Research, Society and Development, v. 14, n. 9, e5114949504, 2025
(CC BY 4.0) | ISSN 2525-3409 | DOI: http://dx.doi.org/10.33448/rsd-v14i9.49504

Evaluation of the quality, reliability, and views of videos available on YouTube® on the therapeutic use of amber necklaces for babies in the tooth eruption phase

Avaliação da qualidade, confiabilidade e visualizações de vídeos disponíveis no YouTube® sobre o uso terapêutico de colares de âmbar para bebês na fase de erupção dentaria

Evaluación de la calidad, confiabilidad y visualizaciones de los videos disponibles en YouTube® sobre el uso terapéutico de collares de ámbar para bebés en fase de erupción dentaria

Received: 09/03/2025 | Revised: 09/15/2025 | Accepted: 09/16/2025 | Published: 09/17/2025

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Abstract
Objective: the aim of this study was to analyze and evaluate the quality, reliability and views of the videos available on YouTube® as a source of information, related to the therapeutic use of the amber necklace for babies during the period of tooth eruption. Method: A search was performed on YouTube®, on March 20, 2024. The term chosen for the search was " baby amber necklace" on the Google Trends website. As an inclusion criterion, the videos should contain information about the use of amber necklace as a therapy to reduce the symptoms of tooth eruption in babies. The videos were analyzed for the reliability of the information, based on a 5-point scale, adapted from the DISCERN tool, and for quality with the Global Quality Score (GQS) tool, which ranges from 1-poor quality to 5-excellent quality. Results: A total of 22 videos were found with the search term, 15 of which were selected. The quality frequency GQS "1" was the highest and it was observed that there was a difference in quality between the origins of the videos ($p < 0.05$). Sources coming from newspapers and health professionals were equal and better ($p=0.002$) on the reliability scale, when compared to the other groups such as Opinions and Marketing sources. However, there was no significant difference when comparing the number of views and the origins of the videos ($p=0.113$). Conclusion: It is important that patients should be aware of the content of the videos they watch on YouTube®.
Keywords: Amber; Amber necklace; Babies; Dental eruption; YouTube.

Resumo
Objetivo: o objetivo deste estudo foi analisar e avaliar a qualidade, a confiabilidade e a visualização dos vídeos disponíveis no YouTube® como fonte de informação, relacionados ao uso terapêutico do colar de âmbar para bebês

durante o período de erupção dentária. Método: Foi realizada uma busca no YouTube®, em 20 de março de 2024. O termo escolhido para a busca foi "colar de âmbar para bebês" no site Google Trends. Como critério de inclusão, os vídeos deveriam conter informações sobre o uso do colar de âmbar como terapia para redução dos sintomas de erupção dentária em bebês. Os vídeos foram analisados quanto à confiabilidade das informações, com base em uma escala de 5 pontos, adaptada da ferramenta DISCERN, e quanto à qualidade, com a ferramenta Global Quality Score (GQS), que varia de 1 - qualidade ruim a 5 - qualidade excelente. Resultados: Foram encontrados 22 vídeos com o termo de busca, dos quais 15 foram selecionados. A frequência de qualidade GQS "1" foi a mais alta e observou-se que houve diferença na qualidade entre as origens dos vídeos ($p < 0,05$). Fontes provenientes de jornais e profissionais de saúde apresentaram-se iguais e superiores ($p = 0,002$) na escala de confiabilidade, quando comparadas aos demais grupos, como Opiniões e Marketing. No entanto, não houve diferença significativa na comparação entre o número de visualizações e as origens dos vídeos ($p = 0,113$). Conclusão: É importante que os pacientes estejam atentos ao conteúdo dos vídeos que assistem no YouTube®.
Palavras-chave: Âmbar; Colar de âmbar; Bebês; Erupção dentária; YouTube.

Resumen
Objetivo: El objetivo de este estudio fue analizar y evaluar la calidad, la fiabilidad y las visualizaciones de los vídeos disponibles en YouTube® como fuente de información sobre el uso terapéutico del collar de ámbar para bebés durante la dentición. Método: Se realizó una búsqueda en YouTube® el 20 de marzo de 2024. El término seleccionado para la búsqueda fue "collar de ámbar para bebés" en Google Trends. Como criterio de inclusión, los vídeos debían contener información sobre el uso del collar de ámbar como terapia para reducir los síntomas de la dentición en bebés. Se analizó la fiabilidad de la información de los vídeos, con base en una escala de 5 puntos adaptada de la herramienta DISCERN, y su calidad con la herramienta Global Quality Score (GQS), que va de 1 (mala calidad) a 5 (excelente calidad). Resultados: Se encontraron 22 vídeos con el término de búsqueda, de los cuales se seleccionaron 15. La frecuencia de calidad GQS "1" fue la más alta y se observó una diferencia de calidad entre los orígenes de los videos ($p < 0,05$). Las fuentes provenientes de periódicos y profesionales de la salud obtuvieron resultados iguales y superiores ($p = 0,002$) en la escala de confiabilidad, en comparación con otros grupos, como fuentes de opinión y marketing. Sin embargo, no se observó una diferencia significativa al comparar el número de visualizaciones y el origen de los videos ($p = 0,113$). Conclusión: Es importante que los pacientes conozcan el contenido de los videos que ven en YouTube®.
Palabras clave: Ámbar; Collar de ámbar; Bebés; Erupción dental; YouTube.

1. Introduction

Amber is a fossil resin found in nature with calming, anti-inflammatory, analgesic and anxiolytic properties, as it contains high levels of succinic acid (Queiroz Simeão & Galganny-Almeida, 2006). Amber necklaces have been used by parents to relieve the signs and symptoms of tooth eruption (Azevedo, Araujo et al., 2025, Macknin, Piedmonte, et al., 2000).

Dental eruption is a physiological process, accompanied by signs and symptoms (anxiety, crying, irritability, inflammation and pain in the gums, excessive salivation, diarrhea, changes in sleep and loss of appetite) (Tonidandel, L., Ragazzi, E., et al. 2009) that generate concern and doubts for parents and guardians (Aktura, Dertli, et al., 2023, Palmu, Ware, et al., 2019). Due to an inconsistency in the literature, (Nissen, Lau et al., 2019) for proper prescription by pediatric dentists, of the best treatments indicated for the signs and symptoms of the eruption; and in the search for relief for their children, parents and guardians' resort to alternative treatments such as the use of amber.

As a result, parents often self-medicate their children, without professional guidance, based on sources that are easier to access, such as those found on the internet, for example (Coldebella, Azevedo et al., 2008). Therefore, YouTube® is a free digital platform that helps in this process of searching for information (Hassona, Taimeh et al., 2016), with quick and free access (Capan, 2021), facilitating research in times of doubt, mainly related to health (Capan, 2021).

Since the use of amber necklace as a therapeutic form has been widely used, and that digital platforms are widely used by people as a source of information, the objective of this study is to analyze and evaluate the quality, reliability and number of views of videos related to its use of the amber necklace for babies.

2. Methodology

Initial selection of videos

A social survey was conducted involving people in an experimental study of a qualitative nature, with questions whose answers were quantified (Pereira, Shitsuka et al., 2018) and processed through simple descriptive statistics with data classes, mean values, and standard deviation(Shitsuka, Shitsuka et al., 2014), as well as using statistical analysis (Vieira, 2021).

A survey was carried out on YouTube® (http://www.youtube.com/) on March 20, 2025, by undergraduate and graduate students at the Federal University. The term chosen for the search was " amber necklace for baby" on the Google Trends site, which finds the most frequent search terms, after testing other terms such as: “amber”, “amber and dental eruption” and no videos or numbers were found. reduced from those (under 5 videos in total).

The first 100 videos were independently watched by two examiners (FMTC and MSR) (Singh, Singh et al., 2012). In order for the videos of the same day to be watched, they were saved and stored in a folder created on the computer's desktop. For inclusion, the videos should contain information about the therapeutic use of amber for babies during tooth eruption. Other types of treatment for tooth eruption symptoms, or subjects that did not address amber as the main content, were excluded. A consensus meeting was held in case of disagreement on eligibility between the two reviewers.

Reliability Analysis

The selected videos were analyzed for the reliability of the information, based on a scale of 1 to 5 points, where 1 point was added for “Yes” and 0 point for “No”, being adapted from the DISCERN tool for evaluating written information about health (Singh, Singh et al., 2012), as shown in Table 1.

Table 1 - Reliability assessment (DISCERN).

1. Are the objectives clear and achieved?
2. Are reliable sources of information used?
3. Is the information presented balanced and unbiased?
4. Are additional sources of information listed for the patient's reference?
5. Are areas of uncertainty mentioned?

Information reliability (1 point for each Yes, 0 point for No). Source: Research data (2025).

Video Quality Analysis (GQS)

The videos were also analyzed for quality using the Global Quality Score (GQS) (Bernard, A., Langille, M., et al. 2007) tool, with a scale of 1 to 5 points, where 1= low quality and 5= excellent quality (Table 2).

Table 2 - Description of the GQS five-point scale used to rate websites containing information about amber used for babies.

1 Low quality, low website flow, lack of information, not useful for patients
2 Generally low quality and low flow, some information listed but many important topics missing, very limited use for patients
3 Moderate quality, suboptimal flow, some important information is discussed adequately, but others poorly discussed, somewhat helpful for patients
4 Good quality and generally good flow, most relevant information is listed but some topics not covered, useful for patients
5 Excelente qualidade e excelente fluxo, muito útil para os pacientes

Source: Research data (2025).

Analysis of the number of views

The number of views was checked and saved for each video that was selected. For the Youtube® platform to count views, the video must only be opened, and in addition, only the first view of each account is counted.

Descriptive and inferential statistical analysis

Statistical analysis was performed using the IBM SPSS® software, version 21.0 (SPSS Inc, Chicago, IL, USA). Numeric variables consisted of total DISCERN and GQS values, plus the number of views. The categorical variables consisted of the origin of the videos (newspapers; health professionals; opinion; commercialization) and applicability: (therapeutic purposes; use in babies). Descriptive statistical analysis was applied to numeric variables, expressing results as mean, standard deviation, minimum and maximum values (Table 3).

Table 3 - Descriptive data of the numerical variables analyzed.

	Average	Standard deviation	Minimum	Maximum
DISCERN	1.79	1,424	0	5
GQS	2.21	1,122	1	4
Views	7,583	12,477	16	33,161

Source: Research data (2025).

Inferential statistics were performed based on the analysis of normality of numerical data using the Shapiro-Wilk test, which indicated normal distribution for the DISCERN values (p=0.083), proceeding with the use of parametric tests. Also, non-normal distribution was observed for the GQS values (p=0.028) and number of views (p=0.000), thus employing non-parametric tests.

Thus, the ANOVA test with Tukey's post-hoc was used to observe the relationship between the DISCERN values and the origins of the videos. The relationship of GQS values between the different sources was evaluated using the Kruskal-Wallis test. The same tests were applied to analyze the relationship between the number of views. For the inferential analysis, a statistical significance of 5% was considered.

3. Results

A total of 22 videos were found with the search term " amber necklace for babies", of which 15 were included in the analyses. Of the total excluded, 8 were due to containing information that did not mention amber, or other types of treatments for tooth eruption.

When analyzing and comparing the descriptive data regarding the origin of the videos and their quality (GQS), it was observed that there was a difference in quality between the origins of the videos (p=0.05), where videos from newspapers and professionals of health were the ones that presented the highest quality scale in relation to the other groups (Table 4).

The same comparison was performed with the DISCERN scale (reliability), where the sources coming from newspapers and health professionals were equal and better (p=0.002) in the reliability scale, when compared to the others originating from opinions and commercialization (Table 4).

Regarding the number of views, no significant differences were observed (p=0.113) when comparing the origins of the videos and their number of views (Table 4).

Table 4 - Distribution of descriptive data among Video Sources.

	Origin				
	Newspapers (Average ± SD)	**Health professionals** (Average ± SD)	**Opinion** (Average ± SD)	**Commercialization** (Average ± SD)	**p-value**
DISCERN	3.00 ± 1.41 [a]	4.00 ± 1.41 [a]	0.67 ± 0.52 [b]	1.75 ± 0.5 [b]	0.002 +
GQS	3.50 ± 0.71	3.50 ± 0.71	1.50 ± 0.84	2.00 ± 0.82	0.055 *
Views	18.77 ± 20.36	17.66 ± 12.93	443 ± 468.50	7.66 ± 15.08	0.113 *
Total nN (%)	two (14.3%)	two (14.3%)	6 (42.9%)	4 (28.6%)	14 (100%)

n= Total per category; N= Total included + ANOVA with Tukey's Post-hoc; * Kruskal-Wallis. Source: Research data (2025).

4. Discussion

Amber resin is a natural therapy that has been used in babies with the aim of alleviating the symptoms of deciduous tooth eruption (Livas, Delli et al., 2018). Although widely used, so far, there are no studies that prove its effectiveness. Despite the lack of scientific information about its real benefits (Livas, Delli et al., 2018), a series of videos indicating amber resin for this phase of child development are available on the internet, as observed in the present study.

It is not news that the use of digital platforms is increasingly frequent as a means of disseminating information and that YouTube® is a recurrent, easily accessible and free platform (Hassona, Taimeh et al., 2016). Based on these assumptions, the authors' proposal with the present study was to evaluate whether the videos related to the therapeutic use of amber resin during the period of tooth eruption in babies would be of quality and reliable as a source of information for parents.

About the analyzed videos, a point detected was that those with low quality were also classified as low reliability, since for a source of information to have quality it needs to come from reliable sources, therefore, they need good references, and have a scientific basis (Bohneberger, Machado et al., 2019 , Palmu, Ware et al., 2019). Most of the videos found were opinions of parents/guardians or companies that sell the necklaces, which generates a high degree of uncertainty regarding the reliability of the information contained in the videos.

Another important fact observed is that there was no difference when it comes to comparing the number of views and the different origins of the videos. Although there are no studies in the literature that address the same topic, the present result agrees with studies that also evaluated quality and related it to the number of views, as by Uzel et al. (2023) and by Wong et al. (2022) , who reported that the quality of the videos was inversely proportional to the number of views, showing that dubious and low-quality information can be mass transmitted very quickly. This fact can be worrying, since social networks are sought daily as a source of information (Hassona, Taimeh et al., 2016) , and any type of video can be easily accessed by those responsible.

In addition, it can be assumed when analyzing the crossing of data, that videos that obtained better quality and reliability are from safer sources, such as health professionals or television news, in theory, generators of reliable, unsuspected and reliable information. However, care must be taken with regard to the content conveyed in the videos included in this study, as they are based on information not based on the best scientific evidence on the subject. In this sense, controlled and randomized clinical studies on the use of amber resin in this phase of life are encouraged and should be consulted in the future and serve as a basis for videos within the theme.

5. Conclusion

The present study serves as a warning to parents and guardians, and to the community in general, since videos on the use of amber necklaces posted on YouTube®, even though mostly posted by professionals and communication vehicles, do not have sufficient scientific basis on the subject, which implies low reliability and information security. In this sense, studies on the real benefits of using amber resin for babies in the period of tooth eruption are fundamental and must be carried out, in order to consolidate the evidence on the subject and encourage new content to support beneficial behaviors and without risk to the health.

Acknowledgments

This study is part of the PhD thesis of Fernanda Canto. This study was funded by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior- Brasil (CAPES, Brazil)—Financing code: 001 and Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) process number: 309800/2019-6 and Fundação Carlos Chagas Filho de Amparo à Pesquisa do Estado do Rio de Janeiro (FAPERJ)

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