



Original Research

Challenges faced by dietitians working in various cities of Pakistan

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Abstract

Background: Dietitians are trained professionals who play a crucial role in providing personalized food and nutrition guidance for people in different health conditions. They are invaluable members of society, as they have a significant impact on individuals' well-being and, ultimately, the health of entire communities within a country. **Primary Study Objective:** This paper investigates the challenges faced by dietitians in various cities of Pakistan. **Methods/Design:** It is a cross-sectional study conducted by Nutrition Foundation of Pakistan (NFP). **Setting & Participants:** This study is based on the survey data obtained from students and graduates of the Human Nutrition and Dietetics program from different cities of Pakistan via an online questionnaire including questions about demographic variables and 10 items that inquired about perceived challenges faced by dietitians. The data was analyzed by SPSS 20 and presented as frequency and percentages for demographic variables and mean score with standard deviations (SD) for different variables of a 10-item questionnaire for perceived challenges by dietitians. Statistical significance was determined at the 0.05 level. **Results:** Results indicate that the province of Sindh (mainly Karachi city) has the highest number of respondents, succeeded by Punjab (mainly Lahore city). Severity scores for perceived challenges faced by Dietitians indicated that the primary challenge is the low salary that is specially faced by dietitians from Karachi and the least scored challenge is unavailability of resources for continuing nutrition education which is mostly faced by dietitians from Peshawar. Comparison of perceived challenges among Dietitians in the Dietetic role, non-dietetic role, not working and students' revealed difference in scores among these groups based on their job, experiences and perceptions. **Conclusion:** The findings of this study clearly highlighted the challenges and issues faced by Pakistani dietitians. The main challenges turned out to be low salary, undefined promotion criteria and lack of opportunities. These investigations can lead to the development of policies for dietitians to promote their career development and lessen the burden of nutrition related diseases in the country.

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Introduction: Dietetics, an old field germinated from the area of home economics, military kitchens and later nutrition science ^[1], is now expanded and well recognized. A dietitian is described as a professional who applies the science of food and nutrition to promote health, prevent and treat disease, and to optimize the health of individuals, groups, communities, and populations. Dietitians' services for the community are fundamental in preventing and managing chronic diseases ^[2]. The main site where most of the registered dietitians practice is in the hospitals ^[3]. In Pakistan, dietetics comes out as an emerging field as compared to other countries ^[4]. The majority of tertiary care hospitals employ dietitians in Pakistan, but separate clinical set-ups and individual practices are still lacking. Dietitians' scope in Pakistan is still limited and job satisfaction is also low due to a number of reasons including limited jobs, low salary, promotion criteria etc. Nutrition Foundation of Pakistan (NFP) is an established trust striving to enhance the quality and effectiveness of nutrition-related efforts in Pakistan. This survey based study was conducted by NFP to explore the challenges faced by dietitians from different cities of Pakistan. The aim of this survey is to explore the specific problems experienced by dietitians working in different cities and to encourage them to gather at the NFP platform so that they can raise their issues as a whole up to the national level. The main objective of the study is to identify the challenges faced by dietitians in different cities of Pakistan.

Materials and Methods: Study design and setting: This study is a cross-sectional survey designed to find out the challenges faced by dietitians in various cities of four provinces (Sindh, Baluchistan, Punjab and Khyber Pakhtunkhwa) of Pakistan. **Study participants:** The study participants include fresh and experienced graduates of the Human Nutrition & Dietetics program from different colleges and universities of Pakistan who worked in various public and private fields related to Nutrition and Dietetics, including hospitals, educational institutes, hotels, food service departments, etc. **Sampling Technique:** The convenience sampling method (non-probability sampling method) was used to recruit eligible dietitians. **Data collection:** An online questionnaire was sent to dietitians via social media (What's app, Facebook, Twitter, and others). A brief introduction showed the aims of the study, followed by a cover letter, consent sentence, and instructions on how to complete the survey. The main body of the questionnaire included two main parts: (1) The demographic section inquired participants about their job status and city (2) The second part of this questionnaire was developed to consider the difficulties and challenges faced by Dietitians in Pakistan. It consists of 10 items that measure the job satisfaction and challenges faced by Dietitians. In this part, the participants were asked to rate their responses on a 5-point Likert scale from 0-5. Zero means the problem do not exist and 5 mean it is a very serious problem. **Data analysis:** Data analysis was carried out using SPSS Statistical Software Version 20. For each variable frequency distribution and mean score with standard deviations (SD) are presented in the tables. An ANOVA test will be used to compare variables among different

groups. Statistical significance was determined at the 0.05 level.

Results: A total of 121 participants responded to the survey.

Demographic Data: The majority of respondents were from Sindh province (48.8% n= 59) followed by Punjab and KPK, while no response was observed from dietitians in Baluchistan (Figure 1). Furthermore, the maximum number of participants from Sindh province belonged to Karachi city i.e., 57 (47.1%), and from Lahore city 24 (19.8%) representing dietitians from Punjab province.

Among our study participants, 58% (n= 69) were working in the roles of clinical dietitians and 13% (n=15) were carrying out non-dietetic roles. Furthermore, 20% (n=23) were unemployed and 9% (n=11) were students of HND. (Figure 2). Three respondents were excluded from the study for being non-dietitians. Severity Score for Perceived challenges faced by Dietitians. The severity score of perceived challenges faced by dietitians is shown in Figure - 3. A higher score means a higher degree of agreement. The total mean severity score showed that the main challenge faced by dietitians is their low salary (4.01), and the least score was obtained for the unavailability of resources for continuing nutrition education (3.10). (Figure 3) Comparison of Perceived challenges among Dietitians in dietetic role, non-dietetic role, not working and students. An analysis of variance was performed to examine the differences between perceived challenges among respondents with main roles as (i) dietitian (ii) non-dietitian role (iii) not working and (iv) Dietetic students (Table 1). Statistical analysis of the ten items questionnaire among these respondents revealed that the challenge of perceiving Dietetic Jobs is given to non-dietitians showed a significantly high severity score among students (3.90 ± 1.39) as compared to other groups with a p-value of 0.043. Regarding the challenge of low salaries of dietitians, working dietitians significantly showed the highest score (4.16 ± 1.19) followed by non-working dietitians' group with a p-value of 0.047. Furthermore, a concern of the undefined system of promotion was statistically significant ($p = 0.042$) and non-working dietitians (4.22 ± 1.15) and current working dietitians (4.04 ± 1.25) were most unsatisfied with this challenge. Also, an item queried about dietitians are not given due respect by other professionals and was found statically significant with a p-value of 0.034. All four groups scored this as a prominent challenge (Table 1).

Other challenges, such as perceived risk of job unavailability; Dietitians are not allowed to do dietetics work. A few Dietitians are bringing the value of dietetics down by inappropriate practices; Dietitians do not have an opportunity for post-graduate education; Dietitians do not have an opportunity for specialized training; Dietitians do not have resources for continuing nutrition education were statistically insignificant. Comparison of Perceived challenges among Dietitians from different cities of Pakistan. One way ANOVA test was conducted to determine the differences that existed between dietitians from cities (Karachi, Lahore, Peshawar, and others) and the challenges they faced. Results are indicated in Table 2, which shows that dietitians from Peshawar scored highest on "jobs are not available" and scored least by Karachi dietitians. Whereas dietitians from Lahore gave a

high scores for “Jobs are given to non-dietitians” when compared to other cities, but in item 3 i.e. “Salaries of dietitians are very low”, they give the lowest score. Dietitians from Karachi and Lahore scored low for “System of promotion is not defined”, “Dietitians are not allowed to do dietetics work” and “Dietitians are not given due respect by other professionals” as compared to other cities. Dietitians from Peshawar scored high for “A few Dietitians are bringing the value of dietetics down by inappropriate practices” and the same item was given the least score by dietitians from Lahore. Dietitians from Karachi scored high for “Dietitians do not have an opportunity for post -graduate education” and “Dietitians do not have an opportunity for specialized training” as compared to other cities. Dietitians from Peshawar gave a high score to “Dietitians do not have resources for continuing nutrition education” in other cities.

Discussion: The present study highlighted the issues faced by dietitians in their professional fields in different cities of Pakistan. The most prevalent challenge faced by dietitians is low salaries. All four groups perceived the pay scales were quite low as compared to the other professions. Pakistan is not the only country where dietitians are hired on a low salary scale; dietitians from other countries e.g. Jordan ^[5], the United States ^[6] etc. face the same and this matter is of considerable importance as, because of low salary, dietitians switched their field to non-dietetic jobs and this can affect the dietetics force ^[7]. Another reported challenge in this study was a provision of limited opportunities for dietitians for dietetics jobs as they are given to non-dietetics professionals, and this may be due to the unavailability of dietetics professionals in many areas or unawareness of their role. As the results of this study showed that Baluchistan, Pakistan’s largest province in terms of area, has no dietitians, which has led to the recruitment of non-dietetics professionals in healthcare fields. Furthermore, nationally, healthcare team members and organizational heads are not very clear about the roles and competencies achieved by dietetics graduates, which often leads to the selection of unqualified dietitians. Another prominent challenge reported by our study participants is that the system of promotion is not well- defined for dietitians working in Pakistan. These findings are consistent with a study conducted in Australia that reported the same that Australian dietitians also faced limited job opportunities and the country does not have any established promotion criteria for them. This situation eventually lowered down the morale of dietetics professionals in Pakistan and the country is dealing with the triple burden of malnutrition. Furthermore, a big challenge reported by all four groups of our study population was less respect given to dietetics professionals in healthcare settings and this is because of limited awareness about the subject of nutrition and certain myths about the field. ^[8]. It is unfortunate that most of the hospitals still consider dietitians and the nutrition support team as indispensable ^[9]. Thus, this issue can be solved through inter-professional nutrition education. An interesting revelation in this study was that dietetic students were given high scores in these challenges compared to other groups. This reflects their uncertainty about having jobs and fear of achieving goals in their field. There is a dire need of recognize dietitians

in their professions, providing them with chances for further education in the same field and clearly defined employment and promotion criteria. Our results showed that the main challenge perceived by dietitians from Karachi is low salary as compared to other cities. Besides this, they also face problems to pursue post-graduate education and specialized training in their field. Whereas dietitians from Lahore are more concerned about employing non-dietitians in place of dietitians, and dietitians from Karachi are most satisfied with the fact that dietetics jobs are given to dietitians as compared to dietitians from other cities. Dietitians from Peshawar claimed not to be provided resources for continuing nutrition education and dietitians from Lahore showed the least with this issue. So, overall, dietitians from different cities of Pakistan face different issues. This study has some significant strengths as well as a few limitations. The study findings provide a clear understanding of the ground challenges faced by dietitians in Pakistan. The main limitation is the generalizability of results due to the limited sample size. In the future, more sophisticated sampling techniques and methodology can be used to explore the issues existing in each province separately and possible steps can be taken by policymakers for improvement.

Conclusion: In conclusion, it is crucial for policymakers to take decisive action to address the key challenges faced by dietitians, including low salaries, an unclear promotion system, and a lack of respect for their profession. By prioritizing these issues, policymakers can foster job satisfaction and maintain a high level of professional fulfillment among dietitians. Ultimately, creating a supportive and rewarding environment for dietitians will not only benefit the individuals themselves, but also contribute to the overall improvement of healthcare and nutrition services in our society.

Authors’ contributions: RH conceived the idea, designed the project and performed the statistical analysis. MJ wrote the manuscript and did a part of the statistical analysis. NA wrote the discussion and read and approved the final submitted version.

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Table 1. Comparison of Perceived challenges among Dietitians in Dietetic role, non-dietetic role, not working and students.

	Main role Dietetic Role		Non-Dietetic Role		Not Working		Student		F	Sig.
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Jobs are not available	3.74	1.27	3.21	1.29	3.91	1.60	4.00	1.22	2.184	0.091
Dietetic Jobs are given to non-dietitians	3.48	1.45	2.93	1.41	3.52	1.26	3.90	1.39	2.772	0.043
Salaries of dietitians are very low	4.16	1.19	3.69	1.29	4.13	1.12	3.60	1.30	2.701	0.047
System of promotion is not defined	4.04	1.25	3.50	1.07	4.22	1.15	3.80	1.26	2.778	0.042
Dieticians are not allowed to do dietetics work	3.46	1.46	3.23	1.34	3.73	1.46	3.80	1.18	1.278	0.283
Dieticians are not given due respect by other professionals	3.06	1.47	3.31	1.23	3.59	1.63	3.82	1.13	2.944	0.034
A few Dieticians are bringing the value of dietetics down by inappropriate practices	3.54	1.59	3.23	1.39	3.05	1.77	3.50	1.13	1.279	0.283
Dieticians do not have opportunity for post graduate education	3.11	1.85	3.21	1.69	3.17	1.87	3.30	1.57	0.097	0.962
Dieticians do not have opportunity for specialized training	3.62	1.47	3.71	1.41	3.62	1.72	3.20	1.49	0.865	0.460
Dieticians do not have resources for continuing nutrition education	3.08	1.61	3.13	1.61	3.18	1.86	3.10	1.32	0.048	0.986

Table 2. Comparison of Perceived challenges among Dietitians from different cities of Pakistan.

	Karachi		Lahore		Peshawar		Other cities		F	Sig.
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Jobs are not available	3.48	1.392	3.67	1.373	4.25	1.16	4.00	1.23	1.47	0.226
Dietetic Jobs are given to non-dietitians	3.087	1.35	3.79	1.41	3.5	1.85	3.72	1.36	2.09	0.105
Salaries of dietitians are very low	4.10	1.16	3.75	1.39	4.12	1.45	4.0	1.16	0.495	0.687
System of promotion is not defined	3.94	1.19	3.70	1.36	4.0	1.19	4.21	1.22	0.729	0.537
Dieticians are not allowed to do dietetics work	3.35	1.36	3.50	1.47	4.11	1.45	3.57	1.47	0.784	0.505
Dieticians are not given due respect by other professionals	3.01	1.43	2.87	1.45	3.50	1.77	3.90	1.24	3.257	0.024
A few Dieticians are bringing the value of dietetics down by inappropriate practices	3.42	1.48	3.09	1.54	3.57	1.90	3.42	1.68	0.304	0.823
Dieticians do not have opportunity for post graduate education	3.64	1.48	2.21	1.90	2.87	1.95	2.89	1.95	4.029	0.009
Dieticians do not have opportunity for specialized training	3.87	1.21	2.95	1.74	3.75	1.58	3.44	1.67	2.175	0.095
Dieticians do not have resources for continuing nutrition education	3.30	1.58	2.37	1.73	3.62	1.84	3.07	1.56	2.149	0.098

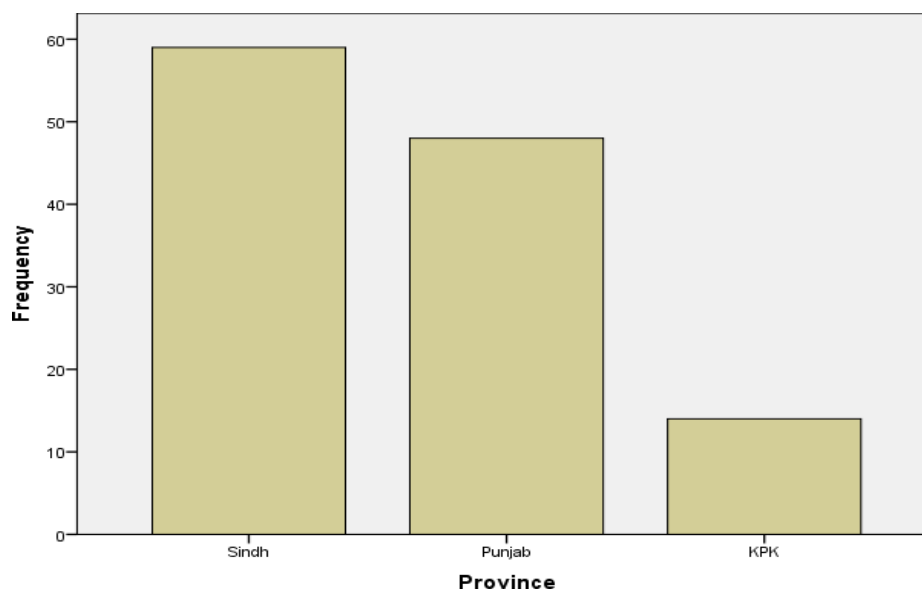


Fig 1. Number of Dietitians Filled the Survey Form from Different Provinces of Pakistan (n=121)

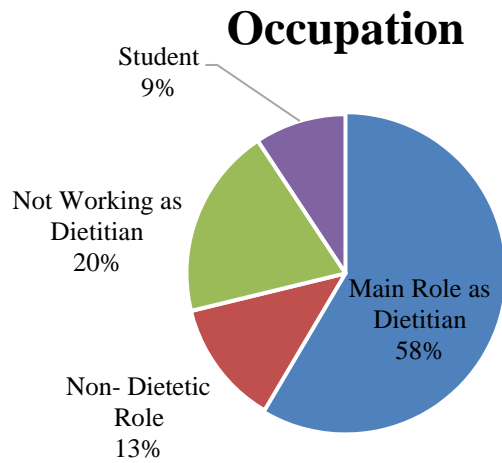


Fig 2. Roles of Dietitians among study respondents (n=118)



Fig 3. Severity Score for Perceived challenges faced by Dietitians (n=118)