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Communication

Survey of Nutrition Knowledge, Attitudes, and Preferred Informational Sources among Students at a Southwestern University in the United States: A Brief Report

Caroline H. Geist [1], Deana Hildebrand [1], Bryant H. Keirns [2] and Sam R. Emerson [1,*]

[1] Department of Nutritional Sciences, Oklahoma State University, Stillwater, OK 74078, USA; caroline.geist@okstate.edu (C.H.G.); deana.hildebrand@okstate.edu (D.H.)
[2] Department of Nutrition and Health Science, Ball State University, Muncie, IN 47306, USA; bryant.keirns@bsu.edu
* Correspondence: sam.emerson@okstate.edu; Tel.: +1-405-744-2303

Abstract: The purpose of this study was to investigate nutrition perspectives, basic nutrition knowledge, and preferred sources of nutrition information among students at a southwestern university in the US. An original online survey was used to evaluate common sources of nutrition information, factors viewed as comprising a healthy dietary pattern, and attitudes toward nutrition information and recommendations. A total of 316 participants completed the survey. Prioritizing fruits and vegetables was the most common response (97%) for characterizing healthy eating. When asked which factors characterize a non-healthy pattern of eating, eating sweets was the top response (83%). The most common sources of nutrition information reported were word of mouth/friends and family (56%), followed by social media (45%). The majority felt that nutrition recommendations are constantly changing (78%) and that nutrition information is confusing (55%). Our data indicate that most students rely primarily on informal sources of nutrition information. However, our preliminary data also suggest that many students have a fair understanding of basic principles of healthy eating. More research in a broader and more diverse sample is needed to validate these findings.

Keywords: nutrition knowledge; nutrition literacy; sources of nutrition information; university students

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1. Introduction

With the advent of the Internet, most of the developed world has nearly universal access to information, including nutrition information. The mass of unregulated nutrition sources online naturally generates contradictory messages. A necessary skill for filtering through unreliable sources is health literacy, or the ability to locate and understand trustworthy healthcare information and use that information to make appropriate health decisions [1].

The connection between health literacy and individual wellbeing has been recognized in recent decades, and concerns about the health literacy of adults have been increasing [2], as health literacy appears to be low even in developed nations [3]. Lower health literacy is associated with poor health outcomes—for example, a higher risk of diabetes mellitus and obesity [4]. It is estimated that approximately 80 million Americans have limited health literacy [5]. Further, those who are able to read nutrition information may not know how to identify reliable sources or to interpret information accurately. This difficulty is further exacerbated by the extent of nutrition misinformation that can be found online [6]. Clearly, the lack of health literacy is a pressing public health issue.

There is a link between health literacy and higher education. One study found that when compared to those with less education (high school degree or lower), individuals with more education (college degree or higher) scored twice as high in their ability to appraise and apply health information [7]. This makes current college students a population of

interest. Despite the findings suggesting that higher education is associated with improved health literacy, the average college student's diet remains poor [8]. Their diet is characterized by high intake of fat, sodium, and fast food and low intake of fruits and vegetables, and students rarely meet nutrient recommendations or dietary guidelines [9]. A number of factors may play a role in students' dietary habits. For example, students cite reasons such as a lack of time, convenience, and taste as primary factors affecting their dietary decisions, as well as stress and the cost-effectiveness of less healthy, processed foods [9,10]. Conversely, factors that played a role in enabling healthy food choices included nutrition knowledge and the attitudes and behaviors of close friends and family [10]. Students with higher nutrition knowledge have been found to have better dietary behaviors [11]. Therefore, identifying gaps and subsequently improving nutrition knowledge and attitudes may promote healthful food choices and improve long-term health outcomes.

Finally, very little is known about where and how university students prefer to obtain nutrition information. Many adults receive nutrition information from the Internet and social media, two sources that can frequently contain inaccurate information [12–14]. If this is true for university students as well, it could be problematic for understanding and implementing dietary guidelines.

Overall, little is known regarding the nutrition beliefs and attitudes that are most common among current college students, as well as where college students prefer to source nutrition information. Therefore, the purpose of this brief report was to investigate nutrition opinions, basic nutrition knowledge, and preferred sources of nutrition information among university students.

2. Materials and Methods

A survey was designed to assess college students' basic knowledge of and attitudes toward nutrition, as well as preferred sources of nutrition information. For this exploratory study, we elected to use an originally developed questionnaire because there were multiple constructs we wished to study (namely, student perceptions of a healthy diet, level of agreement with controversial nutrition-related statements, perception of popular diets, past participation in popular diets, and preferred nutrition information sources), and no existing, validated questionnaire addressed all of these constructs. However, the design of our questionnaire and approach of our study are similar to those of past studies of nutrition knowledge in university students [15–17].

The first section of the survey assessed diet qualities that respondents considered to be particularly healthful and unhealthful. A list of nutrition behaviors was provided, and participants were asked whether they considered each behavior to be more consistent with a healthy or an unhealthy diet. Prompts included the following: (1) eating sweets like cookies; (2) eating snacks like chips; (3) following juice cleanses; (4) restricting carbs (carbohydrates); (5) limiting meat; (6) taking supplements; (7) choosing low-fat dairy; (8) drinking only water; (9) eating fish regularly; and (10) prioritizing vegetables and fruits.

The second section of the survey contained a 5-point Likert scale with ten nutrition-related statements, and participants were asked to indicate whether they agreed, somewhat agreed, were neutral, somewhat disagreed, or disagreed with the statement. These statements were created with the goal of determining attitudes toward nutrition information and opinions/beliefs regarding controversial or misunderstood nutrition-related topics. The following statements were included: (1) nutrition recommendations are constantly changing; (2) nutrition information is confusing; (3) there are no "good" or "bad" foods; (4) some people need to reprogram their metabolism to lose weight; (5) every food can be included in a healthy diet if eaten in moderation; (6) it is best to lose fat as fast as possible; (7) detoxes and cleanses help rid the body of toxins; (8) having too much body fat increases risk for heart disease; (9) supplements are an effective way to make up for an unhealthy diet; and (10) effective weight loss diets convert fat into muscle.

The third section of the survey included a list of diet programs, from which participants identified the diets they had attempted, as well as (separately) which they considered

healthy. The list of diet programs included: (1) the DASH diet; (2) Atkins; (3) Noom; (4) Whole 30; (5) Weight Watchers; (6) Mediterranean diet; (7) ketogenic diet; and (8) intermittent fasting. There was no description of the listed diets. Respondents could select as many diets as they wished. With regard to diets attempted, there was also an "Other" option that respondents could select and type in an unlisted diet.

The fourth section provided a list of nutrition information sources, and participants were asked to identify which ones they most typically relied on for their nutrition information. This list included: (1) personal trainer; (2) healthcare professional (non-dietitian); (3) television programs or advertisements; (4) registered dietitian; (5) nutritionist; (6) academic classes; (7) doctor/physician; (8) books; (9) health websites (such as Healthline or Mayo Clinic); (10) social media; and (11) word of mouth (i.e., family and friends).

The survey was distributed online via Qualtrics in February and March of 2022. A random sample of 5000 students at one southwestern university in the United States (namely, Oklahoma State University in Stillwater, Oklahoma) were contacted via email for participation. Based on sample size calculation available through the Australian Bureau of Statistics [18], 285 responses constituted a representative sample, assuming a 95% confidence interval, population size of 21,000 students (undergraduate student enrollment at OSU-Stillwater), proportion of 0.25 for outcomes of interest (given the multiple response options of each survey domain), and a confidence interval of 0.05. The survey was available for two weeks, and upon closing, 316 responses were recorded. Participants could skip questions at their discretion. However, only submitted surveys were included in the analysis. Participants were only permitted to complete the survey once per IP address restriction. The study protocol was approved by the Institutional Review Board at Oklahoma State University (IRB-22-47-STW). Respondents provided electronic consent prior to completing the survey.

This study is exploratory and therefore descriptive in nature. Results are displayed as distributions or percentages representing the proportion of respondents that selected a given survey item. However, as a follow-up to our initial observations regarding source of nutritional information, we also conducted a chi-square analysis comparing the proportion of students who reported trying the ketogenic diet or intermittent fasting based on whether they obtained nutrition information from social media or a healthcare provider (doctor, dietitian, nutritionist, or other healthcare provider).

3. Results

Of the 316 respondents, 13% were students in business, 16% in agriculture, 23% in education/ human sciences, 32% in arts and sciences, 15% in engineering, and 1% in global studies. Moreover, 11% of respondents were majoring in Nutritional Sciences and the remaining 89% were not.

In the first section, participants were asked to select the characteristics of a healthy diet (Figure 1). As the most common responses, 97% of respondents considered prioritizing fruits and vegetables to be part of a healthy diet, 65% selected eating fish regularly, and 61% selected drinking only water. As the least common responses, only 7% selected following juice cleanses, 6% selected eating snacks like chips, and similarly 6% selected eating sweets like cookies. When asked about the characteristics of an unhealthy diet, the most common choices were eating sweets like cookies (83%), eating snacks like chips (78%), and following juice cleanses (68%). Only 6% of respondents indicated that choosing low-fat dairy was part of a non-healthy diet, 2% chose eating fish regularly, and only 1% selected prioritizing vegetables and fruits as part of an unhealthy diet.

Figure 2 depicts the Likert scale responses to nutrition-related statements. With the first statement, "effective weight loss diets convert fat into muscle", 33% of respondents agreed or somewhat agreed, and 43% disagreed or somewhat disagreed; 71% of respondents disagreed that supplements effectively make up for an unhealthy diet; 93% of respondents agreed or somewhat agreed that excess body fat increases the risk of heart disease, with 60% of those completely agreeing; when asked whether detoxes and cleanses help rid the body of

toxins, 59% of respondents disagreed or somewhat disagreed; 91% of respondents disagreed or somewhat disagreed that it is best to lose fat as fast as possible, with 60% of those completely disagreeing and only 2% agreeing or somewhat agreeing; 87% of respondents agreed or somewhat agreed that every food can be included in a healthy diet if eaten in moderation; when asked if some people need to reprogram their metabolism to lose weight, 40% agreed or somewhat agreed, 27% of respondents were neutral, and 46% disagreed or somewhat disagreed; 78% agreed or somewhat agreed that nutrition recommendations are constantly changing, with only 11% disagreeing or somewhat disagreeing; and 55% agreed or somewhat agreed that nutrition information is confusing, and 26% of respondents disagreed or somewhat disagreed.

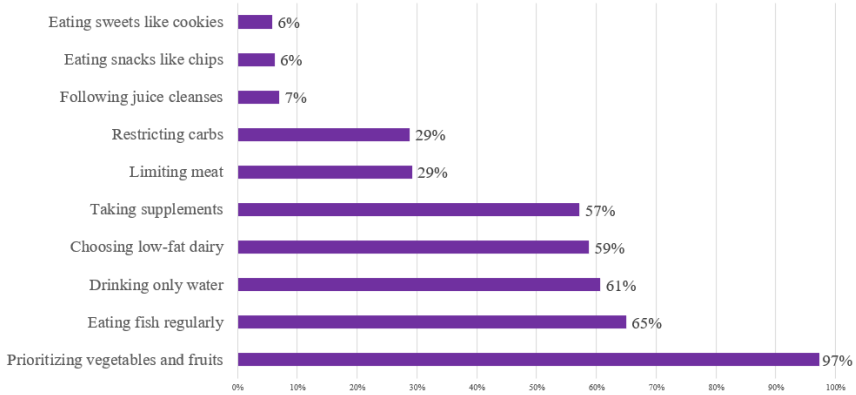

Figure 1. Student perceptions of a healthy diet. Participants (n = 316) were provided a list of options and asked to select options that characterized a healthy diet.

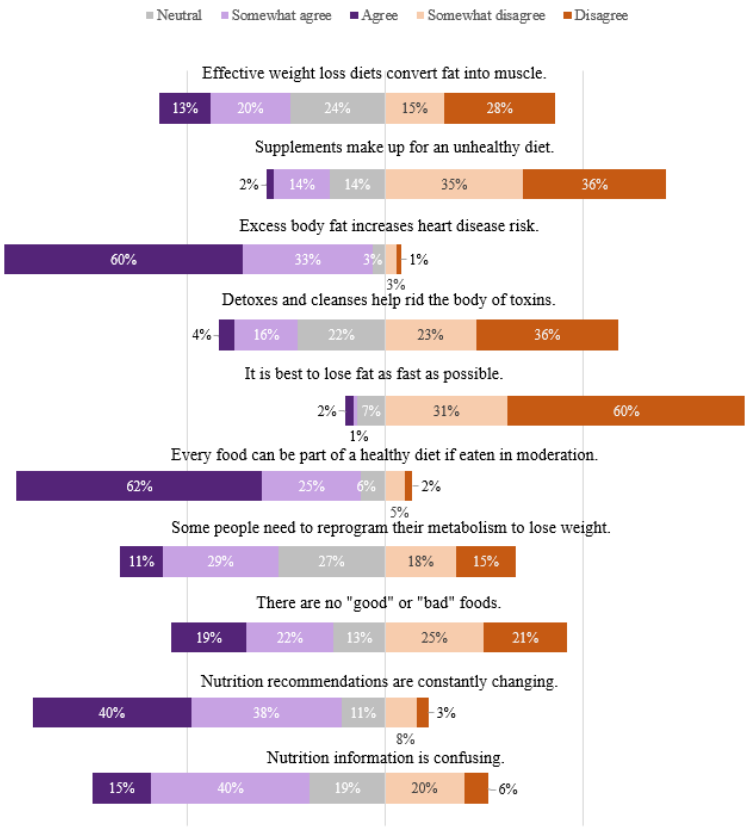

Figure 2. Student responses to controversial nutrition-related statements. Participants (n = 316) were provided a Likert scale for selection of their level of agreement which each statement.

Of the diet programs attempted by participants, intermittent fasting was the most popular, with 60% of individuals having attempted it before. Additionally, 28% had followed the ketogenic diet, making it the second most popular, followed by the Mediterranean diet at 13%. The least common diet was the DASH diet, which only 3% of respondents reported previously attempting. When asked which diet programs were healthy (Figure 3), the most common response was the Mediterranean diet, at 49%. Further, 27% of respondents considered intermittent fasting to be healthy, and 24% selected Weight Watchers. The least common response was the Atkins diet, as only 7% of respondents considered it healthy.

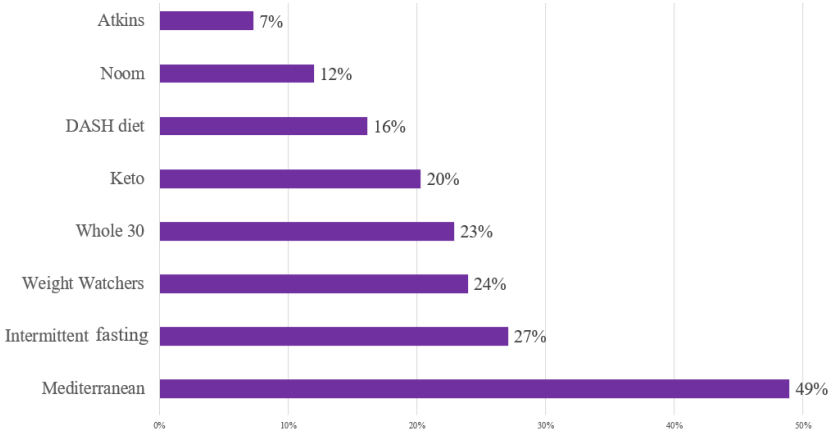

Figure 3. Popular diets perceived to be healthy by students. Participants (n = 316) were provided a list of options and asked to select which diets they perceived to be healthy.

When students were asked where they received their nutrition information (Figure 4), word of mouth through friends and family (57%) and social media (45%) were the top two responses. The third most popular at 42% was health websites, and the least popular response was personal trainer, which only 8.9% of individuals selected. Additionally, 15% of participants reported receiving nutrition information from healthcare professionals, 19% from registered dietitians and 21% from nutritionists.

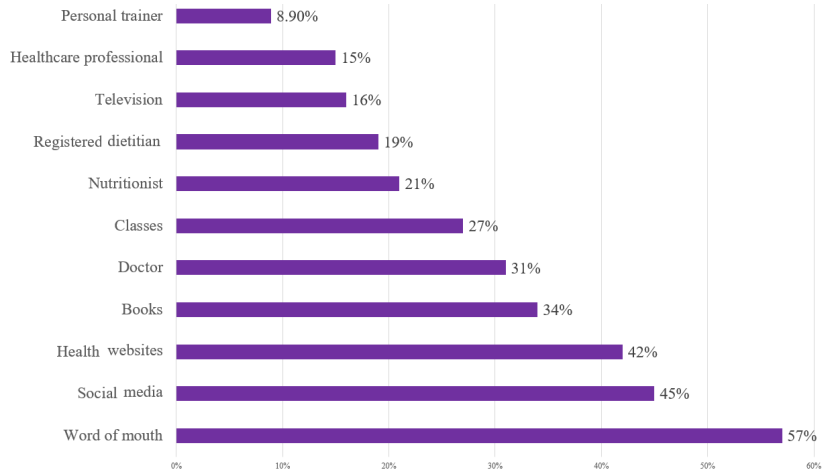

Figure 4. Nutrition information sources of students. Participants (n = 316) were provided a list of options and asked to select their preferred source(s) of nutrition information.

As a follow-up to the finding above that social media was a major source of nutrition information among respondents, and that healthcare providers were a less utilized source, we conducted a chi-square analysis to compare the proportions of students that engaged in current popular diet patterns that may be advocated on social media (namely, the ketogenic

diet and intermittent fasting) based on whether students obtained nutrition information from social media or a healthcare provider (namely, a doctor, dietitian, nutritionist, or other healthcare provider). We observed that students were significantly less likely to report having attempted the intermittent fasting diet pattern if a healthcare provider was a source of nutrition information (31%) as opposed to if a healthcare provider was not a source of nutrition information (44%; $p = 0.037$). Likewise, there was a marginal difference in the proportion of students that reported attempting intermittent fasting among those who utilized social media as a source (48%) compared to those that did not (35%; $p = 0.059$). With regard to the ketogenic diet, there was no difference in the proportion of students who reported attempting this diet pattern based on whether a healthcare provider (22% vs. 14%; $p = 0.084$) or social media (19% vs. 19%; $p = 0.967$) were stated sources of nutrition information.

4. Discussion

This study aimed to investigate nutrition sources, opinions, and knowledge among college students. Our results suggest that students primarily rely on informal sources of nutrition information, like word of mouth and social media, which agrees with findings from previous studies [9,19,20]. College students also tend to rely on online sources, including social media (45%) and health websites (42%). A 1998 study found that the Internet had little effect on sources of nutrition information, while a 2011 study found that 22% of young adults use the Internet for nutrition information, suggesting an increase in reliance on Internet sources in recent decades [20,21]. Additionally, in our survey it was uncommon for a student to receive nutrition information from a registered dietitian (19%), which suggests a decrease since 2011 (34%) [21]. Further, our results suggest that the source of nutrition information impacts the likelihood of engaging in certain popular diet patterns, as students were less likely to engage in intermittent fasting if a healthcare provider was a source of nutrition information and marginally more likely to engage in intermittent fasting if social media was a source of nutrition information. It is problematic that so many students rely on social media for nutrition information, as this form of information gathering is often fraught with incorrect health information [12]. Very little research has been conducted specifically addressing sources of nutrition information in university students. In a 2021 study of American collegiate athletes, the top three sources of nutrition information were (in order) social media, coaches, and personal trainers [22]. This outcome was despite athletes viewing coaches and athletic trainers as having significantly lower nutrition knowledge than dietitians and nutritionists. In a study of American dietetics students, besides food labels, the leading sources of nutrition information were university health/nutrition courses, newspapers/magazines, and friends [23]. Other highly utilized sources that may contain potentially inaccurate information included popular books, television, coaches, family members, and personal trainers. Interestingly, only 24% of dietetics students listed a registered dietitian as a source of nutrition information. Similarly, in our sample only 19% of respondents listed a registered dietitian as a source of nutrition information. Clearly, more research is needed to better understand the preferred nutrition sources of general university students. However, previously published results in combination with those of the present study suggest intervention is needed to help university students understand and utilize trustworthy and accurate sources of nutrition information.

Our finding that university students generally exhibited good understanding of nutritional guidelines tends to agree with past studies of nutrition knowledge in university students. A study conducted in Kuwait observed that the majority of students (>60%) exhibited "fair" nutrition knowledge, whereas ~25% of students exhibited "poor" nutrition knowledge [17]. Likewise, a study conducted at a midwestern US university observed student nutrition knowledge to be "satisfactory" [16] and a study conducted in UK university students found nutrition knowledge to be "good" in 47% of respondents [24]. Apparently, university students tend to understand the basic tenets of healthy eating, but

struggle with more complex information. For example, a study conducted in Canadian university students observed that students have inadequate understanding of specific nutrition recommendations [25]. One study observed that, while 92% of students knew that nutrition recommendations existed, only 24% answered any specific diet recommendation correctly [15]. Similarly, in our sample, while students generally recognized basic factors of healthy diets like fruits and vegetables, they were split on certain advanced topics, like whether effective weight loss converts fat to muscle, with 57% agreeing or remaining neutral. Additionally, 42% were neutral or agreed that juice cleanses rid the body of toxins. And while many agreed that the Mediterranean diet was healthy, other diets that are highly accepted in the nutrition field (e.g., the DASH diet) were not commonly chosen as healthy diets by participants. Finally, intermittent fasting appears to be popular both in the opinion and practice of college students.

The attitudes of college students toward nutrition information tended to be pessimistic, as the majority found nutrition information confusing and agreed that recommendations were always changing. This finding is interesting since the Dietary Guidelines for Americans have not changed drastically in the 40+ years since their inception [26], and respondents in the survey tended to understand the basic tenets of the guidelines. To our knowledge, no past studies have similarly explored the nature of university students' attitudes toward nutrition information. More research and intervention is needed to understand and address pessimistic attitudes of university students toward nutrition information.

This exploratory study has several noteworthy limitations. Since this study was descriptive and exploratory in nature, no sample size estimation or power analysis was conducted. This study only recruited respondents from one university in the southwestern United States; therefore, the results may not be representative of other university students throughout the United States or in other countries. Second, we did not use a validated questionnaire in this study, but rather relied on an originally developed questionnaire to address our research question, although our questionnaire was similar to what has been used in a few other past studies [15–17]. Also, in the questionnaire, we did not provide descriptions of the diets listed, which may have impacted our results if participants were unfamiliar with or misunderstood the principles of certain diets, such as the DASH diet. As with all research surveys, respondents had the option to skip questions as they wish. Although the vast majority of surveys in the present study were complete or nearly complete, we elected to include all submitted surveys for this exploratory study, meaning that some submitted and included surveys contained incomplete information. Additionally, a Likert scale was used to quantify nutrition opinions on controversial topics and may have oversimplified complex issues, making them difficult for participants to answer as well as difficult to analyze. Finally, we only collected limited descriptive information about our respondents, precluding comparisons by age and sex.

5. Conclusions

Taken together, these findings suggest that despite the overreliance on untrustworthy sources, college students appear to have a fair grasp of nutrition fundamentals and dietary guidelines, possibly indicating that these tenets have been successfully popularized by the nutrition field. However, it appears that poor health literacy in college students may be a prevalent issue, as more complex concepts such as ridding the body of toxins or effective weight loss appear to be incompletely understood. Future research should more precisely measure the extent of health literacy and confusion among college students, and the effect that this has on their lifestyle behaviors. Specifically, there is little research on the preferred information sources of university students, as well as the attitudes of university students toward nutrition guidelines, and these should be further explored in larger studies with a more diverse sample. Future studies should compare sources of nutrition information and nutrition attitudes among university students of different age, sex, ethnicity, academic

background, and socioeconomic status in order to identify the groups that would benefit most from education and intervention.

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Data Availability Statement: The raw data supporting the conclusions of this article will be made available by the authors on request.

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References

1. Liu, C.; Wang, D.; Liu, C.; Jiang, J.; Wang, X.; Chen, H.; Ju, X.; Zhang, X. What Is the Meaning of Health Literacy? A Systematic Review and Qualitative Synthesis. *Fam. Med. Community Health* **2020**, *8*, e000351. [CrossRef] [PubMed]
2. Paasche-Orlow, M.K.; Parker, R.M.; Gazmararian, J.A.; Nielsen-Bohlman, L.T.; Rudd, R.R. The Prevalence of Limited Health Literacy. *J. Gen. Intern. Med.* **2005**, *20*, 175–184. [CrossRef] [PubMed]
3. Baccolini, V.; Rosso, A.; Di Paolo, C.; Isonne, C.; Salerno, C.; Migliara, G.; Prencipe, G.P.; Massimi, A.; Marzuillo, C.; De Vito, C.; et al. What Is the Prevalence of Low Health Literacy in European Union Member States? A Systematic Review and Meta-Analysis. *J. Gen. Intern. Med.* **2021**, *36*, 753–761. [CrossRef] [PubMed]
4. Magnani, J.W.; Mujahid, M.S.; Aronow, H.D.; Cené, C.W.; Dickson, V.V.; Havranek, E.; Morgenstern, L.B.; Paasche-Orlow, M.K.; Pollak, A.; Willey, J.Z.; et al. Health Literacy and Cardiovascular Disease: Fundamental Relevance to Primary and Secondary Prevention: A Scientific Statement From the American Heart Association. *Circulation* **2018**, *138*, e48–e74. [CrossRef] [PubMed]
5. Berkman, N.D.; Sheridan, S.L.; Donahue, K.E.; Halpern, D.J.; Crotty, K. Low Health Literacy and Health Outcomes: An Updated Systematic Review. *Ann. Intern. Med.* **2011**, *155*, 97–107. [CrossRef] [PubMed]
6. Denniss, E.; Lindberg, R.; McNaughton, S.A. Quality and Accuracy of Online Nutrition-Related Information: A Systematic Review of Content Analysis Studies. *Public Health Nutr.* **2023**, *26*, 1345–1357. [CrossRef]
7. Jansen, T.; Rademakers, J.; Waverijn, G.; Verheij, R.; Osborne, R.; Heijmans, M. The Role of Health Literacy in Explaining the Association between Educational Attainment and the Use of Out-of-Hours Primary Care Services in Chronically Ill People: A Survey Study. *BMC Health Serv. Res.* **2018**, *18*, 394. [CrossRef]
8. Deliens, T.; Verhoeven, H.; De Bourdeaudhuij, I.; Huybrechts, I.; Mullie, P.; Clarys, P.; Deforche, B. Factors Associated with Fruit and Vegetable and Total Fat Intake in University Students: A Cross-Sectional Explanatory Study. *Nutr. Diet.* **2018**, *75*, 151–158. [CrossRef]
9. Davy, S.R.; Benes, B.A.; Driskell, J.A. Sex Differences in Dieting Trends, Eating Habits, and Nutrition Beliefs of a Group of Midwestern College Students. *J. Am. Diet. Assoc.* **2006**, *106*, 1673–1677. [CrossRef]
10. Sogari, G.; Velez-Argumedo, C.; Gómez, M.I.; Mora, C. College Students and Eating Habits: A Study Using An Ecological Model for Healthy Behavior. *Nutrients* **2018**, *10*, 1823. [CrossRef]
11. Almansour, F.D.; Allafi, A.R.; Al-Haifi, A.R. Impact of Nutritional Knowledge on Dietary Behaviors of Students in Kuwait University. *Acta Biomed.* **2020**, *91*, e2020183. [CrossRef] [PubMed]
12. Wang, Y.; McKee, M.; Torbica, A.; Stuckler, D. Systematic Literature Review on the Spread of Health-Related Misinformation on Social Media. *Soc. Sci. Med.* **2019**, *240*, 112552. [CrossRef] [PubMed]
13. Kabata, P.; Winniczuk-Kabata, D.; Kabata, P.M.; Jaśkiewicz, J.; Połom, K. Can Social Media Profiles Be a Reliable Source of Information on Nutrition and Dietetics? *Healthcare* **2022**, *10*, 397. [CrossRef]
14. Fassier, P.; Chhim, A.-S.; Andreeva, V.A.; Hercberg, S.; Latino-Martel, P.; Pouchieu, C.; Touvier, M. Seeking Health- and Nutrition-Related Information on the Internet in a Large Population of French Adults: Results of the NutriNet-Santé Study. *Br. J. Nutr.* **2016**, *115*, 2039–2046. [CrossRef]
15. Werner, E.; Betz, H.H. Knowledge of Physical Activity and Nutrition Recommendations in College Students. *J. Am. Coll. Health* **2022**, *70*, 340–346. [CrossRef]
16. Yahia, N.; Wang, D.; Rapley, M.; Dey, R. Assessment of Weight Status, Dietary Habits and Beliefs, Physical Activity, and Nutritional Knowledge among University Students. *Perspect. Public Health* **2016**, *136*, 231–244. [CrossRef]
17. El-Sabban, F.; Badr, H.E. Assessment of Nutrition Knowledge and Related Aspects among First-Year Kuwait University Students. *Ecol. Food Nutr.* **2011**, *50*, 181–195. [CrossRef]

18. Australian Bureau of Statistics. Sample Size Calculator. Available online: https://www.abs.gov.au/websitedbs/d3310114.nsf/home/sample+size+calculator (accessed on 6 May 2024).
19. Hertzler, A.A.; Frary, R.B. College Students' Nutrition Information Networks. *Fam. Consum. Sci. Res. J.* **1995**, *24*, 191–202. [CrossRef]
20. Heuberger, R.A.; Ivanitskaya, L. Preferred Sources of Nutrition Information: Contrasts Between Younger and Older Adults. *J. Intergener. Relatsh.* **2011**, *9*, 176–190. [CrossRef]
21. Greenly, J.F.; Hamilton, C.; Smith, J.L. Associations Between Reported Dietary Practices of College Students and Sources of Nutrition Information. *J. Am. Diet. Assoc.* **1998**, *98*, A38. [CrossRef]
22. Klein, D.J.; Eck, K.M.; Walker, A.J.; Pellegrino, J.K.; Freidenreich, D.J. Assessment of Sport Nutrition Knowledge, Dietary Practices, and Sources of Nutrition Information in NCAA Division III Collegiate Athletes. *Nutrients* **2021**, *13*, 2962. [CrossRef] [PubMed]
23. McArthur, L.H.; Howard, A.B. Dietetics Majors' Weight-Reduction Beliefs, Behaviors, and Information Sources. *J. Am. Coll. Health* **2001**, *49*, 175–181. [CrossRef] [PubMed]
24. Belogianni, K.; Ooms, A.; Lykou, A.; Moir, H.J. Nutrition Knowledge among University Students in the UK: A Cross-Sectional Study. *Public Health Nutr.* **2021**, *25*, 2834–2841. [CrossRef] [PubMed]
25. Matthews, J.I.; Doerr, L.; Dworatzek, P.D.N. University Students Intend to Eat Better but Lack Coping Self-Efficacy and Knowledge of Dietary Recommendations. *J. Nutr. Educ. Behav.* **2016**, *48*, 12–19.e1. [CrossRef]
26. Nestle, M. Perspective: Challenges and Controversial Issues in the Dietary Guidelines for Americans, 1980–2015. *Adv. Nutr.* **2018**, *9*, 148–150. [CrossRef]