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Design and Validation of a Knowledge Questionnaire on Healthy Eating, Personal Hygiene, And Physical Activity (Hephpa) For 8–12-Year-Old School Children

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Abstract

Introduction: Childhood obesity is a complex global challenge linked to genetic, environmental and lifestyle factors, the prevention of which requires changing habits through health promotion and education; however, there is a lack of instruments to study this reality in a comprehensive and articulated manner. Objective: Design and evaluate the reliability and validity of a questionnaire to assess the dimensions of healthy eating, personal hygiene and physical activity in children between 8 and 12 years of age. Method: For this purpose, a study with a non-experimental design was proposed, developed in 5 stages: 1) item construction, 2) content validation by experts, 3) cognitive piloting, 4) analysis of item responses, and 5) reliability assessment. The first version of the self-administered questionnaire with a preliminary battery of 67 items gave way to an initial version of the instrument with 40 questions related to the three main dimensions of the questionnaire. Content validation techniques such as the Content Validity Ratio (CVR) and the Content Validity Index (CVI) were used during the instrument validation process. The 40 items designed were rated by 3 experts. A pilot test was conducted with 221 elementary school students. Results: all items had a CVR greater than 0.5823, indicating that the instrument can be used in its current state. In addition, the CVI value obtained was 0.9650, demonstrating a high content validity of the instrument. This result is revalidated by the high number of agreements among the experts in the "Indispensable" and "Useful but not indispensable" categories (118 out of 120 possible agreements). The internal consistency of the instrument was evaluated by calculating Cronbach's alpha coefficient for the 40 items that make up the three dimensions. The alpha coefficient obtained was 0.960, indicating high reliability of the instrument. In addition, the items of each dimension were analyzed and none of them presented a Cronbach's alpha coefficient lower than 0.85. Conclusions: Content validity yielded an overall CVI of 0.9650 and Cronbach's alpha coefficient for each dimension was 0.964, 0.957 and 0.964 for food, personal hygiene and physical activity, respectively. This indicates that the instrument is internally consistent and therefore reliable. Furthermore, it can measure one, two or all three dimensions, and can be used to measure the impact of educational interventions in these areas in the school population aged 8 to 12 years.

Keywords: *Validation of Questionnaires, Healthy Eating, Physical Activity, Personal Hygiene, School Children.*

INTRODUCTION

Diet-related diseases in schoolchildren have increased alarmingly, resulting in high incidence and prevalence rates of overweight and obesity in this population. According to FAO and WHO reports, in Latin America and the Caribbean, about 58% of the population is overweight. These diseases may represent an important risk factor for morbidity and mortality in adulthood (1,2).

The ALADINO study (3) indicates that 4 out of 10 schoolchildren are overweight and 4.2% are severely obese. In addition, worldwide, childhood obesity is a serious problem, with more than 300 million obese people. In

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2016, 41 million infants and children aged 0-5 years were overweight or obese, with the rate at preschool age exceeding 30%. In 2020, the number of overweight children under 5 years of age was 38.9 million (4).

Childhood obesity increases the risk of developing musculoskeletal disorders and heart disease, among others. Eating habits and sedentary lifestyles are important factors contributing to overweight and obesity. The health situation of schoolchildren is worrying and may have consequences for the adult population in the future, since the health of the child today reflects the health of the adult population in the future (5-7).

During childhood, food preferences are established, as well as the progressive adaptation of these in adulthood, which, if inadequate, favor the presence of risk factors that can trigger food-related diseases in adulthood. Therefore, it is relevant to establish the basis for healthy eating from an early age (8).

Poor personal hygiene habits can lead to health problems in the individual and the surrounding community such as pneumonia, diarrhea, otitis, pediculosis, among others (9). According to Moreno-Martínez et al. (10), these diseases have a high prevalence of 80% at school age (11), including vulvovaginitis in girls due to lack of hygiene (12, 13). This not only has an impact on health, but also on social relations, as it can generate social rejection and reduce the quality of life (14-16).

The practice of physical activity has an impact on the evaluation of quality of life, which generates a set of benefits for physical, mental and social health in children and has an impact on the healthy growth and development of the infant (17). Sedentary lifestyles in children are one of the problems that currently manifests itself in the school context, with high levels reported according to scientific evidence. Among the activities practiced by children considered as a barrier to being active in their free time is the use of technology during breaks (18-23).

In Colombia and Latin America there is no instrument to identify knowledge on nutrition, personal hygiene and physical activity in primary school children that integrates these three dimensions of health, so it is important to have an instrument that can be used to assess the impact of educational interventions in these aspects in order to contribute to the promotion of healthy lifestyles in school children and reduce the incidence of overweight, obesity and other chronic noncommunicable diseases through preventive or control measures.

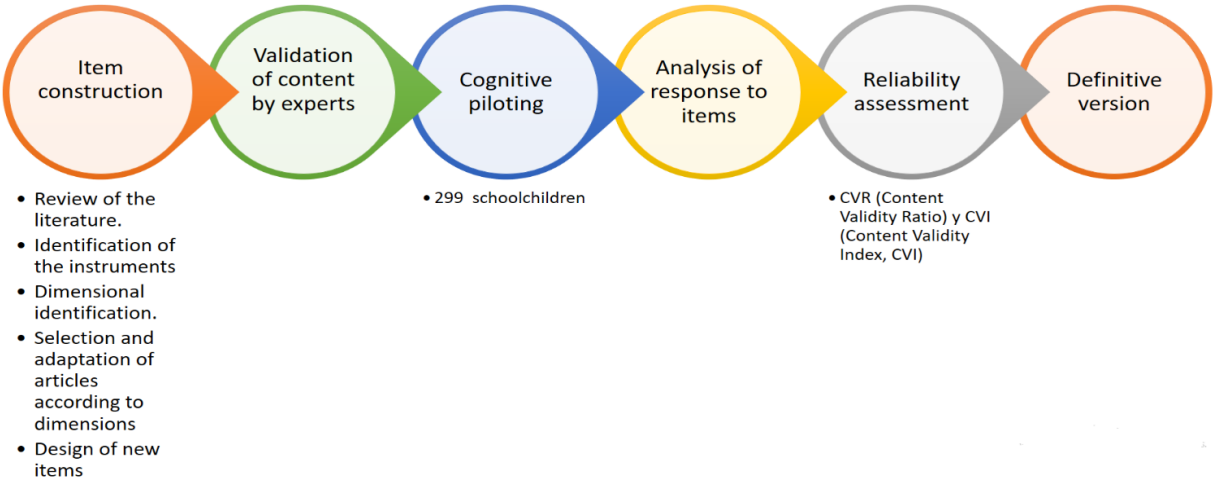
The objective of the research was to design and validate a questionnaire that assesses knowledge about eating, personal hygiene and physical activity in children aged 8-12 years: QHEPHPA (Questionnaire on Healthy Eating, Personal Hygiene and Physical Activity).

METHODOLOGY

Study design

Non-experimental design for the validation of a questionnaire to assess knowledge about food, personal hygiene and physical activity in children aged 8-12 years developed in 5 stages: 1) construction of items, 2) content validation by experts, 3) cognitive piloting, 4) analysis of item responses, 5) reliability assessment, 6) final version (Figure 1).

Figure 1. Stages of the instrument design and validation process.



Source: own elaboration

Item construction: At this stage, a documentary research was conducted to determine the theoretical and practical elements of the main dimensions of nutrition, physical activity and personal hygiene as part of a healthy lifestyle; subsequently, the project researchers developed a first version of the self-administered questionnaire with a preliminary battery of 67 items that gave way to an initial version of the instrument with 40 questions related to the three main dimensions of the questionnaire, and the questions were categorized on a Likert-type scale. The alternatives provided each response option with a weighting of 5 to 1 (5=excellent knowledge, 4= Good 3= Fair, 2= deficient 1= no knowledge).

Content validity and reliability of the Instrument:

Content validation techniques such as the CVR (Content Validity Ratio) and the CVI (Content Validity Index, CVI) were used during the instrument validation process. The 40 items designed were evaluated by 3 experts (a nutritionist (1), a nurse (2) with a minimum academic training of master's degree and more than 5 years of experience in the subject, where each one gave his or her opinion about the relevance of the items. In this case, the items were evaluated under the criteria of: A = "Indispensable", B = "Useful but not indispensable" and C = "Useless and not indispensable". This validation method, initially proposed by Lawshe (24) and improved by Tristán (25), has been used in several investigations that propose new constructs or the use of some of them as instruments in the health area: Casiani-Miranda (26), Sánchez Herrera et al. (27), Mateus-Galeano and Céspedes-Cuevas (28); and in other areas of knowledge: Zanz, Alonso, Valdemoros and Ponce de León (29); Alcantar, Maldonado Radillo and Arcos (30); Meraz and Maldonado Radillo, (32); Vargas, Máynes, Cavazos and Cervantes (32) and Parra (33). The idea is to establish whether the content of the construct has the capacity to measure what it was designed to measure. The formula associated with the calculation of the CVR per item and the CVI is presented in Eq. (1) and Eq. (2).

$$CVR = n_e/N \quad (1)$$

Where n_e is the number of experts who have agreement in the "Indispensable" category, and N is the total number of experts.

$$CVI = \sum_{i=1}^{M} CVR_i \,/M \quad (2)$$

Where CVR_i content validity ratio of acceptable items according to Lawshe's (1975) criterion and M is the total number of acceptable items on the instrument.

As can be seen, the aim is to obtain the instrument's Content Validity Index (CVI) from the CVR calculations and determine whether it is acceptable for use. To guarantee the quality of the instrument, one of the primary

conditions is that any item with a CVR lower than 0.5823 must be eliminated from the construct. Consequently, the value for CVI will tend to be as high as possible.

A pilot test was carried out with a group of 40 students of 4th and 5th grade of primary school, using the newly designed instrument, in the google forms application, the access was sent by email and WhatsApp of the parents of the students where they signed the informed consent to authorize the participation of the student in the pilot. The instrument was made available for 15 days, at the end of which time access to it was closed. For data analysis, SPSS version 23 statistical software was used to evaluate the reliability of the instrument by analyzing the internal consistency of the construct items and their degree of correlation. It is considered that the higher the alpha value is close to 1, the higher the internal consistency of the items.

RESULT AND FINDINGS

Content validity by expert judgment

The content of the instrument was validated using Lawshe's model (24) improved by Tristan (25). This model made it possible to evaluate the instrument's ability to measure the knowledge of schoolchildren in relation to the three dimensions: healthy eating, personal hygiene, and physical activity. The results of the validation are presented in Table 1 and it is observed that all items had a CVR above 0.5823, indicating that the instrument can be used in its current state. In addition, the CVI value obtained was 0.9650, indicating a high content validity of the instrument. This result is revalidated by the high number of agreements among the experts in the "Indispensable" and "Useful but not indispensable" categories (118 out of 120 possible agreements). SPSS version 23 statistical software was used to process the data and a reliability analysis was performed to evaluate the internal consistency of the construct items and their degree of correlation. The alpha value obtained made it possible to assess the internal consistency of the items, finding that the closer the alpha value was to 1, the greater the internal consistency of the items.

Table 1. Content validity: Lawshe's method standardized by Tristan

Variable (Dimension)	Item	A	B	C	CVR
HEALTHY EATING	1	5	0	0	1,0
	2	4	0	1	0,800
	3	5	0	0	1,0
	4	5	0	0	1,0
	5	5	0	0	1,0
	6	5	0	0	1,0
	7	5	0	0	1,0
	8	5	0	0	1,0
	9	5	0	0	1,0
	10	5	0	0	1,0
	11	5	0	0	1,0
	12	5	0	0	1,0
	13	5	0	0	1,0
	14	4	1	0	0,800
	15	5	0	0	1,0
PERSONAL HYGIENE	16	5	0	0	1,0
	17	5	0	0	1,0
	18	5	0	0	1,0
	19	5	0	0	1,0
	20	4	0	1	0,800
	21	5	0	0	1,0
	22	5	0	0	1,0

Variable (Dimension)	Item	A	B	C	CVR
	23	5	0	0	1,0
	24	5	0	0	1,0
	25	5	0	0	1,0
	26	4	1	0	0,800
	27	4	1	0	0,800
	28	5	1	0	0,800
	29	5	0	0	1,0
PHYSICAL ACTIVITY	30	5	0	0	1,0
	31	5	0	0	1,0
	32	5	0	0	1,0
	33	5	0	0	1,0
	34	5	0	0	1,0
	35	5	0	0	1,0
	36	5	0	0	1,0
	37	4	1	0	0,800
	38	5	0	0	1,0
	39	5	0	0	1,0
	40	5	0	0	1,0
	SUMA =	193	5	2	38,60
				CVI global =	0,9650

A: indispensable

B: Useful but not indispensable

C: Useless and not indispensable

Source: Own elaboration

The internal consistency of the instrument was evaluated by calculating Cronbach's alpha coefficient for the 40 items that make up the three dimensions (healthy eating, personal hygiene, and physical activity). The alpha coefficient obtained was 0.960, indicating a high reliability of the instrument. In addition, the items of each dimension were analyzed, and none presented a Cronbach's alpha coefficient lower than 0.85 (Table 2).

It is important to note that the interpretation of the alpha coefficient depends on the context in which the instrument is used. In the case where the results of the instrument may affect people's lives, the alpha coefficient is expected to be close to 1, while in research where the results do not put people's lives at risk, an alpha coefficient above 0.70 is considered acceptable. If the alpha coefficient is lower than this level, it is suggested to adjust the design of the instrument (34).

Table 2. Cronbach's alpha coefficient score by variable.

	Reliability statistics	
DIMENSION	**N° of items**	**Cronbach's alpha**
Healthy Eating	15	,964
Personal Hygiene	14	,957
Physical Activity	11	,964

After the evaluation of content validity through expert opinion and reliability through Cronbach's alpha coefficient, it can be concluded that the instrument used in this study meets the necessary criteria to be considered valid and reliable.

CONCLUSION

It is important that from the early stages of life, the individual acquires responsibility for self-care. The work in this period of life should be done with educational activities, but these are not possible if there is no previous knowledge about the populations susceptible to intervention.

The present study provides the scientific community and the population in general with an instrument to collect information on knowledge about nutrition, personal hygiene habits and PA practice. It has 40 items in Likert-type response format, and aims to assess knowledge about healthy eating, personal hygiene and physical activity in children aged 8 to 12 years. With a content validity of 0.9650 and a Cronbach's alpha coefficient of 0.964 for nutrition, 0.957 personal hygiene and 0.964 PA, it is considered internally consistent, which makes it highly reliable and can be applied to schoolchildren, ideally in the last years of primary school (4th and 5th grades). Another strength is that it can be applied independently for the areas studied, since it has a Cronbach's alpha for each of them. With it, the impact of interventions oriented to health care from educational institutions can be determined. It is a fact that in the search for information to provide theoretical support, a scarcity of instruments using the content validation method used in the present study was identified, which constitutes an important contribution, but there is also a lack of instruments that collect information on these three dimensions in one single instrument and for the ages contemplated. The research group invites the scientific community to apply it in order to strengthen it and commits itself to replicate it.

Conflict of Interest: None

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REFERENCES

1. Organización de las Naciones Unidas para la Alimentación y la Agricultura; Organización Panamericana de la Salud. 2016 América Latina y el Caribe: panorama de la seguridad alimentaria y nutricional. Sistemas alimentarios sostenibles para poner fin al hambre y la malnutrición. Santiago de Chile: FAO, OPS, 2017. Available: http://www. fao.org/3/a-i6747s.pdf . [Consultated: 10 January, 2022]
2. World Health Organization (WHO). Obesity and overweight Oct 9, 2023 https://www.who.int/es/news-room/fact-sheets/detail/obesity-and-overweight
3. Ministerio de consume de España y Agencia española de seguridad alimentaria y nutrición. Estudio ALADINO: Estudio sobre alimentación, actividad física, desarrollo infantil y obesidad en España. 2019 https://www.aesan.gob.es/AECOSAN/docs/documentos/nutricion/observatorio/Informe_Aladino_2019.pdf
4. World Health Organization (WHO). UNICEF/WHO / World Bank Group of Joint Estimates on Child Malnutrition (JME) released new data for 2021 https://www.who.int/news/item/06-05-2021-the-unicef-who-wb-joint-child-malnutrition-estimates-group-released-new-data-for-2021
5. World Health Organization (WHO). Obesity. https://www.who.int/health-topics/obesity#tab=tab_1
6. Leiva Ana María, Martínez María Adela, Cristi-Montero Carlos, Salas Carlos, Ramírez-Campillo Rodrigo, Díaz Martínez Ximena et al. El sedentarismo se asocia a un incremento de factores de riesgo cardiovascular y metabólicos independiente de los niveles de actividad física. Rev. méd. Chile [Internet]. 2017 Apr [cited 2023 Nov 08];145(4):458-467. Available: http://dx.doi.org/10.4067/S0034-98872017000400006.
7. Villar, Carlos M. Del Águila. Obesidad en el niño: Factores de riesgo y estrategias para su prevención en Perú. Revista Peruana de Medicina Experimental y Salud Pública [online]. 2017, 34(1) [Consulted: Novenber 8, 2023], pp. 113-118. Available: https://doi.org/10.17843/rpmesp.2017.341.2773. ISSN 1726-4642.
8. Moreno Villares J.M and Galiano Segovia M, J. Alimentación del niño prescolar, escolar y del adolescente. Rev Pediatría Integra; 2015 19(4): 268-276. https://www.pediatriaintegral.es/publicacion-2015-05/alimentacion-del-nino-preescolar-escolar-y-del-adolescente/
9. Luby SP, Agboatwalla M, Feikin DR, Painter J, Billhimer W, Altaf A, et al. Effect of handwashing on child health: A randomized controlled trial. Lancet. 2005; 366:225-33.
10. Moreno-Martínez FJ, Ruzafa-Martínez M, Gómez CI, Hernández, Susarte A, Ramos-Morcillo AJ. Revisión integradora en higiene cotidiana infantil: boca, cabello y manos. Epidemiología y Salud. 2014; 2:24-8.
11. Más MC, Rodríguez G, Rabesa Y. Factores de riesgo en las periodoncias de escolares. Rev AMC [electronic edition]; 2006; 10 [consulted Oct 25, 2023]. Available: http://www.amc. sld.cu/amc/2006/v10n5-2006/2060.htm

12. Varona JA, Alminaque MC, Borrego JA, Formoso LE. Vulvovaginitis en ninas y adolescentes. Rev Cuba Obstet Ginecol. 2010; 36:73---85.
13. Abreu Duarte Rafael, López Pérez Maida, Truffin Truffin Enma, Durán Morera Noira, Ruíz Ramos Anisbel. Diagnóstico de infecciones genitales bajas no virales en pacientes procedentes de la Consulta de Ginecología infantojuvenil. Acta méd centro [Internet]. 2023 Mar [citaed 2023 Dic, 30]; 17(1): 73-83. Available: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2709-79272023000100073&lng=es . Epub 31-Mar-2023.
14. Ríos-Milena S, Fernández JA, Rivas F, Sáenz ML, Moncada LI. Prevalencia y factores asociados a la pediculosis en niños de un jardín infantil de Bogotá. Rev Biomed. 2008;28: 245---51.
15. Torres, Jorge, Contreras, Saúl, Lippi, Luis, Huaiquimilla, Macarena, & Leal, Rodrigo. Hábitos de vida saludable como indicador de desarrollo personal y social: discursos y prácticas en escuelas. *Calidad en la educación*, 2019 (50), 357-392. https://dx.doi.org/10.31619/caledu.n50.728
16. Agudelo-Ramírez Alexandra, Galvis-Aricapa Johnny Alexander, Villegas-García Edwin. Salud bucal en la primera infancia: estrategia con agentes educativas y acudientes. Revista Cuidarte. 2023; 14(2): e2676. http://dx.doi.org/10.15649/cuidarte.2676
17. Álvarez Bogantes, Carlos, et al. "Nivel de actividad física en el entorno escolar: observación basada en el Sistema de Observación del Juego y Tiempo Libre (SOPLAY)." *Revista Educación* 44.1 (2020): 295-308.
18. Alvarez, C., Villalobos, G. y Vargas, J. Determinación de la actividad física en el recreo escolar: Combinando mediciones de actividad física y la perspectiva estudiantil. MHSalud: Revista en Ciencias del Movimiento Humano y Salud, 2018 14(2), 1-13. Available: https://doi.org/10.15359/mhs.14-2.4
19. Arias, E. Niveles de actividad física de niños y adolescentes durante el descanso en la escuela, un estudio observacional con el uso de SOPLAY. Revista Educación Física y Deportes, 2014 33(1), 175-191. Available: http://doi.org/10.17533/udea.efyd.v33n1a10
20. Barnas, J., Wunder II, C. y Ball, S. In the Zone: An Investigation into Physical Activity During Recess on Traditional Versus Zoned Playgrounds. Physical Educator, 2018, 75(1), 116–137. Available: https://doi.org/10.0.72.234/TPE-2018-V75-I1-7594
21. Chaparro, A. Z. y Leguizamón, J. Interacciones sociales en el patio de recreo que tienen el potencial de apoyar el aprendizaje del concepto de probabilidad. Revista Latinoamericana de Etnomatemática, 2015, 8(3), 8-24. Available: https://www.redalyc.org/pdf/2740/274041587002.pdf
22. Frago, J., Murillo, B., García, L, Aibar, A. y Zaragoza, J. Physical Activity Levels during unstructured recess in Spanish primary and secondary schools. European Journal of Human Movement, 2017, 38, 40-52. Available: https://dialnet.unirioja.es/servlet/articulo?codigo=6066036
23. Ishii, K., Shibata, A., Sato, M. y Koichiro, K. Recess Physical Activity and Perceived School Environment among Elementary School Children. Journal of Environmental Research and Public Health, 2014 11, 7195-7206. Available: http://dx.doi.org/10.3390/ijerph110707195
24. Lawshe, C. A Quantitative Approach to Content Validity 1. Personnel Psychology, 1975, (1), 563–575. http://doi.org/10.1111/j.17446570.1975.tb01393.x
25. Tristán, A. Modificación al modelo de Lawshe para el dictamen cuantitativo de la validez de contenido de un instrumento objetivo. Avances en Medición, 2008, 6, 37–48.
26. Casiani-Miranda CA, Pérez-Anibal E, Vargas-Hernández MC, Herazo-Bustos M, Cabarcas-Tovar A. Validez de apariencia y adaptación de la escala PHQ-9 para la detección de sintomatología depresiva en universitarios de Ciencias de la Salud de Cartagena 2018; 34(1): 75-87 http://dx.doi.org/10.14482/sun.34.1.9154 https://rcientificas.uninorte.edu.co/index.php/salud/article/view/9154/214421443985
27. Sánchez-Herrera, Beatriz, et al. "Diseño, validez facial y de contenido del instrumento carga de la enfermedad crónica para el paciente-GPCP-UN." *Revista Médica de Risaralda* 23.1 2017: 17-21. Available: http://dx.doi.org/10.15446/av.enferm.v33n3.41989
28. Mateus-Galeano, Erika Marcela, and Viviana Marycel Céspedes-Cuevas. "Validez y confiabilidad del instrumento" Medición de la autoeficacia percibida en apnea del sueño"-SEMSA: Versión en español." *Aquichan* 16.1 2016: 67-82. https://doi.org/10.5294/aqui.2016.16.1.8
29. Zanz, E., Alonso, R. Valdemoros M.A. y Ponce de León, A. Validación de un cuestionario que analiza cómo trabaja el profesorado de la etapa infantil la educación para la salud desde el ámbito motor. RIDEP, 2013, 1(35), 9–34.
30. Alcantar, V.; Madonado Radillo, S.E.; y Arcos, J. L. Medición de la calidad del servicio en el área financiera de una universidad pública: desarrollo y validación del instrumento. Revista Electrónica de Investigación Educativa, 2015, 17, 146–160.
31. Meraz, L.; y Maldonado Radillo, S.E. Validez de contenido de un instrumento de medición de la competitividad de las PYMES vitivinícolas del Valle de Guadalupe, B.C. México. Global Conference on Business and Finance Proceeding, 2013, 8(1), 1200–1205.
32. Vargas, SM, Máynez, GA, Cavazos, AJ y Cervantes, BL . Validez de contenido de un instrumento de medición para medir el Liderazgo Transformacional. Revista Global de Negocios, 2016, 4 (1), 35-45.
33. Parra, Rosa Isabel Medina. "Validez de contenido de un instrumento de medición de derechos humanos en México." *Revista de Ciencias Sociales* . 2020, 168: 203-232.

34. Barraza, A. Apuntes de metodología de investigación. Universidad Pedagógica de Durango. (2007). Available: http://dialnet.unirioja.es/descarga/articulo/2292993.pdf

Annex

Knowledge Questionnaire on Healthy Eating, Personal Hygiene and Physical Activity (Qhephpa)

Nº	Question	Options	Mark with an X the answer you consider correct
HEALTHY EATING			
1	Does a Balanced Diet contain?	Cereals, Fruits, Vegetables & Meats	
		Cereals, Meats & Flour	
		Flours and Vegetables	
		Flours and cereals	
		I don't know/no opinion	
2	How Many Meals Should You Eat Per Day?	3 Meals (Breakfast, Lunch & Dinner) Plus 2 Snacks	
		Only 3 Meals (Breakfast, Lunch & Dinner) 1 Snack	
		3 Meals Only (Breakfast, Lunch & Dinner)	
		Two or one meal	
		Don't know/no opinion	
3	How Many Glasses of Water Should You Drink Per Day?	Minimum 8 Cups	
		5 Glasses	
		4 Glasses	
		3 or less	
		Don't know/no opinion	
4	What Drinks Should Be Avoided at Snack Time?	Soda	
		Sweetened beverages	
		Milk	
		Fruit Soda	
		I don't know/no opinion	
5	What are the Health Consequences of Eating Fried, Sodas, Sweets and Processed Foods?	Excessive weight gain, anemia and decalcification	
		Constipation, poor nutrition	
		Underweight	
		No Harm	
		Don't know/no opinion	
6	Does a healthy breakfast include?	One Protein, One Flour and One Fruit	
		Fruits Only	
		Protein Only	
		Flour Only	
		I don't know/no opinion	
7	A healthy lunch could be?	Chicken, rice and salad	
		Patacones, fish and rice	
		Rice, pasta and meat	
		Rice, lentils and juice	
		I don't know/no opinion	
8	Which of these snacks should you include in your lunch box?	Fruit, yogurt and cereal	
		Pony malt with finger and fruit	
		Chips, boxed juice and Oreo cookies	
		Soda with empanada	
		I don't know/no opinion	
9	Which drink should you choose to quench your thirst?	Water	
		Lemonade with sugar	
		Boxed juice	

		Soda	
		Don't know/no opinion	
10	What foods should you not eat every day?	Bread	
		Pasta	
		Red meat only	
		Fruits and vegetables	
		Don't know/no opinion	
11	Healthy eating is:	Balanced	
		Loaded with flours, proteins and legumes	
		Only proteins and dairy	
		Fast food only	
		Don't know/no opinion	
12	Which of these foods are proteins?	Eggs, Fish & Chicken	
		Honey, Potato & Rice	
		Carrot, Yam & Banana	
		Sausage, Bread & Pasta	
		Don't know/no opinion	
13	A healthy eating helps the body to:	Staying healthy	
		To maintain an adequate weight	
		To not get so tired	
		To perform better in a game	
		Don't know/no opinion	
14	Which of these foods are fruits?	Mango, Plum & Tangerine	
		Patilla, Banana and Yucca	
		Papaya, Carrot & Onion	
		Lentils, Oats & Spinach	
		I don't know/no opinion	
15	A healthy dinner should be eaten at what times of the day?	Between 5 And 6 In the Afternoon	
		Between 7 and 8 in the evening	
		Between 8 and 9 pm	
		Between 10 and 11 p.m.	
		I don't know/no opinion	
PERSONAL HYGIENE			
16	Why should you bathe every day?	Hygiene	
		By social norm	
		Because your parents tell you to	
		You don't think it's necessary	
		Don't know/no opinion	
17	When should you wash your hands?	Before every meal, after using the toilet and when you get home	
		When taking out the trash	
		After playing	
		When getting up and before going to sleep	
		Don't know/no opinion	
18	What do you need for a good hand wash?	Antibacterial gel	
		Alcohol	
		Water only	
		Soap and water	
		Don't know/no opinion	
19	How often should you visit the dentist?	Every six months	
		Once a year	
		Every two years	
		When needed	
		I don't know/no opinion	
20		To clean them of viruses and bacteria	

	Why should you wash your hands when indicated?	To take care of them	
		To make them smell nice	
		To get them wet	
		I don't know/no opinion	
21	Why should you brush your teeth?	For oral health	
		To avoid cavities	
		To avoid bad breath	
		Not necessary	
		I don't know/no opinion	
22	In which situation should you wash your hands?	When you finish your homework	
		When you shake hands to say hello	
		When you play with a pet	
		When you get up in the morning	
		I don't know/no opinion	
23	Ideally, after physical activity	Resting and changing clothes	
		Going to sleep	
		Rest and bathe	
		Rest and continue with the same clothes	
		Don't know/no opinion	
24	How many times a week should you bathe?	Every day	
		Three times a week or more but not every day	
		Twice a week	
		once a week or never	
		I don't know/no opinion	
25	How often should you wash your head per week?	Every day	
		Three times a week or more but not every day	
		Twice a week	
		Once a week or never	
		I don't know/no opinion	
26	How many times a day should you wash your hands?	Before eating	
		Three or more times	
		Twice	
		Once	
		None	
27	Should hands be washed with plenty of soap and water before each meal?	Always	
		Almost always	
		Almost never	
		Never	
		I don't know/no opinion	
28	Should hands be washed with plenty of soap and water after using or going to the toilet?	Always	
		Almost always	
		Almost never	
		Never	
		I don't know / I don't think	
29	Teeth should be brushed at a frequency of?	Three or more times a day	
		Twice a day	
		Once a day	
		three times a week	
		Don't know/no opinion	
PHYSICAL ACTIVITY			
30	How many times a week should you exercise or do physical activity?	Every day	
		Three to five times a week	
		Twice a week	
		once a week	

		I don't know/no opinion	
31	Which of the following alternatives corresponds to moderate physical activities?	Household chores	
		Walks with pets	
		Sports and competitive games (Soccer, Volleyball, Basketball)	
		Fast swimming.	
		I don't know/no opinion	
32	Which of the following alternatives corresponds to vigorous activities?	Climbing at a fast pace or going up a mountain	
		Fast bike rides	
		Fast walking	
		Walking animals	
		Don't know/no opinion	
33	How many minutes a day should you dedicate to physical activity?	60 minutes	
		30 minutes	
		20 minutes	
		15 minutes	
		I don't know/no opinion	
34	What is the benefit of physical activity for your health?	Helps you stay healthy and prevent disease	
		Keeps you busy	
		Helps you to have new experiences	
		No benefits	
		I don't know/no opinion	
35	Physical activity helps me to keep:	Daily chores	
		Keeps my mind busy	
		Clean the house	
		My messy room	
		I don't know/no opinion	
36	What activities are sedentary?	Watching TV and chatting with friends	
		Prolonged naps during the day	
		Lying in bed resting	
		Sitting around doing homework and reading books without active breaks	
		Don't know/no opinion	
37	Dancing is a physical activity, as well as:	Jogging	
		Cleaning the house	
		Walking the dog	
		Washing the dishes	
		I don't know/no opinion	
38	Why is it important to be physically active?	Because it strengthens your muscles and bones	
		Because it is a fashion trend	
		Because it's a subject	
		Because your friends do it	
		I don't know/no opinion	
39	What is a physical activity?	Movements we make with our bodies that generate energy expenditure.	
		Listening to music and dancing	
		Walking to the neighborhood store	
		Being all the time without moving	
		I don't know/no opinion	
40	When during the school day should you be most physically active?	In physical education class	
		At break time	
		During math class	
		At any time	
		I don't know/no opinion	

BAREMO
GLOBAL SCORE INCLUDES THE THREE DIMENSIONS

DIMENSION	**LEVEL OF KNOWLEDGE**		
	HIGH	**MEDIUM**	**LOW**
HEALTHY EATING (1-15) =15 item	75-60 points	59-45 points	44 -15 points
PERSONAL HYGIENE (16-29) 14 item	70-56	55-42	41-14
PHYSICAL ACTIVITY (30-40) 11 item	55-44	43-33	32-11

SCORE PER DIMENSION IN CASE ONE OR TWO DIMENSIONS ARE USED FOR A SURVEY
HEALTHY EATING

DIMENSION	**LEVEL OF KNOWLEDGE**		
	HIGH	**MEDIUM**	**LOW**
HEALTHY EATING (1-15) =	75-60	59-45	44 and less (44-15)

PERSONAL HYGIENE

DIMENSION	**LEVEL OF KNOWLEDGE**		
	HIGH	**MEDIUM**	**LOW**
PERSONAL HYGIENE (16-29)	70-56	55-42	41 and less (41-14)

ACTIVIDAD FISISCA

DIMENSIÓN	**LEVEL OF KNOWLEDGE**		
	HIGH	**MEDIUM**	**LOW**
PHYSICAL ACTIVITY (30-40)	55-44	43-33	33 and less (32-11)

Detailed explanation of the Scale
Each answer option was assigned a weighting weight (number from 1 to 5), corresponding to the value that approximates a correct answer in terms of level of knowledge: (1) no knowledge (5): excellent level of knowledge.
Interpretation for researchers: each response option has a weighting of 5 to 1 (5=excellent knowledge, 4= Good 3= Fair, 2= poor 1= no knowledge). It will be translated to Likert scale for statistical analysis. The weighting of each response option corresponds to 5 to 1 in descending order of the options.
Example question 1. Food dimension

1	Does it have a balanced diet?	Cereals, Fruits, Vegetables & Meats (5)
		Cereals, Meats & Flours (4)
		Flours and Vegetables (3)
		Flours and Cereals (2)
		I don't know/no opinion (1)

High weighted 4 and 5 for response options; medium weighted 3; low weighted 1 and 2.