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Gender differences in client satisfaction and its relationship with utilization of primary health care services in Pakistan

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ABSTRACT

Background: Assessing client satisfaction with services is of prime importance for policymakers and health care managers of the countries with low utilization of primary health care (PHC) services.

Objectives: This study explores gender differences in client satisfaction with PHC services, and association of client satisfaction with the utilization of PHC services at basic health unit (Ahmed et al.) level in Balochistan province, Pakistan.

Methods: In this cross-sectional study, data were collected from 302 respondents within the service areas of selected 10 BHUs. The respondents were selected through simple random sampling. Weighted average index, t-tests and multiple regression analyses were used separately for women and men to investigate the differences in effects on their satisfaction levels on utilization of PHC services.

Results: The findings revealed that both men and women were not fully satisfied with the PHC services provided by the BHUs. They were mainly dissatisfied with the availability of medicines for chronic diseases, laboratory services, reproductive care and health education and quality of care. Gender differences were also found in the satisfaction with the convenience of BHU locations, distance to BHUs and services hours. These findings confirm that primary health care services are indeed poorly organized at BHUs.

Conclusions: These findings revealed shortcomings in the performance of primary health system at BHUs level, particularly in Balochistan province Pakistan. Policymakers and health care managers are suggested to revamp the existing service delivery strategies in order to make them more gender-responsive so that it could meet the expectations and PHC needs of both men and women.

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1. INTRODUCTION

In Pakistan, the primary health care (PHC) is provided through a widespread network of basic health units (BHUs) both in urban and rural areas. The utilization and satisfaction levels of PHC services, to a large extent, have remained unchanged during the past three decades. BHUs provide health care up to an average of 20-25 patients per day (Shaikh et al., 2010). Pakistan Demographic and Health Survey (2006-2007) indicated that around 20% of the population used basic level public sector facilities for their health care needs (National Institute of Population Studies and Macro International Inc., 2008). The inadequate and inefficient health care system in Pakistan has resulted in unequal access to health care (Akram & Khan, 2007). In addition to structural fragmentation and gender imbalance of human resources (Islam, 2002; PIHS, 2003), the health care in Pakistan is beset by several other factors which have resulted in the underutilization of PHC services at facilities in the country (Government of Islamic Republic of Pakistan,

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2000; UNDP, 2012). Failure in providing quality inputs to BHUs has been the basic reason for low utilization; for instance, besides the buildings being run-down, 28% of which lack electricity while 21% have no female staff (Nishter, 2006). Failure to ensure equity in access to PHC services compelled the government to outsource the PHC management to non-government organizations. Therefore, for improving the quality of PHC services, the public-private partnership was adopted known as Lodhran Model, which brought structural changes in the management of PHC services at BHU level (Khan, 2010). Thus, the management of PHC services at BHUs was contracted out to the People's Primary Health Care Initiative (PPHI), a company registered under Companies Ordinance 1984. The PHC services are provided to communities at the BHU level under Essential Service Delivery Package (ESDP), covering both curative and preventive health care services (Ministry of Health, 2009).

Exploring gender differences in use of health care has received enormous attention recently (Ahmed et al., 2000; Panezai et al., 2017; Redondo-Sendino et al., 2006). Research studies have shown that equity in access to quality health care irrespective of gender, age, ethnicity, social status and geographic locations, are significant goals for achieving equity in health care services (Song & Bian, 2014). Likewise, research has also reported women's greater utilization of health care services compared to men (Cui & Li, 2009; Macintyre et al., 1996). The differences between men and women in health services utilization may be attributed to differences in health needs, state of health, different social construction of the diseases and social power relations (Macintyre et al., 1996; Song & Bian, 2014; Verbrugge, 1985). Moreover, studies of Bener and Ghuloum (2013) and Kuosmanen et al. (2006) have also reported contradicting findings between men and women satisfaction with health care services, where men were found more satisfied as compared to women and vice versa.

The assessment of client satisfaction is of great interest to health managers of the countries with low utilization of PHC services. In one hand, it helps the organizations to improve the management of services; while on the other hand, also assists the policymakers to assess the outcomes of the polices for interventions at policy and management levels. Assessing patient's satisfaction is being used as a tool for measuring health outcome and quality of care (Grol et al., 2004). Client satisfaction with regards to the quality of care influences utilization of services. Hekkert et al. (2009) stated that satisfied patients are more likely to continue using health care services, comply with medical treatment, maintain the relationship with a specific health care provider and recommend the health care service to others. Whereas, since patient dissatisfaction leads to reduced utilization, it hinders the attainment of health for all (Ige & Nwachukwu, 2010).

The broad network of health facilities provides PHC services in the country. Among them, the prominent health facilities include basic health units (BHUs) and rural health centres (RHCs) provide PHC services, particularly to the rural population. The BHUs are located at Union Council (UC) level and each BHU is estimated to serve a population of around 10,000-12,000, and serve only outpatient services. While the RHCs are located at Tehsil level and are expected to deliver the PHC service on a relatively advanced level to a population of around 100,000; whereas, RHCs provide both outpatient and inpatient services. Despite an infrastructure comprising of a broad network of public health facilities, the health care delivery system in Pakistan has failed to improve the overall health status of Pakistanis especially among rural populations (Anwar et al., 2012). The low utilization of BHU indicates the poor quality of PHC services at the public-sector facilities. Researchers have identified studying patient satisfaction as a less explored area in Pakistan (Naseer et al., 2012). On the other hand, several research studies conducted by Ahsan et al. (2012), Imam et al. (2007), and Irfan et al. (2012) have explored patients' satisfaction with the health care services at tertiary care hospitals, as well as that of Khattak et al. (2012) who did comparison of public and private hospitals. Some of these studies, such as those of Abbasi et al. (2016) , Aziz and Hanif (2016), Loevinsohn et al. (2009) and Tanzil et al. (2014) have also explored the quality of services and community satisfaction with PHC services at BHUs. However, little is known about the gender differences in clients' satisfaction with the PHC services. In rural Pakistan, exploring gender differences in satisfaction with PHC

services at BHUs would help improve the performance of health system in meeting PHC needs of men and women. The research objectives of this study were two-fold. First, this study aims at exploring gender differences in community satisfaction with PHC services. Second, it aims to explore the association of client satisfaction with utilization of PHC services at BHU level in Balochistan, Pakistan.

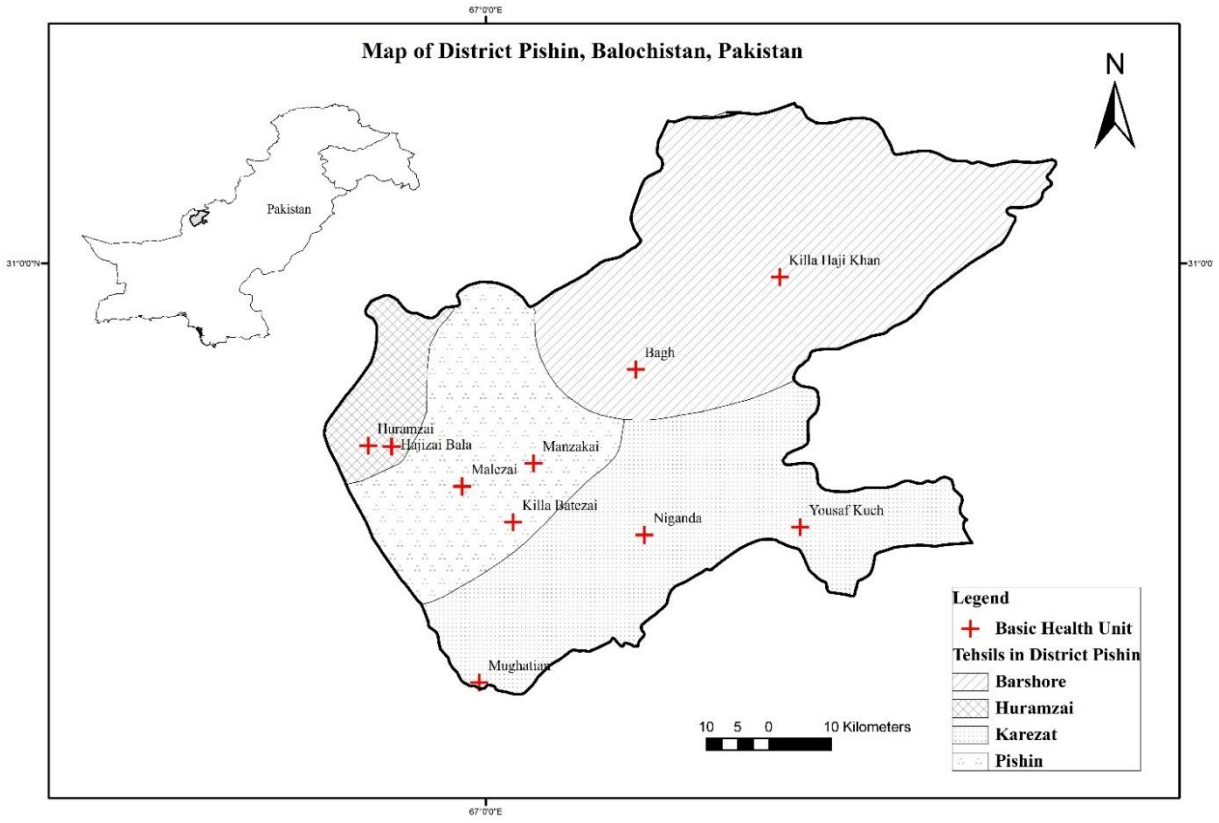
2. METHODS

2.1 Study design

This study has used case study research design for the collection of data. Quantitative techniques were used for statistical analysis of the data.

2.2 Setting

Balochistan province has in total 34 districts. Through using single case approach, Pishin District was selected as study area for this study. The District is located at 30° 04′ to 31° 17′ North latitudes and 66° 13′ to 67° 50′ East longitudes. It is pertinent to mention that the 94% of the population in Pishin District is living in rural areas. Pishin District was selected as the study area due to the following reason. It is neither the highly developed district nor the less developed district of Balochistan as ranked by Panezai (2012) therefore, it was selected as a medium case to avoid development bias. It is comprised of four tehsils named as Pishin Tehsil, Huram Zai Tehsil, Barshore Tehsil and Karezat Tehsil.



Map 1 Pishin District, Balochistan Province, Pakistan
Source: (Panezai et al., 2017)

2.3 Participants

As the study is gender-specific, both male and female adults having age above 18 years were selected as participants -172 were women and 130 were men. The respondents included both married and unmarried adults.

2.4 Variables

2.4.1 Dependent variable

The dependent variable (DV) in this study is utilization of PHC services. Utilization is defined as the outcome of the interaction between health professionals and patients (Donabedian, 1972). In this study, utilization of PHC services is measured by the number of visits made by male or female respondents to avail PHC services in the past 6 months (Alkhawaldeh et al., 2014). The respondents were asked the following question: How many times have you visited the BHU to avail needed PHC services during the past 6 months?

2.4.2 Independent variables

The independent variables comprised of the satisfaction items based on the five core dimensions of access model proposed by Thomas and Penchansky (1984). A total of 17 independent variables (IVs) included: availability of medicines from common illness and chronic diseases, laboratory services, reproductive care, health education, BHU location, distance to BHU, economic status, services hours, staff presence, appointment time, waiting time, responsiveness, confidentiality, gender friendliness, staff behavior and quality of care.

2.5 Data Sources/Measurement

The primary data were collected from 302 men and women respondents at household level in Pishin District through field survey in the catchment areas of the selected 10 BHUs. Questionnaire was used as a major tool for data collection.

2.5.1 Research instrument: Questionnaire

This study employed a newly developed instrument - questionnaire - to measure client satisfaction with the PHC services provided at BHUs. The instrument consisted of the 17 structured, close-ended questions. The questions on availability, accessibility, affordability, accommodation and acceptability were asked on a 5-point Likert scale ranging from very dissatisfied to very satisfied (-2= "Very Dissatisfied (VD)", -1= "Dissatisfied (D)", 0= "Neutral (N)", 1= "Satisfied (S)", 2= "Very Satisfied (VS)"). The Weighted Average Index WAI was used to calculate the client satisfaction with PHC services. The levels of client satisfaction with PHC services were measured through the WAI for each item in the instrument. The WAI was calculated according to the formula of Miah (1993) as:

$$WAI = (fVD \times -2) + (fD \times -1) + (fN \times 0) + (fS \times 1) + (fVS \times 2)/N \ldots\ldots\ldots (1)$$

2.5.2 Reliability of the instrument

The results of the Cronbach's Alpha revealed that the Cronbach Alpha for women was 0.856 and for men it was 0.783. For total, it was 0.824. Following the criteria suggested by George (2003) regarding the strength of coefficients, the overall coefficient is greater than 0.80 for all items in the instrument which is graded as "good", thus reliability test for the internal consistency of the instrument has passed. Therefore, it can be concluded that all items in the instrument possess Cronbach's alpha values higher than 0.70; hence, all items (17) employed in the instrument showed 'acceptable' to 'good' internal consistency.

2.6 Sample design

Two-stage sampling technique was used. In the first stage, basic health units (BHUs) were selected; while in the second stage, the respondents were selected. Out of the total 29 BHUs, 10 BHUs were selected on proportionate basis, three BHUs from Pishin Tehsil, three BHUs from Karezat Tehsil, two BHUs from Barshore and two BHUs from Huram Zai tehsils were selected randomly using lottery method. District Pishin has a total population of 367,183 persons (Population Census Organization, 1998). The number of

households in Pishin District is 53,947. A sample size of 302 was calculated by applying the formula of Arkin and Colton (1963).

$$n = \frac{Nz^2\,PQ}{N\,(e)^2 + Z^2\,PQ} \qquad (2)$$

Where,

n = Sample Size
N = Total Number of Households
Z= Confidence Level (at 95% level z= 1.96)
P = Expected Rate of Occurrence (25%, this maximizes the sample size)
Q = (1-p) i.e. Complement
e = error limit (5% = 0.05)

2.7 Data analysis methods

For data analysis, first, the WAI was calculated for women and men in the selected study variables. Second, t-test was employed for exploring the differences between women and men in their satisfaction with PHC levels. Third, multiple regression analysis was conducted to explore the relationship of independent variables with the dependent variable - the number of visits to BHU. The assumptions of regression analysis were met. Particularly, for the multicollinearity among independent variables, the variable inflation factor (VIF) was calculated and no multicollinearity was found i.e., (VIF<10). The statistical level of significance was set at $p<0.05$. The study used the following two regression models separately for women and men to investigate the differences in effects on satisfaction levels on utilization of PHC services among women and men.

3. RESULTS

3.1 Demographic characteristics of respondents

The sample was comprised of 43% men and 57% women. Majority of both genders were in reproductive age i.e., 25-50 years (Table 1). In the case of education, majority (82.0%) of women were illiterate as compared to 40.8% of their male counterparts. Majority of the men and women participants were married. In the case of economic status, majority of the participants belong to the lower income groups with monthly income less than 15,000 PKR (Pakistani Rupee). Significant gender difference was found as majority of the women were unemployed as compared to their male counterparts who were employed because most of the female participants were housewives.

3.2 Gender differences in satisfaction levels with PHC services

The results in Table 2 show gender differences in satisfaction with PHC services at BHU level. Men were 'dissatisfied' and 'very dissatisfied' for majority (10 out of 17) of the items employed in the study whereas they were 'satisfied' with the remaining seven items. In the case of women, the results show that they were 'dissatisfied' and 'very dissatisfied' for nine items employed in the survey, and 'satisfied' with the remaining eight items. In the case of women, findings show that they were found to be 'very dissatisfied' with medicine for chronic illnesses, laboratory services, and reproductive care. Likewise, they were found to be 'dissatisfied' with health education, BHU location, distance to BHU, affordability, waiting time and quality of care. However, they were found satisfied with medicine for common illnesses, service hours, staff presence, appointment time, responsiveness, confidentiality, gender friendliness and staff behavior. In the case of men, it was found that they were 'dissatisfied' with the availability of medicines for common illnesses, health education, affordability, staff presence, waiting time, responsiveness and quality of care. Whereas, they were 'very dissatisfied' with medicines for chronic illnesses, laboratory services and

Table 1 Demographic characteristics of the respondents

Items	Men		Women	
	f	%	f	%
Gender	130	43.0	172	57.0
Age (years)				
Less than 25	16	12.3	33	19.2
25-50	73	56.2	111	64.5
Above 50	41	31.5	28	16.3
Educational status				
Illiterate	53	40.8	141	82.0
Primary Education	26	20.0	9	5.2
Secondary and above	51	39.2	22	12.8
Marital Status				
Unmarried	17	13.1	52	30.2
Married	113	86.9	120	69.8
Income (PKR)				
≤15000	61	43.1	82	47.7
15000-30000	44	34.6	64	37.2
>30000	25	22.3	26	15.1
Employment				
Unemployed	10	7.7	152	88.4
Employed	120	85.7	20	11.6

Source: Field survey, 2013

reproductive care. However, men were found to be satisfied with BHU location, distance to BHU, service hours, appointment time, confidentiality, gender friendliness and staff behavior. Significant gender differences were found in the degrees of satisfaction levels for almost all variables except the availability of medicines for common illnesses, laboratory services, affordability, responsiveness and quality of care (Table 2).

3.3 The relationship between client satisfaction and utilization of PHC services

The results of the regression analysis in Table 3 show that client satisfaction has significant influence on the utilization of PHC services. Two regression models were used for the analysis of men and women separately. Both models were good fit. The R^2 for women and men were 0.538 and 0.580 respectively. The relationship between satisfaction and use of services are basically of two types, i.e., negative and positive. The negative relationship would decrease utilization while the positive satisfaction would increase utilization. In the case of women, satisfaction levels regarding seven variables were significantly influencing their utilization of PHC services. Similarly, satisfaction levels regarding these seven variables were also found for men. The satisfaction with availability of medicines for common illnesses was found significantly influencing the utilization of PHC services for both genders i.e., women ($p<0.05$) and men ($p<0.01$). Utilization of both genders is significantly influenced by their corresponding satisfaction levels. Comparatively, men's utilization was strongly influenced by their satisfaction levels as compared to that of

Table 2 Satisfaction levels of men with PHC services

Variables	Women		Men		t-test	P-value
	WAI	SL	WAI	SL		
Availability						
Medicines (common illnesses)	0.19	S	-0.05	D	0.318	0.751
Medicines (chronic diseases)	-1.47	VD	-1.08	VD	-2.311	0.021**
Laboratory services	-1.28	VD	-1.15	VD	-0.002	0.998
Reproductive care	-1.22	VD	-1.37	VD	2.274	0.024**
Health education	-0.58	D	-0.86	D	3.334	0.001***
Accessibility						
BHU location	-0.19	D	0.55	S	-3.236	0.001***
Distance to BHU	-0.74	D	0.92	S	-0.212	0.033***
Affordability						
Economic status	-0.91	D	-0.70	D	-1.529	0.127
Accommodation						
Service hours	0.69	S	0.35	S	2.375	0.018**
Staff presence	0.06	S	-0.24	D	3.071	0.002***
Appointment time	0.05	S	0.41	S	-1.748	0.081*
Waiting time	-0.52	D	-0.08	D	-1.951	0.052*
Acceptability						
Responsiveness	0.17	S	-0.04	D	1.357	0.176
Confidentiality	0.08	S	0.52	S	-2.370	0.018**
Gender friendliness	0.36	S	0.62	S	-2.958	0.003***
Staff behavior	0.04	S	0.55	S	-3.947	0.000***
Quality of care	-0.36	D	-0.40	D	-0.331	0.741

Significance: *. $p < 0.10$; **. $p < 0.05$; ***. $p < 0.01$;
Abbreviations. WAI =Weighted Average Index; SL =Satisfaction level; S= Satisfied; D= Dissatisfied; VD= Very Dissatisfied

women. The satisfaction with availability of medicines for chronic diseases was found significantly influencing ($p<0.01$) the utilization of PHC services of men, whereas it was found insignificant for women. In the case of reproductive care, the satisfaction level was found significantly ($p<0.01$) influencing the utilization of PHC services of women. However, in the case of men, it was found insignificant. The satisfaction with location of BHU was found significantly influencing ($p<0.01$) the utilization of PHC services of women. In the case of men, it was found insignificant.

The satisfaction with distance to BHU was also found significantly ($p<0.05$) influencing the women's utilization of PHC services; whereas, it was insignificant for men. In the case of satisfaction with the economic status, the satisfaction levels were found negatively influencing the utilization of PHC services for both genders, women ($p<0.01$) and men ($p<0.05$). Comparatively, women satisfaction with economic status is strongly influencing ($p=0.003$) utilization of PHC services as compared to those of men ($p=0.044$). The satisfaction with service hours of BHU was found significantly ($p<0.05$) influencing the utilization of

PHC services for men. In the case of women, it was found insignificant. This shows that men's utilization was strongly influenced (p=0.039) by their satisfaction with service hours as compared to those of women for whom it had no significant effect. Regarding the satisfaction with the presence of staff during duty hours, the analysis of results shows that it was found negatively influencing the women's utilization of PHC services; whereas, it was positively influencing for men. There were found meaningful gender differences. Similarly, the satisfaction with waiting time to get services was found significantly ($p<0.05$) influencing the utilization of PHC services for men, but insignificant for women. The most significant variable was the satisfaction with the quality of care, as it was found significantly ($p<0.01$) influencing the utilization of PHC services for both genders, women and men.

Table 3 Regression results for relationship between client satisfaction and utilization of PHC services

Variables	Women			Men		
	beta	SE	P-value	beta	SE	P-value
Availability						
Medicines (common illnesses)	0.73	0.29	0.012*	0.72	0.27	0.009**
Medicines (chronic diseases)	0.13	0.31	0.687	0.96	0.33	0.005**
Laboratory services	0.36	0.32	0.268	0.34	0.38	0.377
Reproductive care	1.18	0.32	0.000**	0.06	0.39	0.877
Health education	0.38	0.34	0.263	0.39	0.29	0.177
Accessibility						
BHU location	0.63	0.22	0.005**	0.13	0.26	0.598
Distance to BHU	-0.45	0.23	0.041*	-0.33	0.25	0.182
Affordability						
Economic status	-0.46	0.23	0.003**	-0.47	0.28	0.044*
Accommodation						
Service hours	0.35	0.37	0.343	0.58	0.33	0.039*
Staff presence	0.57	0.26	0.027*	0.65	0.28	0.023*
Appointment time	0.23	0.33	0.491	0.37	0.32	0.238
Waiting time	-0.28	0.29	0.340	-0.73	0.29	0.012*
Acceptability						
Responsiveness	0.04	0.28	0.882	0.44	0.32	0.169
Confidentiality	0.18	0.30	0.555	0.30	0.33	0.368
Gender friendliness	0.12	0.31	0.712	0.17	0.31	0.585
Staff behavior	0.41	0.33	0.222	0.38	0.34	0.264
Quality of care	1.24	0.29	0.000**	0.65	0.24	0.009**
Constant	4.63	0.68	0.000**	3.09	0.71	0.000**
R^2	0.538			0.580		

Source: Field survey, 2013

Significance Levels: **. $p < 0.05$; **. $p < 0.01$*; Note: SE= Standard Error

4. DISCUSSION

This study has explored the gender differences in satisfaction with PHC services and examined the relationships among satisfaction with services and use of PHC services at the basic health units (BHUs) in Pakistan.

The findings of the present study revealed that women were 'satisfied' with medicines for common illnesses, service hours, staff presence, appointment time, staff responsiveness, observance of confidentiality, gender friendliness and staff's behavior. In the case of men, the results showed that they were 'satisfied' with location of and distance to BHUs, service hours of BHUs, appointment time, observance of confidentiality, gender friendliness, and behavior of the BHUs' staff. The findings show that women were 'dissatisfied' with availability of medicines for chronic diseases, laboratory services, reproductive care, health education, location and distance to BHUs, economic status, waiting time and quality of care. Whereas, men were found 'dissatisfied' with medicines for common illnesses and chronic diseases, laboratory services, reproductive care, health education, economic status, presence of staff, waiting time, responsiveness and quality of care. The reason for the poor satisfaction levels includes the partial and unavailability of medicines for the treatment of chronic diseases. Similarly, the non-functional status of laboratories at BHUs was also the main cause of their dissatisfaction with laboratory services. Gender differences were found in the satisfaction levels with availability of medicines for common illnesses, locations of and distance to BHUs, staff presence and responsiveness of staff. Women were dissatisfied with the convenience of locations of BHUs and distance to BHUs. Contrary to women, men were found satisfied with them. The reason of dissatisfaction of women is that they face problems of transportation to reach the BHUs. Unless women are accompanied by a male or female peer, they do not go to the health facility because travelling alone is not respected and not considered safe in the local culture. In case of affordability, both men and women were 'dissatisfied' with their economic status to buy the prescribed medicines from the market. This dissatisfaction can be attributed to the fact that majority of the PHC users were the poor. Particularly among women whose main job was to perform household activities instead of earning. Therefore, they were comparatively at a more disadvantaged position in the household. In addition, men and women were found dissatisfied with waiting time to meet the health provider and the quality of care. This reason for their dissatisfaction with waiting time for services include the staff's late arrival to duty and the part time absenteeism where the staff members arrive at the BHU late for duty and then leave the BHU for personal works. However, they were "dissatisfied" with waiting time for the services. The findings of the present study are consistent with that of Aziz and Hanif (2016) who reported that people were not fully satisfied with BHU services. Nevertheless, our findings contradict with those of Tanzil et al. (2014) and Loevinsohn et al. (2009) who reported improvements in primary care delivery at BHUs.

The findings of this study show that satisfaction with availability of medicines for common illnesses had significant positive relationship with utilization of PHC services for both men and women. However, satisfaction with medicine for chronic diseases was significantly associated with increased utilization only among men. This difference between women and men shows that compared to women, men's utilization was strongly influenced by their satisfaction levels due to their higher need for treatment of chronic diseases. The 'dissatisfaction' of both men and women with the availability of medicines for chronic diseases indicates that there is an inadequate supply of medicines, particularly for chronic diseases such as diabetes, T.B., and hypertension. At BHU level, medicines for common illnesses are provided with ample quantity, whereas for the chronic diseases the supply is low. That was the reason both men's and women's utilizations are influenced by availability of medicines for common illnesses. Our findings are similar with those of World Health Organization (2007) which reports an increased availability of medicines for acute

care (30-67%) compared to chronic care (3-57%). Moreover, the reason why men's utilization is strongly associated with chronic care is due to their high expectation from the BHUs to fulfil their chronic care needs; as compared to that of women whose primary health needs include reproductive care. In the context of inadequate supply of chronic medicines, it is pertinent to mention that vertical programs for the treatment of chronic diseases also run parallel with the BHU's services. However, their effectiveness remains questionable, particularly in rural areas. The findings of this study are consistent with those of Sule et al. (2008) who reported that availability of medicines at PHC facilities increase utilization of PHC services. The findings revealed that satisfaction with reproductive care was positively related to use of PHC services among women only. This difference between women and men shows that women's utilization was strongly influenced by their satisfaction levels compared to men, due to their higher need for reproductive care. The reproductive care includes treatment for sexual health including care for sexually transmitted diseases and family planning services. The lowest WAI values in Table 2 indicate that BHUs have failed to fulfill the reproductive care needs of both men and women. The reasons behind the "very dissatisfaction" with reproductive care are two-fold. First, as the need of women is more than men therefore, women are targeted in the provision of family planning services, care for reproductive disorders and related diseases through the lady health visitor (LHVs) program; whereas men are neglected in counselling and provision of contraceptives. Second, the effectiveness of LHV program is also questionable particularly, in rural areas where due to lack of residential facilities and the appointment of non-local LHVs who do not perform their duties properly. The findings suggest that government policy should focus both on men and women for the reproductive care and family planning services. The results of the present study showed that satisfaction with the convenience of location and distance to BHU were significantly associated with women's utilization of PHC services. This difference between women and men shows that women's utilization was strongly influenced by their satisfaction with location of BHU as compared to that of men. Results also show that women's utilization was strongly influenced by their limitations of mobility as compared to men. The negative relationship of distance with utilization implies that BHU services were mostly utilized by those who used to live near to BHUs. The long distances were seriously impeding women's utilization due to lack of easy transportation and their unaccompanied traveling which is discouraged in the local culture. The findings of this study support the findings of the previous studies conducted by Awoyemi et al. (2011) and World Health Organization (2007) which have reported that utilization decreases as the distance to the health facility increases, and the findings of Mateen et al. (2013), who reported the positive influence of suitable locations of health facilities on utilization. In order to improve utilization of PHC services, particularly by women, the PPHI has to improve the quality of outreach services by strengthening the performance of LHVs. The present study pinpoints that satisfaction with economic status had significant negative relationship with utilization of PHC services. The reason for this negative relationship is attributed to the fact that people from lower income categories are the main users of services, particularly in rural areas, as evident in this case. People with high income prefer to use private care which is considered better compared to the services in public health facilities. The findings of the present study are consistent with those of Al-Ghanim (2004), Alsubaie et al. (2016) and Rahman (2001) who reported that PHC services at public facilities services are mostly used by low-income population. The results of this study demonstrated that satisfaction with the longer service hours of the BHUs was positively related with utilization of PHC services among men, in the case of men it was found insignificant. The reason for this difference is the fact that men serve to be the sole bread winners for the household, and they used to busy in business related activities, therefore, increased service hours of BHUs provide them more chances to use BHU services compared to women who stay at home for household works. The findings of the present study support those of Majrooh et al. (2013) who reported the positive influence of longer services hours on utilization of PHC services. According to the findings, satisfaction with staff presence was found having significant

positive association with utilization of PHC services for both men and women. The majority of BHU staff is comprised of men, whereas women patients are more likely to consult female staff at BHU. That is the reason why men utilization of service is positively influenced by the presence of staff. In the case of satisfaction with waiting time, utilization by men had significant negative association; whereas for women, it was found insignificant. The reason for this difference is the fact that men have multiple responsibilities including earning livelihood, therefore, as the waiting time increases, their utilization decrease. The findings in this study showed that satisfaction with the quality of care is the strongest predictor of utilization of PHC services. The findings of the present study revealed that utilization was positively influenced by the satisfaction of women and men with PHC services. The findings of this study support the findings of previous studies of Belachew (2001), Rahman (2001), Panezai et al. (2017) and Sule et al. (2008) who reported that quality of care is the strongest predictor of utilization of care.

Limitations of the study

The present study has two limitations. First, this is a cross-sectional study conducted in rural areas, therefore, its results may not be generalized to the utilization of PHC services in urban areas. Second, the possibility of recall bias may influence the actual number of their visits to the BHUs for seeking PHC services.

5. CONCLUSIONS

In response to low utilization of PHC services in rural areas, Pakistan has contracted out the PHC services to the People's Primary Healthcare Initiative (PPHI) – a registered company - through a public private partnership. From management perspective, exploring client satisfaction is very important as it serves as source for identifying systems weaknesses, patients' expectations and health needs and alternative strategies for improving the quality of care. The findings of this study confirmed that client satisfaction and utilization have strong relationship. The findings of the present study revealed that both men and women were 'satisfied' with items related to availability, accessibility, accommodation and acceptability. However, both men and women were mainly dissatisfied with the availability of medicines for chronic diseases, laboratory services, reproductive care, health education and quality of care. Regarding gender differences in satisfaction levels, women's main concerns were related to accessibility of services and access to reproductive health care, whereas, men's concerns included responsiveness and presence of staff and services hours. Thus, policymakers may increase the use of service while taking these issues into considerations. The utilization rates of PHC services are closely linked with the client's satisfaction. Improving quality of care can positively influence utilization of PHC services. These findings of the study suggest improvements in the PHC services provision at BHUs in Pakistan. Policymakers and health managers are suggested to revamp the existing service delivery strategies in order to make gender-responsive that could meet the expectations and PHC needs of both men and women at the BHUs' level.

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REFERENCES

Abbasi, K. A., Lal, S., Junejo, A. A., Sheikh, S. A., Korai, P., & Larik, S. (2016). Views of patients regarding services provided by Basic Health Units of Larkana District, Pakistan. *Rawal Medical Journal, 41*(3), 351-353.

Ahmed, S. M., Adams, A. M., Chowdhury, M., & Bhuiya, A. (2000). Gender, socioeconomic development and health-seeking behaviour in Bangladesh. *Social Science & Medicine, 51*(3), 361-371.

Ahsan, N., Chawala, J. A., Farooq, U., Rasool, A., Ahmad, A., Burki, N. A., & Qureshi, M. U. (2012). Assessment of Patients' Satisfaction in Medical and Surgical Wards in a Tertiary Care Hospital. *J Ayub Med Coll Abbottabad, 24*(3-4), 147-150.

Akram, M., & Khan, F. J. (2007). Health Care Services and Government Spending in Pakistan. P.I.D.E Working paper 32, Pakistan, from https://ideas.repec.org/p/pid/wpaper/200732.html

Al-Ghanim, S. A. (2004). Factors influencing the utilisation of public and private primary health care services in Riyadh City. *JKAU: Econ. & Adm, 19*(1), 3-27.

Alkhawaldeh, A., Holm, M. B., Qaddumi, J., Petro, W., Jaghbir, M., & Al Omari, O. (2014). A cross-sectional study to examine factors associated with primary health care service utilization among older adults in the Irbid Governorate of Jordan. *Current Gerontology and Geriatrics Research, 2014*, 1-8. doi: http://dx.doi.org/10.1155/2014/735235

Alsubaie, A. M., Almohaimede, K. A., Aljadoa, A. F., Jarallah, O. J., Althnayan, Y. I., & Alturki, Y. A. (2016). Socioeconomic factors affecting patients' utilization of primary care services at a Tertiary Teaching Hospital in Riyadh, Saudi Arabia. *Journal of Family & Community Medicine, 23*(1), 6-11. doi: 10.4103/2230-8229.172223

Anwar, M., Green, J., & Norris, P. (2012). Health-seeking behaviour in Pakistan: A narrative review of the existing literature. *Public Health, 126*(6), 507-517.

Arkin, H., & Colton, R. R. (1963). Tables for statisticians, Barnes and Noble. *Inc., New York*.

Awoyemi, T., Obayelu, O., & Opaluwa, H. (2011). Effect of distance on utilization of health care services in rural Kogi State, Nigeria. *Journal of Human Ecology, 35*(1), 1-9.

Aziz, S. Z., & Hanif, I. (2016). Primary care and health system performance in Pakistan: A study of basic health units of South Punjab. *J Pak Med Assoc, 2016*(12), 1632-1636.

Belachew, T. (2001). *Client satisfaction, primary health care & utilization of services in Sidama district, Southern Ethiopia, 2000.* Faculty of Medicine, University of Oslo. Retrieved from https://www.duo.uio.no/bitstream/handle/10852/30091/belachew.pdf?sequence=1

Bener, A., & Ghuloum, S. (2013). Gender difference on patients' satisfaction and expectation towards mental health care. *Nigerian Journal of Clinical Practice, 16*(3), 285-291.

Cui, B., & Li, W. (2009). Health gender inequality and gender-aware analysis on public health budget of China. *Population and Development, 15*(1), 60-65.

Donabedian, A. (1972). Models for organizing the delivery of personal health services and criteria for evaluating them Part 2. *Milbank Memorial Fund Quarterly, 50*(4), 103-154.

George, D. (2003). *SPSS for windows step by step: A simple study guide and reference, 11.0 update* (4th ed.). Boston MA: Allyn and Bacon.

Government of Islamic Republic of Pakistan. (2000). *Utilization of public health facilities in Pakistan*. Islamabad, National Health Management Information System.

Grol, R., Dautzenberg, M., & Brinkmann, H. (2004). *Quality Management in Primary Care: European Practice Assessment*: Verlag Bertelsmann-Stiftung.

Hekkert, K. D., Cihangir, S., Kleefstra, S. M., van den Berg, B., & Kool, R. B. (2009). Patient satisfaction revisited: a multilevel approach. *Social Science & Medicine, 69*(1), 68-75.

Ige, O. K., & Nwachukwu, C. C. (2010). Areas of dissatisfaction with primary health care services in government owned health facilities in a semi urban community in Nigeria. *Journal of Rural and Tropical Public Health, 9*, 19-23.

Imam, S. Z., Syed, K. S., Ali, S. A., Ali, S. U., Fatima, K., Gill, M., . . . Jameel, O. F. (2007). Patients' satisfaction and opinions of their experiences during admission in a tertiary care hospital in Pakistan – a cross sectional study. *BMC Health Services Research, 7*(161), 1-8. doi: 10.1186/1472-6963-7-161

Irfan, S., Ijaz, A., & Farooq, M. (2012). Patient Satisfaction and Service Quality of Public Hospitals in Pakistan: An Empirical Assessment. *Middle-East Journal of Scientific Research, 12*(6), 870-877.

Islam, A. (2002). Health sector reform in Pakistan: future directions. *Journal of Pakistan Medical Association, 52*(4), 174-182.

Khan, I. A. (2010). Public Sector Institutions, Politics and Outsourcing: Reforming The Provision of Primary Healthcare In Punjab, Pakistan. *Journal of International Development, 22*, 424-440. doi: 10.1002/jid.1574

Khattak, A., Alvi, M. I., Yousaf, M. A., Shah, S. Z.-u.-A., Turial, D., & Akhter, S. (2012). Patient Satisfaction–A Comparison between Public & Private Hospitals of Peshawar. *International Journal of Collaborative Research on Internal Medicine & Public Health, 4*(5), 713-722.

Kuosmanen, L., Hätönen, H., Jyrkinen, A. R., Katajisto, J., & Välimäki, M. (2006). Patient satisfaction with psychiatric inpatient care. *Journal of Advanced Nursing, 55*(6), 655-663.

Loevinsohn, B., Haq, I. u., Couffinhal, A., & Pande, A. (2009). Contracting-in management to strengthen publicly financed primary health services-The experience of Punjab, Pakistan. *Health Policy, 91*(1), 17-23. doi: http://dx.doi.org/10.1016/j.healthpol.2008.10.015

Macintyre, S., Hunt, K., & Sweeting, H. (1996). Gender differences in health: are things really as simple as they seem? *Social science & medicine, 42*(4), 617-624.

Majrooh, M. A., Hasnain, S., Akram, J., Siddiqui, A., Shah, F., & Memon, Z. A. (2013). Accessibility of antenatal services at primary healthcare facilities in Punjab, Pakistan. *J Pak Med Assoc, 63*(4 Suppl 3), 60-66.

Mateen, A., Shaikh, B. T., & Kumar, R. (2013). Emergency Obstetrics Care Services in District Neelum, Azad Jammu and Kashmir. *J Ayub Med Coll Abbottabad, 25*(1-2), 194-197.

Miah, M. A. Q. (1993). *Applied statistics: a course handbook for human settlements planning* Bangkok, Thailand: Darnsutha Press Co., Ltd.

Ministry of Health. (2009). *National Health Policy*. Islamabad, Ministry of Health, Government of Islamic Republic of Pakistan: Retrieved from http://www.ilo.org/wcmsp5/groups/public/@ed_protect/@protrav/@ilo_aids/documents/legaldocument/wcms_117438.pdf.

Naseer, M., Zahidie, A., & Shaikh, B. T. (2012). Determinants of patient's satisfaction with health care system in Pakistan: a critical review. *Pakistan Journal of Public Health, 2*(2), 56-61.

National Institute of Population Studies and Macro International Inc. (2008). *Pakistan Demographic and Health Survey (2006-07)*. Islamabad, Pakistan: National Institute of Population Studies and Macro International Inc.,: Retrieved from https://dhsprogram.com/pubs/pdf/FR200/FR200.pdf.

Nishter, S. (2006). The Gate Way Paper- Health Systems in Pakistan - a Way Forward.

Panezai, S. (2012). *Inter-district variation of health care services In Balochistan, Pakistan.* (Master of Science Published with Lambert Academic Publishing), Asian Institute of Technology, Thailand.

Panezai, S., Ahmad, M. M., & Saqib, S. E. (2017). Factors affecting access to primary health care services in Pakistan: a gender-based analysis. *Development in practice, 27*(6), 813-827.

PIHS. (2003). *Pakistan Integrated Household Survey 2001-2002*. Islamabad: Federal Bureau of Statistics Retrieved from http://www.opml.co.uk/sites/default/files/Pakistan%20Integrated%20Household%20Survey_0.pdf.

Population Census Organization. (1998). *Pakistan National Census of 1998*. Islamabad, Federal Bureau of Statistics: Retrieved from http://www.pbs.gov.pk/population-tables.

PPHI. (2014). PPHI Balochistan Annaul Report 2014 from http://www.pphibalochistan.org.pk/articles/reports/annual_health_diary_2014.pdf

Rahman, S. A. (2001). *Utilisation of primary health care services in rural Bangladesh: the population and provider perspectives.* London School of Hygiene & Tropical Medicine. Retrieved from http://researchonline.lshtm.ac.uk/682288/

Redondo-Sendino, Á., Guallar-Castillón, P., Banegas, J. R., & Rodríguez-Artalejo, F. (2006). Gender differences in the utilization of health-care services among the older adult population of Spain. *BMC public health, 6*(155), 1-9.

Shaikh, B., Rabbani, F., Safi, N., & Dawar, Z. (2010). Contracting of primary health care services in Pakistan: is up-scaling a pragmatic thinking. *Journal of the Pakistan Medical Association, 60*(5), 387.

Song, Y., & Bian, Y. (2014). Gender differences in the use of health care in China: cross-sectional analysis. *International journal for equity in health, 13*(8), 1-6.

Sule, S., Ijadunola, K., Onayade, A., Fatusi, A., Soetan, R., & Connell, F. (2008). Utilization of primary health care facilities: lessons from a rural community in southwest Nigeria. *Nigerian Journal of Medicine, 17*(1), 98-106.

Tanzil, S., Zahidie, A., Ahsan, A., Kazi, A., & Shaikh, B. T. (2014). A case study of outsourced primary healthcare services in Sindh, Pakistan: is this a real reform? *BMC Health Services Research, 14*(277), 1-7.

Thomas, J. W., & Penchansky, R. (1984). Relating satisfaction with access to utilization of services. *Medical care, 22*(6), 553-568.

UNDP. (2012). Situation Analysis of children and women in Pakistan: National Report Pakistan. from http://www.unicef.org/pakistan/National_Report.pdf

Verbrugge, L. M. (1985). Gender and health: an update on hypotheses and evidence. *Journal of health and social behavior, 26*(3), 156-182.

World Health Organization. (2007). Health System Profile Pakistan. from http://apps.who.int/medicinedocs/documents/s17305e/s17305e.pdf