2019.017.02.56-063>
- Serrano Figueras, K. M., Arévalo Rodríguez, N., & Hernández Zaldívar, G. (2019). El conocimiento sobre salud

bucal de padres y maestros de la Escuela especial La Edad de Oro. *Correo Científico Médico de Holguín*, 23(2), 1-16.

Soto, A., Nora, S., & Gotán, N. (2014). Intervención educativa en salud bucal en niños y maestros. *Medisur*, 12(1), 24-34.

Tello Gabriela. (2021). Escuela de Posgrado Escuela de Posgrado. Universidad César Vallejo, 1-5.

Vélez-Vásquez, V. A., Villavicencio-Caparó, E., Cevallos-Romero, S., & Del Castillo-López, C. (2019). Impacto de la experiencia de caries en la calidad de vida relacionada a la salud bucal; Machángara, Ecuador. *Revista Estomatológica Herediana*, 29(3), 203-212. <https://doi.org/10.20453/reh.v29i3.3604>

