

# ATTITUDE TOWARDS PERFORMANCE OF MEDICAL CHECKUPS: A SURVEY FROM EASTERN PROVINCE OF SAUDI ARABIA

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**Abstract— Objectives:** Routine checkups are important in the early detection of disease. Many factors influence the performance of medical checkups. The aim of our study was to detect the factors that affect the performance of routine medical checkups in the Eastern region of Saudi Arabia.

**Material and Methods:** This study analyzed observational, descriptive cross-sectional data. Our sample includes male and female adults over the age of 20 years from different cities in the Eastern province of Saudi Arabia in February 2015. The sample size was 721, divided among the 9 cities of the Eastern province. Our data was collected via a questionnaire, which was distributed randomly among the population.

**Results:** The study sample consisted of 28.4% males and 71.6% females. The study suggested that only 22.5% of the sample perform routine medical checkups while the majority of them (77.5%) do not perform checkups. Precipitating factors, age, gender and marital status have an effect on the performance of routine checkups. However, education, financial status and occupation appeared to have no effect on performing regular checkups. Reasons for performing routine checkups were also analyzed. Most people performed routine checkups out of personal conviction and belief in its benefits. The commonest reasons cited for avoiding routine checkups were not having enough time and a perception of medical check-ups being a long and boring process.

**Conclusion:** We concluded that in order to increase the performance of medical checkups, the personal conviction and belief of the population should be increased first by spreading awareness.

## I. INTRODUCTION

Many of diseases that have a high mortality rate are preventable. These diseases could be prevented by either primary or secondary prevention. Primary prevention aims to prevent or arrest the disease before occurring by providing a healthier life style or by immunization. Secondary prevention aims to detect and treat early asymptomatic disease before its development.(1) As part of secondary prevention, routine checkups are important for detection and prevention of many diseases in their early stages. Preventive screening and counseling have shown a great reduction in the morbidity and mortality associated with chronic diseases. (2)Specifically,

high mortality rates associated with cancers are largely preventable through preventive screening, especially among those with a family history of cancer. (3) A study has been done in Croatia on a total of 1552 patients who underwent a routine check-up and were tested for the presence of antibodies against naturally acquired hepatitis B virus. No participant showed symptoms of acute hepatitis. However, 7% of them showed positive anti-HBV results.(4) This indicates the significant role of early screening in detecting hepatitis B. Another disease that can be detected and controlled earlier by routine checkups is Diabetes mellitus type 2. Observing an impaired glucose tolerance and controlling it before it develops to diabetes mellitus type 2 is essential in the prevention of the disease. (5)

## A. Aim

The aim of our study was to detect the factors that affect the performance of routine medical checkups and reason of the population's performance in the Eastern region of Saudi Arabia.

## II. MATERIAL AND METHODS

This study analyzed observational descriptive cross-sectional data. Our sample included male and female adults over the age of 20 years from different cities in the Eastern province of Saudi Arabia in February 2015. The number of individuals taken from each city was in proportion to the size of its population. The percentage of the population in each city was considered and based on that the percentage of individuals in our sample was conducted. The sample size was 721, divided between the 9 cities of the Eastern province. Of the total, 282 samples were taken from Alhassa, 223 were from Dammam, 93 from AlKhubar, 36 from Hafar al Batin, 36 from Jubail, 30 from Qatif, 11 from Buqaiq, 4 from Khafji, and 4 from Ras Tanura.

Our data was collected via a questionnaire, which was distributed randomly among the population. It was distributed to people in universities, schools, neighborhoods, shopping centers and also hospitals

A. Variables

In the questionnaire, the age groups were divided within intervals of 10 years in order to demonstrate the effect of age on performing routine checkups. Levels of education, financial status and job were also taken into consideration. In addition, the marital status of the sample was also studied. The medical status was divided into four levels; poor, good, very good, and excellent in order to detect which groups perform annual checkups. We created two levels of physical activity; either physically active or not. All these factors were studied in relation to performing routine checkups. Finally, the questionnaire tried to evaluate the reasons for performing or not performing routine checkups.

B. Statistical analysis

All analyses were performed using the IBM statistics SPSS version 22. The crosstabs analyses were carried out based on data collected that demonstrated the relation of each factor with performing routine checkups. Additionally, The reasons of performing medical checkups or not were analyzed using frequency tables.

III. RESULTS

The study sample consisted of 28.4% males and 71.6% females. The study suggested that 22.5% of the sample perform routine medical checkups while the majority of them (77.5%) do not perform checkups (Fig.1). According to gender, 20.4% of male and 23.3% of female performed the checkups. The age categories showed that prevalence of performing medical checkups increases with age, as well as it increases with deteriorating health. Education, financial status and job appeared to have no effect on performing regular checkups, where there was no pattern found in the three variables. However marital status indicates that 31.1% of married people, 13.5% of single, and 27.3% of widows and divorced attend to perform routine checkups. The distribution of performing medical checkups among different residence areas can be seen in Figure 2. We also observed that 27.8% of people who exercise regularly perform regular routine checkups as well. Also, 21.3% of people who do not exercise regularly perform routine checkups. Therefore, this shows that people who are in concern of their physical status are also in concern of their health more than those that do not exercise. In addition, only 12.9% of smokers perform medical checkups while 23.5% of non-smoker perform them, this concludes that non-smokers perform routine checkups more than smokers though the increased risk of disease in the smoking population.

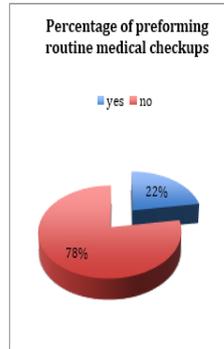
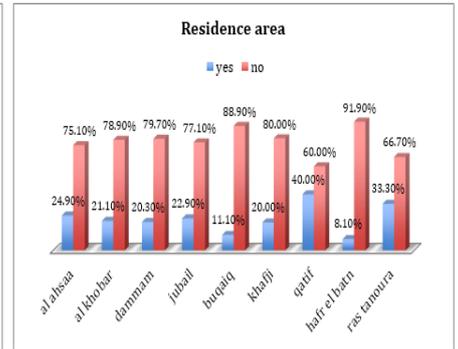


Figure 2



Reasons for performing routine checkups were analyzed. Most people performed routine checkups as a personal belief, their valid percentage was 40.7% and the least valid percentage (2%) was due to a friend's advice. The rest of the reasons could be seen in Figure 3. However reasons for not performing routine checkups were highest in the two categories of not having enough time and in long and boring process. The percentages of the two were 33.4%, and 30.1% respectively. (Fig.4)

Figure 3

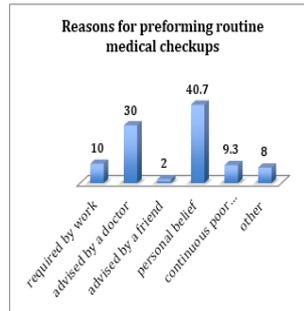
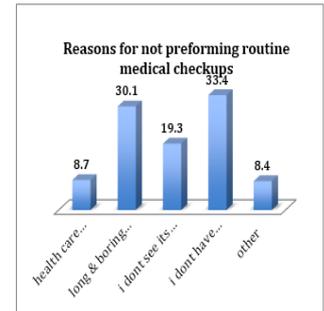


Figure 4



IV. DISCUSSION

Our study represents one of the first studies in Saudi Arabia that investigate factors that affect the performance of routine checkups. In our study, one of the factors that affect routine checkups was gender. The results showed that men perform medical checkups less than women. This could be explained by previous studies done by Hale (6) and Gascoigne (7) that concluded that men seek medical help less than women because they tend to ignore their health in order to be seen as strong and masculine. Women, conversely, are more willing to seek medical help because they confront the implication of any symptom they experience. So, if men don't seek medical help when they experience symptoms, they will not seek help as a preventive measure when they do not have any symptoms. It was also evident that performing checkups is consistent with age. In a study done by Prohaska (8), it was proven that elderly present to a doctor more quickly even though their symptoms may be attributed to aging rather than a specific disease. An

should be organized and the time taken to perform the checkups should be decreased.

elderly individual becomes more aware of personal health and has a different perception of the meaning of health and illness. This fact is supported in our study, which showed that elderly perform routine checkups more than the young even when in good health. Also, medical status was found to have a relationship with performing annual checkups. It was found that more individuals perform routine checkups when their health deteriorates, this finding matches our hypothesis which states that poor health leads to seeking medical checkups. We aim to encourage people to perform checkups before facing poor health to detect disease early where chances of treatment are better. Regarding educational status, our hypothesis suggested that routine checkups increase with higher educational levels. This was based on a research done by Chor (9), which states that dental checkups are associated with higher levels of education. However, in our study we did not find a significant relation between educational levels and frequency of performing routine medical checkups. The financial status also did not show any pattern. This is probably because of the fact that in Saudi Arabia there are many governmental hospitals that provide medical care services without being paid and without an insurance. An obvious difference between the married and the single population was seen. The study done by Hale (6) suggested that married men tend to seek medical help more than single men due to the influence of their female partners, especially in the cases of testicular bowel and prostate cancer. Another study done by Timko and Janoff-Bulman (10) demonstrated that parenthood has an influence on increasing seeking help. Even though smoking is a behavior that leads to a high risk of developing many diseases, the majority of smokers in the population do not tend to perform medical checkups. Of note, were the findings of Gilpin (11) who found that smokers who perform checkups are more prone to medical advice, which is the most important determinant to quit smoking, even though it is one of the difficult to change behaviors that require more specialized intervention. Our study also found that the reason for most people performing medical checkups is their personal belief in the importance of performing medical routine checkups. The results also indicate that only 35.7% of people working at a company perform medical checkups even though most companies require them and provide health insurance for private hospitals. This finding didn't meet our hypothesis, which stated that the performance of medical checkups would increase to a high percentage by making them mandatory. We concluded that in order to increase the performance of medical checkups, the personal belief of the population should be increased first by spreading awareness. The reasons for not performing medical checkups were also analyzed. The two reasons that had the highest percentage were not having enough time (33.39%) and the long and boring process (30.14%). Based on this finding we could suggest that in order to eliminate these limiting factors, some modifications could be done on the process of routine medical checkups. The process

#### V. ACKNOWLEDGMENT

We would like to show our sincere gratitude to Dr. Nabil Albaloushi and Dr. Abdulrahman AlOmar for their help and support. Additionally, we wish to express our deepest appreciation to our colleagues, Arwa Alshehri, Bayan

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