



Exploring the Impact of Personal and Administrative issues Faced by Female Students on Satisfaction Levels with Hostel Facilities and their Influence on Lifestyle: A Statistical Investigation

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ABSTRACT

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A hostel is a type of housing that provides shared living spaces for travelers and students, particularly offered by educational institutions where students share their living space. This study aims to evaluate the challenges faced by female students living in university hostels and the impact of these issues on their academic performance. Additionally, it identifies common problems such as satisfaction with hostel facilities, security, and how the hostel environment influences their lifestyle. The population for this study includes all female students residing in Peshawar University hostels. Information was obtained from the Provost's office of the University of Peshawar, showing a total of 1951 female students residing in various hostels during the 2015-16 session across all academic programs with an age range of twenty to twenty-five years. An open-ended questionnaire was developed for in-depth interviews, and various statistical tests were employed in this study. The chi-square test of independence was used to examine associations among different factors, revealing significant associations in most cases. The odds ratio was applied to assess the strength of these associations, uncovering a strong correlation between students' health and the type of food provided by the hostel mess. Additionally, a strong association was found between students' academic performance and group discussions. ANOVA was used to analyze the number of girls in the hostel rooms, leading to the rejection of the null hypothesis. To determine student satisfaction with hostel facilities, a logistic regression model was employed. The results highlighted significant factors such as the name of the hostel, education level, water issues, generator availability, toilet conditions, hostel environment, room accommodation, health facilities, mess condition, academic performance, TV availability, internet access, and good security. Consequently, the study's findings can help improve the quality of hostel services in Pakistan, potentially increasing students' satisfaction with hostel life.

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1. Introduction

Globalization has made it more usual to think about pursuing an education even if it involves living in hostels and moving away from home. The tendency of studying away from home has grown as a result of developed communication channels, easy access to educational institutions, and extremely appealing advertisements. In general, students find it challenging to handle the issues associated with living in a far-off place from their home. In these

circumstances, hostels are seen to be the ideal option. Hostel accommodations are typically offered by higher education institutes (Brothers & Hatch, 1971). Because Pakistan is still growing, relatively little funding is set aside for the education sector, and the country's major cities are the only places where higher education is available. Thus, dormitories are crucial to students' educational experiences in Pakistan. Hostels give students the chance to complete their study while living on campus. University residents who reside in dorms constitute a separate demographic with particular demands and issues. They possess unique emotional, social, and physical traits. For the first time, they are living away from home, and they must learn how to handle their affairs and adapt to new surroundings without the assistance of a more seasoned family member (Organization, 1966). Additionally, less parental supervision applies to independent living students, which may deter harmful conduct (Barakat, 1987). These children are more likely to develop bad food habits, sleep disorders, or pick up new behaviors like drug or smoking usage. According to Walker, Sechrist, and Pender (1987), none of these elements favorably influence the formation of a healthy lifestyle. Furthermore, university residence halls have contributed significantly to the growth and spread of higher education in our nation. According to (Mishra, 1994), hostels foster a sense of fraternity and kinship among individuals belonging to many castes, creeds, and faiths, ultimately resulting in national merging. According to Ahmad (2006), students who live in dorms can get confidence and spirit from their fellow residents, which might empower them to handle real-world situations with more assurance. Moreover, according to Thakkar (2012), all students must acclimate to their other roommates at the hostel. Thus, the age range of the study's sample, which included 10 female and hostel students, was 20 to 25. To facilitate in-depth interviews, an open-ended questionnaire was created.

1.1. Aim of study

1. To learn about the various issues of female students living in the dorms.
2. To learn how satisfied students are with the features, atmosphere, and security of their dorms.
3. To learn more about female students' health-related concerns.
4. To investigate how living in a dorm affects female students' personalities and lifestyles
5. Research how living in a dorm affects female students' personalities and lifestyles;
6. Examining how living in a dorm affects students' academic achievement.

2. Literature Review

According to the Encyclopedia (Encyclopedia Britannica, 1768), the term "hostel" originally referred to an inn but was subsequently used to refer to a structure that offered housing for groups of people, including students. A structure that offers board and lodging to students (with the approval of the relevant authorities) is referred to as a "hostel" in the (AL) Dictionary of Current English 2001). To get the most out of power management, (Iyiola & Mewomo, 2024) research on the variables impacting building occupants' wasteful use of electricity is essential. According to Onyike and Uche (2010), hostel maintenance consists of all technical and related administrative measures meant to keep a hostel open or return it to a condition where it can fulfill its mandate. According to Amole (2009), hostels are made up of simple bedroom units with additional communal amenities including kitchens, common areas, laundry rooms, restrooms, and cafeterias arranged either per floor, per block, or for the entire student housing complex. satisfaction is a function of anticipation and actual performance, according to the expectation-disconfirmation paradigm (Adriaanse, 2007). Regardless of the expectations of the customer, dissatisfaction is solely a consequence of the actual performance (Foubert, Tepper, & Morrison, 1998). According to previous research, amenities have a positive relationship with satisfaction (Berkoz, Turk, & Kellekci, 2009; Khozaei, Ayub, Hassan, & Khozaei, 2010). According to Toyin Sawyerr and Yusof (2013) and Foubert, Tepper, and Morrison (1998), respectively, well-maintained amenities have an impact on how satisfied students are with their residence hall. The size of a hostel room does affect how satisfied students are (Karlin, Rosen, & Epstein, 1979). Cleave (1996) noted that roommates in cramped dorms often experience dissatisfaction, friction, conflict, hostilities, and outright confrontations about who gets to use the closet, other amenities, and areas of the room. When students' demands are satisfied, they can achieve complete residence satisfaction (Khozaei et al., 2010). Nevertheless, Stauss and Neuhaus (1997) pointed out that a person cannot assess their level of satisfaction with life based just on their experience staying in a hostel. Positive attitudes indeed influence consumers' willingness to spend more for goods and services and their propensity to distribute good word-of-mouth praise. (Choi, Parsa, Sigala, & Putrevu, 2009; Han, Hsu, & Lee, 2009; Han, Hsu, Lee, & Sheu, 2011; Thomsen, 2007).

Nonetheless, Billups (2008); Tih and Zainol (2012) have divergent opinions. The study conducted by Suki and Chowdhury (2015) aims to examine the potential impact of the location, amenities, and standard of on-campus dormitories on students' opinions about living there and their level of satisfaction with it. Omar Fauzee et al. (2014) identify the challenges students have adjusting to living in dorms. Among the 600 students residing in the university dormitory at Alexandria University, Abolfotouh, Bassiouni, Mounir, and Fayyad (2007) look at the health-related lifestyle and its variables. Hostel living teaches kids how to coexist with individuals from many cultural backgrounds, as boarding schools typically do. (Shah, 2010). Students can socialize in the hostel setting (Mimrot, 2012). Iftikhar and Ajmal (2015) investigate how students' conduct and personalities are affected by living in dorms.

3. Research Methodology

The population for this research article consists of all the female students residing in Peshawar University hostels. The information was obtained from the Provost's office of the University of Peshawar. The total number of female students residing in various hostels is 1951 for the year 2015-16 session including all academic programs i.e. BS, Master, MBBS, M.Phil. and PhD.

3.1. Sample Size Estimation

To estimate the sample size from the various hostels of the University of Peshawar, keeping the confidence level of 95% and the 5% margin of error, the sample size formula is

$$n = \frac{X^2 * N * P(1-P)}{(ME^2 * (N-1)) + (X^2 * p(1-p))}$$

Where

n = required sample size

X^2 = chi-square for the specified level at 1% degree of freedom

N = Population size of all the female students resides in Peshawar University hostels

P = Population proportion

ME = Desired Margin of Error

Based on the prior described methodology, an estimated sample size of 320 has been determined, accounting for a 5% margin of error and a 95% confidence range.

3.2. Sampling Techniques and Data

To select the sample of size 320, sub-samples of different sizes were selected from seven female hostels of the University of Peshawar (UOP). The hostels include Benazir Girls Hostel, UET Girls Hostel, KMC Girls Hostel, Fatimah Jinnah Girls Hostel, Old Tribal Girls Hostel, Tatara Girls Hostel, and New Tribal Girls Hostel. Using a gate register as a sampling frame, samples are selected from each hostel by the method of simple random sampling. Only those students are selected from the said hostels which are present in the gate register. A structured questionnaire is used as the data collection tool from the selected sample.

4. Results and Interpretation

The statistical analysis of the primary data regarding the problem faced by female students residing in Peshawar University Hostels. The data was collected by the structured questionnaire from the female students of seven different hostels of Peshawar University. In this analysis, different statistical tools like frequency tables, bar charts, pie charts, ANOVA, chi-square, odds ratios, and logistic regression are used.

4.1. Frequency Tabulation and Charts

Table 1 depicts that a sample of 320 students is selected from various female hostels of Peshawar University. The table shows that there are 49 students from Benazir girls' hostel at 15.3 percent, 25 students from UET girls hostel at 7.8 percent, 40 students from KMC girls hostel at 12.5 percent, whereas 50 samples of students are selected from Fatima Jinnah girls hostel with a percentage of 15.6. Also, 15.0, 16.6, and 17.2 percent of the students are selected from Old tribal girls' Hostel, Tatara Girls' Hostel, and New tribal girls' Hostel respectively.

Table 1: Frequency distribution of Hostels

Hostel Name	Frequency	Percent
Benazir	49	15.3
UET	25	7.8
KMC	40	12.5
Fatima Jinnah	50	15.6
Old tribal	48	15.0
Tatara	53	16.6
New tribal	55	17.2
Total	320	100.0

Figure 1: Bar chart of the Hostels Name

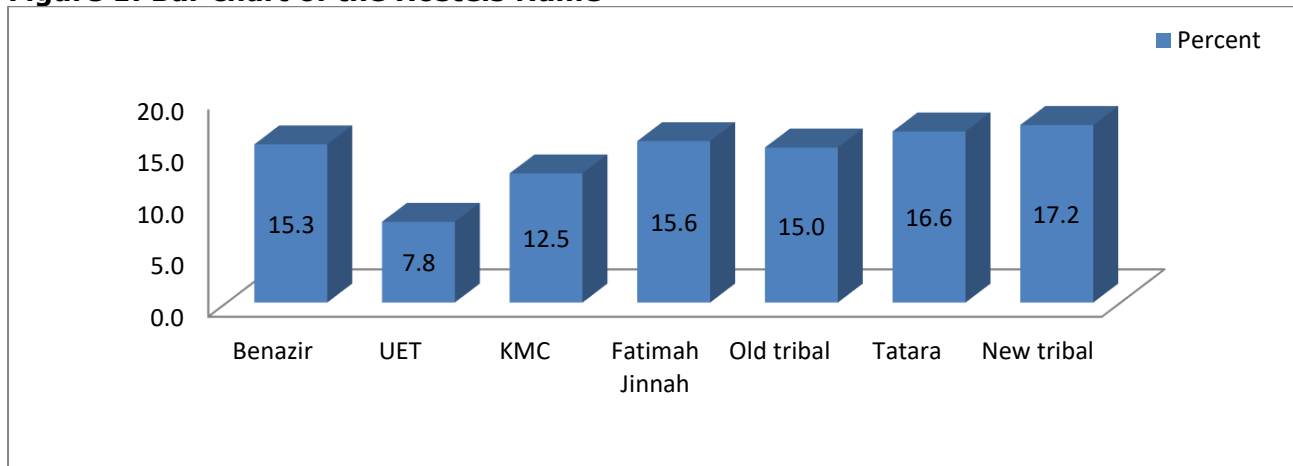


Table 2: Level of Education

Level of edu	Frequency	Percent
FA/F.Sc	49	15.3
BS	108	33.8
M.Sc./M.A	109	34.1
MBBS	40	12.5
M.Phil./PhD	14	4.4
Total	320	100.0

Table 2 shows the educational level of students, out of 320 students, 49 students are from F. A/ F.Sc level having a percentage of 15.3%. 108 students are from the BS level having a percentage of 33.8%. 109 students are from M. A/M.Sc. level having a percentage of 34.1%. 40 students are doing MBBS with 12.5 percent and only 14 students are from M.Phil./PhD level with a percentage of 4.4%.

Figure 2: Sector Diagram of Level of Education

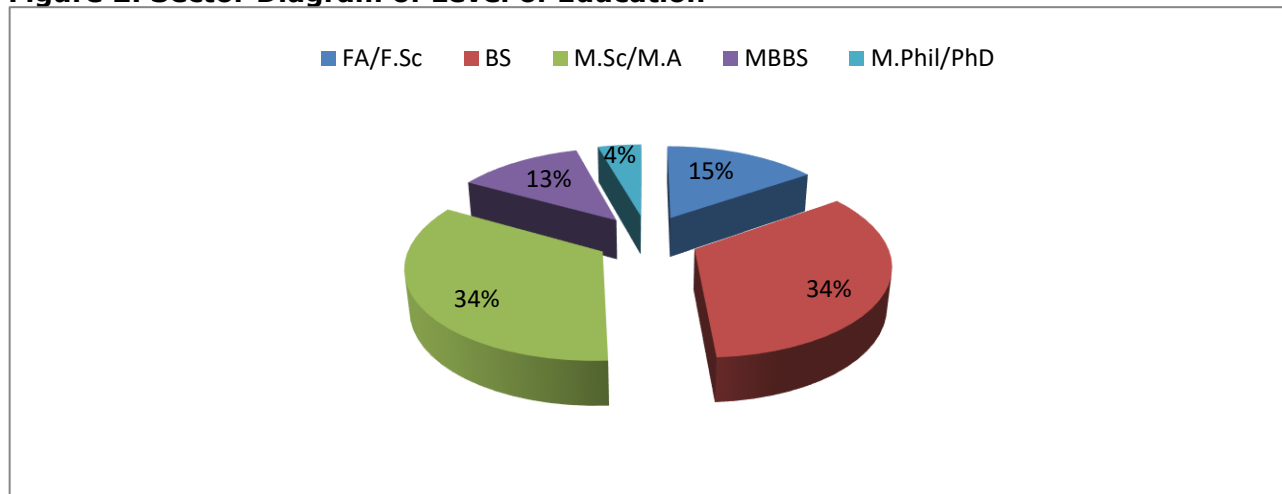


Figure 2 shows the various levels of education. The diagram indicates that data was collected from the students of five different levels of education. There are two larger sectors of the diagram with 34% each indicating that most students belong to BS and M.A/M.Sc. level. Two

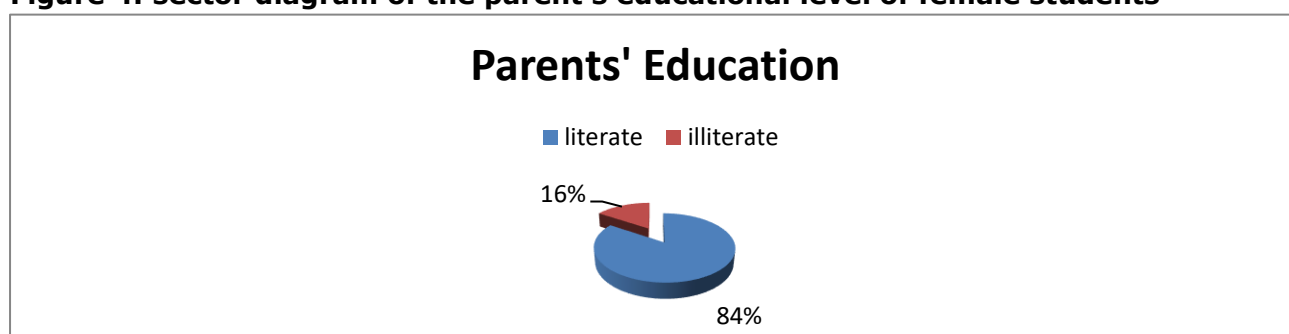
middle sectors with 13% and 15% represent the F. A/F.Sc and MBBS level of education respectively. The smallest sector of the above sector diagram shows that the least number of the students belongs to the M.Phil./PhD level of education.

Table 3: Parents' Education Level

	Frequency	Percent
Literate	270	84.4
Illiterate	50	15.6
Total	320	100.0

Table 3 demonstrates the parent's level of education of the female students residing in the Peshawar University hostel. The table reveals that 270 students belong to educated families with a percentage of 84.4% and 50 students belong to uneducated families with a percentage of 15.6.

Figure 4: sector diagram of the parent's educational level of female students



However, figure 4 represents the parent educational level of female students residing in Peshawar University hostels. A large portion of the diagram shows that about 84% of the literate parents allow their daughter to live in a hostel for higher studies as compared to the parents who are illiterate about 16%.

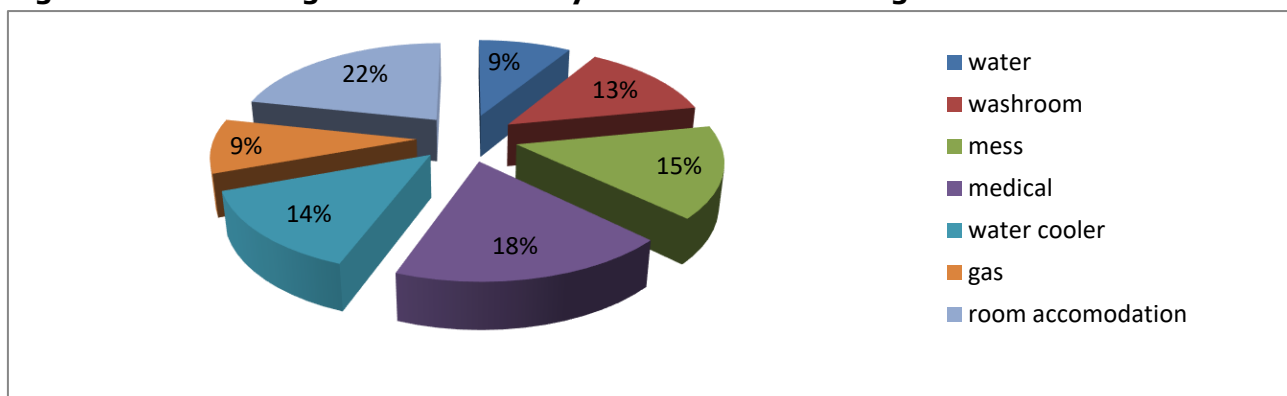
Table 5: facility not working well in the hostel

	Frequency	Percent
Water	28	8.8
Washroom	42	13.1
Mess	49	15.3
Medical	59	18.4
water cooler	44	13.8
Gas	29	9.1
room accommodation	69	21.6
Total	320	100.0

The frequency distribution is shown in Table 5 about the facility which according to the students not working well in their hostels. The table shows that among 320 students, 28 students have a complaint about the water problem, 42 have a complaint that the washrooms of the hostel are in very bad condition, 49 students say that they have a problem with the hostel mess, 59 students say that there is no medical facility provided by the hostel, 44 students complain that there is no arrangement of cooled water in summer and most of the water cooler is damage, 29 student says that there is a big problem of cooking gas in winter especially in morning when they prepared their breakfast, 69 students complain that hostel rooms are overpopulated which disturbed their privacy and make mental stress.

Figure 5 is the sector diagram of the facility which is not working well in each hostel. The large sector of the figure shows that according to the 22% of student's room accommodation is a big problem. 18% of students respond that not availability of medical facilities is a problem. 15% of students responded that the condition of mess food is not good. 14% and 13% of students responded that the water problem and the bad condition of the washroom are also a big problem.

Figure 5: Sector diagram of the facility which is not working well



4.2. Chi-Square Analysis and Odd Ratio Test

Table 6: Hostel name * water problem in a hostel: Cross tabulation

Hostel Names	Is there any water problem in your hostel?		Total
	no	yes	
Benazir	9	40	49
UET	10	15	25
KMC	27	13	40
Fatima Jinnah	12	38	50
Old tribal	4	44	48
Tatara	14	39	53
New tribal	30	25	55
Total	106	214	320

Table 6 presents the cross-tabulation of hostels and the water problem in these hostels. The table shows that out of 320 students, 214 students respond that there is a big problem with water of which 40 students are from Benazir, 15 students are from UET, 13 are from KMC, 38 are from Fatima Jinnah, 44 are from Old tribal, 39 from Tatara and 25 from New tribal. On the other hand, 106 students responded that there is no water problem 9 from Benazir, 10 from UET, 27 from KMC, 12 from Fatima Jinnah, 4 from Old tribal, 14 from Tatara, and 30 from New tribal. The association between hostels and water problems in these hostels is shown in Chi-square statistics (0.000) which is less than a 5% level of significance concluding that water problem strongly depends on hostels i.e. both variables are strongly associated (Table 7).

Figure 6: Multiple bar chart of hostels and water problems in each hostel

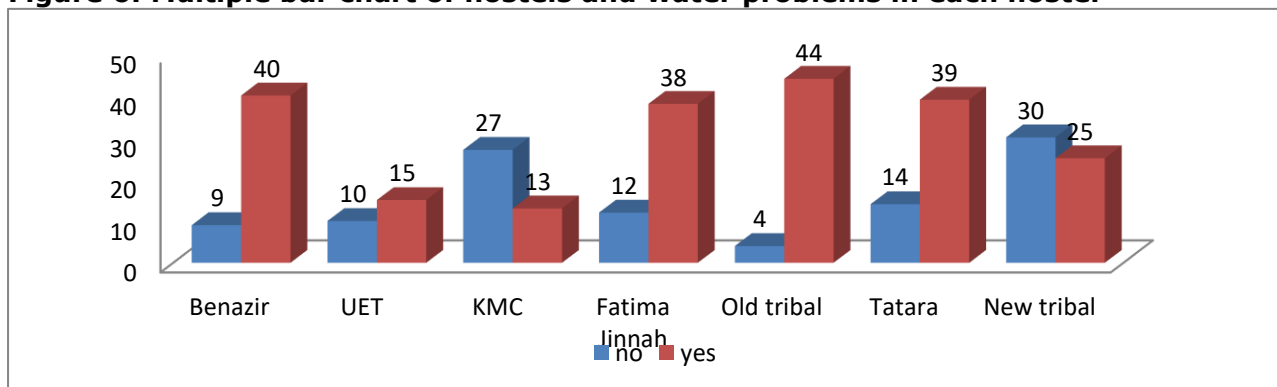


Figure 6 is the multiple bar chart of the water problem in each hostel. It is clearly shown from the diagram that the water problem is very high in Old tribal, Benazir, Fatima Jinnah, Tatara, and UET respectively. While in the KMC hostel, New tribal students complain about water problems and mostly say that there is no water problem.

Table 7: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	54.354 ^a	6	.000
N of Valid Cases	320		

Table 8: Hostel name * All the toilets and shower tools functioning well in your hostels? Cross tabulation

Hostels Name	Are all the toilets and shower tools functioning well in your hostels?		Total
	No	yes	
Benazir	47	2	49
UET	19	6	25
KMC	34	6	40
Fatima Jinnah	17	33	50
Old tribal	39	9	48
Tatara	32	21	53
New tribal	5	50	55
Total	193	127	320

Table 8 cross-tabulation represents the hostel's name and the condition of the washroom and shower tool in these hostels. The table shows that out of 320 students, 193 students responded that the condition of toilets and shower tools are very bad of which 47 students are from Benazir hostel, 19 from UET, 34 from KMC hostel, 17 from Fatima Jinnah, 39 from Old tribal, 32 from Tatara and 5 from New tribal. On the other hand, 127 students responded that the condition of toilets and shower tools is good with which 2 students from Benazir, 6 students from UET and KMC hostel, 33 students from Fatima Jinnah, 9 students from Old Tribal, 21 students from Tatara and 50 students of New tribal.

Figure 7: Multiple bar charts of hostels and the condition of to toilets and shower tool

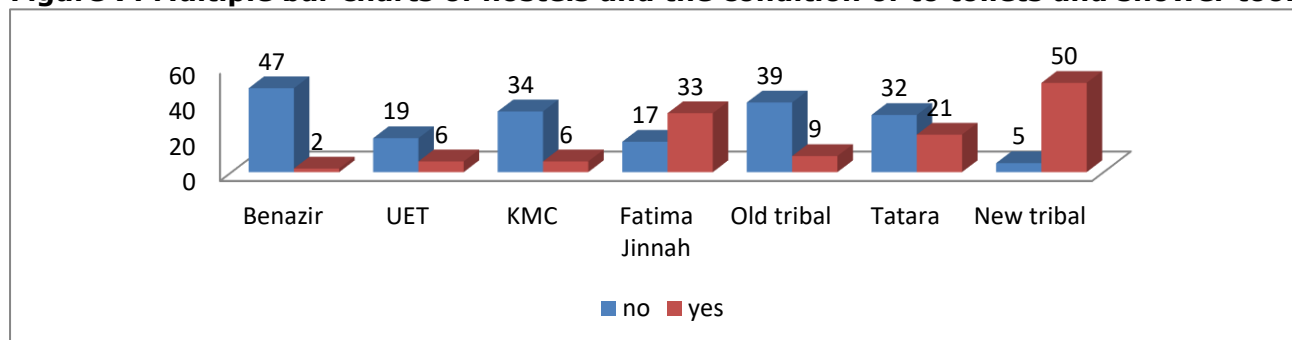


Figure 7 shows multiple bar charts of each hostel and the condition of toilets and shower tools in these hostels. It is clear from the figure that the condition of toilets is very bad in Benazir whereas the condition of toilets is extremely good in the New tribal girls' hostel.

Table 9: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	122.245 ^a	6	.000
N of Valid Cases	320		

Table 9 shows the Chi-square test for the association between hostels and the condition of toilets and shower tools in these hostels. The analysis indicates that the p-value for the Chi-square statistics (0.000) is less than a 5% level of significance. It can be concluded that the condition of toilets and shower tools strongly depends on hostels i.e. both variables are strongly associated.

Table 10: Are you satisfied with your hostel environment

	Frequency	Percent
No	70	21.9
Yes	250	78.1
Total	320	100.0

Table 10 indicates the responses of the students on asking that whether they are satisfied with their hostel environment. Out of 320, 78% of students responded that they were satisfied with their hostel environment whereas 21.9% of students responded that they were not satisfied.

Table 11: Level of education * Are you satisfied with your hostel environment? Cross tabulation

	Are you satisfied with your hostel environment?		Total
	no	yes	
FA/F.Sc	5	44	49
BS	26	82	108
M.S /M.A	27	82	109
MBBS	10	30	40
M.Phil /PhD	2	12	14
Total	70	250	320

The student's educational level and their satisfaction with the hostel environment. Out of 320 students, 250 students responded that they were satisfied of which 44 students are of FA/FSc level, 82 students of BS and MA/MSc level, 30 students of MBBS, and 12 students of M.Phil./PhD level. On the other hand, 70 students' responded that they were not satisfied with 5 students of FA/FSc level, 26 at BS level, 27 at MA/MSc level, 10 at MBBS, and 2 at M.Phil./PhD (Table 11).

Table 12: All the student obeys the rule and regulations of the hostel?

	Frequency	Percent
no	118	36.9
yes	202	63.1
Total	320	100.0

Table 12 indicates the response of the students on asking whether the students follow the rules and regulations of hostels. Out of 320, 63% of students respond that the students follow the rules of the hostel whereas 37% of students respond that the students don't follow the rules of the hostel. The above table 13 shows the student's educational level and their view about the rules of the hostel. Out of 320 students, 202 students responded that they students follow the rules of the hostel, of which 37 students are of FA/FSc level, 66 students of BS and MA/MSc level, 23 students of MBBS, and 10 students of M.Phil./PhD level. On the other hand, 118 students responded that they do not follow the rules of the hostel of which 12 students are at FA/FSc level, 42 are at BS level, 43 at MA/MSc level, 17 at MBBS, and 4 at M.Phil./PhD.

Table 13: Level of edu * all the students obey the rules and regulations of the hostel. Cross tabulation

	All the students obey the rules and regulations of the hostel.		Total
	No	yes	
FA/F.Sc	12	37	49
BS	42	66	108
M.Sc/M.A	43	66	109
MBBS	17	23	40
M.Phil/PhD	4	10	14
Total	118	202	320

Chi-square test of association between the level of education and rules follows by hostel students. The analysis indicates that the P-value for the Chi-square statistics (0.321) is more than a 5% level of significance. It can be concluded that rules followed by the hostel students are independent of the level of education i.e. they found no association between variables (Table 14).

Table 14: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square of Valid Cases	4.686 ^a 320	4	.321

The frequency distribution of the health of female students after joining the hostel. Table 15 shows that out of 320 students, 192 responded that hostel life affects their health very much, whereas 128 students responded that no effect occurs on their health.

Table 15: Does joining of hostel have any effect negative effect on your health?

	Frequency	Percent
No	128	40.0
Yes	192	60.0
Total	320	100.0

Crosstabulation (Table 16) of the quality of the food provided by the hostel mess and its effect on the health of students. Out of 320 students, 55 students said that the food provided by the hostel mess is not hygienic and has no negative effects on their health. 106 students said that the food is not hygienic and it also hurts their health. 73 students responded that food is hygienic and it has no effect on health, whereas 86 said that food is hygienic but it affects their health.

Table 16: Food provided by the hostel mess is hygienic? * Does joining of hostel have any negative effect on your health? Cross tabulation

		Does joining of hostel have any negative effect on your health?		Total
		no	yes	
The food provided by the hostel mess is hygienic?	no	55	106	161
	yes	73	86	159
Total		128	192	320

The above results from Table 17 show that OR is less than 1, which means that the negative effect on the health of students after joining hostel due to the hygienic food provided by the hostel mess is 0.644 times less than the negative effect on the health of students after joining hostel due to the no hygienic food provided by hostel mess. It also indicates the 95% confidence interval for OR. The lower confidence limit for OR is 0.411 and the upper confidence limit is 1.011.

Table 17: OR food provided by hostel mess and students' health

	Value	95% Confidence Interval	
		Lower	Upper
Odds Ratio for the food provided by the hostel mess is hygienic? (yes/no)	.644	.411	1.011
N of Valid Cases	320		

The academic performance of hostel students. Table 18 indicates that out of 320 students, 85 responded that hostel life does not improve their academic performance whereas 235 responded that hostel life improves their academic performance.

Table 18: Does hostel life improve your academic performance?

	Frequency	Percent
no	85	26.6
yes	235	73.4
Total	320	100.0

The perception of hostel students about group studies (shown in Table 19). Out of 320 students, 252 students responded that group discussion is good whereas 68 students responded that group discussion is time-wasting.

Table 19: what do you think group discussion is?

	Frequency	Percent
Good	252	78.8
time wasting	68	21.3
Total	320	100.0

The cross-tabulation of academic performance (table 20) of hostel students and group discussion. The table shows that out of 320 students, 63 responded that group discussion is good and hostel life does not improve their academic performance. 22 students responded that group discussion is time-wasting and hostel life does not improve their academic performance. 189 students responded that group discussion is good and hostel life improves their academic

performance. 46 students responded that group discussion is time-wasting and hostel life is not improving their academic performance.

Table 20: What do you think group discussion is * has hostel life improved your academic performance? Cross tabulation

		has hostel life improved your academic performance?		Total
		no	yes	
what do you think group discussion is	Good	63	189	252
	time wasting	22	46	68
Total		85	235	320

Table 21: OR for academic performance of students and group discussion

	Value	95% Confidence Interval	
		Lower	Upper
Odds Ratio for having a hostel life to improve your academic performance? (no/yes)	.697	.389	1.248
N of Valid Cases	320		

The above results from Table 21 show that OR is less than 1 which means that students whose academic performance is not increased and who think that group discussion is good is 0.697 times less than the students whose academic performance improves and think that group discussion is good. It also indicates the 95% confidence interval for OR. The lower confidence limit for OR is 0.389 and the upper confidence limit is 1.248.

Table 22: Can the internet be accessed at your hostel?

	Frequency	Percent
yes but limited	115	35.9
yes	205	64.1
Total	320	100.0

The frequency distribution of internet facilities provided to hostel girls (shown in table 22). Out of 320 students, 205 students responded that they are provided by internet facility, whereas 115 students responded that they are provided by internet facility but it is very limited.

Table 23: Do you follow fashion? * do you think hostel life improves your dressing sense? Cross tabulation

		do you think hostel life improves your dressing sense?		Total
		no	Yes	
do you follow fashion?	no	54	45	99
	yes	68	153	221
Total		122	198	320

Table 23 shows the cross-tabulation of hostel students about fashion and whether they follow fashion and hostel life improve their dressing sense or not, out of 320 students, 54 responded that they don't follow fashion and also hostel life is not improving their dressing sense. 45 students responded that they don't follow fashion but hostel life improves their dressing sense. 68 students respond that they follow fashion but hostel life is not improving their dressing sense, whereas 153 students respond that they follow fashion and also hostel life improve their dressing sense.

Table 24: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.385 ^a	1	.000
N of Valid Cases	320		

The Chi-square test of association between the fashion followed by hostel students and improvement in their dressing sense due to hostel life. The analysis indicates that the p-value for the Chi-square statistics (0.000) is less than a 5% level of significance. It can be concluded that the fashion followed by hostel students and improvement in the dressing sense due to hostel life is associated (Table: 24).

Table 25: are you satisfied with your hostel security?

	Frequency	Percent
no	60	18.8
yes	260	81.3
Total	320	100.0

The perception of students about hostel security. Out of 320 students, 240 students responded that they were satisfied with hostel security whereas 60 students responded that they were not satisfied. This can be seen from the results of Table 25.

Table 26: are you satisfied with your hostel security? * do you feel safe in your hostel? Cross tabulation

		Do you feel safe in your hostel?		
		No	Yes	Total
Are you satisfied with your hostel security?	No	36	24	60
	yes	5	255	260
Total		41	279	320

The above table (26) shows the cross-tabulation of the hostel security system and the students' perception of whether they feel safe in their hostel or not. Out of 320 students, 36 students responded that they were not satisfied with hostel security and didn't feel safe. 24 students responded that they were not satisfied with hostel security but felt safe in their hostel. 5 students responded that they were satisfied with hostel security but didn't feel safe. 255 students responded that they were satisfied with the security system and also felt safe in their hostel.

Table 27: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	147.195 ^a	1	.000
N of Valid Cases	320		

Table 27 shows the Chi-square test for the association between satisfaction with hostel security and whether students feel safe or not in their hostel. The analysis indicates that the p-value for the Chi-square statistics (0.000) is less than a 5% level of significance. It can be concluded that satisfaction with hostel security is strongly associated with whether students feel safe or not safe in their hostel i.e. both variables are strongly associated.

4.3. Analysis of variance

The Analysis of Variance was also performed among the number of female students in the rooms of various hostels. For One Way ANOVA, it is assumed that the number of female students in the room of various hostels is identical. The following table shows the ANOVA.

Table 28: ANOVA for the number of girls in the room of every hostel

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	118.336	6	19.723	11.727	.000
Within Groups	526.414	313	1.682		
Total	644.750	319			

Table (28) indicates that the p-value is less than a 5% level of significance, which means that the null hypothesis is rejected and concludes that there is a significant difference among the number of girls in the room of 7 hostels of Peshawar University.

4.4. Logistic Regression Analysis

Based on the response variable representing the students' satisfaction with the hostel amenities, a logistic regression analysis was carried out. Utilizing SPSS version 20, the analysis was carried out. The model is the best-fit model, according to the analysis's model summary based on the Cox & Snell R-square, which was determined to be 0.722. This indicates that the variables in the model account for 72.2% of the changes seen in the response variable. The calculated model is

$$\text{Logit}(P) = - 2.492 + 0.163 \text{ Hostel} - 0.077 \text{ EDULev} - 0.768 \text{ Water} + 0.545 \text{ Gen}$$

$$\begin{aligned} &+ 0.326 \text{ Toilets} + 0.942 \text{ Env} + 0.957 \text{ Room} + 0.590 \text{ HLT}_{\text{fac}} \\ &- 1.127 \text{ Mess} + 0.656 \text{ Academic} - 0.083 \text{ TV} \\ &+ 0.546 \text{ Access} + 1.254 \text{ Security} \end{aligned}$$

Where

Hostel = Name of each hostel

EDU_{Lev} = Level of education

Water = water problem in each hostel

Gen = Availability of generator facility

Toilets = condition of toilets in each hostel

Env = Environment of each hostel

Room = Room size

HLT_{fac} = Availability of Health facility in each hostel

Mess = food provided by hostel mess

Academic = Improvement in academic performance after joining hostel

TV = Availability of TV facility for entertainment

Access = Access to the internet at each hostel

Security = Satisfaction with a hostel security system

5. Discussion

The study's primary goals were to look at the issues that female students living in the dorms at Peshawar University encountered. The study indicates that out of 320 students, 84.4% of students are from educated families whereas 15% are from uneducated families. Also, the study showed that among 320 students, 28 have a complaint about water problems, 42 have complained that the washrooms of the hostel are in bad condition, 49 students said that they have a problem with the hostel mess, 59 students responded that there is no medical facility provided by the hostel, 44 students complain that there is no arrangement of cooled water in summer, 29 students said that there is a big problem of cooking gas in winter, 69 students complain that hostel rooms are overpopulated. The study indicates that, out of 320 students, 214 students responded that there is a big problem with water of which 40 students are from Benazir, 15 students are from UET, 13 are from KMC, 38 are from Fatima Jinnah, 44 are from Old tribal, 39 from Tatara and 25 from New tribal. On the other hand, 106 students responded that there is no water problem 9 from Benazir, 10 from UET, 27 from KMC, 12 from Fatima Jinnah, 4 from Old tribal, 14 from Tatara, and 30 from New tribal. Also, a chi-square test for the association between hostels and the water problem in this hostel showed that both variables are associated i.e. water problem depends on the hostels. Also, the students were asked about the condition of toilets and shower tools in their hostels. Out of 320 students, 193 students responded that the condition of toilets and shower tools is very bad of which 47 students are from Benazir, 19 from UET, 34 from KMC, 17 from Fatima Jinnah, 39 from Old tribal, 32 are from Tatara and 5 from New tribal. On the other hand, 127 students responded that the condition of toilets and shower tools are good in 2 students of Benazir, 6 students from UET and KMC hostel, 33 students of Fatima Jinnah, 9 students from Old Tribal, 21 students from Tatara and 50 students of New tribal. Also, a chi-square test for the association between hostels and the condition of toilets and shower tools in these hostels showed that both variables are associated i.e. the condition of toilets and shower tools depends on hostels. Also, the students' satisfaction with the hostel environment was calculated. Among 320 students, 78% of students responded that they are satisfied with their hostel environment whereas 21.9% of students responded that they are not satisfied. Students' educational level and their satisfaction with the hostel environment were also studied. Out of 320 students, 250 students responded that they are satisfied of which 44 students are of FA/FSc level, 82 students of BS and MA/MSc level, 30 students of MBBS, and 12 students of M.Phil./PhD level. On the other hand, 70 students' responded that they were not satisfied with 5 students of FA/FSc level, 26 at BS level, 27 at MA/MSc level, 10 at MBBS, and 2 at M.Phil./PhD.

Also, a chi-square test of association between the level of education and the satisfaction from the hostel environment showed that there is no association between two variables i.e. satisfaction from the hostel environment is independent from the level of education. In response, the students asked whether the students followed the rules and regulations of hostels. Out of 320, 63% of students respond that the students follow the rules of the hostel whereas 37% of students respond that the students don't follow the rules of the hostel. A cross-study between student's educational level and rules followed by hostel students is performed. Out of 320 students, 202 students responded that they students follow the rules of the hostel, of which 37

students are of FA/FSc level, 66 students of BS and MA/MSc level, 23 students of MBBS, and 10 students of M.Phil./PhD level. On the other hand, 118 students responded that they did not follow the rules of the hostel of which 12 students were of FA/FSc level, 42 of BS level, 43 of MA/MSc level, 17 of MBBS, and 4 of M.Phil./PhD. Also, the chi-square test for association between the level of education and rules followed by hostel students showed that there is no association between two variables i.e. rules followed by the hostel students are independent of level of education. In asking about the hostel mess, 161 students responded that the foods provided by the mess are not hygienic whereas 159 responded that the foods are hygienic. Also, 192 students responded that hostel life affect their health very much, whereas 128 students responded that no effect occur on their health. Odd ratio calculated for food provided by the hostel mess and students' health. It is found that the negative effect on the health of students after joining the hostel due to the hygienic food provided by the hostel mess is 0.644 times less than the negative effect on the health of students after joining the hostel due to the no hygienic food provided by hostel mess. Also, the 95% confidence interval obtained for OR varies from 0.411 to 1.011. In asked about whether hostel life improves their academic performance, 85 students said no, whereas 235 responded that hostel life improves their academic performance. Perceptions of students about group discussion show that 252 students think it is good whereas 68 think time wasting. The odd ratio test for improvement in academic performance and group discussion shows that students whose academic performance has not increased and who think that group discussion is good is 0.697 times less than the students whose academic performance improves and who think that group discussion is good. Also, the 95% confidence interval for OR varies from 0.389 to 1.248.

On asking the question about access to the internet at their hostel, 205 students responded that they are provided by internet facility, whereas 115 students responded that they are provided by internet facility but it is very limited. On asking the fashion question, 153 students responded that they follow fashion and also hostel life improves their dressing sense. Also, a chi-square test for association between the fashion followed by hostel students and improvement in their dressing sense due to hostel life shows that both variables are associated. In asking about hostel security, 240 students responded that they were satisfied with hostel security whereas 60 students responded that they were not satisfied. Out of 320 students, 36 students responded that they were not satisfied with hostel security and didn't feel safe. 24 students responded that they are not satisfied with hostel security but feel safe in their hostel. 5 students responded that they the satisfied with hostel security but didn't feel safe. 255 students responded that they were satisfied with the security system and also felt safe in their hostel. Also, a chi-square test for association is performed between satisfaction with hostel security and whether students feel safe or not in their hostel. The analysis indicates that both variables are strongly associated i.e. feel safeness in hostel strongly associated with hostel security. The Analysis of Variance was also performed among the number of female students in the rooms of various hostels. For One Way ANOVA, it is assumed that the number of female students in the room of various hostels is identical. Results show that the p-value is less than a 5% level of significance, which means that the null hypothesis is rejected and concludes that there is a significant difference among the number of girls in the room of 7 hostels of Peshawar University.

6. Conclusion

The primary goals of the study were to look at the issues that female students living in the dorms at Peshawar University encountered. In order to examine the information gathered from questionnaires given to a sample of students from seven distinct female dormitories at Peshawar University, a variety of statistical methods, including both descriptive and inferential statistics, were employed. The gate registration of each hostel was taken into consideration as a sampling frame when the sample was chosen using simple random sampling. Three hundred and twenty-one female students from Peshawar University's dorms provided data for this study. 49 students are from Benazir, 25 from the UET hostel, 40 students from the KMC hostel, and 50 sample of students were selected from Fatima Jinnah. Also, 15.0, 16.6, and 17.2 percent of the students were selected from Old tribal, Tatar, and New tribal respectively. The sample for the study is of different educational levels, in which 15.3% have F. A/ F.Sc level, 33.8% have BS level, 34.1% at master level, 12.5% doing MBBS and 4.4% have M.Phil./PhD level. Study indicates that 84.4% of students come from educated families and 15% from uneducated families. In this study among 320 students, most of the students complained about overpopulated rooms and the unavailability of medical facilities. The study showed that 67% of

students complain about the water problem, 60% respond that the condition of the toilets is bad, 22% said that they are not satisfied with the hostel environment, 37% respond that students don't follow the hostel's rules, 50.3% respond that food provides by hostel mess is not hygienic, 60% respond that hostel life affects their health negatively. 64% respond that internet access at their hostel. 62% respond that hostel life improves their dressing sense and 79.6% respond that they are satisfied with hostel security. Also, students were asked about their academic performance and group discussion, 59% of students responded that group discussion is good and hostel life improves their academic performance. To study the association among various factors, the chi-square test of independence was used, and in the majority of results, there was an association among factors. The OR was used to study the strength of association among various factors. It is found that there is a strong association between students' health and the type of food provided by hostel mess. Also, the association between students' academic performance and group discussion is strong. The number of girls in the rooms of said hostels was compared using ANOVA and the null hypothesis was found rejected. To study whether students were satisfied with hostel facilities, the logistic regression model was fitted. The result showed that the name of the hostel, education level, water problem, generator, condition of toilets, hostel environment, room accommodation, availability of health facilities, mess condition, academic performance, availability of TV, access to the internet, and good security found the significant factors.

6.1. Theoretical contribution

The theoretical contributions of this study on challenges confronted by female students in university hostels suggestively progress our perspective across numerous serious areas such as the social and Environmental determinants which disclose vigorous correlations between hostel environment factors like food quality, facilities, and social connections and student well-being and academic performance. These results supplement concepts connecting social and environmental factors to educational results, improving our understanding of how physical and social backgrounds affect student accomplishment. Further, by highlighting holistic student development, this study helps theories advocate for complete support systems. It underlines how interrelated factors such as physical health, social interactions, and academic achievement together impact student results. This viewpoint endorses broader educational interferences intended to increase total student attainment. Furthermore, environmental psychology gives visions into what way hostel environments disturb student happiness and routine contributing considerably to environmental psychology theories. By discovering the influence of physical surroundings on mental conditions and actions, the study offers empirical support for theories suggesting environmental impacts on individual well-being and efficiency. The above-mentioned theoretical contributions expand our indulgence of how hostel environments form female students' educational involvements and outcomes.

6.2. Policy implication

The findings of the students on female student hostel accommodation at Peshawar University have the following policy implications expected to improve female student satisfaction and academic performance:

1. To improve the food quality as there is a strong correlation between students' health and the type of meals provided to them in the hostel premises. There should be policies to be executed to increase the quality and nutritional value of meals in hostel mess services.
2. There should be a significant association between academic performance and group discussions, so policies must encourage structured academic support programs, like study groups and peer mentoring, should be announced.
3. Matters related to common facilities such as water availability, generator use, and toilet conditions propose a need for policies that must be dedicated to upgrading hostel infrastructure to ensure consistent services and sanitary conditions.
4. The significance of good security suggests that policies should highlight vigorous security actions, which include the existence of security staff, surveillance systems, and secure entrance and leaving points.
5. The substantial influence of health amenities on student satisfaction specifies the need for policies that guarantee the accessibility of complete health and wellness services inside the hostels.
6. Guidelines should speak of room accommodation criteria, with suitable room sharing, maintaining a favorable living environment, and making sure sufficient space and secrecy.

7. Policies certifying the right to use technology like consistent internet is vital for academic and entertainment purposes.
8. Employing policies for systematic assessment and feedback procedures that can help in constantly checking and refining hostel amenities grounded on student involvement.

Therefore, by focusing on these capacities through targeted rules and guidelines, educational institutions can improve the living circumstances and situations in the hostels, thus progressing the complete well-being and academic achievement of female students.

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