


Knowledge and Practices Toward Routine Medical Checkup Among Middle-Aged and Elderly People of Riyadh

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Abstract

Introduction: Routine checkup is a form of preventive medicine, it's a helpful practice to promote health in the community. Studying the prevalence of routine checkup, awareness, influencing, and preventing factors for it in our community will be a helpful tool for the health authorities to promote among individuals. **Methodology:** This cross-sectional study was conducted in different locations of Riyadh using a convenience sampling technique, with sample size of 414 Saudi participants of both genders aged 36 years old and above. The data were collected through self-administered structured questionnaire with demographic variables, frequency of routine medical checkup, knowledge questions, factors that enhance or prevent individual to do routine checkup and best way to spread the awareness. **Results:** Two hundred eighty-eight (69.57%) participants knew well about routine checkup and 142 (34.3%) of them do routine medical checkup. "Lack of time" and "Laziness" were reported as the 2 most common preventing factors (46% and 45.2%), respectively, and most common reason that influenced their practice was "health concern" (77.5%) followed by "worry about chronic or serious illness" (32.4%). Participants believed that social networks (eg, twitter, Facebook, etc) and media (eg, TV, radio) are most effective ways to spread awareness of it in the community (53.86% and 52.89%, respectively). **Conclusion:** There was high level of knowledge on routine health checkup, but a low prevalence was observed in practice. Hence, more health initiatives should be taken for routine medical screening in the Saudi community.

Keywords

awareness, prevalence, routine medical checkup, convenience sampling

Introduction

Routine medical checkup (RMC) is a routine health-care process usually done by health-care facilities for both genders and for all age groups at different periods of time according to the patient risk factors. Screening usually involves history taking, physical examination, and laboratory tests by physicians on a regular basis for asymptomatic individuals in sake of continuing self-health care (1). Routine health checkup is a preventive medicine practice serving as a superior strategy to decrease the mortality and morbidity of different diseases in communities (2), it opens the door for assessment of well-being status especially for the elderly people, because they are more susceptible to chronic diseases, it establishes physician-patient relationship, and it lowers the need for health consultations (3).

Many noncommunicable diseases can be diagnosed with the help of medical routine checkup such as hypertension, type 2 diabetes mellitus, breast cancer, cervical cancer, prostate cancer, and many liver and kidney disorders (4-6). In addition, RMC can also detect some communicable diseases such as hepatitis B (7).

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Routine medical checkup can detect diseases in its early stages, which is important to provide a better treatment for the patients. Many diseases have progressions and complications that can make the treatment more difficult if not diagnosed early, for example, detecting pre-diabetic individuals will help decrease its progression to diabetes mellitus type 2 (8). Early detection of diseases also will decrease the socioeconomic burdens for patients and communities (9,10).

As there were less scientific studies from Riyadh region, we planned our study to assess the general knowledge and awareness about the RMC among Saudi individuals in Riyadh. We targeted middle aged and senior citizens due to high risk for chronic and serious diseases.

General Aims

1. To assess the knowledge of RMC among middle-aged and elderly people of Riyadh.
2. To measure the prevalence of practicing RMC among middle-aged and elderly people of Riyadh.

Specific Aims

3. To measure the association between the demographic variables with knowledge about RMC and test for its statistical significance.
4. To find the preventing and influencing factors in the practice of RMC.

Subjects and Methods

A cross-sectional study (11) was conducted in different localities such as malls and parks of Riyadh city among the Saudi community with their consent during the period April 2017 to January 2018 by Convenience Sampling method (12). A self-administered structured, pretested questionnaire in Arabic and English with 24 close and open-ended questions was provided. It consisted of section A with characteristics such as age, gender, education, residence, occupation, and section B with 12 items measuring knowledge, 2 items measuring practice of RMC, 3 items on factors preventing, influencing RMC, and most effective ways to spread awareness among the Saudi community.

The sample size of this study was 414 participants, this sample was calculated by considering the total Saudi population of middle age and elderly (11 041 252) in year 2017, and an expected response rate of 80% with 95% confidence level and 5% margin of error. The participants were handed over the questionnaires to respond and clarified their doubts. The confidentiality of their information's was maintained securely and exposed to only the research team. This study was approved by the institutional review board (Ref. No. HIRI- 22-Apr18-01).

Table 1. Distribution of Participants for Sociodemographic Variables.

Variables	N (%)	Variables	N (%)
Gender		Occupation	
Male	221 (53.4)	Government (public)	183 (44.3)
Female	193 (46.6)	Private	56 (13.6)
		Business	36 (8.7)
Age in Years		unemployed	138 (33.4)
36-39	128 (30.9)	Work in the health field	
40-49	174 (42.0)	Yes	44 (10.7)
50-59	86 (20.8)	No	369 (89.3)
60-69	20 (4.8)	Educational level	
>70	6 (1.4)	Elementary	24 (5.8)
Residence		Primary	42 (10.1)
City	354 (85.7)	Secondary	113 (27.3)
Town	44 (10.7)	Post school	231 (55.8)
Village	15 (3.6)	Illiterate	4 (1.0)

Statistical Analysis

The data were analyzed using SPSS version 21 (13) and the results were expressed as counts and percentage, χ^2 test (14) was used to test the association between the demographic variables and the different items of section B at 5% level. The 12 items measuring Knowledge have been scored "1" for correct response, converted as percentage and their level of knowledge were classified as "below average" (<50%), "average" (50%-60%), "more than average" (60%-70%), and "know very well" (>75%), respectively. This "computed knowledge" was tested for level of agreement with the "self-rated knowledge" by the participants using κ statistics (12). The values within parentheses represent percentages.

Results

In our study with sample size of 414 participant, 174 (42%) of the them were between 40 and 49, only 142 (34.3%) of the them have done RMC and 368 (88.9%) thought RMC was important, the rest of the sociodemographic variables is found in Table 1. Three hundred fifty-one (84.8%) said importance of RMC increases with age, 360 (87.0%) mentioned chronic or dangerous disease can be detected, 352 (85.2%) stated it decreases the socioeconomic burdens, 352 (85.6%) stated it decreases morbidity rates in the community, and 317 (76.6%) declared RMC as protection from communicable disease.

Ninety-five (22.9%) of all participants rated their selves "Knew very well about routine medical checkup", 242 (58.7%) thought all ages need to do routine checkup, 360 (87.4%) specified history taking from the patient is the part of RMC, 306 (74.3%) thought physical examination was the part of RMC, 340 (82.5%) believed laboratory investigation as part of RMC, 232 (56.4%) assumed immunization as part of RMC and physician may advice vaccines if needed, 284

Table 2. Association Between Demographic Variables and Practice of RMC.

Variables	Does Routine Medical Checkup			Age (Years) at First Time Routine Medical Checkup					
	Yes	No	Chi-Square (P Value)	36-39	40-49	50-59	60-69	>70	Chi-Square (P Value)
Gender									
Male	77	144	.062 (.804)	31	30	21	13	3	9.147 (.058)
Female	65	128		34	33	17	2	1	
Age in years									
36-39	32	96	8.23 (.083)	30	20	0	0	0	243.341 (.000) ^a
40-49	64	110		28	34	22	0	0	
50-59	36	50		6	9	16	10	0	
60-69	7	13		1	0	0	5	1	
70 or above	3	3		0	0	0	0	3	
Residence									
City	130	224	6.018 (.049) ^a	61	56	36	15	0	61.667 (.000) ^a
Town	9	35		2	5	1	0	4	
Village	3	12		2	2	1	0	0	
Occupation									
Government (public)	72	111	9.882 (.020) ^a	32	35	21	6	0	29.48 (.003) ^a
Private	23	33		8	8	7	4	0	
Free business	13	23		7	1	1	4	0	
Not working	33	105		18	18	9	1	4	
Work in the health field									
Yes	33	11	36.566 (.000) ^a	17	11	4	1	0	6.57 (.160)
No	108	261		48	51	34	14	4	
Educational level									
Elementary	6	18	17.66 (.001) ^a	2	2	1	1	3	75.971 (.000) ^a
Primary	7	35		2	3	5	2	0	
Secondary	29	84		12	12	7	4	0	
Post school education	98	133		49	46	24	8	0	
Not educated	2	2		0	0	1	0	1	

Abbreviation: RMC, routine medical checkup.

^a Statistically significant at 5% level.

(68.8%) said athletes also need RMC. Table 2 describes the participants practice of RMC.

The results of knowledge for RMC as per questionnaire showed that 288 (69.57%) participants know very well about routine checkup and its importance for the community followed by 47 (11.35%) participants know more than average, also there was a significant relation between participant self-rated knowledge and their actual measured knowledge rate on RMC of the participant based on the scoring system we made $F = 38.9$ (0.000). Table 3 presents the association between demographic variables and level of knowledge of participants, we also established in Figure 1 a comparison between self-rated and measured level of knowledge about RMC through the scoring system.

Discussion

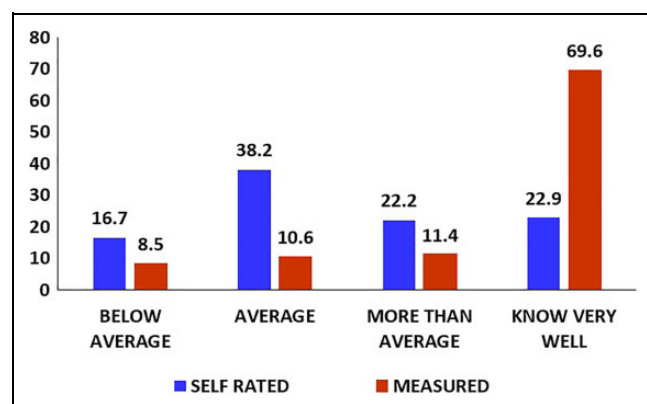
We found most of our participants don't do RMC (65.7%), this was similar to (77.5%) in a study conducted in Eastern Province of Saudi Arabia, in 2015, by AlBaloushi et al (4), this supports the low practice by the Saudis. Our study revealed high awareness of RMC in the community, and from our questionnaire response, most of the participants,

288 (69.57%), knew very well about RMC and all of participants (except few of them) agree for its importance in the community; in a study conducted by Eke et al, in South East-Nigeria (15), it revealed that 74.9% of the 323 participants were aware of routine checkup. In addition, they have low prevalence of routine checkup (33.3%), this issue is the same as we found in our results. Our study investigates factors that affect the performance of routine checkups in Saudi community, one of the factors that affect routine checkups was gender. The results showed that there is no evidence for the impact of gender, an Australian research in 2009 (16) found that more women were willing to do a routine checkup. Education showed a statistically significant relation with practice of RMC ($\chi^2 = 75.9$; $P = .000$), this result was exactly the same as Nigerian study conducted in 2016 by Usman et al (17). In this study, the majority were between 40 and 49 years, but a research made in South West Nigeria conducted by Ilesanmi et al (1) showed the practice of RMC was mostly done by age 40 to 59, Workers in the Health field were significantly doing RMC compared to others ($\chi^2 = 36.5$; $P = .000$), and this is supported by a research from Islamabad (18). The path to enhance RMC programs naturally begins with an effort to define those reasons that either

Table 3. Association Between Demographic Variables and Participants Level of Knowledge.

Variables	Knowledge About RMC (%)				Chi-Square (P Value)
	Below Average (<50%)	Average (50%-60%)	More Than Average (60%-75%)	Know Very Well (>75%)	
Gender					
Male	23	14	23	161	11.46 (.000) ^a
Female	12	30	24	127	
Age in years					
36-39	11	11	18	88	9.75 (.638)
40-49	11	24	17	122	
50-59	8	7	9	62	
60-69	4	2	2	12	
70 or above	1	0	1	4	
Residence					
City	21	36	42	255	25.4 (.000) ^a
Town	9	7	4	24	
Village	5	1	1	8	
Occupation					
Government (public)	9	9	19	146	34.79 (.000) ^a
Private	3	3	8	42	
Free business	7	6	4	19	
Not working	16	26	16	80	
Work in the health field					
Yes	0	1	2	41	13.41 (.004) ^a
No	35	43	45	246	
Educational level					
Elementary	9	3	3	9	57.44 (.000) ^a
Primary	4	8	4	26	
Secondary	13	20	14	66	
Post school education	8	13	26	184	
Not educated	1	0	0	3	

Abbreviation: RMC, routine medical checkup.

^aStatistically significant at 5% level.**Figure 1.** Participants level of knowledge about routine medical checkup.

encourage or prevent individuals from performing routine checkups.

It is worth mentioning that in Saudi Arabia, the government provides free medical service for Saudi individuals in governmental (public) hospitals, and RMC is an example of

one of this service, so we subsidize financial status “money” as a factor affecting this practice. In our study, of the 142 participants who perform RMC, we found that most common reason was “concern about their health” (77.5%) followed by “worried or afraid to have chronic or serious illness” (32.4%) which reflects their personal belief in importance of performing RMC. This is similar to the study conducted in Eastern Province of Saudi Arabia, by AlBaloushi et al (4), and contrast to another study (1). Whereas, “Lack of Time” and “Laziness” were reported as the 2 most common preventive reasons (46% and 45.2%, respectively) among the 272 participants who do not perform RMC. This goes in line with AlBaloushi et al study (4). A cross-sectional study, conducted in rural Chinese regions, found that the most effective health communication channels are bulletin boards and village doctors (3). In our study, participants believed that social networks (eg, twitter, Facebook, etc) and media (eg, TV, radio) are most effective ways to spread awareness of it in the community (53.86% and 52.89%, respectively). This may help in the improvement of awareness regarding RMC in the community and hence obtaining as much as possible benefits of RMC.

Conclusions

The Saudi participants in Riyadh show high awareness of RMC and its importance for the community but unfortunately it did not represent the actual practice in the community. The low prevalence of RMC was noticed in this study which does not reflect the level of knowledge with the 2 most contributing factors lack of time and laziness of participants. This study had also detected factors affecting attitude and practice of seeking periodic routine checkup, which gave deep insight of the problem to health managers and will be used to improve the system of RMC in the community.

Authors' Note

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Abdullah Basel AL-Kahil and Rajab Ali Khawaja contributed to concepts; design; definition of intellectual content. Abdullah Basel AL-Kahil, Ammar Yasser Kadri, Shahem Mohammad Abbarh, Jalal Tarif Alakhras, Parameaswari Parthasarathy Jaganathan contributed to literature search. Abdullah Basel AL-Kahil, Ammar Yasser Kadri, Shahem Mohammad Abbarh, Jalal Tarif Alakhras contributed to data acquisition. Parameaswari Parthasarathy Jaganathan contributed to data analysis and statistical analysis. Abdullah Basel AL-Kahil and Parameaswari Parthasarathy Jaganathan contributed to the manuscript preparation. Parameaswari Parthasarathy Jaganathan contributed to the manuscript editing. Rajab Ali Khawaja and Parameaswari Parthasarathy Jaganathan contributed to the manuscript review. Abdullah Basel AL-Kahil is the guarantor.

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