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Nutrition Professionals' Dietary Habits and Alignment with Professional Advice: A Survey of Dietitians and Nutritionists

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ABSTRACT

Dietitians and nutritionists are trusted messengers of dietary guidance, yet whether their personal eating behaviors mirror the recommendations they deliver to clients remains insufficiently documented, particularly outside high-income settings. **Objectives:** To describe the self-reported dietary habits of practicing dietitians and nutritionists and to determine how consistently their professional nutrition knowledge translates into personal dietary practice.

Methods: A descriptive cross-sectional survey was conducted among 70 practicing dietitians and nutritionists recruited through professional networks using non-probability convenience sampling. A structured, self-administered online questionnaire captured sociodemographic and professional characteristics alongside (maximum achievable score: 36; theoretical maximum with all items at 4 points: 44, but after reverse-scoring selected items, the maximum achievable score was 36) and a 3-item Practice Score (maximum achievable score: 14; theoretical maximum: 15, but one item used a 3-point scale reducing the maximum to 14).

Results: The mean Dietary Habit Score was 25.94 ± 2.95 and the mean Practice Score was 9.94 ± 1.61 . Although 71.4% rated their overall dietary habits as good or very good, only 17.1% reported that their diet was "completely" consistent with the advice they give clients, and workload (24.3%) and lack of time (21.4%) were the most-cited barriers. Dietary Habit Score varied significantly by qualification level ($p=0.047$) but not by gender, experience, or work setting. The correlation between the two composite scores was weak and non-significant ($r=-0.227$, $p=0.059$). **Conclusion:** Nutrition professionals possess strong dietary knowledge but only partially practice what they preach, underscoring the need for workplace-level support to close this knowledge-practice gap.

INTRODUCTION

The global burden of non-communicable diseases (NCDs) is seen as the major cause of death in the world, with nutrition professionals now at the forefront of efforts to prevent NCDs, and poor dietary patterns are one of these contributors that can be modified [1]. As nutrition educators, the dietitian or nutritionist is trained to take the science of nutrition and provide personal nutrition counseling; this practice is assumed to rest at least tacitly on expectations that this person will live up to the counseling advice that he/she gives others. However, other health-care workers have been the focus of an increasing

number of studies, which show that nutrition information does not necessarily lead to healthier individual nutrition habits [2]. Systematic and qualitative reviews of nurses, another group with above-average health literacy, also report irregular meal timing, convenience and packaged food consumption, and frequent overeating or skipping meals, primarily as a result of shift work, the number of patients they care for, stress in the job, and lack of access to healthy food in the workplace [3, 4]. These are corroborated by evidence from Pakistan [5-7]. Healthy eating behavior was observed to be limited, with use of the



cafeteria food, fewer healthy food choices, inadequate breaks, and work-related stress identified as the most common barriers. In a cross-sectional survey of healthcare providers conducted at two Taxila hospitals, 1/4 reported healthy eating behavior overall [8]. The qualitative study conducted among healthcare professionals in Karachi also shows structural and workload-related constraints for translating nutrition knowledge into practice [9]. Personal nutrition practices often differed from the nutrition advice trainees would recommend to clients for nutrition professionals who were nutrition trainees, as revealed by a survey of graduate clinical nutrition students in the U.S. [10] (knowledge-practice gap may start early in the professional career). In line with this, the assessment of nutrition undergraduates in Lahore revealed that many of the young nutrition professionals found their own diet inconsistent with the nutrition advice they were being taught [11]. In a larger set of student-received literature, psychosocial stressors, workload, and living conditions are shown to have an impact on diet even among students with above-average nutrition literacy [12-14]. Even a student survey by a Pakistani university since the COVID-19 pandemic has reported on the mixed behavior among students in relation to recommended eating practices [15]. Although a lot of studies have been conducted on the eating patterns of healthcare professionals, there is not much evidence that dietitians and nutritionists adhere to the recommendations that they give to their clients, particularly in Pakistan and South Asia. This gap can be crucial for crediting counselling, for professional role modelling and for public trust. Thus, this study aimed to evaluate self-reported dietary habits and practices, and their agreement with the professional recommendations, in addition to determining their relationship with sociodemographic and professional characteristics.

METHODS

The study was a descriptive, cross-sectional survey conducted at the Department of Public Health, University of the Punjab, Lahore, from November 2025 to January 2026 for a period of 8 weeks. Convenience sampling using snowball referrals was used to reach qualified dietitians and nutritionists in the sampling process, and they were recruited from professional associations, hospital/clinic networks, and nutrition-related social media groups. The participants were eligible if they held a Bachelor's degree or above in Nutrition, Dietetics, or related disciplines and practiced in clinical, academic, research, public health, or private nutrition and dietetics practice setting who had signed informed consent. Those who were still in their undergraduate studies, who did not have a relevant qualification, or who answered parts of the questions were

not included. A total of 70 respondents (72.9% of a possible 96) returned the survey. Inferential analyses were performed mainly to explore patterns and test hypotheses, and only to infer patterns at the level of the population because of the small sample size and non-probability sampling. The target sample size was calculated using the single population proportion formula: $n = Z^2 \times p(1-p) / d^2$, where $Z = 1.96$ (95% confidence level), $p = 0.500$ (estimated proportion of nutrition professionals with healthy dietary habits, as no prior Pakistan-specific data were available), and $d = 0.10$ (10% margin of error). This yielded a minimum required sample of 96 participants. However, due to the non-probability convenience sampling method and time constraints of the data collection period (8 weeks), a total of 70 complete responses were obtained, giving a response rate of approximately 73% from the 96 approached potential participants. The achieved sample size of 70 provides limited statistical power for detecting small effect sizes; moreover, subgroup analyses involving small groups (e.g., PhD holders, $n=7$; public health setting, $n=4$) should be interpreted with caution and are primarily exploratory. This yielded a minimum required sample of 96 participants. However, due to the non-probability convenience sampling method and time constraints of the data collection period (8 weeks), a total of 70 complete responses were obtained, giving a response rate of approximately 73% from the 96 approached potential participants. A structured, self-administered online questionnaire was used to collect data, with the use of Google Forms. Recruitment through social media and online platforms may have introduced selection bias by preferentially including nutrition professionals who are active on digital platforms and potentially more health-conscious. This limitation should be considered when interpreting the findings. The purpose of the study was explained, and participants were made anonymous so that they could be assured of transparency. Pre-testing of the questionnaire was carried out with 10 dietitians for clarity and comprehension. The content validity was evaluated by three experts, and the values of I-CVI ranged from 0.83 to 1.00, and the S-CVI/Ave was 0.92. The developed scales had good internal consistency, with Cronbach's alpha of 0.74 for the 11-item Dietary Habit Score (DHS) and 0.71 for the 3-item Practice Score (PS). The questionnaire consisted of three parts: (i) sociodemographic and professional characteristics; (ii) an 11-item DHS that was rated using a 4-point scale: breakfast frequency, snack skipping, fruit and vegetable consumption, fast-food and sugar-sweetened beverage, packaged/ultra-processed snacks, late eating, and water intake; (iii) an open-ended question inquiring about a healthy diet. The maximum possible score for each was 36,

with a range of 17– 32; higher scores reflected better dietary practices. (iii) was a 3-item PS on nutrition label reading, nutrition knowledge in food choices, and consistency between personal food choices and nutrition recommendations from a professional. A maximum score of 14 could be achieved, as one of the items was scored on a 3-point scale, and the scores observed while the practices were being evaluated ranged from 7–13, with higher scores representing better practices. In addition, participants assessed their overall dietary habits on a single item covering all five categories of the diet (Poor to Excellent) to give a subjective assessment in addition to the composite scores.

IBM SPSS Statistics version 26.0 was used to analyse the data. Frequencies, percentages, means, and standard deviations were summarized for the sociodemographic and dietary variables. Shapiro–Wilk test was used to verify normality of the Dietary Habit Score (DHS) and the Practice Score. Independent-samples *t*-tests and one-way ANOVA were employed for data that were normally distributed, and Mann–Whitney U and Kruskal–Wallis tests were used for data not normally distributed and/or data that were insufficient in number for subgroups. Rank-order correlation (Spearman) was used to determine the relationship between DHS and Practice Score. Levene's test was used to check the homogeneity of variance. There were categorical variables that were examined for associations using chi-square or Fisher's exact tests. A value of $p < 0.050$ was considered as being statistically significant. The effect sizes Cohen's *d* and eta-squared (η^2) were calculated for *t*-tests and ANOVA, respectively, and Cohen's f^2 was calculated for regression analysis (where applicable). No adjustment for multiple testing was made for this exploratory study with a small sample size ($N=70$) and eight independent comparisons; thus, findings, including the nominally significant qualification level result ($p=0.047$), were interpreted with caution. Where appropriate, exact *p*-values, effect sizes, and 95% confidence intervals were reported.

RESULTS

Out of the 70 respondents, the majority were female (81.4%) and aged between 20–30 years (64.3%). Just over half held a bachelor's degree in Nutrition/Dietetics (51.4%), while 32.9% held an MS/MPhil and 10.0% a PhD. Most participants had relatively limited professional experience, with 28.6% having practiced for less than one year and 38.6% for one to five years; only 12.9% had more than a decade of experience. Hospital/clinical settings were the most common workplace (35.7%), followed by private practice/clinic (25.7%) and research (18.6%) (Table 1).

Table 1: Sociodemographic and Professional Characteristics of Respondents ($n=70$)

Variables	Category	n (%)
Age (years)	20–25	24 (34.3%)
	26–30	21 (30.0%)
	31–35	14 (20.0%)
	36–40	6 (8.6%)
	>40	5 (7.1%)
Gender	Female	57 (81.4%)
	Male	13 (18.6%)
Qualification	BS Nutrition/Dietetics	36 (51.4%)
	MS/MPhil	23 (32.9%)
	PhD	7 (10.0%)
	Other	4 (5.7%)
Professional Experience	<1 Year	20 (28.6%)
	1–5 Years	27 (38.6%)
	6–10 Years	14 (20.0%)
	>10 Years	9 (12.9%)
Work Setting	Hospital/Clinical	25 (35.7%)
	Private Practice/Clinic	18 (25.7%)
	Research	13 (18.6%)
	Academia	10 (14.3%)
	Public Health	4 (5.7%)

The study summarizes self-reported dietary behaviors. Most respondents reported eating breakfast daily (37.1%) or on 4–6 days per week (35.7%), and only one participant (1.4%) rarely/never ate breakfast. Meal skipping was infrequent, with 41.4% reporting they “rarely” skipped a main meal and 20.0% “never.” Fruit and vegetable intake reached the commonly recommended ≥ 5 servings/day in only 32.9% of respondents, while 28.6% consumed 1–2 servings or fewer. Fast-food consumption of 3 or more times per week was reported by 32.9% of the sample, and sugar-sweetened beverages were consumed daily by 15.7%. Packaged/ultra-processed snacks were consumed 3 or more times weekly by half the sample (50.0%), and 40.0% reported a daily water intake below the commonly recommended 1.5 L (Table 2).

Table 2: Self-Reported Dietary Behaviors of Nutrition Professionals ($n=70$)

Behaviors	Category	n (%)
Breakfast Frequency	Daily	26 (37.1%)
	4–6 Days/Week	25 (35.7%)
	1–3 Days/Week	18 (25.7%)
	Rarely/Never	1 (1.4%)
Main Meal Skipping	Never	14 (20.0%)
	Rarely	29 (41.4%)
	Sometimes	23 (32.9%)
	Often	4 (5.7%)

Fruit and Vegetable Servings/ Day Fast Food Frequency	<1	3 (4.3%)
	1-2	17 (24.3%)
	3-4	27 (38.6%)
	≥5	23 (32.9%)
	<1 Time/Week	17 (24.3%)
	1-2 Times/Week	30 (42.9%)
	3-4 Times/Week	20 (28.6%)
	≥5 Times/Week	3 (4.3%)
Sugar-Sweetened Beverage Frequency	Never/Rarely	20 (28.6%)
	1-2 Times/Week	30 (42.9%)
	3-4 Times/Week	9 (12.9%)
	Daily	11 (15.7%)
Packaged/UPF Snack Frequency	Never/Rarely	10 (14.3%)
	1-2 Times/Week	25 (35.7%)
	3-4 Times/Week	26 (37.1%)
	Daily	9 (12.9%)
Late-Night Eating	Never	22 (31.4%)
	Rarely	26 (37.1%)
	Sometimes	17 (24.3%)
	Often	5 (7.1%)
Daily Water Intake	<1 L	3 (4.3%)
	1-1.5 L	28 (40.0%)
	1.5-2 L	28 (40.0%)
	>2 L	11 (15.7%)

Descriptive statistics for the composite scores are presented. The mean Dietary Habit Score was 25.94 ± 2.95 (range 17–32 of a possible 36), and the mean Practice Score was 9.94 ± 1.61 (range 7–13 of a possible 14). When categorized by the self-rated “Overall Dietary Habits” item, 34.3% of participants rated their habits as “very good” and 37.1% as good, while a combined 21.5% rated their habits as only fair or poor (Table 3).

Table 3: Dietary Habit Score, Practice Score, and Overall Self-Rated Dietary Habits (n=70)

Measures	Results
Dietary Habit Score, Mean $\pm$ SD (Range; Max=36)	25.94 ± 2.95 (17–32)
Practice Score, Mean $\pm$ SD (Range; Max=14)	9.94 ± 1.61 (7–13)
Pearson correlation (Dietary Habit Score $\times$ Practice Score)	$r = -0.227, p = 0.059$
Overall Dietary Habits – Poor, n (%)	2 (2.9%)
Overall Dietary Habits – Fair, n (%)	13 (18.6%)
Overall Dietary Habits – Good, n (%)	26 (37.1%)
Overall Dietary Habits – Very good, n (%)	24 (34.3%)
Overall Dietary Habits – Excellent, n (%)	5 (7.1%)

The study presents indicators of knowledge–practice alignment. While the large majority reported “always” (50.0%) or often (31.4%) reading nutrition labels, and 65.7% said they “often” or “always” applied their nutrition knowledge to their own food choices, only 17.1% reported their personal diet was “completely” consistent with the advice they give clients; 54.3% said it was “mostly” consistent and 28.6% only “partially” consistent. Workload

(24.3%), lack of time (21.4%), and stress (20.0%) were the three most frequently cited barriers to practicing what they preach, together accounting for nearly two-thirds of responses, followed by food cravings (15.7%) and the cost of healthy foods (11.4%) (Table 4).

Table 4: Alignment Between Nutrition Knowledge, Personal Practice, and Reported Barriers (n=70)

Variables	Category	n (%)
Nutrition Label Reading	Never	3 (4.3%)
	Sometimes	10 (14.3%)
	Often	22 (31.4%)
	Always	35 (50.0%)
Apply Nutrition Knowledge to Own Diet	Rarely	6 (8.6%)
	Sometimes	18 (25.7%)
	Often	29 (41.4%)
	Always	17 (24.3%)
Diet Consistent with Professional Advice	Partially	20 (28.6%)
	Mostly	38 (54.3%)
	Yes, Completely	12 (17.1%)
Main Reported Barrier	Workload	17 (24.3%)
	Lack of time	15 (21.4%)
	Stress	14 (20.0%)
	Cravings	11 (15.7%)
	Cost Of Healthy Foods	8 (11.4%)
	Social/Family Commitments	4 (5.7%)
	Food Availability	1 (1.4%)

Associations between sociodemographic/professional characteristics and the two composite scores are shown. Dietary Habit Score differed significantly by qualification level ($F=2.80, p=0.047$) $\eta^2=0.11$. Post-hoc pairwise comparisons using Tukey's Honestly Significant Difference (HSD) test revealed no statistically significant differences between individual qualification groups, likely due to the small subgroup sizes (BS: n=36, MS/MPhil: n=23, PhD: n=7, Other: n=4). The overall ANOVA result should therefore be interpreted with caution, with PhD holders reporting the lowest mean score (23.57) and respondents with “other” qualifications the highest (28.25). Practice Score did not differ significantly by qualification ($F=1.33, p=0.272$). Although the direction of the association is consistent with a knowledge–practice gap, the p-value exceeds the conventional threshold for statistical significance (Table 5).

Table 5: Association of Dietary Habit Score and Practice Score with Sociodemographic and Professional Characteristics

Variables	Dietary Habit Score, (Mean $\pm$ SD)	Practice Score, (Mean $\pm$ SD)	Test Statistic	p-value	Effect Size (95% CI)
Gender					
Male	26.23 $\pm$ 3.10	9.54 $\pm$ 1.70	t=0.39 (DHS)	0.700 (DHS)	DHS: d = 0.09 (−0.51, 0.69)
Female	25.88 $\pm$ 2.90	10.04 $\pm$ 1.58	t=−1.01 (PS)	0.318 (PS)	PS: d = −0.25 (−0.85, 0.35)
Qualification					
BS	25.81 $\pm$ 2.85	9.61 $\pm$ 1.55	F=2.80 (DHS)	0.047* (DHS)	DHS: η^2 = 0.11 (0.01, 0.24)
MS/MPhil	26.48 $\pm$ 2.75	10.13 $\pm$ 1.62	F=1.33 (PS)	0.272 (PS)	PS: η^2 = 0.06 (0.00, 0.16)
PhD	23.57 $\pm$ 3.40	10.57 $\pm$ 1.90	—	—	—
Other	28.25 $\pm$ 3.50	10.75 $\pm$ 1.45	—	—	—
Experience					
<1 Year	24.85 $\pm$ 3.20	10.25 $\pm$ 1.75	F=1.31 (DHS)	0.278 (DHS)	DHS: η^2 = 0.06 (0.00, 0.15)
1–5 Years	26.30 $\pm$ 2.80	10.04 $\pm$ 1.60	F=0.90 (PS)	0.448 (PS)	PS: η^2 = 0.04 (0.00, 0.12)
6–10 Years	26.50 $\pm$ 2.65	9.36 $\pm$ 1.50	—	—	—
>10 Years	26.44 $\pm$ 2.95	9.89 $\pm$ 1.55	—	—	—
Work Setting					
Hospital/Clinical	25.56 $\pm$ 3.00	9.92 $\pm$ 1.65	F=0.84 (DHS)	0.507 (DHS)	DHS: η^2 = 0.05 (0.00, 0.13)
Private Practice	26.22 $\pm$ 2.85	9.78 $\pm$ 1.58	F=0.90 (PS)	0.468 (PS)	PS: η^2 = 0.05 (0.00, 0.13)
Research	27.08 $\pm$ 2.70	10.62 $\pm$ 1.50	—	—	—
Academia	25.30 $\pm$ 3.05	9.40 $\pm$ 1.70	—	—	—
Public Health	25.00 $\pm$ 3.15	10.00 $\pm$ 1.60	—	—	—

*Statistically significant at $p < 0.050$. DHS = Dietary Habit Score; PS = Practice Score. CI = Confidence Interval; d = Cohen's d; η^2 = Eta squared

DISCUSSION

This study aimed to describe the self-reported dietary habits of practicing dietitians and nutritionists and determine how consistently their professional knowledge translates into personal practice. The key finding was that while nutrition professionals demonstrated generally favorable dietary behaviors and high engagement with nutrition information, only 17.1% reported their personal diet was completely consistent with the advice they give clients. This knowledge-practice gap was primarily attributed to workload, time constraints, and stress rather than lack of knowledge. The extent to which participants did report complete alignment between personal diet and nutritional advice from professionals (only 17.1%) is similar to other studies reporting a gap between nutrition professionals and nutrition trainees. Personal nutrition practices also varied from that of the advice trainees would give to their clients, as revealed by a cross-sectional survey of graduate clinical nutrition students in the United States [10]. A novel finding was the significant association between qualification level and Dietary Habit Score ($p=0.047$), with PhD-qualified respondents reporting the lowest scores (23.57) and those with "other" qualifications the highest (28.25). This contrasts with prior literature, which has more often examined years of experience or evidence-based-practice competencies than academic qualification as a correlate of professional behavior [2, 16]. A tentative, hypothesis-generating explanation is that

higher academic attainment may correlate with research- and academia-heavy roles that impose greater time demands, potentially reducing opportunity for healthy eating; however, the cross-sectional design precludes causal interpretation, and the small subgroup sizes (PhD, $n=7$; Other, $n=4$) mean this finding requires confirmation in larger, adequately powered samples. The absence of significant differences by gender, experience, or work setting supports the interpretation that the knowledge-practice gap is representative of the profession broadly rather than confined to a specific subgroup, consistent with the gender-neutral patterns reported in other nutrition-related research from Pakistan [17–20] and in the wider health-professional literature [4, 5]. This supports the conclusion that specialized nutrition knowledge alone does not protect against the workplace, time, and stress-related pressures that shape the food environment in which nutrition professionals operate, and argues against any assumption that expertise renders this group immune to the same occupational barriers faced by other healthcare workers.

The relatively small, convenience sample of respondents is a limitation of this study, and respondents were heavily recruited from online professional networks, which may have led to selection and social-desirability bias in reporting dietary behavior. The small sample size also precluded adjustment for potential confounders such as

age, years of experience, and work setting, which may have influenced the observed associations. Future studies with larger samples should employ multivariable regression models to adjust for these potential confounders.

CONCLUSIONS

Dietitians and nutritionists in this sample possessed strong nutrition knowledge and generally favorable dietary habits, yet fewer than one in five felt their personal diet fully matched the advice they give clients. Workload, time constraints, and stress—not lack of knowledge—emerged as the principal barriers to practicing what they preach. Addressing these occupational barriers, rather than knowledge gaps alone, may be key to closing the knowledge–practice divide among nutrition professionals.

Authors' Contribution

Conceptualization: JK

Methodology: JK

Formal analysis: JK

Writing and Drafting: AGK

Review and Editing: AGK, JK, MI

All authors approved the final manuscript and take responsibility for the integrity of the work

Conflicts of Interest

All the authors declare no conflict of interest.

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REFERENCES

- [1] Ma H, Wang M, Qin C, Shi Y, Mandizadza OO, Ni H *et al.* Trends in the Burden of Chronic Diseases Attributable to Diet-Related Risk Factors from 1990 To 2021 and the Global Projections Through 2030: A Population-Based Study. *Frontiers in Nutrition*. 2025 May; 12: 1570321. doi: 10.3389/fnut.2025.1570321.
- [2] Sarybay U, Kabibolla S, Adilmetova G, Nassyrov R, Meyerbekova A, Sarria-Santamera A *et al.* Level of Nutrition Competencies Among Healthcare Professionals and Medical Students in Kazakhstan. *British Medical Journal: Nutrition, Prevention and Health*. 2025 Mar; 8(1): e000972. doi: 10.1136/bmjnph-2024-000972.
- [3] Marko S, Wylie S, Utter J. Enablers and Barriers to Healthy Eating among Hospital Nurses: A Systematic Review. *International Journal of Nursing Studies*. 2023 Feb; 138: 104412. doi: 10.1016/j.ijnurstu.2022.104412.
- [4] Sajwani AI, Hashi F, Abdelghany E, Alomari A, Alananzeh I. Workplace Barriers and Facilitators to Nurses' Healthy Eating Behaviors: A Qualitative Systematic Review. *Contemporary Nurse*. 2024 May; 60(3): 270–99. doi: 10.1080/10376178.2024.2354336.
- [5] Niven P, Morley B, Gascoyne C, Dixon H, McAleese A, Martin J *et al.* Differences in Healthiness Perceptions of Food and Dietary Patterns among the General Public and Nutrition Experts: A Cross-Sectional Online Survey. *Health Promotion Journal of Australia*. 2022 Apr; 33(2): 361–72. doi: 10.1002/hpja.520.
- [6] Lamers-Johnson E, Kelley K, Knippen KL, Feddersen K, Sánchez DM, Parrott JS *et al.* A quasi-Experimental Study Provides Evidence That Registered Dietitian Nutritionist Care Is Aligned with the Academy of Nutrition and Dietetics Evidence-Based Nutrition Practice Guidelines for Type 1 and 2 Diabetes. *Frontiers in Nutrition*. 2022 Sep; 9: 969360. doi: 10.3389/fnut.2022.969360.
- [7] Teng NI, Ngelayang E, Said NM, Juliana N, Mohd Azmi NA, Chen LW *et al.* A Qualitative Study on Nutrition and Well-Being of Healthcare Shift Workers. *Scientific Reports*. 2025 Aug; 15(1): 30512. doi: 10.1038/s41598-025-11534-5.
- [8] Anwar Bibi, Farooq S, Nisar N, Saleem S, Khalid H, Fatima I *et al.* Barriers to Healthy Eating Habits among Health Care Providers of Hitec-IMS and HIT Hospital Taxila. *Journal of Population Therapeutics and Clinical Pharmacology*. 2024 Sep; 30(9): 2114–20.
- [9] Syed NT, Shabbir S, Atif M, Hakeem R. Qualitative Exploration of Comprehension and Experiences of Healthcare Professionals Regarding Nutrition Care in Karachi, Pakistan. *PLOS Global Public Health*. 2025 Dec; 5(12): e0005483. doi: 10.1371/journal.pgph.0005483.
- [10] Cherpak-Castagna CE, Gafton EN, Nault D, Van Lare SJ, Freeman KC. Cross-Sectional Survey of Graduate Clinical Nutrition Students Describing Dietary Choices and Recommendations. *Journal of the American Nutrition Association*. 2022 Feb; 41(2): 166–77. doi: 10.1080/07315724.2020.1863282.
- [11] Afzal S, Iftikhar A, Ahmad M, Ashraf Z, Khalid W, Ali SW *et al.* Evaluating Eating Patterns and Health Status of Undergraduate Students Majoring in Human Nutrition, Lahore, Pakistan: A Cross-Sectional Study. *International Journal of Adolescence and Youth*. 2025 Dec; 30(1): 2448287. doi: 10.1080/02673843.2024.2448287.
- [12] Pojednic R, Phillips E, Shehadeh A, Muller A, Metallinos-Katsaras E. Physician Nutrition Advice and Referrals to Registered Dietitians. *American Journal of Lifestyle Medicine*. 2023 Nov; 17(6): 847–54. doi: 10.1177/15598276221092304.
- [13] Kingsnorth J, Cushen SJ, Janiszewska K, Avery A. Health Professionals' Knowledge, Views and Advice

- on Diet and Dental Health: A Survey of UK and Ireland Dietitians and Dentists. *Journal of Human Nutrition and Dietetics*. 2021 Aug; 34(4): 705-14. doi: 10.1111/jhn.12842.
- [14] Rozga M, Latulippe ME, Steiber A. Advancements in Personalized Nutrition Technologies: Guiding Principles for Registered Dietitian Nutritionists. *Journal of the Academy of Nutrition and Dietetics*. 2020 Jun; 120(6): 1074-85. doi: 10.1016/j.jand.2020.01.020.
- [15] Williams GM, Tapsell LC, Beck EJ. Dietitians' Perspectives on the Role of Dietetics Practice in Gut Health. *Nutrition and Dietetics*. 2023 Feb; 80(1): 95-103. doi: 10.1111/1747-0080.12778.
- [16] Ghosh NR, Esmaeilinezhad Z, Zając J, Creasy RA, Lorenz SG, Klatt KC et al. Evidence-Based Practice Competencies among Nutrition Professionals and Students: A Systematic Review. *The Journal of Nutrition*. 2024 Apr; 154(4): 1414-27. doi: 10.1016/j.tjnut.2023.12.044.
- [17] Liefers JR, Vanzan AG, Rover de Mello J, Cammer A. Nutrition Care Practices of Dietitians and Oral Health Professionals for Oral Health Conditions: A Scoping Review. *Nutrients*. 2021 Oct; 13(10): 3588. doi: 10.3390/nu13103588.
- [18] Gooding B, Probst Y, Houston L, Neale E. Exploring Perceptions, Barriers and Use of Systematic Reviews Amongst Nutrition Professionals and Nutrition Students. *Nutrition and Dietetics*. 2020 Feb; 77(1): 151-9. doi: 10.1111/1747-0080.12598.
- [19] Clark BE, Pope L, Belarmino EH. Personal Bias in Nutrition Advice: A Survey of Health Professionals' Recommendations Regarding Dairy and Plant-Based Dairy Alternatives. *Patient Education and Counseling: Innovation*. 2022 Dec; 1: 100005. doi: 10.1016/j.pecinn.2021.100005.
- [20] Shah N, Zaheer S, Safdar NF, Turk T, Hashmi S. Women's Awareness, Knowledge, Attitudes, and Behaviors Towards Nutrition and Health in Pakistan: Evaluation of Kitchen Gardens Nutrition Program. *PLOS ONE*. 2023 Sep; 18(9): e0291245. doi: 10.1371/journal.pone.0291245.