

Trends of utilizing newly introduced executive health services packages at Rehman Medical Institute, Peshawar

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ABSTRACT

Introduction: In 2014, Rehman Medical Institute (RMI), Peshawar introduced Executive Health screening in a designated setting, offering detailed health check-up, diagnostic screening and reporting with counselling regarding risks. Initially packages were named as *Gold*, *Silver* and *Know Your Heart*. In 2016 it was observed that the packages were not addressing the age and gender wise issues and were being utilized as per affordability of clients. Hence as per international guidelines new packages were introduced which were age and gender specific. This study was conducted to evaluate the utilization, outcome and clients' satisfaction.

Materials & Methods: The data were collected from June 2018 to July 2019 from clinical record of Executive Health checkup RMI. It is a descriptive study, based on secondary data. Study has various variables including socio-demographic, health alarms / concerns of patients, screening investigations done, and illnesses identified. Through SPSS version 20 Data were analyzed for descriptive statistics.

Results: During the 12 months study period, 169 patients attended, 140(82.8%) male and 29(17.2%) female; the majority 103(61%) were in age group 31-50 years. Most 138(81.7%) were married, and from Pakistan, 138(81.7%). Most clients, 44(26%) were above 40 & males, followed by men below 40 years of age, 36(21.3%), while 15(8.9%) were women above 40 years and 11(6.5%) women below 40 years; all were given their age and gender specific packages. The spectrum of presenting complaints indicated that most patients, 09(12.7%) had multisystem issues. Among screened participants, 161(95.3%) had abnormal test results, of which 12(12.8%) were only abnormal laboratory findings, 161(95.3%) only radiological abnormalities, 131(77.5%) multiple abnormal investigations, and 123(72.8%) only cardiologic abnormalities. Based on client feedback, none expressed dissatisfaction.

Conclusion: Executive health services at Rehman Medical Institute were efficiently consumed by patients and facilitated to diagnose unknown health issues at an initial stage. Patient satisfaction level was high.

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

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INTRODUCTION

Screening refers to the presumptive identification of unrecognized disease or defect by the application of tests, examinations, or other procedures which can be applied rapidly and at lesser costs. Screening tests sort out apparently well persons who probably have a disease from those who probably do not. A screening test is not intended to be diagnostic. Persons with positive or suspicious findings must be referred to their physicians for diagnosis and necessary treatment. Health screening is defined as a filtering practice to recognize apparently fit individuals who may be at risk of or already affected by an illness or disorder, in order to deliver suitable management and care.¹ Health screening in individuals who are thought to be free of ailment is an approach for determining unrecognized health dangers and illnesses. Advocates of screening programs emphasize that along with the possibility of early disease discovery (secondary prevention), they also offer the prospect for screening participants to change harmful way of life through the lifestyle counseling (primary prevention). As a result, participants' long-term health results are anticipated to progress, and future healthcare expenses to lessen.² Specially designed health packages which differ from level to level and organization to organization are offered by health care organizations internationally. At the level of primary healthcare services facilities, they consist of basic precautionary and therapeutic treatment while the facilities at tertiary care level consist of specified services.³ Each Healthcare service differs from disease to disease at tertiary healthcare level.³ Comprehensive health screening program is one of the structured healthcare services.⁴ Such a program was named as Executive Health Services that functioned through Executive Health Clinic in Rehman Medical Institute, Peshawar, Khyber Pakhtunkhwa, Pakistan. The term Executive Checkup refers to the most comprehensive checkup that an organization offers and apparently the most exclusive and expensive. To identify and pre-empt the start of a disease at a primary phase or preferably prevent illness happening in the first place is the principle objective of a health check-up. Screening is important, particularly for individuals having a higher risk of certain diseases

due to lifestyle, long working hours, stress and unhealthy food habits.⁵

The key role of health checkups is to evaluate the present state of a person's health, awareness about ailments and offering assurance and counselling. It is an approach for timely recognition and timely management of the illnesses in a given population, however, there are limitations in this as well. The screening program depends on simple tests which may be false positive or negative resulting in psychological stress (due to test results), stigmatization, and financial issues.

The success of Health Screening Programs depends upon the available infrastructure and human resources as well as the burden of diseases screened, which results in the variability of success from organization to organization and in different countries.^{8,9} Most of the high income countries have included the most demanding health screening in their national programs; in contrast to this, developing nations have mostly disregarded this important element of primary and secondary prevention, leaving private organizations to come forward and grab the market resulting in high out-of-pocket payments.⁹

Rehman Medical Institute (RMI), Peshawar, Khyber Pakhtunkhwa, Pakistan, started executive health checkup package for individuals from all segments of community, where detailed checkup and health screening are offered to the opting customers, to evaluate their state of health. It is a two-days package. The history, examination and investigations are done on the first day, followed by medical assessment by skilled physicians on the next visit. During the medical review the concerned physician describes the investigations' results, and health status of the client along with counselling relating to the health status of the client. In addition to verbal description a comprehensive report is also delivered. In case if the client needs consultation by another specialist, he/she is referred as well. The goal of this study is to assess the fundamental characteristics of clients utilizing the offered packages and the trends of utilization.

MATERIALS & METHODS

This descriptive study was conducted in Rehman Medical Institute, Peshawar, Khyber Pakhtunkhwa, Pakistan. Data were collected from the records available in hard copies and in software. All customers (n=169) (irrespective of age, gender, illness and address) visiting executive checkup clinic from June 2018 to July 2019 were included in the study. The designed Executive Health Checkup Assessment Form which comprised of both open ended and closed ended questions/choices were used for data collection. The data of all customers was saved, then entered into a configuration grid in Microsoft excel which consisted of socio demographic, history of past illness, history of risk factors, present illness, test results, diagnoses and referral records. Lastly the patient's satisfaction level was also noted. Ethical approval was taken from Department of Medical Research, Rehman Medical College Peshawar. Data were analyzed through SPSS version 20 for descriptive statistics.

RESULTS

The demographic data of 169 total clients availing the executive health services during the study period is presented in Table 1; out of these, 140 (82.8%) were males and 29 (17.2%) were females. Most of them 103, (61%) were in the age group of 31 to 50 years, and 138 (81.7%) were married; 31 (18.1%) belonged to Afghanistan while 138 (81.7%) were Pakistanis. Out of 5 packages most utilized was "men above 40 package" 44 (26%), followed by "men below 40 package" 36 (21.3%), women above 40 years was utilized by 15 (8.9%) and women below 40 was utilized by 11 (6.5%) clients.

Table 1: Demographic data of subjects (n=169).

#	Demographic variables	Frequency	Percentage
1.	Gender		
	Males	140	82.8
	Females	29	17.2
2.	Age Groups (years)		
	<30	33	19.5
	31-50	103	61
	>50	33	19.5
3.	Marital status		
	Married	138	81.7
	Single	30	17.8
	Others	1	0.5
4.	Nationality		
	Pakistan	138	81.7
	Afghan	31	18.2
5.	Screening Package Offered	106	62.7
		15	8.9
	Women Above 40	11	6.5
	Women Below 40	44	26
	Men Above 40	36	21.3
	Men Below 40	0	0

The past medical histories of clients are presented in Table 2. Most, 160 (95%) had a positive previous history of illness; of these, 117 (69.3%) were of minor nature, followed by hypertension in 24 (14.2%) and Diabetes in 21 (12.4%); renal diseases were present in 19 (11.2%), whereas combined diseases were present in 24 (14.2%). Family history of diseases was found to be positive in 148 (87.6%) subjects; the major family diseases were hypertension (92, 54.4%), Diabetes Mellitus (80, 47%), and Ischemic Heart Diseases (61, 36%). Combined diseases were found in 89 (52.7%) family members, while other minor diseases were present in 74 (43.8%).

Health assessment findings indicate that unhealthy and Sedentary Lifestyle was reported by 161 (95.3%) and Obesity by 117 (69.2%) subjects; there were 33 (19.5%) smokers, while 58 (34.3%) had multiple poor health practices / risks including unhealthy and sedentary lifestyle, obesity, and addiction to smoking and alcohol. History of previous hospital admissions was reported by 55 (32.5%) only despite the presence of diseases and unhealthy lifestyles as risk factors; similarly, 168 (99.4%) had never opted for any programmed health screening services in the past.

Table 2: Previous medical history of subjects (n=169).

#	Medical History	f	%
1.	Past history of Illness		
	Positive	160	95
	Negative	09	05
2.	Past Illnesses		
	Hypertension	24	14.2
	Diabetes Mellitus	21	12.4
	Renal Disease	19	11.2
	Ischemic Heart Disease	04	02.4
	Other Diseases (minor)	117	69.3
	Combined Diseases	24	14.2
3.	Family History of Disease		
	Positive	148	87.6
	Negative	21	12.4
4.	Family Illnesses		
	Hypertension	92	54.4
	Diabetes Mellitus	80	47.0
	Ischemic Heart Disease	61	36.0
	Other Diseases (minor)	74	43.8
	Combined Diseases	89	52.7
5.	Poor Health Practices		
	None (healthy lifestyles)	05	03.0
	Sedentary lifestyle	161	95.3
	Obesity	117	69.2
	Smoking	33	19.5
	Alcohol abuse	02	01.2
	Combined Practices	58	34.3
6.	Previous hospital admissions		
	Yes	55	32.5
	No	114	67.5
7.	Previous Screening		
	Yes	01	0.6
	No	168	99.4

Table 3 shows the presenting concerns / complaints as well as the diagnostic findings and the feedback of clients.

Of 169 subjects, 71 (42%) clients were having health issues at the time of presentation for screening. Out of these, 14 (19.7%) had complaints involving CVS, followed by 12 (16.9%) for GIT, 11 (15.5%) for Respiratory system, 10 (14%) for musculoskeletal system, 09 (12.7%) each for Genito-Urinary and multiple systems, and 06 (08.5%) for CNS. The remaining 98 (58%) presented for routine checkups.

The outcome of investigational screening tests indicated that 161 (95.3%) clients' reports were abnormal; of these, the laboratory reports were abnormal in 161 (95.3%) subjects, 131 (77.5%) had abnormal radiology reports, 17 (10%) had abnormalities in cardiology related investigations, and 123 (72.8%) subjects had abnormalities in multiple investigations.

Only 08 (4.7%) clients were found to be healthy (no apparent disease) after investigations. Among the 161 unhealthy clients, 93 (57.8%) were newly diagnosed cases and 68 (42.2%) were chronic cases.

Of the 169 cases, 74 (43.8%) were referred to other consultants.

Client satisfaction from Executive Health Clinic (Health Screening Program) at RMI based on the recorded feedback of 154 cases indicated that 08 (5.2%) were most satisfied and 146 (94.8%) were Satisfied; 15 (8.9%) clients' feedback were not recorded, and there were no cases in the Not Satisfied category.

Table 3: Executive checkup presenting symptoms, results and feedback of subjects (n=169).

#	Checkup Variables	f	%
1.	Presenting symptoms		
	Yes	71	42.0
	No	98	58.0
2.	System(s) involved		
	CVS	14	19.7
	GIT	12	16.9
	Respiratory	11	15.5
	Musculoskeletal	10	14.0
	Multisystem	09	12.7
	Genito-urinary	09	12.7
	CNS	06	08.5
3.	Investigation Results		
	Normal	08	04.7
	Abnormal	161	95.3
4.	Abnormal Investigations		
	Laboratory reports	161	95.3
	Radiology	131	77.5
	Cardiology	17	10.0
	Multiple	123	72.8
5.	Diagnosis		
	Healthy	08	04.7
	Diseased	161	95.3
	New Case	93	57.8
	Old Case	68	42.2
6.	Referred to Consultant		
	Yes	74	43.8
	No	95	56.2
7.	Feedback of subjects		
	Most satisfied	154	91.1
	Satisfied	08	05.2
	Not satisfied	146	94.8
	Not satisfied	0	0
	Not recorded	15	8.9

DISCUSSION

Health screening plays a vital role in tertiary care hospital healthcare by screening for timely diagnosis of illnesses and health disorders and addresses the possible risks of a disease. The variety of screening is extensive, ranging from routine lifestyle, constant stressful lifestyle, family medical history, to advanced investigations. Initially the packages offered were Silver, Golden and Know Your Heart (2014-2017). The Silver package assimilated basic screening relating to life styles, family history. Stress, depression and other minor health complications, while Gold Package include comprehensive medical checkups containing health assessment and avantgarde investigation to enable complete diagnoses. This program was started from year 2014 and is functional till time, but the packages are now arranged according to standard. Executive health Clinic in RMI, had designed five broad health packages according to the age of

patient which is made following the standard guidelines. The patients with diverse health concerns/disorders were screened during this period and the data were also kept for research purpose/program appraisal. Using two years clinical data in a descriptive was evaluated. The outcome of current study specify that majority of the patients were of ages 31-50 years (61%) and 138 (81.7%) were married. This finding agrees with the observation that there is a severe increase in disease in humans around the average age of 40 years.^{10,11} Moreover, health screening uptake in young males remains limited globally.¹²⁻¹⁴ Specialists observed that elderly males were more interested in health screening and thus were keener to talk about health screening with them.¹⁵ It was also reported that married men were more interested giving importance for health screening as compared to unmarried young.¹⁶

The cardiac problem screening (Know Your Heart) was picked by only 17(10%) patients. Heart problems vary from 26% to 54% in two years screening duration among diverse clinics.¹⁷ Absence of insurance, nonexistence of hypertension-related

comorbidities, and visits other than general medical examination visit were all associated with decreased odds of being screened for hypertension.¹⁸

The factors influencing the clients to opt for health screening at RMI because of their unhealthy lifestyle (sedentary lifestyle, 95.3%; positive family history, 86.7%; Obesity, 69.2%) are given in Table 2. Another study also shows this trend where awareness regarding adverse effects of smoking, alcoholism, obesity and sedentary life style were the driving force for the individuals to opt for health screening.¹⁹ Another study also documents that lifestyle is correlated to the issues associated with personal health and quality of life up to an estimated 60%.²⁰

CONCLUSION

Executive health services at Rehman Medical Institute were efficiently consumed by patients and facilitated to diagnose unknown health issues at an initial stage. Patient satisfaction level was high.

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