Supplemental Table 1. Full systematic search strategy applied in the two databases.

Database	Search query
MEDLINE (PubMed)	((((((((((diet[Title/Abstract]) OR (dietary[Title/Abstract])) OR (food[Title/Abstract])) OR (meal[Title/Abstract])) AND (((quality[Title/Abstract]) OR (diversity[Title/Abstract])) OR (variety[Title/Abstract]))) AND (((index[Title/Abstract]) OR (score[Title/Abstract])) OR (indices[Title/Abstract]))) AND (((((infant[MeSH Terms]) OR (child[MeSH Terms])) OR (child preschool[MeSH Terms])) OR (adolescent[MeSH Terms])) AND (humans[MeSH Terms])) AND (english[Filter] OR spanish[Filter])) AND ((((((((((diet[MeSH Terms]) OR (diet healthy[MeSH Terms])) OR (diet survey[MeSH Terms])) OR (nutrition surveys[MeSH Terms]))) NOT (((((((food hypersensitivity[MeSH Terms]) OR (celiac disease[MeSH Terms])) OR (cognitive dysfunction[MeSH Terms])) OR (diabetes mellitus, type 1[MeSH Terms])) OR (depression[MeSH Terms])) OR (severity of illness index[MeSH Terms])) OR (irritable bowel[MeSH Terms]) NOT (mental disorder[MeSH Terms]) NOT (pregnancy[MeSH Terms]) NOT (neoplasm[MeSH Terms]))))))))))
SCOPUS	(TITLE-ABS-KEY(diet OR dietary OR food OR meal)) AND (TITLE-ABS-KEY (quality OR diversity OR variety)) AND (TITLE-ABS-KEY (index OR score OR indices)) AND (TITLE-ABS-KEY (infant OR child OR preschooler OR adolescent)) AND (TITLE-ABS-KEY (diet OR diet AND healthy OR diet AND survey OR nutrition AND surveys)) AND NOT (TITLE-ABS-KEY ("food hypersensitivity" OR "celiac disease" OR "cognitive dysfunction" OR "diabetes mellitus type 1" OR depression OR "severity of illness index" OR "irritable bowel" OR "mental disorder" OR pregnancy OR neoplasm)) AND (LIMIT-TO(EXACTKEYWORD, "Human") OR LIMIT-TO (EXACTKEYWOR, "Humans")) AND (LIMIT-TO (LANGUAGE, "English") OR LIMIT-TO (LANGUAGE, "Spanish"))

Supplemental Appendix 1. PICOS (Population, Intervention, Comparison, and Outcomes) analyses for our research question.

PICO & Search Query Worksheet

http://ebling.library.wisc.edu | askebling@library.wisc.edu | 608.262.2020 Ebling Library, University of Wisconsin-Madison

1. **Define your question using PICO:**

   P → Patient/Problem → Population aged ≤ 14 years old

   I → Intervention → Assess diet quality by diet quality indicator

   C → Comparison→ No comparator

   O → Outcome → Development or modification of a diet quality indicator

2. **Type of scenario:**

   ☐ Therapy/prevention ☐ Diagnosis ☐ Etiology ☐ Prognosis ☒ Other

3. **Type of study:** (keep in mind the evidence hierarchy)

☐ Meta analysis	☐ Randomized Controlled Trial	☐ Cross Section Study
☒ Systematic review	☐ Cohort Study	☐ Case Series/Report
	☐ Case Control Study	☐ Editorials, Opinions

4. **List the main terms and alternative terms (synonyms) from your PICO that can be used for your search:** (use controlled vocabulary, e.g. MeSH, if possible)

Diet	Adolescent
Diet healthy	Diet index
Diet survey	Diet quality
Nutrition surveys	Dietary assessment
Infant	
Child	

5. **List any inclusion criteria – gender, age level, publication dates, language:**

Articles published of English or Spanish.	
Children and adolescents aged < or = 14 years old.	
Articles that described the development, update, or modifcation of a diet quality indicator	

6. **List the EBM resources databases you plan to search:**
   (MEDLINE, CINAHL, Cochrane, ACP Journal Club, DARE, PEDro, OTSeeker, PsycInfo, etc.)

MEDLINE	
SCOPUS	

Supplemental Table 2. Description of the Diet Quality Indicators: components information, and scoring systems (*n* = 139)

Author, Publication Year (ref) [1]	Indicator (abbr)	*n* Components	Type of components (dietary, diet characteristics / other factors)	
Overall Diet Quality Indicators				
Healthy Eating Indexes				
Kennedy et al., 1995. (30)	Healthy Eating Index (HEI)	10;0-10	food groups, nutrients, variety	0 -100
Feskanich et al., 2004. (31)	Youth Healthy Eating Index (YHEI)	13; 0-5[1]	food groups, supplements, ratio of consumption / eating behavior	0 - 100
Knol et al., 2004. (32)	Healthy Eating Index Variety Score HEI-variety	10; 0-10	food groups	0 - 10
Pinheiro and Atalah, 2005. (33)	Healthy Eating Index Chile (HEI-CHL)	10;0-10	food groups, nutrients, variety	0 - 100
Glanville and McIntyre., 2006. (34)	Healthy Eating Index Canada 2006 (HEI-C06)	8;0-10[1] 0-20	food groups, nutrients, variety	0 - 100
Guenther et al., 2008. (35)	Healthy Eating Index 2005 (HEI-2005)	12; 0-5[1] 0-10 0-20	food groups, nutrients, moderation	0 - 100
Garriguet, 2009. (36)	Healthy Eating Index Canada modified (HEI-C-mod)	11; 0-5[1] 0-8 0-10 0-20	food groups, nutrients, moderation	0 - 100
De Andrade et al., 2010. (37)	Healthy Eating Index Brazil (HEI-BRA14)	10: 0-10	food groups, nutrients, variety	0 - 100
Woodruff and Hanning., 2010. (38)	Healthy Eating Index Canada (HEIC-2009)	9; 0-10[1] 0-20	food groups, nutrients, variety	0 - 100
Rydén and Hagfors., 2011. (39)	Healthy Eating Index 2005 (HEI-2005)	12; 0-5[1] 0-10 0-20	food groups, nutrients, adequacy, moderation	0 - 100
González Rosendo et al., 2012. (40)	Healthy Eating Index Mexico (HEI-MEX)	12; 0-10	food groups, nutrients, variety	0 - 120
He et al., 2012. (41)	Healthy Eating Index 2005 Canadian Modification (HEIC-2005)	9; 0-5[1] 0-10 0-20	food groups, nutrients, adequacy, moderation	0 - 80
Guenther et al., 2013. (42)	Healthy Eating Index 2010 (HEI-2010)	12; 0-5 0-10 0-20	food groups, nutrients, adequacy, moderation	0 - 100
Nyaradi et al., 2013. (43)	Youth Healthy Eating Index Australia (YHEI-AUS)	7; 0-10	food groups / lifestyle	0 - 70

Author, Publication Year (ref) [1]	Indicator (abbr)	*n* Components	Type of components (dietary, diet characteristics / other factors)	
Kyttälä et al., 2014. (44)	Finnish Children Healthy Eating Index (FCHEI)	5; 0-10[1] 1-9 0-5	food groups, adequacy, moderation	0 - 34[1] 0 - 41 0 - 42
Rauber et al., 2014. (45)	Healthy Eating Index Brazil (HEI-BRA14)	10; 0-10	food group, nutrients, variety	0 - 100
Wahlqvist et al., 2014. (46)	Youth Healthy Eating Index Taiwan (YHEI-TW)	10; 0-5[1] 0-10	food groups / lifestyle-related factors	0 - 90
Dahm et al., 2016. (47)	High School Alternative Healthy Eating Index (HS-AHEI)	10; 0-10	food groups, nutrients, adequacy, moderation	0 - 100
Tugault-Lafleur et al., 2017. (48)	School Healthy Eating Index (School-HEI)	10; 0-5[1] 0-8 0-10	food groups, nutrients, adequacy, moderation	0 - 100
Yuan et al., 2017. (49)	Healthy Eating Index China (HEI-CHN)	17; 0-5[1] 0-10	food groups, nutrients, adequacy, moderation	0 - 100
Conceição et al., 2018. (50)	Healthy Eating Index Brazil Infants (HEI-BRA-I)	10; 0-10	food groups, nutrients, variety	0 - 100
Hooshmand et al., 2018. (51)	Healthy Eating Index Iran (HEI-IRN)	10; 0-10	food groups, adequacy, moderation	0 -100
Nshimyumukiza et al., 2018. (52)	Healthy Eating Index Canada (HEI-C-2010)	11; 0-5[1] 0-10 0-20	food groups, nutrients, adequacy, moderation	0 - 100
Reedy et al., 2018. (53)	Healthy Eating Index 2015 (HEI-2015)	13; 0-5[1] 0-10	food groups, nutrients, adequacy, moderation	0 - 100
Brownlee et al., 2019. (54)	Healthy Eating Index Singapore (HEI-SGP)	10; 0-10	food groups, nutrients, variety	0 - 100
Dietary Diversity Scores				
Arimond and Ruel., 2004. (55)	Dietary Diversity Score (DDS-04)	7; 0-1	food groups	0 - 7
Mirmiran et al., 2004. (56)	Dietary Diversity Score Iran (DDS-IRN)	5; 0-2	food groups	0 - 10
Kennedy et al., 2007.(57)	Dietary Diversity Score Filipinas (DDS-PHI)	10; 0-1	food groups	0 - 10
Mpontshane et al., 2008. (58)	Dietary Diversity Score South Africa (DDS-ZAF)	8	food groups	0 - 100
Roche et al., 2008. (59)	Traditional Food Diversity Score (TFDS)	--; 0-1	food groups	--
Enneman et al., 2009. (60)	Dietary Diversity Score Guatemala-USAID (DDS-GT-US-CP-INCAP)	8; 0-1 6 25	food groups	0 - 8 0 - 6 0 - 25
Kennedy et al., 2010. (61)	Individual Dietary Diversity Score (IDDS)	9; 0-1	food groups	0 - 9

Author, Publication Year (ref) [1]	Indicator (abbr)	*n* Components	Type of components (dietary, diet characteristics / other factors)	
Li et al., 2011. (62)	Dietary Diversity Score- China (DDS-CHN10)	13; 0-5[1] 0-1	food groups	0 - 10
Belachew et al., 2013. (63)	Dietary Diversity Score Ethiopia (DDS-ETH)	7; 0-1	food groups	0 - 7
Darapheak et al., 2013. (64)	Dietary Diversity Score WHO (DDS-WHOm)	7; 0-1	food groups	0 - 14
Gewa et al., 2014. (65)	Dietary Diversity Score Kenya (DDS-KEN)	9; 0-1	food groups	0 - 9
Mundo-Rosas et al., 2014. (66)	Dietary Diversity Score Mexico (DDS-MX)	10; 0-1	food groups	0 - 10
Amugsi et al., 2015. (67)	Dietary Diversity Score Ghana 2015 (DDS-GHA15)	15; 0-1	food groups	0 - 15
Ali and Abizari, 2018. (68)	Dietary Diversity Score Ghana 2018 (DDS-GHA18)	14; 0-1	food groups	0 - 14
Meng et al., 2018. (69)	Dietary Diversity Score- China 2018 (DDS-CHN18)	9; 0-1	food groups	0 - 9
Morseth et al., 2018. (70)	Dietary Diversity Score WHO modification (DDS-WHOm)	7; 0-1	food groups	0 - 7
Iqbal et al., 2019. (71)	Dietary Diversity Score Bangladesh (DDS-BGD)	12; 0-1	food groups	0 - 12
Thorne-Lyman et al., 2019. (72)	Individual Dietary Diversity Score modification (mIDDS)	8; 0-1	food groups	0 - 8
Yang et al., 2019. (73)	Dietary Diversity Score China 2019 (DDS-CHN19)	8; 0-1	food groups	0 - 8
Sebayang et al., 2020. (74)	Dietary Diversity Score Indonesia (DDS-IDN)	8; 0-1	food groups	0- 8
Diet Quality Indexes				
Alexy et al., 2003. (75)	Diet Quality Index Germany (DQI-DEU)	12; 0-1	nutrients	1 - 12
Kranz et al., 2004. (76)	Diet Quality Index for Children (C-DQI)	8; 0-10[1] 0-5	food groups, nutrients	0 - 70
Mariscal-Arcas et al., 2007. (77)	Diet Quality Index International adaptation (DQI-Ia)	4; 0-108[1] 0-20 0-30 0-40	food groups, nutrients, variety, adequacy, moderation, overall balance	0 - 100
McArthur et al., 2008. (78)	Rapid Assessment Diet Quality Index (RADQI)	9*	food groups	--
Huybrechts et al., 2010. (79)	Diet Quality Index for Flemish Preschoolers (DQI-FP)	11	food groups	-25 – 100
De Vriendt et al., 2012. (80)	Diet Quality Index for Adolescents 2012 (DQI-A-12)	11	food groups	-33 - 100

Author, Publication Year (ref) [1]	Indicator (abbr)	*n* Components	Type of components (dietary, diet characteristics / other factors)	
Fokeena and Jeewon, 2012. (81)	Diet Quality Index Mauritius (DQI- MUS)	12; 0-1[1]	food groups	0 – 12
Li et al., 2012. (82)	Diet Quality Index Australian children and adolescents (DQI-AUS-CA)	15	food groups, nutrients	20 - 150
Bel et al., 2013. (83)	Diet Quality Index for Adolescents with Meal index (DQI-AM)	11	food groups	-25 – 100
Vyncke et al., 2013. (84)	Diet Quality Index for Adolescents 2013 (DQI-A-13)	9	food groups	-33 to 100
Wong et al., 2013. (85)	Diet Quality Index for New Zealand Adolescents (NZDQI-A)	5; 0-20[1]	foods	0 - 100
Röytiö et al., 2015. (86)	Diet Quality Index for Finland Children (FINDQI-C)	7; 0, 0.5, 1, 2 or 3[1]	foods, nutrients	0 - 21
Collins et al., 2016. (87)	Revised Children's Diet Quality Index Australia (RC-DQI-AUS)	12; 0-2.5[1] 0-5 0-10	foods, nutrients / lifestyle-related factors	0 - 85
Ríos et al., 2016. (88)	Diet Quality Index Score for Puerto Rico infants (DQIS-PRIn)	9; 0, 1.25, 2.5 or 5[1]	food groups	0 - 55
Kunaratnam et al., 2018. (89)	Diet Quality Index for Australian Preschoolers (DQI-AusP)	13; 0-5[1]	food groups / lifestyle-related factors	0 – 65
Hamner and Moore, 2020. (90)	Diet Quality Index Score for American Infants (DQIS-USIn)	9; 0,1.25, 2.5 or 5[1]	food groups	0 - 45
Food Variety Scores				
Cox et al., 1997. (91)	Variety Index for Toddlers (VIT)	5; 0-1	food groups	0-5
Hatløy et al., 1998. (92)	Food Variety Score (FVS)	--	foods	--
Vereecken et al., 2008. (93)	Variety Indexes	--	food groups, foods	--
Falciglia et al., 2009. (94)	Three Types of Dietary and Variety	--	foods	--
Saibul et al., 2009. (95)	Food Variety Score (FVS)	6	food groups	--
Scott et al., 2012. (96)	Core Food Variety Score (CFVS)	5; 0-1 6	food groups, foods	0-34 0-16
Zimmer et al., 2012. (97)	Food Variety (FV) Score	--	foods	--
Jones et al., 2015. (98)	Healthy Plate Variety Score (HPVS)	5; 0-1	food groups	0-5
Zaborowicz et al., 2015. (99)	Food Intake Variety Questionnaire (FIVeQ)	--	food groups	--
Fernández et al., 2016. (100)	Overall Variety Score	--	foods	0-80

Author, Publication Year (ref) [1]	Indicator (abbr)	*n* Components	Type of components (dietary, diet characteristics / other factors)	
Barros et al., 2018. (101)	Dietary Variety Index (DVI)	5; 0-1	food groups	0-5
Healthy and Unhealthy Score				
Yannakoulia et al., 2004. (102)	Unhealthy Food Choices Score (UFCS)	9; 1-5	food groups	9 – 45
Jacka et al., 2011. (103)	Healthy (HDS-A) and unHealthy Diet Scores Australia (uHDS-A)	7; 0-1 9; 0-10	food groups / lifestyle-related factors	1 – 8 9 – 53
Truthmann, et al. 2012. (104)	Indicator Food Index (IFI)	7; 0-2	food groups	0 – 14
Monjardino et al., 2014. (105)	Oslo Health Study Dietary Index (OHS)	6; 3-9	food groups	3 – 27
Vilela et al., 2014. (106)	Healthy Eating Index Score Portugal (HEIS-PRT)	7; 1-4	food groups	7 – 28
Anderson, et al., 2015. (107)	Healthy (HDS-USA15) and unHealthy Diet Scores USA 2015 (uHDS-USA15)	3 4; 0-6	food groups	0 – 18 0 – 24
Anderson et al., 2016. (108)	Healthy (HDS-USA16) and unHealthy Diet Scores USA 2016 (uHDS-USA16)	3 4; 0-1	food groups	0 – 3 0 – 4
Sluik et al., 2016. (109)	Dutch Healthy Diet-index (DHD-index)	10; 0-10	food groups, nutrients / lifestyle-related factors	0 – 100
Arvidsson et al., 2017. (110)	Healthy Dietary Adherence Score (HDAS)	5; 0-10	food groups	0 – 50
Martins et al., 2019. (111)	Healthy (HDS-BRA) and unHealthy (uHDS-BRA) Diet Scores Brazil	3; 0-7 5	food groups	0 – 21 0 – 35
Wadolowska et al., 2019. (112)	Pro-Healthy Diet Index (pHDI); non-Healthy Diet Index (nHDI)	4; 0-8 4; 0-8	food groups	0 – 100 0 – 100
Feeding and Eating Indexes				
Arimond, and Ruel, 2002. (113)	Infant and Child Feeding Index (ICFI)	5; 0-1[1] 0-2 0-3	food groups, frequency of feeding solids, food frequency consumption / lifestyle-related factors	0 – 9
Ruel and Menon, 2002. (114)	Child Feeding Index (CFI)	5; 0-1[1] 0-2 0-3	food groups, food frequency consumption / lifestyle-related factors	0 – 12
Dewey et al., 2006. (115)	Food Group Indicator – 8 (FGI-8)	8; 0-1	food groups	0 – 8
Food and Nutrition Technical Assistance Project, 2006. (116)	Food Group Indicator - 7 (FGI-7)	7; 0-1	food groups	0 – 7
Bork et al., 2012. (117)	Infant and Child Feeding Index Senegal (ICFI-Sen)	4; 0-1[1] 0-2	diversity, food variety / lifestyle-related factors	0 – 7
Golley et al., 2012. (118)	Complementary Feeding Utility Index (CFUI)	14; probability function	food groups / lifestyle-related factors	0 - 1

Author, Publication Year (ref) [1]	Indicator (abbr)	*n* Components	Type of components (dietary, diet characteristics / other factors)	
Jones, 2015. (119)	Infant and Child Feeding Index modification (ICFIm)	7; 0-1[1] 0-2 0-3	food groups, feeding frequency, responsive feeding / lifestyle-related factors	0 - 11
Monterrosa et al., 2015. (120)	Infant and Child Feeding Index Mexico	5, -3-7	food groups / lifestyle-related factors	-10 – 12
Delshad et al., 2019. (121)	Diet Index for a Child's Eating (DICE)	13; 0-15[1] 0-10 0-5	food groups, variety / lifestyle-related factors	0 - 100
Ferreira et al., 2019. (122)	Child Feeding Index modification (CFIm)	5; 0-1[1] 0-2 0-3	food groups, frequency of feeding solids, food frequency consumption / lifestyle-related factors	0 – 12
Diet Quality Scores				
Crombie et al., 2009. (123)	Scottish Diet Quality Score (SDQS)	5; 0-1	food groups	0 – 5
Kohlboeck et al., 2012. (124)	German Optimized Mixed Diet Quality Score (GOMDQS)	11; 0-1	food groups	0 – 11
Perry et al., 2015. (125)	Diet Quality Score Ireland (DQS-IRL)	20; -2-2	food groups	-12 – 28
Voortman et al., 2015. (126)	Diet Quality Score The Netherlands (DQS-NL)	10; 0-1	food groups	0 – 10
Gasser et al., 2017. (127)	Diet Quality Score Australia 2017 (DQS-AUS17)	7; 0-2	food groups	0 – 14
Nutritional Adequacy and Micronutrients				
Fulgoni et al., 2009. (128)	Nutrient-Rich Foods Index	18	nutrients	--
Libuda et al., 2009. (129)	Nutrient-based Nutritional Quality Score (NQI)	17	nutrients	0-100
Chiplonkar and Tupe, 2010. (130)	Adolescent Micronutrient Quality Index (AMQI)	13; 0-5[1] 0-10[1]	food groups, foods	0-100
Alexy et al., 2011. (131)	Nutrient Quality Index (NQI)	10	nutrients	--
Lee and Park, 2015. (132)	Index of Nutritional Quality (INQ)	9: 0-1	nutrients	0-9
Dietary Guidelines Indexes				
Golley et al., 2011. (133)	Dietary Guideline Index for Children and Adolescents (DGI-CA)	11; 0-5[1] 0-10[1] 0-20[1]	food groups, foods	0-100
Lioret et al., 2014. (134)	Dietary Guideline Index (DGI)	10; 0-10	food groups, foods	0-100
Mohseni-Takalloo et al., 2016. (135)	Dietary Guidelines for Americans Adherence Index (DGAI)	19; 0-5-1[1]	food groups, foods, nutrients	0-9.5

Author, Publication Year (ref) [1]	Indicator (abbr)	*n* Components	Type of components (dietary, diet characteristics / other factors)	
Rohde et al., 2017. (136)	Diet Quality Index based on the Danish national guidelines (DQI-Danish national guidelines)	6; 0-1	food groups, foods, nutrients	0-6
Er et al., 2018. (137)	Children's Food Trust guidelines (CFT guidelines)	9	food groups, foods	0-8 0-9 0-3 0-5
Other Healthy Diet Indexes				
Kleiser et al., 2009. (138)	Healthy nutrition Score (HuSKY)	11; 1-100[b]	food groups	0 - 100
Lazarou et al., 2009. (139)	Foods E-KINDEX score (E-KINDEX)	13; 0-3[c] 0-2	foods / lifestyle-related factors	0 – 37
Bisi Molina et al., 2010. (140)	School Child Diet Index (ALES)	16; -1-1	food groups / lifestyle-related factors	-15 - 16
Marshall et al., 2012. (141)	Australian Child and Adolescent Recommended Food Score (ACARFS)	8; 0-21*	food groups	0 - 73
Spence et al., 2013. (142)	Obesity Protective Dietary Index (OPDI)	3; 0-10	food groups	0 – 30
Durksen et al., 2015. (143)	Unhealthy Eating Index Canada (UEI-Ca15)	5, 1-6	food groups	1 – 6
Haapala et al., 2015 (144)	Baltic Sea Diet Score (BSDS)	8; 0-3	food groups, nutrients	0 – 24
Hardiansyah et al, 2015. (145)	Balanced Diet Index (BDI)	10; 0-10	food groups, nutrients	0 – 100
Cheng et al., 2016. (146)	Chinese Children Dietary Index (CCDI)	16; 0-10	food groups, foods, variety / lifestyle-related factors	0 – 160
Verger et al., 2016. (147)	Diet Quality Index Based on the Probability of Adequate Nutrient Intake (PANDiet)	25; Mathematical function	nutrients	0 - 100
Winpenny et al., 2018. (148)	Dietary Approaches to Stop Hypertension index (DASH index)	10; 0-10[c] 0-5	food groups	0 - 80
Kunto and Bras, 2019. (149)	Berry Index (BI)	5; Mathematical function	food groups	0 - 0.8
Liu et al., 2020. (150)	American Heart Association Score 2020 (AHAS)	8; 0-10	food groups	0 – 80
Other Dietary and Lifestyle Indicators				
Mediterranean Diet Indexes				

Author, Publication Year (ref) [1]	Indicator (abbr)	*n* Components	Type of components (dietary, diet characteristics / other factors)	
Serra-Majem et al., 2004. (151)	Mediterranean Diet Quality Index for Children and Adolescents (KIDMED)	16, -1-0 1-0	food groups, foods	-4-12
Jennings et al., 2011. (152)	Modified Mediterranean Diet Score (mMDS)	8; 0-1	food groups, foods, nutrients	0-8
Schoder et al., 2011. (153)	Brief Mediterranean Diet Screener (bMDSC): 2 sub-scores, Antioxidant Food score (ANTOX-S); modified Mediterranean Diet Score (mMDS)	15 (bMDSC): 7 (ANTOX-S) - 10 (mMDS); 1-2-3	food groups, foods	7-21 (ANTOX-S) 10-30 (mMDS)
Lazarou and Matalas, 2015. (154)	Modified Mediterranean Diet Quality Index for Children and Adolescents (mKIDMED)	15; -1-0 1-0	food groups, foods	-3-12
Kastorini et al, 2016 (155)	Modified Mediterranean Diet Quality Index for Children and Adolescents (mKIDMED)	15; -1-0 1-0	food groups, foods	-4-11
Rivas et al., 2016. (156)	Mediterranean Diet Score (MDS)	13; 0-1	food groups, foods	0-13
Haapala et al., 2017. (157)	Mediterranean Diet Score (MDS)	8; 0-1	food groups, foods, nutrients	0-8
Montero et al., 2017. (158)	Mediterranean Adequacy Index (MAI)	14	food groups, foods	--
Carvalho et al., 2018. (159)	Adolescent Mediterranean Diet Score (aMDS)	8, 0-1	food groups, foods, nutrients	0-8
Aparicio-Ugarriza et al., 2019. (160)	Adapted Mediterranean Diet Score for Adolescents (MDS_A)	9; 0-1	food groups, foods, nutrients	0-9
	Adapted Mediterranean Diet Quality Index for Children and Adolescents (KIDMED_A)	13; -1-0 1-0	food groups, foods / lifestyle-related factors	-4-12
Diet–Lifestyle Indexes				
Kosti et al., 2009. (161)	Diet–Lifestyle Index	13; 1-5 0-1	food groups, foods / lifestyle-related factors	11-57
Manios et al., 2010. (162)	Preschoolers Diet–Lifestyle Index (PDL-Index)	11; 0-4	food groups, foods / lifestyle-related factors	0-44
Manios et al., 2010. (b) (163)	Healthy Lifestyle–Diet Index (HLD-Index)	10; 0-4	food groups, foods / lifestyle-related factors	0-40
Manios et al., 2015. (164)	Revised Healthy Lifestyle-Diet Index (R-HLD-index)	12; 0-4	food groups, foods / lifestyle-related factors	0-48
Ertaş Öztürk et al., 2018. (165)	Healthy Lifestyle-Diet for Turkey (HLD-TR)	11; 0-4	food groups, foods / lifestyle-related factors	0-56
Breakfast Quality Indexes				
Radcliffe et al., 2004. (166)	5 food groups in Australian Guide to Healthy Eating (AGHE)-Food Group Score (FGS)	6	food groups, foods	1-5
Herrero Lozano and Fillat Ballesteros., 2006. (167)	enKID study criteria	--	food groups, foods	--
Hallström et al., 2012. (168)	Breakfast Quality Index	--; 0-1	food groups, foods	0-8

[1] Reference of the article in which this indicator was used originally in pediatric population.

Supplemental Table 3a. Food groups components included in the Mediterranean Diet Indexes diet quality indicator

Author, Publication Year (ref)	Indicator (abbr)	Veg	Fruits	Cereals	Fish	Fast - food	Leg	Nuts	Olive oil	Fats	Dairy	Red wine	CP	Sweets	Meat	Egg
Serra-Majem et al., 2004. (151)	Mediterranean Diet Quality Index for children and adolescents (KIDMED)	✓ (+)	✓ (+)[1]	✓ (+) [2]	✓ (+)	✓ (-)	✓ (+)	✓ (+)	✓ (+)		✓ (+) [3]		✓ (-) [4]	✓ (-)		
Jennings et al., 2011. (152)	Modified Mediterranean Diet Score (mMDS)	✓ (+)	✓ (+)	✓ (+)	✓ (+)		✓ (+)				✓ (+)				✓ (-)	
Schoder et al., 2011. (153)	Antioxidant food score (ANTOX-S)	✓ (+) [5]	✓ (+) [6]									✓ (+)				
Schoder et al., 2011. (153)	Modified Mediterranean Diet Score (mMDS)	✓ (+) [5]	✓ (+) [6]	✓ (+) [7]	✓ (+) [8]		✓ (+)	✓ (+)	✓ (+)		✓ (-)	✓ (+)			✓ (-) [9]	
Lazarou and Matalas, 2015. (154)	Modified Mediterranean Diet Quality Index for children and adolescents (mKIDMED)	✓ (+)	✓ (+)[1]	✓ (+) [2]	✓ (+)	✓ (-)	✓ (+)	✓ (+)	✓ (+)		✓ (+) [3]		✓ (-) [4]	✓ (-)		
Kastorini et al, 2016 (155)	Modified Mediterranean Diet Quality Index for children and adolescents (mKIDMED)	✓ (+)	✓ (+)[1]	✓ (+) [2]	✓ (+)	✓ (-)	✓ (+)		✓ (+)		✓ (+) [3]		✓ (-) [4]	✓ (-)		
Rivas et al., 2016. (156)	Mediterranean Diet Score (MDS)	✓ (+) [14]	✓ (+)[1]		✓ (+)		✓ (+)	✓ (+)	✓ (+) [10]	✓ (-) [12]			✓ (-) [4]	✓ (-) [13]	✓ (-) [11]	

Author, Publication Year (ref)	Indicator (abbr)	Veg	Fruits	Cereals	Fish	Fast-food	Leg	Nuts	Olive oil	Fats	Dairy	Red wine	CP	Sweets	Meat	Egg
Haapala et al., 2017. (157)	Mediterranean Diet Score (MDS)	✓ (+)	✓ (+) [15]	✓ (+)	✓ (+)		✓ (+) [15]	✓ (+) [15]			✓ (-)				✓ (-) [9]	
Montero et al., 2017. (158)	Mediterranean Adequacy Index (MAI)	✓ (+)	✓ (+)	✓ (+)	✓ (+)		✓ (+)	✓ (+)	✓ (+)	✓ (-) [17]	✓ (-) [16]		✓ (-) [4]	✓ (-) [13]	✓ (-)	✓ (-)
Carvalho et al., 2018. (159)	Adolescent Mediterranean Diet Score (aMDS)	✓ (+)	✓ (+) [18]	✓ (+)	✓ (+)		✓ (+)	✓ (+) [18]			✓ (-)	✓ (-)			✓ (-)	
Aparicio-Ugarriza et al., 2019. (160)	Adapted Mediterranean Diet Score for Adolescents (MDS_A)	✓ (+)	✓ (+)	x✓ (+)[2]	✓ (+)		✓ (+)	✓ (+)			✓ (-)				✓ (-)	
Aparicio-Ugarriza et al., 2019. (160)	Adapted Mediterranean Diet Quality Index for children and adolescents (KIDMED_A)	✓ (+)	✓ (+)[1]	✓ (+) [2,19]	✓ (+)	✓ (-)	✓ (+)	✓ (+)	✓ (+)		✓ (+) [3]		✓ (-) [4]	✓ (-)		
Number of studies using these components		12	12	10	11	4	11	9	7	2	10	2	6	6	7	1

Check symbol (✓) refers that a component is included in the indicator. (+) the component is scored positively or as improving the diet quality (DQ). (-) the component is scored negatively or as decreasing the DQ. (.) Component gets the higher score when it fits within a specific range, or the score is unspecified. Veg: vegetables, Leg: legumes, CP: Confectionary products. [1] Fruit and fruit juice. [2] Two cereal components: pasta or rice every day and cereals for breakfast. [3] Two dairy components: dairy for breakfast and two dairy products. [4] Commercially baked goods or pastries for breakfast. [5] Two vegetables components: green leafy and cabbage-like vegetables, and other vegetables. [6] Two fruit components: citrus fruits and berries, and other fruits. [7] Whole grains. [8] Two fish components: blue fish, and other fish. [9] Two meats components: red meat, sausages, cold cuts, and white meat. [10] Two olive oil components: use and consumption amount. [11] Two meat components: red meat, hamburger, or meat products, and preferentially consume white meat instead of red meat and meat products. [12] Butter, margarine, or cream. [13] Sweet or carbonated beverages. [14] Two vegetables components: total vegetables, and sofrito (sauce with tomato and onion, leek or garlic simmered in olive oil. [15] Single component includes fruit, nuts, and legumes. [16] Milk. [17] Animal fats and margarine. [18] Single components include fruits and nuts. [19] Pasta, rice, and potatoes.

Supplemental Table 3b. Food groups components included in the Diet-Lifestyle Indexes diet quality indicator

Author, Publication Year (ref)	Indicator (abbr)	Vegetables	Fruits	Cereals	Fish	White meat	Legumes	Eggs	Red meat and meat products	Sweets	Soft drinks	Dairy	UFF	Visible fat from meat
Kosti et al., 2009. (161)	Diet–Lifestyle Index	✓ (+)	✓ (+)	✓ (+) [1]						✓ (-)		✓ (-) [2]		✓ (-)
Manios et al., 2010. (162)	Preschoolers Diet–Lifestyle Index (PDL-Index)	✓ (+)	✓ (+) [3]	✓ (+)	✓ (+)	✓ (+) [4]	✓ (+) [4]		✓ (-) [5]	✓ (-)		✓ (-) [5]	✓ (-)	
Manios et al., 2010. (b) (163)	Healthy Lifestyle–Diet Index (HLD-Index)	✓ (+)	✓ (+)	✓ (+) [5,6]	✓ (+)				✓ (+) [8]	✓ (-)	✓ (-)	✓ (+) [5, 7]		
Manios et al., 2015. (164)	Revised Healthy Lifestyle-Diet Index (R-HLD-index)	✓ (+) [5]	✓ (+) [5]	✓ (+) [6]	✓ (+) [5]	✓ (+) [5]	✓ (+) [5]	✓ (+) [5]	✓ (+) [5]	✓ (-)	✓ (-)	✓ (+) [5, 7]		
Ertaş Öztürk et al., 2018. (165)	Healthy Lifestyle-Diet for Turkey (HLD-TR)	✓ (+)	✓ (+) [3]	✓ (+) [5]	✓ (+) [5,6]	✓ (+) [8]			✓ (+) [8]	✓ (-)	✓ (-)	✓ (+) [7]		
Number of studies using this component in this indicators subgroup		5	5	5	4	3	2	1	4	5	3	5	1	1

Check symbol (✓) refers that a component is included in the indicator. (+) the component is scored positively or as improving the diet quality (DQ). (-) the component is scored negatively or as decreasing the DQ. (.) Component gets the higher score when it fits within a specific range, or the score is unspecified. UFF: Unsaturated fats foods. [1] Whole grains. [2] Differentiation between full-fat and low-fat dairy products. [3] Fruit and fruit juice. [4] Single component include fruits and nuts. [5] Consumption with the highest score in the medium range. [6] Consumption of a quantity of total cereals and/ or a percentage of them in whole grain form. [7] Consumption of a quantity of total dairy and/ or a percentage of them in low- or no-fat form. [8] Consumption of a quantity of total meat and or, a percentage of them in lean meat form.

Indicator Subgroup: Breakfast Quality Indexes

This indicator subgroup included three indexes that specifically assess the breakfast DQ (166-168). Breakfast plays a key role in health because it has been associated with health, especially with nutritional adequacy and the prevention of chronic diseases. An SR has suggested that breakfast consumption is associated with better macronutrient intake and healthier food and beverage consumption.

Breakfast has been considered in DQIns, from two points of view: a specific component of some indicators (its realization or the inclusion of certain food groups or foods in this meal) or an independent intake to assess its nutritional quality in isolation. For this second reason, indicators have been developed to assess the quality of children's breakfast. The main feature of all the indicators included in this subgroup is that they assess the three food groups that have traditionally been recommended for consumption at breakfast: cereals and derived products, milk and dairy products, and fruits.

Supplemental Table 3c. Food groups components included in the Breakfast Quality Indexes diet quality indicator

Author, Publication Year (ref)	Indicator (abbr)	Cereals	Vegetables	Legumes	Fruit	Dairy	Protein-rich foods	Extra foods	Beverages	Sweets	Fats	Miscellaneous
Radcliffe et al., 2004. (166)	5 food groups in Australian Guide to Healthy Eating (AGHE)-Food Group Score (FGS)	✓ (+)	✓ (+) [1]	✓ (+) [1]	✓ (+) [2]	✓ (+)	✓ (+) [3]	✓ (-) [4]				
Herrero Lozano and Fillat Ballesteros, 2006. (167)	en Kid criteria	✓ (+)			✓ (+)	✓ (+)						
Hallström et al., 2012. (168)	Breakfast Quality Index (BQI)	✓ (.)	✓ (.) [8]		✓ (.) [8]	✓ (.) [6]	✓ (.) [7]		✓ (.) [5]	✓ (.) [9]	✓ (.) [10]	✓ (.) [11]
Number of studies using this component in this indicators subgroup		3	2	1	3	3	2	1	1	1	1	1

Check symbol (✓) refers that a component is included in the indicator. (+) the component is scored positively or as improving the diet quality (DQ). (-) the component is scored negatively or as decreasing the DQ. (.) Component gets the higher score when it fits within a specific range or the score is unspecified. [1] Single component include vegetables and legumes. [2] Fresh, canned, dried, and juiced fruits. [3] Meat, other poultry, fish, eggs, all nuts, peanut butter, all seeds, all legumes, processed meats, and legumes. [4] Sweet (biscuits, cakes, desserts chocolate and ice cream), soft drinks, and other takeaways. [5] Tea, coffee, water, fruit juice, and soft drinks. 6 Milk, soya drink, sugared milk, yoghurt, cheese, milk-based dessert, and cream. [7] Meat and products, fish and products, and eggs. [8] Single component include fruit and vegetables. [9] Cakes and sweets (cakes, biscuits, snacks, added sugar, and sweets). [10] Added fat/ oil (vegetable fat, and butter). [11] Pasta, soup, sauce.

Supplemental Table 4. Nutrient components included in the Mediterranean Diet Indexes diet quality indicator

		Lipids [1]		Alcohol
Author, Publication Year (ref)	**Indicator (Abbreviation)**	**MUFA/SFA**	**MUFA+PUFA/SFA**	
Serra-Majem et al., 2004. (151)	Mediterranean Diet Quality Index for children and adolescents (KIDMED)			
Jennings et al., 2011. (152)	Modified Mediterranean Diet Score (mMDS)		✓	
Lazarou and Matalas, 2015. (154)	Modified Mediterranean Diet Quality Index for children and adolescents (mKIDMED)			
Kastorini et al, 2016 (155)	Modified Mediterranean Diet Quality Index for children and adolescents (mKIDMED)			
Aparicio-Ugarriza et al., 2019. (160)	Adapted Mediterranean Diet Score for Adolescents (MDS_A) Adapted Mediterranean Diet Quality Index for children and adolescents (KIDMED_A)	✓		✓

Check symbol (✓) refers that a component is included in the indicator. [1] MUFA: Monounsaturated fatty acids; PUFA: Polyunsaturated Fatty Acids. SFA: Saturated Fatty Acids

Supplemental Table 5a. Lifestyle-related factors components included in the Healthy Eating Indexes diet quality indicator

Author, Publication Year (ref)	Indicator (abbr)	Breakfast consumption	Dinner with family	Eating behavior	Ratio of consumption	Multivitamin use	Fried foods outside home	Visible animal fat
Feskanich et al., 2004. (31)	Youth Healthy Eating Index (YHEI)	✓ (+)	✓ (+)	✓ (+)	✓ (+)	✓ (+)	✓ (-)	✓ (-)
Wahlqvist et al., 2014. (46)	Youth Healthy Eating Index Taiwan (YHEI-TW)	✓ (+)		✓ (+)	✓ (+)	✓ (+)	✓ (-)	
Number of studies using this component in this indicators subgroup		2	1	2	2	2	2	1

Check symbol (✓) refers that a component is included in the indicator. (+) the component is scored positively or as improving the diet quality (DQ). (-) the component is scored negatively or as decreasing the DQ.

Supplemental Table 5b. Lifestyle-related factors components included in the Diet Quality Indexes diet quality indicator

Author, Publication Year (ref)	Indicator (abbr)	Breakfast consumption	High fat choices	Screen time
Collins et al., 2016. (87)	Revised children's Diet Quality Index Australia (RC-DQI-AUS)			✓ (-)
Kunaratnam et al., 2018. (89)	Diet Quality Index for Australian Preschoolers (DQI-AusP)	✓ (+)	✓ (-)	✓ (-)
Number of studies using this component in this indicators subgroup		1	1	2

Check symbol (✓) refers that a component is included in the indicator. (+) the component is scored positively or as improving the diet quality (DQ). (-) the component is scored negatively or as decreasing the DQ.

Supplemental Table 5c. Lifestyle-related factors components included in the Healthy and Unhealthy Scores diet quality indicator

Author, Publication Year (ref)	Indicator (abbr)	Physical Activity	Breakfast consumption	Lunch brought from home	Fried foods outside home
Jacka et al., 2011. (103)	Healthy (HDS-A) and unHealthy Diet Scores Australia (uHDS-A)		✓ (+)	✓ (+)	✓ (-)
Sluik et al., 2016. (109)	Dutch Healthy Diet-Index (DHD-index)	✓ (+)			
Number of studies using this component in this indicators subgroup		1	1	1	1

Check symbol (✓) refers that a component is included in the indicator. (+) the component is scored positively or as improving the diet quality (DQ). (-) the component is scored negatively or as decreasing the DQ.

Supplemental Table 5d. Lifestyle-related factors components included in Mediterranean Diet Indexes diet quality indicator

Author, Publication Year (ref)	Indicator (abbr)	Breakfast	Skipping breakfast
Serra-Majem et al., 2004. (151)	Mediterranean Diet Quality Index for children and adolescents (KIDMED)		✓ (-)
Kastorini et al, 2016 (155)	Modified Mediterranean Diet Quality Index for children and adolescents. (mKIDMED)		✓ (-)
Aparicio-Ugarriza et al., 2019. (160)	Adapted Mediterranean Diet Score for Adolescents (MDS_A)	✓ (+)	
Number of studies using this component in this indicators subgroup		1	2

Check symbol (✓) refers that a component is included in the indicator. (+) the component is scored positively or as improving the diet quality (DQ). (-) the component is scored negatively or as decreasing the DQ.

Supplemental Table 5e. Lifestyle-related factors components included in Feeding and Eating Indexes diet quality indicator

Author, Publication Year (ref)	Indicator (abbr)	Frequency of eating	Breakfast consumption	Breastfeeding	Meal frequency	Other mealtimes	Food consistency	Responsive feeding	Baby bottle use
Arimond, and Ruel, 2002. (113)	Infant and Child Feeding Index (ICFI)	✓ (+)							✓ (-)
Ruel and Menon, 2002. (114)	Child Feeding Index (CFI)	✓ (+)		✓ (+)	✓ (+)		✓ (+)		✓ (-)
Bork et al., 2012. (117)	Infant and Child Feeding Index Senegal (ICFI-Sen)	✓ (+)		✓ (+)	✓ (+)				
Golley et al., 2012. (118)	Complementary Feeding Utility Index (CFUI)			✓ (+)	✓ (+)	✓ (+)			
Jones, 2015. (119)	Infant and Child Feeding Index modification (ICFIm)	✓ (+)		✓ (+)			✓ (+)	✓ (+)	✓ (-)
Monterrosa et al., 2015. (120)	Infant and Child Feeding Index Mexico			✓ (+)					✓ (-)
Delshad et al., 2019. (121)	Diet Index for a Child's Eating (DICE)		✓ (+)	✓ (+)		✓ (+)			
Ferreira et al., 2019. (122)	Child Feeding Index modification (CFIm)	✓ (+)	✓ (+)		✓ (+)				✓ (-)
Number of studies using this component in this indicators subgroup		5	2	6	4	2	2	2	5

Check symbol (✓) refers that a component is included in the indicator. (+) the component is scored positively or as improving the diet quality (DQ). (-) the component is scored negatively or as decreasing the DQ.

Supplemental Table 5f. Lifestyle-related factors components included in the Diet-Lifestyle Indexes diet quality indicator

Author, Publication Year (ref)	Indicator (abbr)	PA	Extracurricular sport activities	Eating breakfast	Use of computer	Watching TV/ electronic games	Eating breakfast cereals	Eating foods, no prepared at home	Eating episodes per day	Obesity status of parents
Kosti et al., 2009. (161)	Diet–Lifestyle Index		✓ (+)	✓ (+)		✓ (-)	✓ (-)	✓ (-)	✓ (-)	✓ (-)
Manios et al., 2010. (162)	Preschoolers Diet–Lifestyle Index (PDL-Index)	✓ (+) [1]				✓ (-)				
Manios et al., 2010. (b) (163)	Healthy Lifestyle–Diet Index (HLD-Index)	✓ (+) [1]				✓ (-)				
Manios et al., 2015. (164)	Revised Healthy Lifestyle-Diet Index (R-HLD-index)	✓ (+) [1]				✓ (-)				
Ertaş Öztürk et al., 2018. (165)	Healthy Lifestyle-Diet for Turkey (HLD-TR)	✓ (+)			✓ (-)	✓ (-)				
Number of studies using this component in this indicators subgroup		4	1	1	1	5	1	1	1	1

Check symbol (✓) refers that a component is included in the indicator. (+) the component is scored positively or as improving the diet quality (DQ). (-) the component is scored negatively or as decreasing the DQ. [1] MVPA: moderate-to-vigorous physical activity; PA, physical activity.

Supplemental Table 5g. Lifestyle-related factors components included in the Other Healthy Diet Indexes diet quality indicator

Author, Publication Year (ref)	Indicator (abbr)	Breakfast consumption	Lunch at the table	Dinner consumption	Fried foods	Grilled foods	Sedentary behavior
Lazarou et al., 2009. (139)	Foods E-KINDEX score (E-KINDEX)				✓ (-)	✓ (-)	
Bisi Molina et al., 2010. (140)	School Child Diet Index (ALES)	✓ (+)	✓ (+)				
Cheng et al., 2016. (146)	Chinese Children Dietary Index (CCDI)	✓ (+)		✓ (+)			✓ (-)
Number of studies using this component in this indicators subgroup		2	1	1	1	1	1

Check symbol (✓) refers that a component is included in the indicator. (+) the component is scored positively or as improving the diet quality (DQ). (-) the component is scored negatively or as decreasing the DQ.

Supplemental Table 6. Methodological criteria and evaluation method of the Diet Quality Indicator [1] (*n* = 139)

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
Overall Diet Quality Indicators				
Healthy Eating Indexes				
Kennedy et al., 1995. (30)	Healthy Eating Index (HEI)	Predefined: For food group, servings per day; for macronutrients, energy percentage per day; for cholesterol and sodium, mg per day; for variety, items per day.	Overall score was classified into 5 levels: (1) >80 excellent; (2) 71 - 80 very good; (3) 61 - 70 good; (4) 51 - 60 fair; (5) 0 - 50 poor.	A 24h-DR and 2-day food record. Criteria for food group servings depends on the recommended energy intake for age and sex. The scores were assigned proportionally.
Feskanich et al., 2004. (31)	Youth Healthy Eating Index (YHEI)	Predefined: For food group, servings per day; for macronutrients, energy percentage per day; for cholesterol and sodium, mg per day; for variety, items per day.	Higher scores represented better diet quality.	FFQ was validated with three 24h-DR on 50 participants. Criteria for food group servings depends on the recommended energy intake for age and sex. The scores were assigned proportionally.
Knol et al., 2004. (32)	Healthy Eating Index Variety Score HEI-variety	Predefined: For food group, servings per day.	Higher scores represented better diet quality.	Two 24h-DR. Contribution of at least one-half of a serving. Foods eaten more than once per day or those that differ only by preparation method are counted only once. Criteria for food group servings depends on the recommended energy intake for age and sex.
Pinheiro and Atalah, 2005. (33)	Healthy Eating Index Chile (HEI-CHL)	Predefined: Percentage of food group servings per day; for total fat and cholesterol, percentage of energy per day; for sodium, g per day; for variety, percentage of portions a day.	Overall score was classified into 3 levels: (1) >80 healthy; (2) 51 – 80 requiring changes (3) <50 unhealthy.	24h-DR. Criteria for food group servings depends on the recommended energy intake for age and sex. The scores were assigned proportionally.
Glanville and McIntyre., 2006. (34)	Healthy Eating Index Canada 2006 (HEI-C06)	Predefined: For food group, servings per day; for macronutrients, energy percentage per day; for cholesterol and sodium, mg per day; for variety, items per day.	Overall score was classified into 3 levels: (1) > 80 good diet; (2) 51 – 80 diet needs improvement; (3) poor diet ≤51.	Four 24h-DR. Criteria for food group scoring depends on the energy adjustment range 1300 – 1600 kcal.
Guenther et al., 2008. (35)	Healthy Eating Index 2005 (HEI-2005)	Predefined: Recommended amounts of food groups, expressed per 1,000 kcal; discretionary calorie allowances, expressed as a percentage of total calories.	No modifications mentioned from original HEI.	24h-DR. Assess diet per 1000 calorie basis and address the consumption of energy-dense, nutrient-poor foods and ingredients.

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
Garriguet, 2009. (36)	Healthy Eating Index Canada modified (HEI-C-mod)	Predefined: Recommended amounts of food groups, expressed per 1,000 kcal; discretionary calorie allowances, expressed as a percentage of total calories.	Higher scores represented better diet quality.	Three 24h-DR. The first 24h-DR was conducted by a trained dietitian; the others were conducted by phone interviews.
De Andrade et al., 2010. (37)	Healthy Eating Index Brazil (HEI-BRA14)	Predefined: Recommended amounts of food groups.	Overall score was classified into 3 levels: (1) > 80 healthy; (2) 51 – 80; diet required modifications; (3) <51 inadequate diet.	24h-DR. Criteria for food group servings depends on the recommended energy intake for age and sex. The scores were assigned proportionally.
Woodruff and Hanning., 2010. (38)	Healthy Eating Index Canada (HEIC-2009)	Predefined: For food group, servings per day; for macronutrients, energy percentage per day; for cholesterol mg per day; for variety, items per day.	Overall score was classified into 3 levels: (1) > 80 good; (2) 50 – 80 needs improvement; (3) <50 poor.	24h-DR. Participants completed the web-based questionnaire independently at class time. Criteria for food group servings depends on the recommended energy intake for age and sex. The scores were assigned proportionally.
Rydén and Hagfors, 2011. (39)	Healthy Eating Index 2005 (HEI-2005)	Predefined: Recommended amounts of food groups, expressed per 1,000 kcal; discretionary calorie allowances, expressed as a percentage of total calories.	Overall score was classified into 3 levels: (1) > 70 good; (2) 50 – 70 needs improvement; (3) < 50 poor.	Four-day food diary. Each food item was classified into a food group in which healthier options were available.
González Rosendo et al., 2012. (40)	Healthy Eating Index Mexico (HEI-MEX)	Predefine: Recommended amounts of food groups.	Overall score was classified into 3 levels: (1) >96 healthy; (2) ≥61 <96 need modifications; (3) <61 unhealthy.	24h-DR. Criteria for food group servings depends on the recommended energy intake for age and sex. The scores were assigned proportionally.
He et al., 2012. (41)	Healthy Eating Index 2005 Canadian Modification (HEIC-2005)	Predefined: Recommended amounts of food groups, expressed per 1,000 kcal; discretionary calorie allowances, expressed as a percentage of total calories.	Higher scores represented better diet quality.	Semi-quantitative FFQ. FFQ was self-administered in paper format in the classroom. Analyses were made by clusters.
Guenther et al., 2013. (42)	Healthy Eating Index 2010 (HEI-2010)	Predefined: Recommended amounts of food groups, expressed per 1,000 kcal; discretionary calorie allowances, expressed as a percentage of total calories.	No modifications mentioned from original HEI.	The scoring system is valid for vegetarians and vegans.
Nyaradi et al., 2013. (43)	Youth Healthy Eating Index Australia (YHEI-AUS)	Predefined: Number of eating occasions.	Higher scores represented better diet quality.	Three 24h-DR. 24h-DR were collected across the season.

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
Kyttälä et al., 2014. (44)	Finnish Children Healthy Eating Index (FCHEI)	Population dependent: Energy-adjusted consumption of food groups was graded with scores according to deciles.	Scores in the fourth quartile represented better diet quality.	Three-day food records. Total scores were according to age groups of 1, 3 or 6-year-old.
Rauber et al., 2014. (45)	Healthy Eating Index Brazil (HEI-BRA14)	Predefined: For food group, servings per day; for macronutrients, energy percentage per day; for cholesterol and sodium, mg per day; for variety, items per day.	Overall score was classified into three levels: (1) >80 good; (2) 51 – 80 need improvement (3); <50 poor.	Two 24h-DR. Criteria for food group servings depends on the recommended energy intake for age (3-4 y or 7-8y) and sex. The scores were assigned proportionally.
Wahlqvist et al., 2014. (46)	Youth Healthy Eating Index Taiwan (YHEI-TW)	Predefined: Number of eating occasions.	Higher scores represented better diet quality.	24h-DR and FFQ. Ethnicity was reported and used in the analysis.
Dahm et al., 2016. (47)	High School Alternative Healthy Eating Index (HS-AHEI)	Predefined: Servings per day, or grams per day or week, and energy percentage. Population dependent: By sodium consumption deciles.	Higher scores were associated with a lower risk of developing at least one risk factor.	124 items-FFQ. Second FFQ was completed in a subsample of participants.
Tugault-Lafleur et al., 2017. (48)	School Healthy Eating Index (School-HEI)	Predefined: For food group, servings per day; for nutrients, energy percentage per day.	Overall score was classified into 3 levels: (1) > 80 high quality diet; (2) 50 – 80 requiring improvement; (3) < 50 poor diet quality.	24h-DR. Criteria for food group servings depends on the recommended energy intake for age and sex. The scores were assigned proportionally. The food group components were selected to reflect one-third of the total daily servings recommended for each age and sex group.
Yuan et al., 2017. (49)	Healthy Eating Index China (HEI-CHN)	Predefined: By energy density, expressed as amounts (standard portion size, grams) per 1000kcal.	Higher scores represented better diet quality.	24h-DR and household inventory data for oil and sodium. The maximum score is based on 1600 – 2400 calorie interval, expressed in portion per 1000 calories.
Conceição et al., 2018. (50)	Healthy Eating Index Brazil Infants (HEI-BRA-I)	Predefined: For food group, servings per day; for macronutrients, energy percentage per day; for cholesterol and sodium, mg per day; for variety, items per day.	Overall score was classified into 3 levels: (1) > 80 adequate diet; (2) 51 – 80 need improvement; (3) < 51 poor.	24h-DR. Energy adjustment of 1300 kcal per child.
Hooshmand et	Healthy Eating	Predefined: For food group, servings per day;	Higher scores represented better diet	Two FFQs and 168 items-FFQ (14-month

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
al., 2018. (51)	Index Iran (HEI-IRN)	or grams per day.	quality.	intervals).
Nshimyumukiza et al., 2018. (52)	Healthy Eating Index Canada (HEI-C-2010)	Predefined: For food group, servings per day; for nutrients, energy percentage per day.	Scores were categorized in quintiles. The highest quintile is considered to consume a diet of diet quality.	24h-DR. Some of the participants had more than one 24h-DR. The scores were categorized in quintiles.
Reedy et al., 2018. (53)	Healthy Eating Index 2015 (HEI-2015)	Predefined: Recommended amounts of food groups, expressed per 1,000 kcal; discretionary calorie allowances, expressed as a percentage of total calories.	No modifications mentioned from original HEI.	Two 24h-DR and a day food record. Information on exemplary menus was also used.
Brownlee et al., 2019. (54)	Healthy Eating Index Singapur (HEI-SGP)	Predefined: As percentage of energy intake.	Higher scores represented better diet quality.	Two 24h-DR. Energy adjustment for each component expressed per recommended 1000 kcal.
Dietary Diversity Scores				
Arimond et al., 2004. (55)	Dietary Diversity Score (DDS-04)	Predefined: Dichotomous answer.	Terciles of high (5-7), middle (3-4), or low (0-2) DD intake.	Seven 24h-DR. 3 ≥ times consumption was scored 1. Terciles were calculated for each country separately
Mirmiran et al., 2004. (56)	Dietary Diversity Score Iran (DDS-IRN)	Predefined: Servings per day.	Higher scores represented better DD.	Two 24h-DR. The 5 main components were represented by 23 subgroups. Within each of the food groups, the score reflects the percentage of the possible maximum score.
Kennedy et al., 2007.(57)	Dietary Diversity Score Filipinas (DDS-PHI)	Predefined: Dichotomous answer, dependent on the amount consumed (grams per day).	Higher scores represented better DD.	A 24h-DR. The analysis was based in 9 groups. The sugar and condiment group were excluded. A second score was calculated with a minimum of 10g.
Mpontshane et al., 2008. (58)	Dietary Diversity Score South Africa (DDS-ZAF)	Predefined: Dichotomous answer.	A score of 100 means all food groups were consumed.	FFQ.
Roche et al., 2008. (59)	Traditional Food Diversity Score (TFDS)	Predefined: Dichotomous answer.	Higher scores represented better DD.	Two 24h-DR. 24-h DR used partial correlations to control for energy intake.
Enneman et al., 2009. (60) [a]	Dietary Diversity Score Guatemala-	Predefined: Dichotomous answer, no minimum intake level was used.	Higher scores represented better DD.	Three 24h-DR and 2-day food record. The scores evaluated 1-day food intake or 3-day food intake. The population was divided

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
	USAID (DDS-GT-US-CP-INCAP)			between urban and rural.
Kennedy et al., 2010. (61)	Individual Dietary Diversity Score (IDDS)	Predefined: Dichotomous answer	Higher scores represented better DD.	24h-DR. The document provided a series of recommendation.
Li et al., 2011. (62)	Dietary Diversity Score- China (DDS-CHN10)	Predefined: Dichotomous answer, dependent on amount consumed, at least 25g.	Higher scores represented better DD.	24h-DR. The cooking oil and the condiment consumption was weighted for 3 days.
Belachew et al., 2013. (63)	Dietary Diversity Score Ethiopia (DDS-ETH)	Predefined: Dichotomous answer.	Higher tertile was defined as high DDS; the other two were the lower DDS.	FFQ assess one-week dietary consumption.
Darapheak et al., 2013. (64)	Dietary Diversity Score WHO (DDS-WHOm	Predefined: Dichotomous answer.	Higher scores represented better DD.	FFQ. At least one food item of consumption. Mothers or caretaker were interviewed to assess food consumption.
Gewa et al., 2013. (65)	Dietary Diversity Score Kenya (DDS-KEN)	Predefined: 1g, 15g, minimum target nutrient, median intake level and 90th percentile intake level).	Higher scores represented better DD.	Three 24h-DR. Five different DDS were calculated according to the minimum intake amount from each food group. Energy intake was adjusted.
Mundo-Rosas et al., 2014. (66)	Dietary Diversity Score Mexico (DDS-MX)	Predefined: Dichotomous answer.	Tertiles of high (9-10), middle (7-8), or low (9-10) DD intake.	Semiquantitative FFQ. 3 ≥ times consumption during 1 weak was scored 1.
Amugsi et al., 2015. (67)	Dietary Diversity Score Ghana 2015 (DDS-GHA15)	Predefined: Dichotomous answer.	Higher scores represented better DD.	24h-DR. Maternal DD was also measured with the same score and was used in the statistical analysis.
Ali and Abizari, 2018. (68)	Dietary Diversity Score Ghana 2018 (DDS-GHA18)	Predefined: Dichotomous answer.	Higher scores represented better DD.	Four 24h-DR. The dietary assessment stages were at baseline, midline, end line and post Ramadan.
Meng et al., 2018. (69)	Dietary Diversity Score- China 2018 (DDS-CHN18)	Predefined: Dichotomous answer.	A score <8 was in line with the Chinese Dietary Guidelines.	Three 24h-DR. 12 additional demographic components were measure.
Morseth et al., 2018. (70)	Dietary Diversity Score WHO	Predefined: Dichotomous answer.	Higher scores represented better DD.	Four 24h-DR. Results were reported different for BF children.

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
	modification (DDS-WHOm)			
Iqbal et al., 2019. (71)	Dietary Diversity Score Bangladesh (DDS-BGD)	Predefined: Dichotomous answer.	Higher scores represented better DD.	Semiquantitative FFQ. The minimum consumption was 10g in the previous 7 days.
Thorne-Lyman et al., 2019. (72)	Individual Dietary Diversity Score modification (mIDDS)	Predefined: Dichotomous answer.	A diverse diet represents a consumption of ≥ 4 times.	24h-DR. 3-point measures identified the minimum DD as 3 days for maximum and 0 as minimum.
Yang et al., 2019. (73)	Dietary Diversity Score China 2019 (DDS-CHN19)	Predefined: Dichotomous answer, dependent on amount consumed, at least 15g.	A cut-off point of < 5 was defined as low diet quality.	24h-DR. FFQ25 was used to measure the frequency of the consumption and an FFQ.
Sebayang et al., 2020. (74)	Dietary Diversity Score Indonesia (DDS-IDN)	Predefined: Dichotomous answer.	Higher scores represent better DD.	24h-DR. Breast milk was also included in the DDS.
Diet Quality Indexes				
Alexy et al., 2003. (75)	Diet Quality Index Germany (DQI-DEU)	Predefined: For macronutrients, energy percentage per day; for micronutrients, 75% of reference.	The cut-off for low and high scores was 5 points. Higher scores represented better diet quality.	Three weighted dietary record. Days of the collection were consecutive.
Kranz et al., 2004. (76)	Diet Quality Index for Children (C-DQI)	Predefined: Number of servings.	Higher scores represented better DD.	Three 24h-DR and two 1-day food record. One 24h-DR was interviewer-administered and two were self-administered.
Mariscal-Arcas et al., 2007. (77)	Diet Quality Index International adaptation (DQI-Ia)	Predefined: Percentage of the nutritional recommendations.	Higher scores represented better diet diversity.	A 24h-DR and a quantitative FFQ. Adequacy was based on 1700, 2200 and 2700 kcal.
McArthur et al., 2008. (78)	Rapid Assessment Diet Quality Index (RADQI)	Predefined: Score according to the frequency of consumption and expressed as percentage of the maximum possible score.	Higher percentages represented better DD.	FFQ that assess weekly consumption. FFQ classify as lower and higher calorie food groups. There were adaptations in the FFQ according to the study site. Results were shown by country and compared with physical activity index.
Huybrechts et	Diet Quality	Predefined: Sub-score according to	Higher scores represented better DD.	FFQ and three-day record.

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
al., 2010. (79)	Index for Flemish Preschoolers (DQI-FP)	recommended amounts (g or ml).		The score is the sum of de diversity, quality, moderation, adequacy, equilibrium, and meal of each food component. Adjustment for within-individual variation.
De Vriendt et al., 2012. (80)	Diet Quality Index for Adolescents 2012 (DQI-A-12)	Predefined: Amounts consumed multiplied with a factor. The value obtained is summed and divided by the total amount of food consumed.	Higher scores represented better DD.	Two 24h-DR. 24-h DR was computer base self-administered with the possibility of ask questions or assistance.
Fokeena and Jeewon, 2012. (81)	Diet Quality Index Mauritius (DQI- MUS)	Predefined: Score according to the consumption frequencies.	Higher scores represented better DD.	FFQ that asses monthly consumption (rarely/never, once per month, once per week, daily, more than once daily).
Li et al., 2012. (82)	Diet Quality Index Australian children and adolescents (DQI-AUS-CA)	Predefined: Scoring system based on the portion sizes, and frequencies according to the Australian Guide to Healthy Eating and Nutrient Reference Values for Australia and New Zealand.	Higher scores represented better DD.	Semiquantitative FFQ that assessed 12 months.
Bel et al., 2013. (83)	Diet Quality Index for Adolescents with Meal index (DQI-AM)	Predefined: Amounts consumed multiplied with a factor. The value obtained is summed and divided by the total amount of food consumed.	Higher scores represented better DD.	Two 24h-DR. 24h-DR was computer base self-administered.
Vyncke et al., 2013. (84)	Diet Quality Index for Adolescents 2013 (DQI-A-13)	Predefined: Sub-score according to recommended amounts (g or ml).	Higher scores represented better DD.	Two 24h-DR. 24h-DR was computer base self-administered. The total score is the sum of de diversity, quality, adequacy, equilibrium, and diet excess.
Wong et al., 2013. (85)	Diet Quality Index for New Zealand Adolescents (NZDQI-A)	Predefined: Servings per day.	Higher scores represented better DD.	Four-day record and FFQ. Macronutrient intake was adjusted for energy intake using the residual method. The score is composed by variety and adequacy parts.
Röytiö et al., 2015. (86)	Diet Quality Index for Finland Children (FINDQI-C)	Predefined: Amount (g and mg), and percentage of energy.	Scores were good ≥14, moderate 10.0 – 13.9, and poor <10.	Seven-day food record.
Collins et al.,	Revised	Predefined: Recommended intake (amount	Higher scores represented better DD.	Three 24h-DR. 24h-DR were telephone-

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
2016. (87)	Children's Diet Quality Index Australia (RC-DQI-AUS)	and percentage of energy).		administered.
Ríos et al., 2016. (88)	Diet Quality Index Score for Puerto Rico infants (DQIS-PRIn)	Predefined: Recommended intake (amount and portions).	Scores were excellent ≥45, good 35 – 44, needs improvement 25 – 34, and poor <25.	Semiquantitative FFQ. Two different scores were calculated for infants 8-11m and 12-24m.
Kunaratnam et al., 2018. (89)	Diet Quality Index for Australian Preschoolers (DQI-AusP)	Predefined: Number of servings.	Higher scores represented better DD.	Three-day food record and two FFQ. FFQ were two weeks apart.
Hamner and Moore, 2020. (90)	Diet Quality Index Score for American Infants (DQIS-USIn)	Predefined: Amount (onz, tsp).	Higher scores represented better DD.	Two 24h-DR. The scores had different portions or amounts according to age group (6-11m, 1y, 2-3y, or 4y).
Food Variety Scores				
Cox et al., 1997. (91)	Variety Index for Toddlers (VIT)	Predefined: Number of servings and serving size for one serving.	The number of servings that had to be consumed to achieve the maximum food group score of 1.00 varied by food group.	Three 24h-DR. VIT is based on the FGP with serving sizes adjusted for toddlers. Scores could range from a potential 0.00 to a maximum of 1.00. Interviews were conducted in the participant's home by one of two registered dietitians.
Hatløy et al., 1998. (92)	Food Variety Score (FVS)	Predefined: Number of different food items eaten during the registration period.	--	Weighed over 3 consecutive days. The total number of foods included in FVS was 75, independently of the quantity consumed.
Vereecken et al., 2008. (93)	Variety Index	Predefined: Consumption frequency, number of times the food items from the respective groups were consumed.	--	FFQ. Variety index was composed by summing the consumption frequencies of fruits, vegetables, brown bread, whole fat milk, semi-skimmed milk, cheese, and other milk products.
Falciglia et al., 2009. (94)	Three types of dietary variety	Population-dependent: Food intake data on each-24 h food recall.	Different selected 3 interval days (day 4/first interval, day 9/second interval, and day 14/third interval).	7-day FD. 24-h food recall logs for 15 consecutive days. The DVS for the 15 consecutive days was calculated by determining the number of different foods consumed. Serving sizes used

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
				to compute the variety score were consistent with those introduced in the 2005 MyPyramid.
Saibul et al., 2009. (95)	Food Variety Score (FVS)	Predefined: Total number of food items consumed over a 3-day period, from a possible total of 69 food items consumed identified from the three 24 h DR.	--	Three days (2 weekdays and a weekend day) of dietary intake information were obtained from both mother and child using the 24h-DF. The 69 food items comprised of 5 foods groups. If the food item was consumed at least once over the 3-day period, a score of 1 was given.
Scott et al., 2012. (96)	Core Food Variety Score (CFVS); Fruit and Vegetable Variety Score (FVVS)	Predefined: Dichotomous answer.	--	24h-DR of the child's food and beverage intake. This questionnaire was checked by the research nurse, with the mother, at the second-year clinical assessment.
Zimmer et al., 2012. (97)	Food Variety (FV) Score	Predefined: Servings.	Foods eaten at least once a month were tallied to obtain a food variety score.	174 items-FFQ. Food variety score was calculated for each subject from the raw data summarized in the FFQ.
Jones et al., 2014. (98)	Healthy Plate Variety Score (HPVS)	Predefined: Number of servings recommended in the food plate model.	The final HPVS was the sum of the five food group scores, with a potential total of 5·00.	FFQ. Each cohort used its own FFQ, feeding practices and later healthy diet variety score which varied in the number of items and frequency categories investigated. In line with healthy eating principles, condiments, sweets/candy, herbs/spices, soft drinks, oil, butter/margarine, and salty snack foods were excluded in a similar way to the VIT.
Zaborowicz et al., 2015. (99)	Food Intake Variety Questionnaire (FIVeQ)	Predefined: Consumption data on 63 food groups and their amounts were thus obtained using the FIVeQ over the last 7 days.	Results were classificated into 4 categories: low (<20 foods/week), sufficient (20-29 foods/week), satisfactory (30-39 foods/week) and very good (≥40 foods/week).	7-day food record. The FIVeQ questionnaire was validated by the test- -retest procedure in a study on subjects over 65 years and calibrated on young women subjects. Consumed foods was expressed by a FIVeI calculated as the number of food items eaten weekly (60 foods/week maximum).
Fernández et al., 2016. (100)	Overall Variety Score	Predefined: Serving per week.	--	Data on children's dietary intake were obtained via the Harvard Service Food Frequency Questionnaire. Based on updated information from two 24h-DR of foods listed on the questionnaire.

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
Barros et al., 2019. (101)	Healthy Dietary Variety Index (DVI)	Predefined: Number of servings.	The final Healthy Dietary Variety Index is the result of the sum of the 5 food group indices (after the second truncation) divided by 5.	35-item qualitative FFQ. To assess the validity of the FFQ, 3-day food dairies were also completed by the main caregiver of a subsample. The number of servings for each food group was totaled and divided by the recommended number of servings.
Healthy and Unhealthy Scores				
Yannakoulia et al., 2004. (102)	Unhealthy Food Choices Score (UFCS)	Predefined: Dichotomous answer.	Higher scores represent lower diet quality.	Short FFQ. Dieting, going out and TV viewing and PA were assessed in this study by self-reported instrument.
Jacka et al., 2011. (103)	Healthy (HDS-A) and unHealthy Diet Scores Australia (uHDS-A)	Predefined: Score according to frequency of consumption.	Low, medium, and high diet quality and it depends on the frequency of each component.	The nutritional survey was the personal diary assistant who was self-administered.
Truthmann, et al. 2012. (104)	Indicator Food Index (IFI)	Predefined, points according to 3 categories	Unfavorable score 0 – 5, Neutral score 6 – 10, favorable diet score 11 – 14.	FFQ
Monjardino et al., 2014. (105)	Oslo Health Study Dietary Index (OHS)	Predefined: Sum of frequencies of consumption.	Higher scores represent unhealthy diet patterns.	FFQ
Vilela et al., 2014. (106)	Healty Eating Index Score Portugal (HEIS-PRT)	Predefined: Points according to quartiles of consumption and categories.	Higher scores represent a better diet at 4 years.	FFQ The interviews were face-to-face with the main career.
Anderson, et al., 2015. (107)	Healthy (HDS-USA15) and unHealthy Diet Scores USA 2015 (uHDS-USA15)	Predefined: Frequency per day.	Higher scores represent a higher intake of healthy or unhealthy foods.	A nutritional survey. Trained interviewers conducted the nutritional survey.
Anderson et al., 2016. (108)	Healthy (HDS-USA16) and unHealthy Diet Scores USA 2016 (uHDS-	Predefined: Sum of the frequency of consumption.	Higher scores represent a higher intake of healthy or unhealthy foods.	FFQ accounted for the consumption of the past 7 days.

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
	USA16)			
Sluik et al., 2016. (109)	Dutch Healthy Diet-index (DHD-index)	Predefined: Score according to adherence to dietary guideline.	Higher scores represent higher adherence to dietary guidelines.	Two 24h-DR. 24-h DR were conducted by trained dieticians by telephone call. PA was assessed with a short questionnaire.
Arvidsson et al., 2017. (110)	Healthy Dietary Adherence Score (HDAS)	Predefined: Score according to adherence to dietary guideline.	Higher scores represent higher adherence to dietary guidelines.	FFQ. Parents were asked to report the frequency of consumption during the preceding 4 weeks.
Martins et al., 2019. (111)	Healthy (HDS-BRA) and unHealthy (uHDS-BRA) Diet Scores Brazil	Predefined: Sum of frequencies of consumption.	Higher scores represent higher intake of healthy or unhealthy foods.	FFQ. Self-applied smartphone questionary. The food frequency questionnaire evaluated the consumption of 7 days.
Wadolowska et al., 2019. (112)	Pro-Healthy Diet Index (pHDI); non-Healthy Diet Index (nHDI)	Predefined: Sum of the frequency of consumption converted in percentages.	For pHDI a better diet quality, and for nHDI a worse diet quality.	A short-form FFQ for Polish children self-administered questionnaire. PA, screen time and BMI were evaluated.
Feeding and Eating Indexes				
Arimond, and Ruel, 2002. (113)	Infant and Child Feeding Index (ICFI)	Predefined: Dichotomous answer.	Higher scores represented better feeding index.	24h-DR and FFQ. The total score is the sum of feeding practices. A score of 0 was assigned to potentially harmful practices. Scores were different for infants 6-9m.
Ruel and Menon, 2002. (114)	Child Feeding Index (CFI)	Predefined: Dichotomous answer.	Tertiles according to low, mean or high score Higher scores represented better feeding practices.	24h-DR and FFQ. The analyses were adjusted for age cluster 0 – 6 m, 6 - 9 m 9 – 12, and 12 -36 m. Dietary diversity score depended on the number of food groups consumed.
Dewey et al., 2006. (115)	Food Group Indicator – 8 (FGI-8)	Predefined: Amount consumed (g).	Higher scores represented better diet quality.	24h-DR and weighted food record There were 1 g cut-off and 10g cut-off.
Food and Nutrition Technical Assistance Project, 2006. (116)	Food Group Indicator - 7 (FGI-7)	Predefined: Amount consumed (g).	Higher scores represented better diet quality.	24h-DR. There were 1 g cut-off and 10g cut-off. An additional index was calculated with the inclusion of fats and oils group.

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
Bork et al., 2012. (117)	Infant and Child Feeding Index Senegal (ICFI-Sen)	Predefined: Dichotomous answer.	Higher scores represented better feeding practices.	Two 24h-DR. The two visits were conducted 6 m apart. Each component has a score that is pondered in 0 – 2 (excluding BF).
Golley et al., 2012. (118)	Complementary Feeding Utility Index (CFUI)	Predefined: Frequency of consumption using a probability function.	Higher scores represented better adherence to nutrition guidelines.	Three-day food record. The food record included 2 weekdays and 1 weekend day.
Jones, 2015. (119)	Infant and Child Feedind Index modification (ICFIm)	Predefined: Dichotomous answer dependent on frequency of consumption.	Higher scores represented better feeding index.	24h-DR and FFQ. The total score is the sum of feeding practices. A score of 0 was assigned to potentially harmful practices. Scores were different for infants 6 – 9m. The analysis was performed using age-specific tertiles.
Monterrosa et al., 2015. (120)	Infant and Child Feeding Index Mexico	Predefined: Dichotomous answer.	Positive higher scores represent better feeding practices.	Two 24h-DR. Ages were grouped into 1-3m, 6 m, 9, and 12 - 24m.
Delshad et al., 2019. (121)	Diet Index for a Child's Eating (DICE)	Predefined: Serving per day.	Higher scores represented better adherence to nutrition guidelines.	Four-day food record. The DICE was completed twice, 8 weeks apart from the food record. The components added together. The food items that required moderation in the consumption accounted for the score at less consumption.
Ferreira et al., 2019. (122)	Child Feeding Index modification (CFIm)	Predefined: Dichotomous answer.	Higher scores represented better feeding practices.	24h-DR and FFQ. The total score is the sum of feeding practices. The analyses were adjusted for age cluster 6 - 9 m and 12 -15 m. The children were evaluated at 6m and 12m. A different questionnaire was used to assess the consumption of non-recommended foods.
Diet Quality Scores				
Crombie et al., 2009. (123)	Scottish Diet Quality Score (SDQS)	Predefined: Serving per day.	A higher score represented a better diet quality.	Dietary questionnaire. The questionnaire was answered by the mother.
Kohlboeck et al., 2012. (124)	German Optimized Mixed Diet Quality Score	Predefined: Amount consumed (g).	A higher score represented a better adherence to the optimized mixed diet.	FFQ (82-item). The measurement of behavioral problems was with a brief behavioral screening questionnaire.

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
	(GOMDQS)			
Perry et al., 2015. (125)	Diet Quality Score Ireland (DQS-IRL)	Predefined: Frequency of consumption.	A higher score represented a better diet.	Short FFQ. Short FFQ assessed the consumption over the past 24h. The article did not specify which components are positive and negative.
Voortman et al., 2015. (126)	Diet Quality Score The Netherlands (DQS-NL)	Predefined: Amount consumed (g).	A higher score represented a healthier diet.	Semiquantitative FFQ. FFQ was evaluated against a 3-day 24h-DR.
Gasser et al., 2017. (127)	Diet Quality Score Australia 2017 (DQS-AUS17)	Predefined: Amount consumed (g).	A higher score represented a better adherence to dietary guidelines.	FFQ. The questionnaire was used to evaluate the consumption of the last 24-hours. The food items that required moderation in the consumption accounted for a higher score at less consumption.
Nutritional Adequacy and Micronutrients				
Fulgoni et al., 2009. (128)	Nutrient-Rich Foods Index	Population-dependent: Algorithms evaluated were based on multiple criteria.	--	The previous 24-h period were collected in person using the multi-pass, 24-h dietary interview method.
Libuda et al., 2009. (129)	Nutrient-based Nutritional Quality Score (NQI)	Population-dependent: NQI was calculated as the individual harmonic mean of each subject's intake quality score values.	100 represents a high diet quality meeting or exceeding the reference values in all considered micronutrients within three recorded days.	3 d weighed dietary records. The nutritional quality score was calculated as the individual harmonic mean of each subject's intake quality score values of the seventeen micronutrients. To avoid mathematical compensation of deficient intakes of one nutrient by exceeding intakes of another nutrient, intake quality score values were truncated at 100 if the intake of a nutrient exceeded the reference value.
Chiplonkar and Tupe, 2010. (130)	Adolescent Micronutrient Quality Index (AMQI)	Predefined: Serving per day.	The total AMQI score ranged between zero (worst) to 100 (best).	24h-DR on 3 non-consecutive days. Each component expresses a different dimension (recommendations food groups, healthful eating, and micronutrient bioavailability): whole grains, micronutrient-dense legumes, variety of foods consumed in each food subgroup, practices enhancing bioavailability, and excess.
Alexy et al.,	Nutrient Quality	Population-dependent: Harmonic mean of the	--	Weighed and recorded on 3 consecutive days.

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
2011. (131)	Index (NQI)	individual intakes of vitamins, and minerals.		To avoid mathematical compensation in nutritional quality score of low intakes of one nutrient by high intakes of other nutrients, % Dietary Reference Intakes values were truncated at 100.
Lee and Park, 2015. (132)	Index of Nutritional Quality (INQ)	Population-dependent: Intakes based on the nutritional density per 1000 kcal.	--	24h-DR. Nine nutrients were selected based on a review of previous related studies. The INQ is calculated by dividing the nutritional intake per 1000 kcal of total energy intake by the recommended intake of each nutrient per 1000 kcal. Age- and sex-specific recommended intake values were obtained from the 2010 Korean Dietary Reference Intake.
Dietary Guidelines Indexes				
Golley et al., 2011. (133)	Dietary Guideline Index for Children and Adolescents (DGI-CA)	Predefined: Food-based consumption patterns in the Australian Guide to Healthy Eating.	Overall DGI-CA score was the sum of the 11 indicators converted to a score of a possible 100 (range 0–100), with a higher score reflecting greater adherence with the dietary guidelines.	Two 24h-DR conducted by 90 trained interviewers and checked by dietitians. Analyses were repeated using log-transformed nutrient data. Analyses were repeated using energy-adjusted nutrient intake using the residual method.
Lioret et al., 2014. (134)	Dietary Guideline Index (DGI)	Population-dependent: Servings per day and frequency of consumption.	Participants with intakes between the minimum and maximum amounts were assigned scores proportionately. Points were summed to give an overall dietary score ranging from 0-100.	Questionnaire based on several validated short questions. The index included ten components with age- and sex-specific cut-offs based on the Australian Guide to Healthy Eating.
Mohseni-Takalloo et al., 2016. (135)	Dietary Guidelines for Americans Adherence Index (DGAI)	Predefined: Assessment adherence to the key dietary intake recommendations of DGA 2005 for the public.	Alcohol consumption is prohibited in Iran and participants refrain from reporting their consumption. They excluded the alcohol intake (19 items were examined).	Semi-quantitative FFQ. Most items had a partial adherence score of 0.5, and 0 points were given when the recommendation was not achieved. DGAI considers a penalty of 0.5 points for overconsumption of energy-dense food groups, including meat, dairy, grains and starchy vegetables.
Rohde et al., 2017. (136)	Diet Quality Index based on the Danish national	Population-dependent: g/d-depending on age; g/week; % energy intake.	Total scores were generated by summing the 6 individual scores. By construction, this score was derived as a continuous variable ranging from 0	4 d diet record. This score was calculated at baseline and follow-up, based on the 6 nutrients/food groups, as a function of the relationship

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
	guidelines (DQI-Danish national guidelines)		to 6, with 0 representing a score the furthest away from the recommendation and 1 a score fully complying. with the recommendation.	between the recommended intake and the reported intake. The diet records were accompanied by a picture book including seventeen series with foods and portion sizes.
Er et al., 2018. (137)	Children's Food Trust guidelines (CFT guidelines)	Predefined: Serving.	The scores were summed to derive an overall NAP SACC UK Nutrition Best Practice Standards Score.	Children's dietary intake at nurseries was assessed using the Child and Diet Evaluation Tool, a tick list questionnaire for young children in the UK, which has been validated against a semi-weighed food diary. The score ranged from 0-8 for one main meal, 0–9 for two main meals, 0–3 for one snack, and 0–5 for two snacks.
1. Other Healthy Diet Indexes				
Kleiser et al., 2009. (138)	Healthy nutrition Score (HuSKY)	Predefined: Sum of the proportion of consumption.	Higher scores represented better diet quality.	FFQ Energy intake was adjusted in the analyses.
Lazarou et al., 2009. (139)	Foods E-KINDEX score (E-KINDEX)	Predefined: Frequency of consumption.	Higher scores represented higher diet quality.	FFQ The person who interviewed participants was blinded for blood pressure measurements.
Bisi Molina et al., 2010. (140)	School Child Diet Index (ALES)	Predefined: Frequency of consumption.	Higher scores represented healthier diet.	FFQ Additional lunch at table as yes/no was evaluated.
Marshall et al., 2012. (141)	Australian Child and Adolescent Recommended Food Score (ACARFS)	Predefined: Frequency of consumption.	Higher scores represented better DD.	120 items- FFQ. The questionnaire took 10 – 15 minutes to complete it.
Spence et al., 2013. (142)	Obesity Protective Dietary Index (OPDI)	Predefined: Amount consumed (g).	Higher scores represented healthier intakes.	Three 24h-DR. 24-h DR were unscheduled and by telephone. Intakes of each food group were divided into 11 quantiles to allocate scores of 0–10 within each food group.
Durksen et al., 2015. (143)	Unhealthy Eating Index Canada (UEI-Ca15)	Predefined: Frequency of consumption.	Higher scores represented rarely or never eating unhealthy foods.	24h-DR and a food frequency questionnaire. 24-h DR was web-based and included the frequency questions.
Haapala et al.,	Baltic Sea Diet	Population-dependent: Quartiles.	Higher scores represented better diet	Four food record.

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2015 (144)	Score (BSDS)		quality.	Food records were administered by parents on consecutive days, including two weekdays and two weekend days.
Hardiansyah et al, 2015. (145)	Balanced Diet Index (BDI)	Predefined: Servings per day.	Higher scores represented higher diet quality.	24h-DR. Several indexes were calculated; this one was the most complete.
Cheng et al., 2016. (146)	Chinese Children Dietary Index (CCDI)	Predefined: Recommended amounts of food groups, expressed per 1,000 kcal.	Higher scores represented higher diet quality.	Three 24h-DR. Face-to-face interview on random days.
Verger et al., 2016. (147)	Diet Quality Index Based on the Probability of Adequate Nutrient Intake (PANDiet)	Predefined: Mean of the adequacy and moderation sub-scores.	Higher scores represented a better nutrient adequacy.	Four-day food diary, UK Diet and Nutrition Survey of Infants and Young Children. Calculated the probability of adequacy of the nutrient intake. Breastfeeding was evaluated, and supplement use was excluded from analyses.
Winpenny et al., 2018. (148)	Dietary Approches to Stop Hipertension index (DASH index)	Predefined: Servings per day.	Higher scores represented higher diet quality.	Four-days food diary. The dietary collection covered consecutive days. A food atlas was used for portion sizes.
Kunto and Bras, 2019. (149)	Berry Index (BI)	Predefine: Frequency of consumption.	Higher scores represented better DD.	FFQ Berry Index was not validated in this study but was correlated with children nutritional status.
Liu et al., 2020. (150)	American Heart Association Score 2020 (AHAS)	Predefined: Recommended amounts of food groups, expressed per 1,000 kcal.	Higher scores represented better diet quality.	24h-DR.
Other Dietary and Lifestyle Indicators				
Mediterranean Diet Indexes				
Serra-Majem et al., 2004. (151)	Mediterranean Diet Quality Index for Children and Adolescents (KIDMED)	Predefined: Dichotomous answer, serving per day or week.	Three adherence levels: (1) ≥ 8, optimal Med Diet; (2) 4–7, improvement needed to adjust intake to Mediterranean patterns; (3) ≤ 3, very low diet quality.	Two 24-hour DR and quantitative FFQ. 16-question test that could be self-administered or conducted by interview (pediatrician, dietitian).
Jennings et al.,	Modified	Population-dependent: Sex-specific medians.	Adapting the score has shown similar	4-day food and drink diary (2 weekend days).

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
2011. (152)	Mediterranean Diet Score (mMDS)		results to the Mediterranean DQI for children and adolescents, which was developed to assess adherence to a MD in children.	To modify the score for children, the alcohol consumption component was removed from the score and intake of dairy products was scored as a beneficial component.
Schoder et al., 2011. (153)	Brief Mediterranean Diet Screener (bMDSC): 2 sub-scores, Antioxidant Food score (ANTOX-S); modified Mediterranean Diet Score (mMDS)	Population-dependent: Tertile distribution.	These values for the food items were added together to determine the adherence ANTOX-S, which range from 6 (very low) to 18 (optimal); mMDS, 10 (very low) to 30 (optimal).	Different tools for dietary assessment: multiple 24h-DR, the brief Mediterranean diet screener, and the short diet quality screener.
Lazarou and Matalas., 2015. (154)	Modified Mediterranean Diet Quality Index for Children and Adolescents (mKIDMED)	Predefined: Dichotomous answer, serving per day or week.	--	154 - items semi-quantitative FFQ. Three supplementary questionnaires of other aspects of dietary habits. Dietary questionnaires were administered to pupils during class hours by a qualified nutritionist, following a standardized methodology for dietary data collection.
Kastorini et al, 2016 (155)	Modified Mediterranean Diet Quality Index for Children and Ddolescents (mKIDMED)	Predefined: Dichotomous answer, serving per day or week.	This modified version contained 15 items (consumption of nuts was not included).	Semi-quantitative FFQ. A binomial model was used for KIDMED score and Poisson models for weekly consumption of food groups under the assumption of autoregressive order 1 for the working correlation structure.
Rivas et al., 2016. (156)	Mediterranean Diet Score (MDS)	Predefined: Dichotomous answer, serving or grams per day or week.	--	MDS was completed in a face-to-face interview with participants. The wine consumption item was omitted.
Haapala et al., 2017. (157)	Mediterranean Diet Score (MDS)	Population-dependent: Sex-specific median, and dichotomous answer.	--	Food records on 4 predefined consecutive days (2 weekdays and 2 weekend days). Effect modification of sex by analyzing the association of sex*Dietary Quality Index interactions with academic achievement

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
				scores.
Montero et al., 2017. (158)	Mediterranean Adequacy Index (MAI)	Population-dependent: Food groups considered as belonging to the Mediterranean diet by the total energy consumed from foods that are less typical of this diet.	MAI (Fidanza et al., 2004) to evaluate how far the adolescent's diet fitted the traditional Med Diet.	3-day 24h-DR, and FFQ. Alternative index was also calculated leaving out eggs and dairy products.
Carvalho et al., 2018. (159)	Adolescent Mediterranean Diet Score (aMDS)	Population-dependent: Sex-specific medians.	Participants were categorized into 2 groups: low (<4 points) and high (≥4 points) adherence.	2 non-consecutive 24-h DR. aMDS was included in the model and finally, the analyses were performed separately by lower and higher aMDS groups.
Aparicio-Ugarriza et al., 2019. (160)	Adapted Mediterranean Diet Score for Adolescents (MDS_A) Adapted Mediterranean Diet Quality Index for Children and Adolescents (KIDMED_A)	Population-dependent: Sex- and age- specific median.	For components considered to be healthy, intakes above the median score 1 and intakes below the median score 0. Meat and alcohol components were scored in reverse as components presumed to be detrimental. Intakes above the median score 0 and intakes below the median score 1.	Two non-consecutive 24h-DR, FFQ and the FCP questionnaire. Four different versions of the adapted adolescent MDS were created as categorical variables.
Diet–Lifestyle Indexes				
Kosti et al., 2009. (161)	Diet–Lifestyle Index	Predefined: Frequency of consumption (servings/ day).	Higher values of this diet score indicate greater adherence to the recommended eating and lifestyle behaviors against obesity.	FFQ. The components presumed to be protective against obesity, were assigned score 1 for someone who reported frequency of behavior with the highest deviation from the recommended one and score 5 for someone who reported the recommended frequency of a behavior.
Manios et al., 2010. (162)	Preschoolers Diet–Lifestyle Index (PDL-Index)	Predefined: Frequency of consumption (servings/ day or week).	Higher values of the PDL Index indicate greater adherence to dietary and lifestyle recommendations for preschoolers or otherwise greater adherence to a 'healthy' dietary–lifestyle pattern.	Three 24h-DR (two consecutive weekdays and one weekend day). Unhealthy diet–lifestyle pattern or a diet–lifestyle pattern away from recommendations' (T1), (ii) a 'moderate healthy diet–lifestyle pattern or a diet–lifestyle pattern closes to recommendations' (T2) and (iii) a 'healthy

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
				diet–lifestyle pattern or a diet– lifestyle pattern very close to recommendations' (T3).
Manios et al., 2010. (b) (163)	Healthy Lifestyle–Diet Index (HLD-Index)	Predefined: Frequency of consumption (servings/ day or week).	Higher values of the HLD Index indicate greater adherence to dietary–lifestyle recommendations or otherwise greater adherence to a 'healthy' dietary–lifestyle pattern.	Three 24h-DR (two consecutive weekdays and one weekend day). Subjects those considered as having (a) an 'unhealthy diet–lifestyle pattern' (T1); (b) a 'moderate healthy diet–lifestyle pattern' (T2); and (c) a 'healthy diet–lifestyle pattern' (T3).
Manios et al., 2015. (164)	Revised Healthy Lifestyle-Diet Index (R-HLD-index)	Predefined: Frequency of consumption (servings/ day or week).	The highest score was ascribed to the dietary intake or participation in MVPA or watching television or playing computer games being within the recommended guidelines, whereas the lowest score was assigned to the dietary–lifestyle behaviors that were not in agreement with recommendations.	Three 24h-DR (two consecutive weekdays and one weekend day). An 'unhealthy diet–lifestyle pattern' (T1); (ii) a 'moderate healthy diet–lifestyle pattern' (T2); and (iii) a 'healthy diet–lifestyle pattern' (T2).
Ertaş Öztürk et al., 2018. (165)	Healthy Lifestyle-Diet for Turkey (HLD-TR)	Predefined: Frequency of consumption (servings/ day or week).	In the 9-11th questions, which contain types of food, their first part score is obtained in two steps. The type of food is examined, and scores are assigned for each food separately. All points are added up and rescored as follows: 0 points (score: 0), 2 points (score: 1), 4 points (score: 2), 6–8 points (score: 3), 10–12 points (score 4).	24h-DR. The obtained data were divided into three T – <17 points, 17–23 points and >23 points – according to the HLD-TR Index score.
Breakfast Quality Indexes				
Radcliffe et al., 2004. (166)	5 food groups in Australian Guide to Healthy Eating (AGHE)-Food Group Score (FGS)	FGS ranged from 1 (no food or beverage) to a maximum score of 5 if breakfast reported foods from 3 of more AGHE food groups.	--	Recall of all foods and beverages based on Australian Guide to Healthy Eating.
Herrero Lozano and Fillat Ballesteros., 2006. (167)	en KID study criteria	Predefined: In KID criteria.	The total score was divided into 4 categories: good quality (contains at least one foodstuff, from the dairy, cereal, and fruit group); improved quality (one of the groups is missing);	Recall of the previous day's breakfast. It was considered that the quality only improved when a food was added at lunch of a group other than those eaten at breakfast.

Author, Publication Year (ref)	Indicator (abbr.)	Cut-off Values [2]	Overall Score	Methodological Issues
			inefficient quality (two are missing); bad quality (no breakfast).	
Hallström et al., 2012. (168)	Breakfast Quality Index	1 point was awarded for consuming a breakfast and an extra 1 point was awarded for each of the 3 food groups.	Scores highly (≥6 points) were considered a high-quality breakfast' while those who scored lowly (< 4 points) were considered a 'low quality breakfast'.	Two computerized 24h-DR were performed on two nonconsecutive days within the space of two weeks.

[1] DD: dietary diversity; DQ, Diet Quality, DR, dietary recall; DVS: Dietary Variety Score; FCP: Food Choices Preferences; FD: food diary; FFQ: food frequency questionnaire; FGP: Food Guide Pyramid; FIVeQ, Food Intake Variety Questionnaire; GEE-GLM: Generalised estimating equations- Generalized Linear Models; HSFFQ: Harvard Service Food Frequency Questionnaire; mo: months; T: tertile. [2] The cut-off points were predefined (fixed criteria) except for 16 studies that presented population-dependent cut-off (by distribution) (46, 47, 94, 128, 129, 131, 132, 134, 136, 144, 152, 153, 157-160)