UNIVERSITI PUTRA MALAYSIA

FACTORS AFFECTING THE UTILIZATION OF PUBLIC HEALTH CARE SERVICES AMONG HOUSEHOLDS IN LAHORE DISTRICT, PAKISTAN

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By

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Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Master of Science

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Abstract of thesis presented to the senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Science

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October 2019

Chairman : Ahmad Azuhairi bin Ariffin, PhD
Faculty : Medicine and Health Sciences

The contemporary research literature, in the case of the public health care system in Pakistan, has continuously reported that the public health care services offered to the citizens of the country are underutilized. However, many factors motivate or trigger the utilization of public health care services among the citizens. A public health care unit is an integral part of a social and medical organization, the function of which is to provide for the population complete health care curative and preventive. Increasing awareness of the general public regarding healthcare issues, public expectations from healthcare providers, availability of multiple healthcare resources to some people and increasing costs of treatment all have a definite bearing on the utilization of health care services from public healthcare units. There are various problems faced in utilization of public health care services like availability of equipment's, overcrowding, delay response in emergency, cleanliness and lack of proper guidance that creates a lot of problems for the patients and for this purpose following study was aimed to determine the factors affecting the utilization of Public healthcare services among the household of the Lahore District.

The objectives of the study is to determine the factors affecting the utilization of public healthcare services among household of Lahore District.

It was cross-sectional based study in Lahore district. A total of 500 household heads of Lahore district were included. Households were selected from Union councils, where there were about 1500- 2000 houses in each union council. Proportionate random sampling technique was adopted and information was gathered using validated and reliable self-administered questionnaire. The dependent variable was utilization of health care services and independent variables were sociodemographic factors, healthcare facility factors and environmental factors. Data was analyzed through SPSS 23.0. Frequencies and percentages were calculated and data was

presented in tables and figures. Chi-square test was used to measure association and Multinomial Regression analysis was used to determine predictors.

Among 500 respondents, 77.0% were males and 45.8% were 21-30 years old. Respondents with matriculation certificate had high percentage (40.6%) and 87.8% respondents has family monthly income ≤25,000 PKR rupees.

Respondents who visited health care facilities two times during last four illness spells was reported as 45.8%. Among respondents, 88.6% confirmed the availability of duty doctors, 21.8% were satisfied with medical examination and 70.4% were prescribed medical test while 18.4% were suggested by staff to go to any private clinic for test. Only 15.2% respondents said that behaviour of hospital staff other than doctors/medical professionals was satisfactory, 58.0% respondents waiting time for consultation in emergency was <1/2 hour, 63.0% were given medicine and advised fully about the disease, 23.2% respondents faced problem in getting bed, 24.2% got operation accessories/medicines from hospital and 28.4% were advised about follow up visits. Amounting 24.6% respondents said they will visit again to the public health care facility. As many as 88.4% respondents confirmed that proper sitting is available in waiting area of healthcare unit, 84.6% said cleanliness was satisfactory and 22.0% said clean water for drinking was available while 23.4% respondents said that washrooms of healthcare facilities were neat and clean. In accordance with the findings, family income affected the hospital visits significantly (AOR: 2.917; 95% CI: 0.000-1.35x10^{46}). Given this, the impact of education of respondents is also computed to be significant (AOR: 0.64; 95% CI: .239-3.76 at option5). The behaviour of hospital staff was also significant (AOR: 0.898; 95% CI: .416-1.93) and the effect of cleanliness (AOR: 1.51; 95% CI: .753-2.53). Lastly, the effect of waiting time was also significant (AOR: 3.6; 95% CI: .395-3.29x10^{1}).

The study showed that there was an association between socio-demographic factors, health-care facility factors and environmental factors with the utilization of public health care services among household head of Lahore district. Study revealed that gender and age do not predict the hospital visits, which implies that gender and age does not affect the number of visits by the patients to public health hospitals. it can be determined that irrespective of hospital conditions, and factors age groups and gender does not react as compared to the education, and family income. This is a new empirical finding that education affects the behavior of patients, and as does family income; thus a person with higher education and enough salary to afford private treatment will not make as frequent visits as others who are less educated and have less salary comparatively. Furthermore, the waiting time in emergency, behavior of doctors and paramedical staff, environment of the healthcare facility also significantly predicts the number of visits of patients.

Keywords: Challenges, utilization of public services, healthcare units, household, Pakistan

Abstrak tesis yang dikemukakan kepada senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Master Sains

FAKTOR-FAKTOR PENYEBAB PENGGUNAAN PERKHIDMATAN PENJAGAAN KESIHATAN AWAM DI KALANGAN ISI RUMAH DAERAH LAHORE, PAKISTAN

Oleh

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Oktober 2019

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Literatur penyelidikan kontemporari di dalam hal sistem penjagaan kesihatan awam di Pakistan, telah berterusan melaporkan bahawa perkhidmatan penjagaan kesihatan awam yang ditawarkan kepada warganegara negara kurang dimanfaatkan. Walau bagaimanapun, banyak faktor memotivasi atau mencetuskan penggunaan perkhidmatan penjagaan kesihatan awam di kalangan rakyat. Unit penjagaan kesihatan awam adalah sebahagian daripada organisasi sosial dan perubatan, yang berfungsi untuk memberi penjagaan kesihatan dan pencegahan penjagaan lengkap kepada penduduk. Meningkatkan kesedaran orang ramai mengenai isu penjagaan kesihatan, jangkaan orang ramai daripada penyedia penjagaan kesihatan, ketersediaan pelbagai sumber penjagaan kesihatan kepada sesetengah orang dan peningkatan kos rawatan semuanya mempunyai kepastian mengenai penggunaan perkhidmatan penjagaan kesihatan dari unit penjagaan kesihatan awam. Terdapat pelbagai masalah yang dihadapi dalam penggunaan perkhidmatan penjagaan kesihatan awam seperti ketersediaan peralatan, kesesakan, kelewatan tindak balas dalam keadaan kecemasan, kebersihan dan kurangnya bimbingan yang tepat yang mewujudkan banyak masalah untuk pesakit dan bagi tujuan ini kajian bertujuan untuk menentukan faktor yang mempengaruhi penggunaan perkhidmatan penjagaan kesihatan Awam di kalangan isi rumah Daerah Lahore.

Objektif kajian ini adalah untuk menentukan faktor-faktor yang mempengaruhi penggunaan perkhidmatan penjagaan kesihatan awam di kalangan isi rumah di Daerah Lahore.

Ia adalah kajian berasaskan keratan rentas di daerah Lahore. Sebanyak 500 ketua isi rumah daerah Lahore telah diambilkira. Isi rumah dipilih dari Majlis Kesatuan, di mana terdapat kira-kira 1500 ke 2000 rumah di setiap majlis kesatuan. Teknik pensampelan rawak yang berpadanan telah diterima pakai dan maklumat telah dikumpul menggunakan pengisian sendiri soal selidik yang telah disahkan dan boleh dipercayai. Pembolehubah bersandar adalah penggunaan perkhidmatan penjagaan kesihatan dan pembolehubah bebas adalah faktor sosiodemografi, faktor kemudahan penjagaan kesihatan dan faktor persekitaran. Data dianalisa menggunakan SPSS 23.0. Frekuensi dan peratusan dikira dan data dibentangkan dalam jadual dan angka. Ujian Chi-square digunakan untuk mengukur asosiasi dan analisis Regresi Multinomial digunakan untuk menentukan peramalan.

Di antara 500 responden, 77.0% adalah lelaki dan 45.8% adalah berumur 21-30 tahun. Responden dengan sijil matrikulasi mempunyai peratusan yang tinggi (40.6%) dan 87.8% responden mempunyai pendapatan bulanan keluarga $\leq$25,000 PKR rupee.

Responden yang melawat kemudahan penjagaan kesihatan dua kali selama empat penyakit terakhir dilaporkan sebagai 45.8%. Antara responden, 88.6% mengesahkan terdapatnya doktor yang bertugas, 21.8% berpuas hati dengan pemeriksaan perubatan dan 70.4% telah ditetapkan ujian perubatan manakala 18.4% disarankan oleh kakitangan untuk pergi ke mana-mana klinik swasta untuk ujian. Hanya 15.2% responden mengatakan bahawa tingkah laku kakitangan hospital selain doktor / profesional perubatan adalah memuaskan, 58.0% responden menunggu masa untuk berunding dalam kecemasan adalah <1/2 jam, 63.0% diberi ubat dan dinasihatkan sepenuhnya mengenai penyakit ini, 23.2% responden menghadapi masalah dalam mendapatkan katil, 24.2% mendapatkan aksesori / ubat operasi dari hospital dan 28.4% dinasihatkan mengenai lawatan susulan. Sejumlah 24.6% responden berkata mereka akan melawat semula ke kemudahan penjagaan kesihatan awam. Sebanyak 88.4% respondens mengesahkan bahawa duduk yang sesuai boleh didapati di kawasan menunggu unit penjagaan kesihatan, 84.6% mengatakan kebersihan adalah memuaskan dan 22.0% mengatakan air minum bersih disediakan manakala 23.4% responden mengatakan bahawa bilik air kemudahan penjagaan kesihatan adalah kemas dan bersih. Selaras dengan penemuan, pendapatan keluarga menjejaskan lawatan hospital dengan ketara (AOR: 2.917; 95% CI: 0.000-1.35x1046). Memandangkan ini, impak pendidikan responden juga dikira menjadi signifikan (AOR: 0.64; 95% CI: .239-3.76 pada pilihan 5). Tingkah laku kakitangan hospital juga penting (AOR: 0.898; 95% CI: .416-1.93) dan kesan kebersihan (AOR: 1.51; 95% CI: .753-2.53). Akhir sekali, kesan masa menunggu juga penting (AOR: 3.6; 95% CI: .395-3.29x101).

Kajian menunjukkan terdapat asosiasi antara faktor sosio-demografi, faktor kemudahan penjagaan kesihatan dan faktor persekitaran dengan penggunaan perkhidmatan penjagaan kesihatan awam di kalangan ketua rumah di daerah Lahore. Kajian mendedahkan bahawa jantina dan umur tidak meramalkan lawatan hospital, yang menunjukkan bahawa jantina dan umur tidak menjejaskan jumlah lawatan oleh pesakit ke hospital kesihatan awam. Ia boleh ditentukan bahawa tanpa mengira

keadaan hospital, dan faktor-faktor umur dan jantina tidak bertindak balas berbanding dengan pendidikan, dan pendapatan keluarga. Inilah satu kajian empirikal yang baru bahawa pendidikan mempengaruhi kelakuan pesakit, dan juga pendapatan keluarga; oleh itu seseorang yang mempunyai pendidikan tinggi dan gaji yang cukup untuk mendapatkan rawatan swasta tidak akan membuat lawatan kerap seperti orang lain yang kurang berpendidikan dan mempunyai gaji yang kurang. Selain itu, masa menunggu di dalam kecemasan, tingkah laku doktor dan kakitangan paramedik, persekitaran kemudahan penjagaan kesihatan juga meramalkan bilangan kunjungan pesakit.

Kata kunci: Cabaran, penggunaan perkhidmatan awam, unit penjagaan kesihatan, isi rumah, Pakistan

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This thesis was submitted to the Senate of the Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Master of Science. The members of the Supervisory Committee were as follows:

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

CI	Confidence interval
WHO	World Health Organization
BHU	Basic Health Unit
RHC	Rural Health Centers
THQ	Tehsil Head Quarter
DHQ	District Health Quarter
MOH	Ministry of Health
UNICEF	United Nations International Children Emergency Fund
OR	Odds Ratio
PR	Prevalence Ratio
SPSS	Statistical Package for the Social Sciences
UPM	Universiti Putra Malaysia
PHC	Public Healthcare
GNP	Gross National Product
USD	United States Dollar
PKR	Pakistani Rupee

CHAPTER 1

INTRODUCTION

1.1 Background of the study

Health is a state of efficient fitness that emphasizes collective and personal resources, as well as physical capacities (Naz *et al*., 2012). In human beings, the extent of an individual's physical, emotional, mental and social ability to cope with his/her environment is termed as health. The World Health Organization (WHO) defines health as a state of complete physical, mental, and social well-being, and not merely the absence of diseases or injury (WHO, 2006). Good health is a necessity for the proper functioning of any individual or society, if health is good, people can participate in numerous types of activities. If people are ill, worried or injured, they may not perform the daily routine task properly also become so pre-occupied with their state of health that other task are of secondary importance or worthless (Jalal, 2009).

Health Care units are integral part of a social and medical organization, the functions of which is to provide for the population complete health care both curative and preventive and whose outpatient services reach out to the family and its home environment; the health care unit is also a center for training of health workers and biosocial research (Tabish, 2003).

A World Health Organization Expert Committee in 1963 proposed the following working definition of a hospital: "A hospital is a residential establishment which provides short-term and long-term medical care consisting of observational, diagnostic, therapeutic and rehabilitative services for persons suffering or suspected to be suffering from a disease or injury and for the parturient. It may or may not also provide services for ambulatory patients on an out-patient basis" (Park, 2002a).

In different countries of the world, provision of the fundamental public health care services is the duty of the state which means that the federal government is responsible for the dissemination of the healthcare services to the citizens of the state. Most of the countries of the world have only the public healthcare provision systems that cater to the public health care needs of all the segments of society. However, in order to facilitate and support the public healthcare mechanism of the country, sometimes the private healthcare provision system works in conjunction with the public health care system. This can evidently be seen in the case of the economies which are growing at a very slow rate. Smee (2002) has argued that one of the most important reasons why the private health care facilities are preferred over the public health facilities in these countries or regions of the world is a shorter waiting time in the private health care services. The studies conducted by (RoK, 2001) also discuss some other factors including greater sensitivity and data confidentiality to the database of each individual

patient which has enhanced the acceptance and reputation of the private healthcare facilities over the public health care facilities.

However, this growing reputation and demand for private health care services and private healthcare service mechanism have also highlighted a major implication, especially for the developing countries. According to the scholars and researchers such as Al-Eisa *et al*. (2005), the increasing demand for private healthcare services has highlighted a major dichotomy in the social and economic infrastructure of the society in general; public health care services are availed by mostly the poor people of the society whereas the private healthcare services are available mostly by the richer people. Jawaid et al. (2009) have argued that if the poor people attempt to avail the private healthcare services in private hospitals in a country, they have to spend a major portion of their monthly income on the healthcare services.

The goal of the healthcare team is to provide patient with the best possible health care and service (Jawaid *et al*., 2009). For most of the patients, a visit to a hospital is often a new and frightening experience. Though interaction with patients seems routine to the hospital staff, the experience of receiving health care is not routine to the patients. The attention, attitude, and the information the hospital staff provide are very important to the patients (Deepa & Pradhan, 2002). Satisfaction is one of the core outcome measures for health care (Turhal *et al*., 2002).

At the same time, the contemporary research literature is also pointed out various other factors, apart from that of the financial resources of the average household of a particular country, which influences the decision of the rational citizen of the country to avail the public health care services offered by the state. Turbat et al (2002) have presented a very interesting and intriguing idea, namely that the private healthcare service mechanism sometimes does not have qualified, experienced and trained professionals. This gap is sometimes bridged by even the richer people availing the public health care services offered by the state at a minimal price. Deepa & Pradhan (2002) support this idea and exemplify the life-threatening diseases in which the treatment sometimes either requires a well-trained and skilled medical expertise or a vast pool of financial resources if the applicant decides to utilise a private healthcare facility. Under these circumstances, it is important to study and explore the various factors which have an influence on the motivation of the national citizen of the country to avail the public healthcare facilities offered by the state. This particular research study serves the same purpose; this study attempts to explore some of the key factors which motivate the general public to utilise public health care units. The case country selected for the analysis is that of Pakistan (Rehman *et al*., 2014).

Pakistan acquired the health care system introduced by the British government since 1947. The system is mainly responsible for preventing disease and providing of curative services to its population (Meghani *et al*., 2014). In Pakistani constitution, provincial government is key responsible for healthcare delivery and its management of the country, and the implementation of national policies. However, Federal government is responsible for planning and formulating national policies, research,

training, and seeking foreign assistance (Nishter, 2006). Moreover, currently federal domain is not focusing on health instead just taking care of accessibility of supplies and technology. The healthcare system in Pakistan includes both public and private health facilities, like government (public) and private hospitals, clinics, homeopaths, traditional/spiritual healers, herbalists, bonesetters and quacks.

Public health sectors comprises of Primary Health Care facility, which includes Basic Health Units (BHU) and Rural Health Centers (RHC). Secondary Health Care facility that include Tehsil Headquarters hospitals (THQ's) cater population at sub-district level and District Headquarters hospitals (DHQ's) accommodate district population. Moreover, tertiary health care facilities are also accessible that are mainly situated in cities and serves as teaching hospitals. There are other autonomous organizations such as Pakistan army, railway departments of local government, provides healthcare facilities to their employees (Callen et al., 2013).

The BHUs staff include a doctor or medical officer (MO) who also serves as the BHU's administrative head, a female health visitor (also known as a "lady health visitor"), a dispenser that provide preventive and primary healthcare services. Every BHU also serves as a center for five to six roving female health workers (or "lady health workers"), a vaccinator, and a school health and nutrition supervisor. These roving workers provide door-to-door preventive healthcare services and run awareness campaigns (Callen et al., 2013).

RHCs are better equipped than BHUs to manage minor emergencies and surgeries. They have basic diagnostic facilities and are equipped with basic laboratories. Each unit include two to three doctors along with a dispenser, female health visitors, and nurses. RHCs operate for longer hours than BHUs to deal with emergencies, so their staff works in shifts. In certain cases, the government has appointed specialists apart from general physicians in these facilities. (Callen et al., 2013).

Tehsils and districts headquarters provided with large hospitals with advanced healthcare facilities available at district level. Administratively, these hospitals are run by senior doctors or medical superintendents who leads a medical staff that comprises doctors, nurses, and other paramedical staff .Teaching hospitals equipped with most advanced healthcare facilities and prepare doctors and paramedical staff for future needs. The hospitals are located in urban centers, almost exclusively in divisional headquarters (Callen et al., 2013).

PHC services is being utilized only 30% by the population and the reasons for low utilization are less staff especially women, poor service quality and inconvenient public health care (PHC) locations. The public healthcare sector has numerous problems with inefficiency, unavailability of resources, poor infrastructures and gender insensitivities (Sheikh, 2010). Public sector is mainly fund through external or overseas finance. It contributes only 23% of total spending on health as compare to private sector that contributes 77% of health expenditure. This can explain that total 3

to 4% of GNP is spend on health, where 2 to 3% of GNP is spend on private healthcare sectors (Sheikh, 2010). Currently, Pakistan spends USD $17 per capita on health, and out of it USD$13 amount comes from out-of-pocket expenditures (Islam, 2002). The government of Pakistan with other developmental agencies like NGOs always attempt to established a public private partnership but yet no well-defined strategy is formulate for the regulation of this combined bodies (Meghani et al., 2014).

Patient satisfaction regarding treatment of different ailments is generally considered as the extent to which the patients feel that their needs and expectations are being met by the services provided (Al-Ddghaither & Saeed, 2000). Patient satisfaction predicts both compliances and utilization and may even be related to improved health. It also contributes to the atmosphere prevailing in a hospital. It is associated with continuity of care, the doctor's communication skills, the degree of his or her patient centeredness and the congruence between intervention desired and that received by the patient. Other factors influencing satisfaction with medical care include confidence in the system and a positive outlook on life in general. The physician remains a key element in patient satisfaction during treatment (Al-Eisa et al., 2005).

Outpatient department which include medicine and surgery and other sub-specialties areas like Accident and Emergency Department, Obstetrics and Gynecology in any hospital is considered to be solitary place of the hospital. There are various problems faced by the patients in outpatient department like overcrowding, delay in consultation, lack of proper guidance etc. that leads to patient dissatisfaction and creates a lot of problems for the patients. Now-a-days, the patients are looking for hassle free and quick services in this fast growing world. This is only possible with optimum utility of the resources through multitasking in a single window system in the outpatient department for better services (Jawahar, 2007).

A detailed analysis presented by United Nations International Children's Emergency Fund (UNICEF) in a published annual report (2013) on Punjab Districts. On average, per day Out Patient Department attendance in teaching/tertiary hospitals was 2,333 patients. In DHQs 1,164 patients, THQs 401 patients, in RHCs 151 patients and in BHUs 47 patients visits per day per health facility were reported. Furthermore, age and gender wise analysis, revealed that the percentage of female patients was higher (55%). The highest number of patients was reported among age group 15-49 years in which female were 29% and male were 18%. The patients of reported diseases constitute overall 49% of the total patients in 2013 while rest of the 51% was reported under the category of "others. Out of the 43 priority diseases, 19 are communicable and 24 are non-communicable (UNICEF 2013).

Below are some of the statistics of diseases prevalence in Punjab in annual report (2013) by UNICEF:

i) An analysis was done to show the facility wise average number of deliveries conducted per month. The average number of deliveries was 680 per month per tertiary care unit, in DHQ hospitals 189, in THQs 59, in RHCs 30 and in BHUs 8 deliveries per month.
ii) Lab services utilization indicates utilization of laboratory services at the facility and also gives a measure of the proportion of patients receiving diagnostic services from the laboratory of the health facility. In 2013, of the total OPD patients (94.5 million), 11.3 million patients availed the lab services and in indoor, of the total admissions (3.8 million) 9.9 million patients availed the lab services.
iii) Stock out status measures the percent of health facilities that experienced a stock-out of any tracer drugs/medicines for any number of days at any time of the year. The overall percentage of drugs out of stock was 25%.
iv) During 2013, 12% eligible couples availed the family planning services from the public sector health facilities against the expected population 16% (UNICEF 2013)

According to Health informatics Centre, MOH (10th Malaysia Health Plan) in 2008, 38.4% of the population was being registered in outpatient visits with 143 Public hospitals

It has identified that in both developed and developing countries, the public expectation has not met with the standard of health services provided. A great proportion of the population in many developing countries such as Pakistan, and especially in far flung areas, have imbalanced distribution to healthcare units, which can be accessed by only few and urban residents. Despite the fact, there is the acknowledgment that health is a key human right, a disavowal of this privilege to a great many individuals that got in the endless loop of neediness and ill health and encountered by a health related issue. In short, there has been a growing dissatisfaction with the existing health services and a clear demand for better health care (Park, 2002b).

With large migrations occurring form rural to urban areas, urban health problems have been aggravated and include overcrowding in hospitals, inadequate staff and scarcity of certain essential drugs and medicine. At level of tertiary health care especially government hospitals, poor patients that are the major population of Pakistan, are still facing problems for obtaining proper facilities for their treatment (Park, 2002c; Saeed & Ibrahim, 2005).

Increasing awareness of the general public regarding healthcare issues, public expectations from healthcare providers, availability of multiple healthcare resources to some people and increasing costs of treatment all have a definite bearing on the level of patient satisfaction from hospital facilities (Danish *et al*., 2008).

It has been observed that people especially from lower middle class visit the hospital from far flung area for their health problems. The patients suffer a lot of problems right from outdoor up- to their surgical procedure and even up to their discharge. The hospitals do not cater the health facilities up-to the mark or their expectations rather they become rolling stones between various departments of hospital.

1.2 Statement of the problem

In the background of this study, it has already been discussed that in the developing countries, the public health care system works in conjunction with the private healthcare system and gets some sort of facilitation and support from the same. Same is the case with Pakistan; Pakistan is a developing economy however, the public health care services are provided in conjunction with the private healthcare services. Nevertheless, according to the contemporary research literature, there are some places where public health care services are preferred even over private healthcare services. These factors, in the light of the theoretical research literature review, include those such as the non-availability of qualified and trained staff in the private healthcare facilities and sometimes the affordability of the private healthcare facilities (Sheikh, 2012). Whatever the case may be, it is necessary to study and explore in depth the factors that are responsible for motivating the rational citizen to utilize the public health care units in the country more than the private health care units. The severity of this problem and the gravity of the situation is well enunciated by the fact that this analysis is instrumental two words an important policy recommendations for the public healthcare units and services offered to the citizens; the federal government of the country can potentially strategize in order to optimize the resource allocation and make budgetary considerations for public health care services as a result of this analysis (Shaikh, Rabbani, Safi & Dawar, 2010).

Moreover, One of the major limitations of this nature of studies is, that most of the studies which are perceived to be a positive contributed towards the overall theoretical research literature in this area have discussed a dichotomous perspective on the axis of the public health care services; most of the studies have presented their findings in a dichotomous manner mainly discussing the factors that influence the access of healthcare services by men and women separately (frank et al.,2016). The hindrance in the way for effective analysis in such a situation is that to date, no comprehensive systematic review of barriers of nature which is not necessarily related to the gender of the masses has been conducted. Consequently, it becomes only naturally pertinent that a systematic review of the public health services offered to the citizens is conducted which presents a multidimensional analysis of the factors that contribute to the overall utilization of the public healthcare services.

Another major issue that this research has been intended to address is the poor quality of healthcare services and its lack of utilization in Pakistan, specifically in Lahore. According to Arifeen (2017), the public hospitals in Pakistan lack specialized doctors, ventilators, blood banks and technicians whereas their ambulances lack hygiene and do not have mechanisms to deal with critical situations. With regard to utilization, the most current research is conducted by Hussain et al. (2019) with **900** household and total populations **of 5,024.**

The study has found that only **43.3%** of the patients have visited hospitals but these patients also had serious complaints about the services; the remaining **37%** patients within the household was not inclined towards taking medicines when they got sick. One major issue has found to be the vicinity and timings of the hospitals due to which households have not been able to utilize health services accordingly. In contrast to the healthcare utilization in Turkey, the representation of male and female in the utilization has been similar who used to be living in urban areas of Turkey. The utilization of healthcare services in these areas is also high and the survey of Öztürk & Başar (2019) showed that urban residence in Turkey had **68.87%** of utilization in 2008 which increased to **71.13%** in **2010**; the increase is also indicated in 2012 when utilization had reached to **73.6%**.

Another major hurdle is the government's spending on healthcare; in 2007. The overall spending was recorded as 1% (Shaikh & Hatcher, 2007); however, it can be seen from the below table that public health expenditure has been increasing along with the development expenditure but development expenses are lower than total expenditure (Ministry of Finance, 2018). It indicates the lack of spending on the development of healthcare sector as per the total health expenditure.

Fiscal Years	Public Sector Expenditure (Federal and Provincial)			Percentage Change	Health Expenditure as % of GDP
	Total Health Expenditures	Development Expenditure	Current Expenditure		
2012-13	125.96	33.47	92.49	128.51	0.56
2013-14	173.42	58.74	114.68	37.68	0.69
2014-15	199.32	69.13	130.19	14.94	0.73
2015-16	225.87	78.50	147.37	13.32	0.77
2016-17	291.90	101.73	190.17	29.54	0.91
2017-18 B.E	384.57	130.19	254.38	31.75	1.12
Jul-Feb					
2016-17*	121.57	30.40	91.17	-	0.38
2017-18*	167.16	40.66	126.50	37.51	0.49
*Expenditure figure for the respective years are for the period (July-Feb)					

Figure 1.1 : Health Expenditure
(Source: Ministry of Finance 2018)

The system of healthcare in Pakistan has been facing a number of problems such as scarcity in resources, inefficient human resources and the issue of affordability and accessibility of healthcare services amongst rural population (Hassan, Mahmood & Bukhsh, 2017). With these pertaining issues, it has been important to consider what other socio-demographic and environmental factors can impact the utilization of healthcare services in Pakistan and specifically in Lahore. Therefore, the current research has been intended to address this issue by analyzing socio-demographic factor, health care facilities and environmental factors in utilizing public health care services among household of Lahore District.

Significant healthcare system management and planning is relied on the informed decisions of the professionals and to have complete knowledge regarding the medical services and its utilization amongst public (Motlagh et al., 2015). Plenty of literature is found in the context of utilization of healthcare services amongst individuals (Ngugi et al., 2013; Guinness et al., 2018); however, the area of socio-demographic factors that can impact the utilization of healthcare services needs further research. For instance, Uchendu, Ilesanmi & Olumide (2013) have conducted the study to evaluate the factors that can influence the satisfaction and choice of individuals towards healthcare providers.

However, the study lacks evidence pertaining to socio-demographic factors that can impact this satisfaction as well as utilization of healthcare services amongst the individuals. In addition to this, Ngugi et al. (2017) have conducted the study for identifying the factors that are important in planning as well as delivery of interventions for improving the utilization and coverage of healthcare services. However, lack of evidence found in the context of socio-demographic factor, health care facilities and environmental factors that can impact the utilizing of public health care services among household. This gap has been filled by the current research where the main focus has been to find the socio-demographic factor, health care facilities and environmental factors in utilizing public health care services among household.

Another major gap has been identified in the context of chosen area of the study. Despite that previous researches have focused on the utilization of healthcare services (Shayo et al. 2016; Devaux, 2015; Jeitziner et al., 2015; Wilunda et al., 2015); there is a lack of evidence found in the context of Lahore, Pakistan. For instance, Saeed et al. (2016) have conducted the study to investigate the use of healthcare services and the effect of economic and social inequality in Sub-Saharan Africa.

The study of Guinness et al. (2018) has focused on analysing the delivery reforms and health financing and the factors that promote utilization and access of people of Timor-Leste to healthcare services. However, none of these researchers have specifically focused on utilization of healthcare services in Lahore, Pakistan. Nevertheless, there are a number of researches that have studied the utilization of healthcare services in Pakistan (Javed and Liu, 2018; Zakar et al., 2017; Batool & Ahmed, 2017; Panezai, Ahmad & Saqib, 2017) and specifically Punjab (Majrooh et al., 2013); but specific current evidence in the context of city of Lahore needs to be provided and contributed

in the existing body of knowledge. Therefore, the following research has contributed to the body of knowledge by filling this gap and conducting the research on determining the factors which affect the utilization of public healthcare services among household of Lahore District.

1.2.1 Research Questions

In a more specific term, the study will help to provide the answers of following questions:

i) What is the proportion of utilization of public healthcare services in the district of Lahore?
ii) What are the factors that motivate or trigger the utilization of public health care services among households of Lahore District?
iii) What are the predictors of utilization of public health care services among the average household within Lahore District?

1.3 Research objectives

1.3.1 General objective

The aim of the study is to determine the factors which affect the utilization of public healthcare services among household of Lahore District.

1.3.2 Specific objective

The specific objective of the study is:

i) To describe socio-demographic factor, health care facilities and environmental factors in utilizing public health care services among household of Lahore District
ii) To determine the proportion of utilization of public health care services among household of Lahore district.
iii) To determine the association between utilization of public health care services among household of Lahore district with:
    a) Socio-demographic
    b) Health care facilities
    c) Environment factors
iv) To determine the predictors associated with utilization of public health care services among household of Lahore district.

1.4 Research Hypothesis

H_1: There is a significant association between the selected socio-demographic (age, gender, education level and income) factors health care facilities (medical equipment's, Ultrasound / X-ray facility, Delay in emergency response, Untrained staff, environmental factor (cleanliness, no. of patient in a room) and utilization of public health care services among household of Lahore District.

1.5 Significance of the study

Health is a fundamental right of each individual and health care units are believed to be best places where patients are treated with an adequate attention of medical and paramedical staff but in Pakistan health care services delivery is not satisfactory. Most of the people are from rural areas have inadequate knowledge about system and procedure of the health units while staff obstinate behavior also make difficult for them in getting service from these health unit. They face numerous challenges in utilizing of public health care services. The contemporary research literature, in the case of the public health care system in Pakistan, has continuously reported that the public health care services offered to the citizens of the country are underutilized. There are many factors aspects of this particular discussion. Author (Sofaer et al., 2005) discuss that there is a gender bias embedded within the public healthcare services of the country and it is due to this reason that there is a dire need for engendering the public health care system of the country. However, another group of scholars and researchers in this very area maintains that there are certain limitations of the already conducted research studies.

1.5.1 Contribution of new knowledge

Factors affecting the utilization of public health care services among household of Lahore district Pakistan is a different topic and getting attention to provide hassle free health services to the patients. This study contributes knowledge to researchers and policymakers for better outcomes and planning.

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