UTILIZATION OF NEWLY ESTABLISHED EXECUTIVE HEALTH SERVICES AT REHMAN MEDICAL INSTITUTE, PESHAWAR, KHYBER PAKHTUNKHWA, PAKISTAN

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ABSTRACT

Introduction: Structured healthcare screening packages for common diseases are offered by most private health institutions in Pakistan; Rehman Medical Institute (RMI), Peshawar introduced Executive Health Services in 2014, offering comprehensive health check-up and diagnostic screening. This study was conducted to evaluate the utilization and client satisfaction of these health services.

Materials & Methods: A descriptive study, based on secondary data of RMI Executive Health Clinic was conducted from August to October 2016; data from June 01, 2014 to May 31, 2016 were obtained from clinic records. Study variables included socio-demographic, health concerns / issues of clients, screening tests done, and diseases diagnosed. Data were analyzed by SPSS version 20 for descriptive statistics.

Results: During the 24 months study period, 111 clients presented, (62,55.9% male and 49, 44.1% female); the majority (64, 57.7%) were in age group 31-50 years. Most (103, 92.8%) were married, and from Afghanistan (73, 65.8%). Almost half (55, 49.6%) opted for "Gold" package, followed by "Silver" package (37, 33.3%), while 19(17.1%) opted for "Know Your Heart" package. The spectrum of presenting complaints indicated that most patients (53, 54.6%) had multisystem issues. Among screened participants, 94(84.6%) had abnormal test results, of which 12(12.8%) were only abnormal laboratory findings, 21(22.3%) only radiological abnormalities, 59(62.8%) multiple abnormal investigations, and 02(2.1%) only cardiologic abnormalities. Based on client feedback, only 1.06% expressed dissatisfaction.

Conclusion: Executive health services at Rehman Medical Institute were effectively utilized by clients and helped to identify hidden health issues at an early stage.

Keywords: Health Services; Personal Health Services; Health Services, Utilization; Diagnostic Techniques, Cardiovascular; Preventive Health Services.

INTRODUCTION

Health screening is defined as a sieving process to identify seemingly healthy people who may be at increased risk of or already affected by a disease or condition, in order to provide proper management and care.[1] Health screening is a way of discovering unrecognized health risks and ailments in persons who are thought to be free of disease. Proponents of screening programs stress that in addition to the potential of early disease detection (secondary prevention), they also provide the opportunity for screening participants to change unhealthy lifestyles through the lifestyle counseling (primary prevention). Consequently, participants' long-term health outcomes are expected to improve, and future health care costs to decrease.[2] Health care organizations in Pakistan are offering structured health care services which vary from level to level and organization to organization. Health care services at primary health care facilities level comprise of basic preventive and curative treatment while the services at tertiary care level comprise of specialized services.[3] Each service at tertiary health care level vary from

disease to disease.[3] One of the structured health care services is the comprehensive health screening program.[4] In Rehman Medical Institute such program was named Executive Health Services operated through Executive Health Clinic. The term executive checkup basically pertains to the most comprehensive checkup that an institution provides and apparently the most expensive. The principle aim of a health check-up is to detect and pre-empt the onset of a disease, at an early stage or ideally prevent illness occurring in the first place. This is especially so in individuals who are predisposed to certain diseases, high stress lifestyle, extended working hours and irregular food habits.[5] Good health screening has become vital to our success today. Health checkup assesses the current state of a person's health, increases awareness about diseases and provides reassurance.[6,7]

Health Check-up or Screening is one of core approach for early detection and early treatment of the diseases in a given population, however, this is not without limitations. The screening program which rely on basic tests may result in false positive or negative outcomes causing psychological stress (due to test results), social stigmatization, and economic consequences. The success of health screening programs depends on the context of disease burden and the availability of infrastructure and human resources; as a result, the successes of control varies from organization to organization and country to country.[8,9] Most developed countries have introduced rigorous and essential health screening in their national programs; on the other hand, health screening in developing countries has largely been overlooked, leaving room for its privatization and high out-of-pocket payments.[9]

Rehman Medical Institute (RMI) started Executive Health Checkup program for people from all walks of life since June 2016, where comprehensive health screening is offered to the clients. The program offers three packages for comprehensive health care, all of which include history, general and specialist physician examinations, and investigations:

1. *Gold Package*: Offers the most extensive screening and investigation covering essentially all aspects of primary and secondary prevention.
2. *Silver Package*: Offers essential investigations and screening for the common health conditions based on age, gender, and other known risk factors.
3. *Know Your Heart*: Offers detailed screening for cardiovascular diseases.

This study was conducted to evaluate the utilization and success of the Executive Health Checkup Program in RMI.

MATERIALS & METHODS

A descriptive study was conducted in Rehman Medical Institute, Peshawar, Khyber Pakhtunkhwa Pakistan on 111 clients who availed different screening packages of Executive Health Clinic during 1st June 2014 to 31st May 2016. Ethical approval was taken from Department of Medical Research, Rehman Medical College Peshawar. Data were collected using the indigenously designed Executive Health Checkup Assessment Form which contained variables relating to socio-demographic data, past illness, risk factors, present illness, test results, diagnoses, and referral records; patients' satisfaction with services was also recorded. Data were entered into SPSS 20 for descriptive statistics.

RESULTS

The demographic data of 111 total clients availing the executive health services during the study period is presented in Table 1; out of these, 62(55.9%) were males and 49(44.1%) were females. Most of them (64, 57.7%) were in the age group of 31 to 50 years, and 103(92.2%)

were married. Regarding nationality, 73(65.8%) belonged to Afghanistan while 38 (34.2%) were Pakistanis. Of the three executive health packages (Gold, Silver and Know Your Heart), most clients opted for Gold package (55, 49.6%) followed by Silver (37, 33.3%). The screening package for cardiac problems (Know Your Heart) was opted by only 19(17.1%) individuals.

Table 1: Demographic data of subjects (n=111).

#	Demographic variables	Frequency	Percentage
1.	**Gender**		
	Males	62	55.9
	Females	49	44.1
2.	**Age Groups (years)**		
	<30	17	15.3
	31-50	64	57.7
	>50	30	27.0
3.	**Marital status**		
	Married	103	92.8
	Single	08	07.2
4.	**Nationality**		
	Pakistan	38	34.2
	Afghan	73	65.8
5.	**Screening Package**		
	Gold	55	49.6
	Silver	37	33.3
	Know your heart	19	17.1

The past medical histories of clients are presented in Table 2.

Most (59, 53.2%) subjects had a positive previous history of illness; of these, 28(47.5%) were of minor nature, followed by hypertension in 12(20.3%) and Diabetes in 07(11.9%); ischemic heart disease was present in 03(5.1%), and combination of diseases was present in 08(13.5%) of subjects.

The family history of disease was present in 59(53.2%) clients. Of these, Hypertension was the leading disease (17, 28.8%), followed closely by Diabetes mellitus (14, 23.7%); ischemic heart disease was present in 07(11.9%) of family members, other minor diseases were present in 05(08.5%), while combined diseases were present in 16(27.1%) family members.

Health assessment findings indicate that healthy lifestyle practices were being followed by only 27(24.3%) clients. Obesity was present in 31(27.9%) subjects, sedentary life style was reported by 15(13.5%) subjects, while a combination of unhealthy lifestyle practices was being followed by 34(30.6%) subjects. Additionally, there were 03(02.7%) smokers, and 01(01.0%) subject was an alcohol abuser.

History of previous hospital admission was reported in 19(17.1%) and 110(99.1%) had never opted for any programmed health screening services in the past.

Table 2: Previous medical history of subjects (n=111).

#	Medical History Variables	Frequency	Percentage
1.	**Past history of Illness**		
	Positive	59	53.2
	Negative	52	46.8
2.	**Past Illnesses (n=59)**		
	Hypertension	12	20.3
	Ischemic Heart Disease	03	05.1
	Diabetes Mellitus	07	11.9
	Renal Disease	01	01.7
	Other Diseases (minor)	28	47.5
	Combined Diseases	08	13.5
3.	**Family History of Disease**		
	Positive	59	53.2
	Negative	52	46.8
4.	**Family Illnesses (n=59)**		
	Hypertension	17	28.8
	Ischemic Heart Disease	07	11.9
	Diabetes Mellitus	14	23.7
	Other Diseases (minor)	05	08.5
	Combined Diseases	16	27.1
5.	**Poor Health Practices**		
	None (healthy lifestyles)	27	24.3
	Sedentary lifestyle	15	13.5
	Smoking	03	02.7
	Obesity	31	27.9
	Alcohol abuse	01	01.0
	Combined Practices	34	30.6
6.	**Previous hospital admissions**		
	Yes	19	17.1
	No	92	82.9
7.	**Previous Screening**		
	Yes	01	0.9
	No	110	99.1

Table 3 shows the presenting concerns / complaints of the clients as well as the diagnostic findings; 97(82.4%) clients were having health issues at the time of presentation for screening. Out of these, 53(54.6%) had complaints involving multiple systems, followed by 15(15.35%) for CVS, 9(9.3%) for GIT and 07(7.2%) for CNS and Locomotor each.

The outcome of screening tests indicates that 94(84.6%) clients' reports were abnormal. Out of these 21(22.3%) had abnormal radiology reports only, 12(12.8%) had abnormal laboratory reports only and 02(2.1%) had abnormalities in cardiology related investigations; 59(62.8%) subjects had abnormalities in multiple investigations. Only 9(8.1%) clients were found healthy (no apparent disease). Among the unhealthy clients 68(61.3%) were newly diagnosed cases and 34(30.6%) were chronic cases; 82(73.9%) were referred to consultants. Client satisfaction from Executive Health Clinic (Health Screening Program) at RMI among the recorded feedback of 94 cases indicates that 50(53.2%) were Most Satisfied, and 43(45.7%) were Satisfied, accounting for a cumulative satisfaction rate of 98.9%.

Table 3: Presenting symptoms, results and feedback of subjects (n=111).

#	Checkup	Frequency	Percentage
1.	**Presenting symptoms**		
	Yes	97	87.4
	No	14	12.6
2.	**System(s) involved (n=97)**		
	CVS	15	15.5
	Respiratory	02	02.1
	CNS	07	07.2
	GIT	09	09.3
	Multisystem	53	54.6
	Locomotor	07	07.2
	Genito-urinary	03	03.1
	Others	01	01.0
3.	**Investigation Results**		
	Normal	17	15.3
	Abnormal	94	84.6
4.	**Abnormal Investigations (n=94)**		
	Laboratory reports	12	12.8
	Radiology	21	22.3
	Cardiology	02	02.1
	Multiple	59	62.8
5.	**Diagnosis**		
	Healthy	09	08.1
	New Case	68	61.3
	Old Case	34	30.6
6.	**Referred to Consultant**		
	Yes	82	73.9
	No	29	26.1
7.	**Feedback of subjects**		
	Most satisfied	50	45.0
	Satisfied	43	38.7
	Not satisfied	01	1.0
	Not recorded	17	15.3

DISCUSSION

Health screening is a vital component of teaching hospital as it screens for early diagnose of diseases and health conditions and address the potential risks. The range of screening is wide, ranging from Lifestyle, stress, family medical history to advance level investigations.

The results of present study indicate that most (64, 57.7%) patients were of ages 31-50 years, and 103(92.2%) were married. The age group is important because there is a sharp rise in morbidity at a mean age of 40 years.[10, 11] However health screening uptake in young men remains low in the world.[12,13] Doctors perceived that older men were more receptive to health screening and thus were more likely to discuss health screening.[15] It was also reported that priority for health screening was more common in married men as compared to young unmarried.[16]

The Know Your Heart package was opted for by only 19(17.1%) individuals. This low percentage is supported by a large multi-center study from the USA,[14] where the reported screening rate for cardiac problems varied from 25.8% to 53.7% (mean 40.1%) of age-eligible patients among different clinics during the two-year study period. Another study on screening and treatment practices for hypertension in physician

clinics conducted in the USA (2003-2004) reported lack of insurance, absence of HTN-related comorbidities, and visits to other than general medical practitioners as being associated with decreased odds of being screened for HTN.[17]

Fear of consequences of unhealthy, sedentary lifestyle, and obesity were the influencing factors for visiting the health screening program at RMI as indicated by the 24.3-30.6 of clients who came for screening because of unhealthy lifestyle (Table 2). This trend has also been documented in another study[18] where the driving factor for seeking health screening program was increased awareness among people about the adverse effects of unhealthy lifestyle, such as smoking, alcoholism, obesity and lack of physical activities. Yet another study estimated that 60% of related factors to individual health and quality of life are correlated to lifestyle.[19]

Regarding initial impressions based on presenting complaints/concerns, most clients, 53(54.6%) had Multisystem features, 15(15.35%) had CVS, 9(9.3%) had GIT, and 07(7.2%) had CNS and Locomotor features, each. The screening pattern and adoption of different screening services should depend upon the priority of patients and disease patterns of the country, as shown by a comprehensive study from Thailand.[9]

Abnormal investigation results were documented for 94(84.6%) of clients, thereby depicting the usefulness of the screening program (Table 3). Of the 94 abnormal reports, 59(62.8%) were of mixed type (including laboratory, radiology, and cardiology); the remaining were isolated to these three areas.

Based on a final diagnosis, 68(61.3%) new cases of disease were identified; 34(30.6%) were old cases, and 9(8.1%) were healthy. The finding of a high number of new cases contrasts sharply with a study evaluating the NHS screening program over a 4-year period,[20] where only 5% new cases were picked up. This disparity reflects the long-term introduction of NHS program where most cases were already previously diagnosed cases; in RMI, the program being new, would reflect the cases who had not availed previous screening practices.

Referral to a consultant was done in 82(73.9%) cases, while the rest were treated on an outpatient basis.

Of the 94 clients who provided feedback about their satisfaction with the RMI Screening Services, only 01(1.06%) expressed dissatisfaction, while 93(98.94%) expressed satisfaction. The satisfaction level rates well when compared to a study documenting client satisfaction with NHS and Community Outreach Program in UK, where 97% patients availing these services expressed satisfaction with the health checks;[21] the main areas of satisfaction were the location of clinics, staff timings and attitudes, knowledge about their health status, and inclusion of ethnic minorities in the checkups.

CONCLUSION

Despite the recent initiation of the RMI Executive Health Screening program, its performance remained satisfactory and useful to clients for screening, preventive, and curative purposes.

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